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Central America - Regional integration of the industrial sector as a means to upgrade and increase the competitiveness of the manufacturing sector in the 1990s

Introduction

This paper is intended to act as an introduction as well as a basic summary of the papers prepared under the project DP/CAM/01/009 "Asistencia Preparatoria Diagnostico y Propuestas de Accion para la Modernizacion en Centroamerica" and thus heavily draws on the information provided as well as the conclusions and recommendations presented in these papers which should give the reader the possibility to get acquainted with the major findings of the study undertaken.

The purpose of this report is at the same time to put the recommendations and conclusions which were derived from detailed analysis of special topics and as well as the analysis of some important industrial subsectors of the region into a wider perspective of industrial and economic policies and to discuss their overall economic implications.

The paper is first going to lay down the arguments and give some evidence for the reasons behind a regional approach - in contrast to a purely national approach - to modernize and upgrade the industrial sector in Central American countries, as well as for the overall advantages to have the industrial sector of the countries of Central America integrated on a regional level before completely opening up the economies of Central America to be fully integrated into the world economy, which will be the ultimate objective of regional integration in the 1990s.

However, although Central America as well as industry as a whole in Central America will be clear winners of such regional integration efforts, the gains are certainly not evenly spread and in a number of cases they can even turn out to be negative for one or the other industrial sector in some of the Central American countries. As far as the papers prepared under the above mentioned project allow to give indications of which sectors and which countries are going to lose and which are going to win from regional integration, the trade-offs for those industrial subsectors in various Central American countries will be discussed.

Finally, proposals will be made on ways to overcome those potential hurdles. A successful integration process does not allow for losers, even if the overall net effect were positive. Thus, mechanisms will have to be created which - if not completely eliminate - at least substantially offset the burden for potential losers. Possibilities for such mechanisms will be outlined that are essential for regional integration to become acceptable for all parties involved and which should enable Central American countries go ahead with integration efforts that would lead to a viable and competitive industrial sector in the region.

As will be argued, the real issue and objective for Central American integration is not the specialization of countries in specific industrial subsectors and subsequent inter-industry trade, which is neither advisable from a political nor from an economic point of view, but for increased specialization within subsectors and subsequent intra-industry trade which should enable Central American companies to take best advantage of economies of scale and the technological progress that has taken place in the past two decades. This should lead to higher levels of quality as well as a reduction of unit costs which is necessary in order for Central American countries to become competitive on world markets and increase employment opportunities in the medium turn. Thus, this should help to reduce social tensions and assist the countries of the region to leave the vicious circle of the past and enter into a new era of a virtous circle consisting of increased investment, increased economic activities and higher living standards for the people in the region.

A) The rationale for a regional approach in industrial policies to restructure the industrial sector of Central America

The papers prepared under this project clearly demonstrated that de facto all countries and all sectors investigated - to various degrees - are in need for rehabilitation and upgrading of their productive capacities. Detailed diagnostic studies of the situation in the five Central American countries in respect to food processing, textiles and clothing, in the metal and engineering sector as well as in leather all came to similar conclusions. Capital equipment in most countries of Central America and in most industrial subsectors is outdated and other inputs used often do not fulfill the necessary requirements to allow for efficient production and the production of high quality manufactured goods which would be competitive on world markets. Modern factories with adequate equipment and organizational structures do exist but they are still the exception rather than the rule.[1]

The countries of Central America have in principle four (in practice, however, as will be argued, only two) major options at their disposal to define their industrial policies based upon a combination of the level of state intervention in the industrial sector as well as the level of effective "regional integration" of the economies of Central America:

a) traditional interventionist industrial policies based upon import substitution (and stable but overvalued exchange rates) pursuit jointly by the countries of an internally integrated Central American area (model of the 1960s up to the late 1970s in Central America which has however lost its attractiveness)[2];

b) traditional interventionist industrial policies based upon import substitution and high protection of the individual domestic markets; (model of the late 1970s and early 1980s in Central America which led to catastrophic results)

c) free market industrial policies based on deregulation, market determined exchange rates, strongly reduced import protection, (stronger) emphasis on export promotion and integration of individual countries into the world economy; (model of the late 1980s in most Central American countries which helped to create foundations for economic growth but had negative social side effects)

d) liberal industrial policies - but allowing "functional" interventionns to remedy market failures[3] - pursued jointly by regionally integrated economies (i.e. abolishing all internal tariff and non-tariff barriers in Central America!) at low levels of import protection from third countries[4], giving due emphasis to education and training as well as R&D and questions of technology in order to increase the long-term competitiveness of industry in the region and increase manufactured exports to both Central America and

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[1] The least urgent needs for general rehabilitation and restructuring of industry were found in Costa Rica which among Central American countries seems to be - the technologically by far most advanced country in the region.

[2] Gerardo Zepeda Bermúdez, "Smaller countries' way to competitiveness: central America in a new world economic order during the 90's", presentation in the workshop "The challenge of the EAI: Maximizing the Benefits for SMEs", North South Center, Miami (USA), 21 May 1992, p. 1.

[3] UNIDO, *Modernizacion del sector industrial en centroamerica: hace la formulacion de un programa de accion*, Vienna 1993, pp. 35-39; and UNIDO, "*Trade integration and industrial restructuring, the case of Mercosur*", Vienna 1993, p. 3.

[4] See Romulo Caballeros Otero, "Reorientation of Central American integration", *CEPAL Review No. 46*, April 1992, p. 131.

third countries, i.e. in particular to the NAFTA countries (USA, Canada, Mexico), the EC, South American countries as well as East and South East Asian countries. The objective of integration is not to isolate the region from the rest of the world but to stengthen cooperation and regional integration as a means of penetrating world markets more actively.[5] Such export led growth strategies based on regionally integrated markets is to be complemented by employment strategies predominantly based on modernization and restructuring of existing firms as well as the creation of new ones, mainly SMEs, thereby giving due consideraton to the question of efficiency. Such industrial policies ("functional interventions" as opposed to the old "sectoral interventions" which were based upon sectoral protection and sectoral subsidies), mainly center on the improvement of the efficiency of local firms aiming at gaining competiveness on world markets and are intended to remedy market failures that may occur due to externalities which are not properly reflected in the cost/benefit calculations of individual enterprises. Actions to be taken include training programs, assistance in R&D efforts, improved access to financing and credit for modernizaton and absorption of proper technology, improvement in infrastructure (including transport, energy and communications) in addition to geneneral government support by securing a stable macro-economic framework and an adequate long-term legislation[6] (model for the 1990s ?).

As discussed in the papers, within that broad option of "liberal (market conform) industrial policies pursued jointly by regionally integrated economies, allowing for functional interventions" authorities in Central America have still the option to follow

1) a "defensive" transformation strategy or
2) an "offensive" transformation strategy to actively assist in the transformation of the productive base in Central America (which has a certain appeal but also carries some risks)

Both strategies accept in principle the market as the primary allocation mechanism of resources. Nevertheless, they differ from the traditional laissez faire approach. In the traditional "laissez faire" approach, the role of government(s) is basically limited to the removal of exogenous market distortions, in particular the removal of internal trade barriers among Central American states and the provision of a stable macro-economic framework. This remains also true for both the "defensive" and the "offensive" transformation strategy. However, in addition, in the "defensive stragegy", - as discussed in the papers - sectors which are potentially threatened by increased competition from third countries are to be selected and actively assisted so that they are in a position to regain competitiveness. In the "offensive strategy" the emphasis for functional interventions is slightly changed. Potentially interesting new industries (in terms of additional MVA, diversification of the export structure, upgrading of the human resource base in order to create new comparative advantages for the region, etc.) are to be selected and provided with the necessary so far lacking infrastructure (telecommunications, transport system, industrial services, specialized schools and universities to draw on a highly educated and skilled human resource base etc.) in order to flourish. Specific sectoral policies based on the traditional interventionist approach, i.e. based upon a system of special customs preferences, special sectoral subsidies, fixed prices etc. which may lead to market distortions and are not directly linked to improvements of competitiveness are however a matter of the past and not any longer on the agenda of general recommendations. In other words, while "selective sectoral market-defying interventions" are generally renounced, "functional" ("market conforming") policy

[5] Eduardo Gitli and Gunilla Ryd, (UNCTAD), "Latin American Integration and the Enterprise of the Americas Initiative", *Journal of World Trade*, Vol. 26, No. 4, August 1992, p. 33.

[6] See also Gerardo Zepeda Bermúdez, "Smaller countries' way to competitiveness: central America in a new world economic order during the 90's", presentation in the workshop "The challenge of the EAI: Maximizing the Benefits for SMEs", North South Center, Miami (USA), 21 May 1992, p. 3.

interventions, which, of course, have sectoral implications, are again pervasive, general liberalization trends notwithstanding.[7]

Experiments with the first three options ("a", "b", "c") were made over the past three decades with various degrees of success while option "d" is still in its conceptual phase. The original interventionist approach jointly followed by the countries of Central America based on regionally integrated markets ("option a") in the region indeed helped the countries to build up an industrial base. This went hand in hand with the increase of the share in intra-regional trade from just 6.7 percent in 1960 to 23.1 percent in 1980 with industrial products accounting for about 90 percent of intra-regional trade.[8] The import substitution strategies followed in Central America during the 1960's and 1970s's - although in theory rather giving incentives to the creation of large scale manufacturing - resulted (partly for political reasons) mainly in the establishment of a significant number of small and medium sized industrial enterprises which could not make use of economies of scale and which did not have to produce cost efficiently given the existing strong protection in the regional market. Although thus not extremely efficient in pure economic terms, neither in terms of capital nor in terms of labour productivity, these enterprises played nevertheless a non-negligible role in generating employment due to the fact that production processes in such small scale industries tended to be rather labor intensive.[9] The non-achievement of the goal of widespread diversification of the production structure further strengthened the labor intensiveness of industry. At the same time, however, the strong protection of the domestic market, rather low costs of financing as well as overvalued exchange rates and exemptions of many capital goods from tariffs[10] enabled industry to "overinvest". Subsequent low capacity utilization rates of plants and equipment were the rule rather than the exeption. In other words, the emerging structure was one of small to medium sized industrial enterprises which not only were labour intensive but de facto also capital intensive if measured per unit of output produced. All of that was made possible as the pattern of industrialization that evolved from the "regional integration / import substitution" model was essentially inward looking. By providing significantly higher protection for consumer goods than for intermediate and capital goods, it fostered the establishment of labor intensive assembly type operations for consumer goods, that generated employment opportunities but otherwise rather little local value added. Industry remained highly dependent on imported inputs from the rest of the world and a net user of foreign exchange and thus indirectly dependent upon results achieved in agriculture to pay for its import requirements.[11] But, even without strong protection and a strong escalation in the tariff structure such a structure is likely to have evolved given the the "comparative advantage" of the region in "unskilled labour".

The real problem was not the initial tariff structure and protection of the regional market but the lack of a successful sequencing of subsequent industrial and trade policies which should have led to both

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[7] UNIDO, *Modernizacion del sector industrial en centroamerica: hace la formulacion de un programa de accion*, Vienna 1993, pp. 35-39; and UNIDO, "*Trade integration and industrial restructuring, the case of Mercosur*", Vienna 1993, p. 3.

[8] See Romúlo Caballeros Otero, "Reorientation of Central American Integration", *CEPAL Review*, No. 46, April 1992, p. 125 and p. 129.

[9] Gerardo Zepeda Bermúdez, "Smaller countries' way to competitiveness: central America in a new world economic order during the 90's", presentation in the workshop "The challenge of the EAI: Maximizing the Benefits for SMEs", North South Center, Miami (USA), 21 May 1992, p. 1.

[10] UNIDO, "*Estructura de proteccion e incentivos a la industrializacion en Centroamerica*", February 1993, p. 43.

[11] World Bank, *Central America at at Crossroads*, June 1992, p. 3.

a more liberal trade regime and a reduction in the escalation of the tariff structure in later periods. Central American countries - like many other developing regions - were actually caught in a classic "development trap" as consumer industries that were created by incentives of a sheltered regional market seem to have gained influence within the political establishment and prevented a subsequent reduction of the level of protection (while reaping the consumer rent at the expense of ordinary people in Central America). At the same time, these firms successfully lobbied within the political system to maintain easy access to extra-regional capital goods markets which resulted in the maintenance of the massive escalation in the tariff stucture, preventing intermediate and capital goods industries - which did not have a similar strong lobby - to gain the initial incentives to develop and create the forward and backward linkages for industry to become more self-sustainable and less of a drain to foreign exchange reserves.[12] Instead, in order to discourage "superfluous" consumption (and avoid foreign exchange to be wasted on luxury items) highest tariffs were levied on luxury goods and it was precisely on those items (e.g. perfumes, cosmetics), where thus the greatest incentives for the creation of import substitution industries were unwittingly created.[13]

Despite progress made in terms of trade expansion and new productive investment during the first two decades of the CACM, it became obvious that the easy stage of import substitution was basically exhausted by the late 1970s[14] and that industry in the region had remained in a state of relative backwardness, even before the eruption of the crisis of the 1980s.[15] Most firms were too small to enjoy economies of scale and the lucrative domestic market further increased their unwillingness to export to the world market. The anti-export bias of that system - together with negative changes in the terms of trade of major agricultural export crops and the inability of that system to contribute towards a solution of the social question - led to the failure of that strategy[16] in the late 1970s/early 1980s which was aggravated by - in the end - useless attempts to stabilize the situation by increasing the inflow of non-equity funds. This could not prevent the break down of the intra Central American payment settlement system but contributed to the countries' major indebtedness.

Subsequent attempts to continue the protectionist approach on a purely national level ("option b") nearly completely destroyed the remaining rest of intra-regional trade in manufactured products in the 1980s and turned out to be - next to civil unrest - a major factor behind the economic disaster from which the countries of the region had to suffer during the 1980s. Especially foreign exchange controls (and - although less so - other non-tariff barriers to curb imports such as prior desposits and surcharges) had catastrophic effects on regional trade and industry. Central American countries - even more than many other developing countries - had to experience the paradox that the massive (uncontrolled) drive for self-sufficiency in each sector on the national level (as was the idea behind import substitution) actually led

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[12] The discussion on import substitution and its links to economic integration are of course more complex and go beyond the objectives of this paper. Doubts have been raised about the practical difficulties of achieving forward and backward linkages with capital good's production once countries aim at exporting outside the region as - ironically - the creation of such forward and backward linkages may actually lead to a loss of competitiveness, at least in the transitional phase. For these and further interesting elements in the discussion on import substitution see Leopoldo Marmora, Dirk Messner, "La integracion de Argentina, Brasil y Uruguy: concepciones, objectivos y resultados", *Comercio Exterior* (Mexico), Vol. 41, No. 2, 1991.

[13] World Bank, *Central America at at Crossroads*, June 1992, p. 3.

[14] See Romúlo Caballeros Otero, "Reorientation of Central American Integration", *CEPAL Review*, No. 46, April 1992, p. 125 and p. 129.

[15] UNIDO, *"Economic Integration in Central America: an overview of implications for industrial modernization in the 1990s"*, Vienna 1993, p. 3.

[16] See Romúlo Caballeros Otero, "Reorientation of Central American Integration", *CEPAL Review*, No. 46, April 1992, p. 125.

to even greater dependence on the outside world.[17] Of all possible strategies and options, this has been certainly the worst for Central American countries (and thus the last one to be recommended for the future) as the extremely small domestic markets in the region did not allow in most cases for an efficient industrial production on the national level if such production had to concentrate on the domestic market only. It is also interesting to note that in terms of distribution of national income, the interventionist policies of the early 1980s seem to have actually further aggravated existing imbalances in the income distribution structure. The economic crisis was exacerbated by the simultaneous contraction of economic activity in all Central American countries as all countries saw themeselves forced to undertake strong expenditure containment measures, last but no least due to the shortfall in export revenues.

Given the high level of accumulated debts and the catastrophic economic situation in the countries of the region (with the exception of socially stable Costa Rica) one country after the other did not have any other realistic option but to discountinue the policies under "option b" and follow the World Bank / IMF model ("option c") of deregulation, devaluation, reduction of import duties, export promotion etc. in order to stabilize their economies and become re-integrated into the world economy. One problem in this respect was that these programs (as well as the accession of Central American countries to the GATT) were not implemented and coordinated for the Central American region as a whole, but introduced individually, country by country, thus further weakening regional links, although eventually all countries followed the same policy guidelines (but at different speeds). Another problem was that of "social" costs. In all Central American countries, except Costa Rica, the inequalities in income distribution widened in the 1980s, both during the early 1980s, i.e. during the interventionist/protectionist period and during the late 1980s, i.e. (for most Central American countries) the period of deregulation and liberalization. El Salvador, Guatemala, Honduras and Nicaragua were amongst those Latin American countries which showed a significant concentration and increase of the continent's poor (next to Brazil, Haiti Peru and Bolivia).[18] In Guatemala for instance, the poorest 30 percent of the population earned just 5.4 percent of total income in 1987 and by 1989 the inequality in income distribution further widened so that their share further decreased to just 4.5 percent of total income. However, it is interesting to note that the share of the 10 percent top earners in Guatemala in total national income remained stable at around 46.5 percent in the late 1980s. (See Table 1). In other words, if one assumes that the Guatemalean case is typical for Central American countries, the conclusion would be that the reforms of the late 1980s (liberalization, deregulation, devaluation etc.) seem to have been in the initial phase mainly to the advantage of the middle classes while the country's poor were not in a position to benefit from the transformation process. To the contrary, their living standards further deteriorated during the late 1980s. In contrast, income for the country's "rich" remained unaffected by the reforms, i.e. on an aggregate level they lost as much as they gained from the reforms. If one compares these results with the previous period of interventionist policies on the national level, the striking phenomenon has been that the previous interventionist policies only benefitted the country's rich (top 10 percent income earners) who then increased their share in total income (between 1979/81 and 1987 from 40.8 to 46.5 percent) at the expense of both the middle classes and the country's poor.[19]

[17] See Paul Streeten, "The special problems of small countries", *World Development*, Vol. 21, No. 2, p. 200.

[18] Stephen Fidler, "Poverty in Latin America", *Financial Times*, 26 March 1993, p. 8

[19] This deterioration for the lowest income brackets has to be seen against the background of already extremely uneven income distributions in the regions. Statistics indeed suggest that in all Central American countries income distribution is far from being considered "even". A number of indices confirm this statement. The UNDP human development index (HDI) for instance significantly deteriorates once income distribution is taken into account indicating that income distribution in Central American countries is far more uneven than in the rest of the world. This also suggests - and is confirmed by other indicators. The concentration of "poverty" is stronger in Central America than in developing countries in general. Guatemala and Honduras thereby seem to have the most uneven income distributions and the strongest concentration of poverty in the region. The most even income distribution is found in Costa Rica. Nevertheless, also this statement needs some qualifications. Costa Rica has a rather strong upper middle class and compared to other Central American countries a rather weak "rich class" (top 10 percent earners). Although outright

Table 1: Seletected countries in Latin America - income distribution:

	Share of the "poor" (lowest 30 percent)		Share of the "rich" (top 10 percent)	
	1987 or earlier	1989	1987 or earlier	1989
Guatemala (1987/89)	5.4	4.5	46.5	46.6
[Guatemala (1979-81)]	[7.0][a]		[40.8]	
Costa Rica (1986/..)	...	...	38.8	...
Mexico (1984/89)	7.5	6.2	39.5	43.9
Brazil (1979/89)	5.0	4.2	47.6	51.3
Argentina (1980/89)	9.9	7.9	30.0	35.9
Venezuela (1981/89)	9.3	9.0	31.5	33.2
Peru (1986/90)	10.7	10.1	34.9	35.1
Chile (../1989)	..	6.7	..	48.9
Bolivia (1986/89)	7.1	6.9	40.3	41.2
Colombia (1980/89)	5.2	6.6	46.9	41.8
Unweighted average	7.5	6.9	39.6	42.0

Source: World Bank (Human Resources Division), Poverty and income Distribution in Latin America: the story of the 1980s, Washington 1993, quoted in Stephen Fidler, "Poverty in Latin America", Financial Times, 26 March 1993, p. 8

a/ estimate; share of lowest 20 percent in national income was 5.5 percent on average in 1979-1981 and the share of lowest 40 percent was 14.1 percent. World Bank, World Development Report 1992, Washington 1992, p. 276.

Table 2: Share of population living under conditions of poverty

	1980	1990
Costa Rica	25	20
El Salvador	68	71
Guatemala	63	75
Honduras	68	76
Nicaragua	62	75
Central America	60	70

Source: CEPAL, *Centroamerica el camino de los noventa*, January 1993, p. 72.

poverty is certainly less frequent in Costa Rica than in other Central Ameircan countries, mainly due to overall higher living standards in that country, the share of the lowest 20 percent in total income seems to be - if one follows World Bank data - even smaller in Costa Rica than in Guatemala (3.3 percent as opposed to 5.5 percent). (See World Bank, *World Development Report 1992*, Washington 1992, p. 276.)

Table 3: Human Resource Development Index for Central American countries and the impact of income distribution

	Human development Index (1989)[a]	Income distribution adjusted HDI (1989)[b]	Percentage difference
Costa Rica	0.842	0.820	-2.75
El Salvador	0.498	0.483	-3.18
Nicaragua	0.496	...	...
Guatemala	0.485	...	...
Honduras	0.473	0.420	-12.84

Source: UNDP, *Human Development Report 1992*, p. 93.

a/ The human development index combines indicators for national income, life expectancy and educational attainment to give a composite measure of human progress; theoretical maximum is 1.0.
b/ If income distribution is included in the HDI the values for Central American countries further deteriorate, indicating that income distribution compared to the rest of the world is characterized in Central American countries by a far stronger concentration of national wealth in a small proportion of total population.

Table 4: Indicators for income distribution and poverty

Income share of lowest 40 % of households (1980-88)	
Costa Rica	11.6
Guatemala	14.1
..	..
Japan	21.9
Belgium	21.6
Sweden	21.2
Germany	19.5
Norway	19.0
OECD	18.1

Gini coefficient (1975-88)[a]	
Costa Rica	0.42
El Salvador	0.40
Honduras	0.62
..	
Chile	0.46
Columbia	0.45
Brazil	0.57
..	
Korea	0.36
Egypt	0.38
Bangladesh	0.34

Population below poverty line (1980-89) in % of total population[b]	
Guatemala	71
Honduras	37
El Salvador	27
Nicaragua	20
Costa Rica	11/20[c]

Central America; unweighted average (excl. Costa Rica)	39
Developing countries	32

Sources: UNDP, *Human development report 1992*.
Inter-American Development Bank, *Central American Integration, process and the regional economy*, March 1993, p. 26.

[a] a high value signals an uneven income distribution.
[b] according to UNDP.
[c] extremely poor/poor population according to IDB. The income of population in extreme poverty does not cover the cost of the basic food basket. The rest of the poor population has an income that is insufficient to supply its basic needs, i.e. family income covers the cost of the basic food basket, but not that of basic services such as housing, health, education, etc. Using that poverty concept of IDB, the share of the poor population ranges in Central America between 71 % and 76 %, (except Costa Rica 20 %) and the share of extremely poor between 42 % and 63 % (except Costa Rica 11 %).

Although structural adjustment showed in the countries of the region, in particular in Costa Rica, overall good results in macro-economic terms such as is reflect· l in the growth of GDP (see Table 5), negative side effects (further decline of living standards of already disadvantaged groups in society, dependence on just one major trading partner, "specialization" in the area of "static" comparative advantage (i.e. unskilled labor), etc. could not be prevented and should not be neither neglected nor their effects on society underestimated. In other words, although the strategy ("option c") pursued in the late 1980s helped Central American countries to stabilize their economies (i.e. reduce their structural macro-economic imbalances) and experience again economic growth, the policies did not solve the "social" question and by not explicitly addressing questions of bottlenecks in infrastructure and in the educational system (including the need to upgrade the skills of the workforce) they do not seem able to guarantee future growth. Furthermore, by de facto disregarding the potential for regional cooperation this strategy prevented Central American countries's industries to get into the position to develop an interdependent system of intra-industry linkages which are an important prerequisite for industry to flourish on a more solid basis.

Following this line of argument, though with various degress of emphasis, the project papers advocated the re-establishment of a common regional market in conjunction with steady attempts to improve the human resource base and upgrading of the technological levels of industry ("option d") without relapsing into the old interventionist/protectionist model of the 1960s/70s .

Table 5: Growth of gross domestic product (based on values at 1980 prices)

	1985	1986	1987	1988	1989	1990	1991	1992[a]	Average annual growth 1981-1992	Average annual growth 1986-1992
Costa Rica	0.7	5.3	4.5	3.2	5.4	3.5	1.2	4.0	2.5	**4.5**
El Salvador	1.8	0.5	2.7	1.5	1.1	3.4	3.3	4.5	0.6	**2.8**
Guatemala	-0.6	0.3	3.6	4.0	3.7	2.9	3.2	4.0	1.4	**3.6**
Honduras	2.8	2.3	4.9	4.9	4.7	-0.5	2.2	4.5	2.7	**3.8**
Nicaragua	-4.1	-1.0	-0.7	-12.1	-1.9	-0.7	-0.5	0.5	-1.3	**-2.8**
Central America	**0.1**	**1.4**	**3.3**	**1.8**	**3.3**	**2.3**	**2.3**	**3.9**	**1.4**	**3.1**
Latin America and the Caribbean	2.8	3.7	3.3	0.8	0.9	0.3	3.5	2.4	1.6	**2.5**

Source: CEPAL, *Notas sobre la Economia y el desarollo*, No. 537/538, December 1992, p. 40.
a/ preliminary figures

The general recommendations in the project reports have not been for any major changes in government policies but mainly for assistance in the implementation process of these policies as the proposals made under "option d" are basically in line with the policy approach already taken by the political authorities of the Central American countries in the 1990s.[20] Already in mid 1990 the Central American presidents approved in Antigua[21] the Economic Action Plan for Central America, ("*Plan de Acción Económico de Centroamérica*" (PAECA)).[22] Its explicit goal was to revitalise the economic

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[20] See also Gerardo Zepeda Bermúdez, "Smaller countries' way to competitiveness: central America in a new world economic order during the 90's", presentation in the workshop "The challenge of the EAI: Maximizing the Benefits for SMEs", North South Center, Miami (USA), 21 May 1992, p. 3.

[21] See Romúlo Caballeros Otero, "Reorientation of Central American Integration", *CEPAL Review*, No. 46, April 1992, p. 125.

[22] The main elements of the "Central American Economic Action Plan" were the following:

I. New legal and operative framework for the integration process:
It was firmly established that there was a need to create a new framework for regional integration. Specific commitments included those on a Financing Agreement between the European Economic Community and Central American countries to establish an Intra-Regional Trade Payments System as well as the compliance of a scheduled program for elimination of intra-regional trade barriers. With respect to trade tariffs, a single reunified Central American external trade tariff schedule was contemplated.

II. Infrastructure and Trade Integration:
Full support should be given to projects involving regional corridors related to transportation, communications, customs facilities, ports and energy, so as to enable integrated development inward and out of the region. The infrasturcture construction and recontruction program also included administrative efficiency measures to simplify migration and customs procedures, and the negotiations of multilateral intra-regional trade agreements.

III. Regional Coordination for promotion of trade out of the region: Central American countries were asked to coordinate Central American external affairs and representation in term of trade, foreign investment attraction, tourism and multilateral negotiations. In particular common actions should result in: a) improvements of non-reciprocal concessions granted by the USA under the Caribbean Basin Initiative (CBI); b) negotiations with the EC to achieve similar treatment as is provided to countries benefitting from the Lomé Agreement (ACP states) [which is of particular importance in respect to the agricultural sector (bananas) less to industry]; c) in general a better market access to foreign markets.

IV. Active participation of all social sectors in government decision making process

V. Industrial reconversion and modernization policies:
Gradual and selective industrial modernization to improve efficiency in productive activities, promote complementary among Central American countries, penetrate new export markets and substitue imports only in areas where considered convenient.

VI. Economic Democratization of public enterprises.

VII. Co-ordination of Agricultural policies (including assistance for support and technology services).

VIII. Regional policy for science and technology:
Design of regional science and technology policies and programs to optimize transfer of experiecne and promote regional technological innovation projects, within an integrated strategy for new markets, including the strengthening and restructuing of regional institutions dealing with technological and scientific training and research.

IX. Coordination of Structural Adjustment programs:
Promote a coordination process for those macroeconomic adjustment programs under execution in each Central American country in order to set up the basic setting for common development in the region.

X. Social compensation programs for economic adjustment:

integration process as an element in the overall new strategy of openness to the exterior and modernization of production.[23] A year later in July 1991 in San Salvador[24] the presidents of the Central American countries adopted a declaration which foresaw to revert to a common external tariff schedule by 1993 (with a few exceptions, especially for textiles and footwear) respectively by 1995 (after all remaining exceptions will have been phased out).[25]

In contrast to previous integration efforts, which go back to the early 1950s[26] and led to the creation of the Central American Common Market (CACM) in the early 1960s based on the import substitution model and strong sectoral industrial policies, including the forced reduction of competition in a number of sectors in an attempt to reach levels of economies of scale[27], the integration of the economies of Central America in the 1990s is now seen as a precondition to strengthen the competitiveness of industry which should enable Central American economies as a next step to get successfully integrated into the world economy.[28] Key elements of the new approach to industrial policies are not any longer protection and prevention of competiton but "regional integration" as well as "restructuring of the industrial sector" with the objective of increasing the level of competitiveness of enterprises in Central America.[29]

Specific programs to minimize short run impacts due to economic adjustment policies, affecting the poorest and most unprotected sectors of population. The intention is to fully incorporate low income groups to the development process by giving them inter alia easier access to capital goods, technology and training, in particular through support being given to the informal sectors of the economies in Central America.

XI. **Consultation forum for external debt and international cooperation:** This is intended to improve coordination among Central American countries to find appropriate solutions related to questions concerning bilateral or multilateral debt.

Gerardo Zepeda Bermúdez, "*Smaller countries' way to competitiveness: central America in a new world economic order during the 90's*", presentation in the workshop "*The challenge of the EAI: Maximizing the Benefits for SMEs*", North South Center, Miami (USA), 21 May 1992, pp. 3-4.

[23] See Romúlo Caballeros Otero, "Reorientation of Central American Integration", *CEPAL Review*, No. 46, April 1992, p. 125.

[24] See "*La Declaracion de San Salvador*", (the joint presidential statement issued at the San Salvador Summit), El Salvador, July 17, 1991.

[25] The new common external tariff will be rather flat and consists of a rate of 5 percent on non-competing capital and intermediate goods, 10 percent on competing capital and intermediate goods, 15 percent on non-competing consumer goods and 20 percent on competing consumer goods. World Bank, *Central America at a Crossroads*, Washington 1992, p. 6.

[26] Gerardo Zepeda Bermúdez, "Smaller countries' way to competitiveness: central America in a new world economic order during the 90's", presentation in the workshop "The challenge of the EAI: Maximizing the Benefits for SMEs", North South Center, Miami (USA), 21 May 1992, p. 1.

[27] This was e.g. the case with the "Agreement on Integration of Industries" that was incorporated into the General Treaty for the CACM. (See UNIDO, "Background report: the implications of regional integration for the industrial sector in Central America", Vienna 1992, p. 1.)

[28] Inter-American Development Bank, *The new challenges for Central American development - presentation of the private sector of Central America, requiested by FEDEPRICAP*, March 1993, p. 6.

[29] In respect to industrial restructuring ("reconversion industrial") the presidential agreements of 1990 centered on two items which clearly show the change in perception of industrial policies that has already taken place: a) the launching of a program to assist the development and the integration of Central America ("*Programa de Apoyo al Desarrollo y la Integración de Centroamérica*"), which includes a subcomponent under the title of "Competitiveness of the Productive Sectors" ("*Competitividad de los sectores productivos*"); as well as b) a program for increased

Economic integration in general as well as restructuring of industry based on a regional approach is certainly not an objective in itself but is deemed to serve "higher" objectives if it is to be regarded as successful and beneficial for the people concerned. The ultimate economic objective is to raise prosperity of all co-operating units. In how far one can expect economic integration to increase the level of prosperity will be discussed later.

Farther reaching objectives go beyond questions of economic welfare and are in particular one of peace policy, namely to lessen the chances of armed conflicts both among countries as well as within the countries of the region due to less social tensions as a result of higher levels of prosperity for larger sections of the population. Although it would not reflect reality to reduce all hostilities in the world to mere "economic" conflicts, studies nevertheless suggest that strong and increased trade links with neighbouring countries indeed tend to reduce significantly the risks for armed conflicts, mainly due to increased mutual dependence which creates strong anti-war lobbies in all countries, out of mere self-interest of economic actors who are afraid to lose income in case of war. The existence of economically integrated regions makes violent conflicts very expensive for all parties concerned and thus acts as a potential threat to go ahead with armed conflicts.[10] Here comes in again the argument for a regional approach to industrial policies and industrial restructuring as opposed to a purely national approach. While unilateral restructuring efforts for the domestic industry, if successful, are likely to - at least in the initial phase - affect the 'relative' level of competitiveness of industry vis à vis neighbouring countries, and thus could give rise to increased tensions, a regionally negotiated and coordinated approach to industrial restructuring should help to eliminate the emergence of such potential tensions from the very beginning.

The necessity to reduce social tensions and to prevent any emergence of new tensions in the region, both within countries and between countries, in order to be able to reduce unproductive military expenditure is a particularly crucial item for the success or failure of future development in Central America. Social tensions have not only led to a large number of casualties in the past decade in Central American countries, they have also been behind destruction of infrastructure and the "waste" of scarce resources for (unproductive) military spending both on the sides of governments and guerilla organisations (which partly also got support from neighbouring countries). UNDP statistics - which only consider government expenses - document this very impressively. Only Costa Rica which could afford to have the smallest military expenditure in the region due to the inexistence of (major) social tensions could use government expenditure for important other purposes, including for social tasks such as health and education, and provide its people with by far the highest living standards in the region, which is reflected in the relatively high per capita income figures (see Table 6).

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cooperation in the field of R&D (elaboration of a *"Perfil de Proyecto de Inversion en Desarollo Cientifico y Technológico de los Sectores Productivos"*). (For more details see UNIDO, "Modernizacion del sector industrial en Centroamerica: hacia la formulacion de un programa de accion", Vienna 1993, p. 2. and p. 49 ff.)

[10] For instance, Polacheck (1980), using data for 30 countries in the 1958-167 period, shoed that dobling the trade between two countries leads to a 20 percent decline in the frequency of hostilities", quoted in Willem MOLLE, The Economic of European Integration, (Hants, UK, 1990), p. 9.

Table 6: Military expenditure in Central America

	Military expenditure as % of GDP		Military expenditure as a percent of education and health expenditure	Real GDP per capita (based on PPP$[a])
	1960	1989	1988/90 avg.	1989
Costa Rica	1.2	0.4	4	4,413
El Salvador	1.1	3.5	121	1,897
Nicaragua	1.9	28.3	318	1,463
Guatemala	0.9	2.6	87	2,531
Honduras	1.2	8.4	102	1,504
Unweigthed average for Central American countries	1.3	8.6	126	2,362
Developing countries	4.2	4.4	169	2,296
OECD countries	6.4	3.5	28	15,983

Source: UNDP, Human Development Report 1992, p. 166 and p. 201.

a/ PPP = purchasing power parity; this calculations attempts to eliminate distortions due to fluctuations and subsequent over- or undervaluations in foreign exchange rates.

The central question still to be answered is in how far one can expect regional integration to raise the overall level of welfare in Central America.

One answer is that a single regional market enables Central American enterprises to increase their levels of specialization, make better use of economies of scale and thus reduce unit costs. This should make Central American industrial enterprises not only competitive on the regional but also on international markets, and create new employment opportunities in the mid term. The net benefits stemming from the process of increased specialisation and resource reallocation are thus in direct relation to the firms' success in reducing unit costs by rationalizing production, investing in new machinery, adopting state of the art managerial (organizational) and production techniques, improving the training of the workforce, and developing suitable supplier networks which enables companies to buy inputs at more competitive prices from reliable partners[31]. Although most enterprises will be forced to streamline their production and reduce the range of products produced in order to reduce unit costs, a large number of then specialized companies will as an aggregate more efficiently cover all existing markets and market niches, so that Central America as a whole should be able to produce an even larger varity of industrial products and be able to better diversify its existing export structure, and thus be less affected by cyclical down-turns of single export sectors.

The next question to be asked is why do enterprises in Central America really need an "enlarged domestic" market? Empirical research has shown that irrespective of individual success stories of rather small countries (such as Taiwan, Singapore, Hongkong, Macoa, Mauritius, Kuwait, Malta etc.), countries with larger "domestic markets" or countries with a guaranteed access to a "regional market" which de facto performs the role of a large "domestic market" - on average - tend to enjoy higher economic growth rates than small economies. This phenomenon is normally explained by higher productivity growth rates due to increased specialization.[32] But there are more reasons to explain that phenomenon. The problem with small economies, such as those of Central America, is that the small domestic market does not allow to achieve efficient production scales. Even if the domestic market allowed for a small number of production units, this would not be sufficient to create a competitive environment. Oligopolistic or even monopolistic market structures would be the rule rather than the exception. Thus, governments are forced to intervene in the price setting process if they want to avoid oligopolistic exploitation of the consumer rent. Experience has shown that such interventions easily lead to major price distortions and eventually to an inefficient allocation of scarce financial resources. A further waste of resources is the least Central American countries can afford.[33] Individual central American markets are not only small in terms of number of people (ranging from 3 to 9 million), but much more so in terms of purchasing power which hardly justifies major manufacturing activities unless these activities can be directed - at least - to the whole of Central America. Even the Common Central American market is still small by international standards. (In terms of workforce the total number does not exceed 360,000[34] in formal (large scale) manufacturing. In terms of GDP Central America accounts for slightly more than 1/10 of the domestic Mexican or just 1/5 of the domestic market of a small European country such as Austria;

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[31] UNIDO, "*Economic Integration in Central Amcerica: An Overview of implications for industrial modernization in the 1990s*", Vienna 1993, p. 1.

[32] Paul Streeten, "The special problems of small countries", *World Development*, Vol. 21, No. 2, 1993, p. 199.

[33] For a general discussion concerning market failures (which are assumed to be more prevalent in developing countries than in developed economies) as a reason for slow development of developing countries see Josef Stiglitz, "Perspectives on economic development - markets, market failures and development" *The American Economic Review*, May 1989, p. 197.

[34] UNIDO, Global Database 1992; a breakdown of the workforce according to Central American countries and main ISIC categories is given in the annex.

and even these countries actively seek integration into larger regional markets as their domestic markets are considered to be too small[35]).

However, if this is the case why should the Central American countries not integrate their individual economies into the world economy by completely abolishing all tariff and non-tariff barriers? This would remove the anti-export bias that results from protection of the domestic market, and would offer them an even (far) larger market to specialize and make use of economies of scale. Although such an approach may be attractive, there are good reasons to opt for a smooth integration into the world economy via the re-establishment of a common Central American market which is probably a more suitable approach for the economies of Central America.

a) First, an anti-export bias is certainly not only due to the protection of the domestic market by tariff and non-tariff barriers which create an incentive to concentrate the activities on the protected markets behind trade barriers; as nearly all countries in the world also protect their domestic (or regional) markets to a certain degree and are indirectly assisted in their efforts by natural trade barriers (such as transport costs, language problems etc.), a certain anti-export bias will always remain. A possibility to overcome at least the tariff and to a certain degree the multitude of non-tariff restrictions created by trading partners is to actively seek negotiated settlements. A first important step in this direction has been the participation of several Central American countries in the GATT process[36]; the hemispheric initiative of the USA[37] (ultimately leading - if implemented - to a free trade area all over America) would be an even further going step in this direction. Through the Agreement of Tuxtla Gutiérrez (11 January 1991), Mexico and the Central American countries officially committed themselves to the signing of an agreement by which a common free trade area would be initiated. The agreement also includes criteria for graduality and assymmetry in favor of Central America. It has been forseen that this free trade area should be completed not later than 31 December 1996. It thus should - at least indirectly - also link Central America to NAFTA (which includes the USA, Canada and Mexico which is supposed to enter into force in 1994). Central American countries also signed similar agreements with Venezuela and similar agreements with Colombia should follow suit.[38] Nevertheless, irrespective of all these geographically further reaching integration attempts, a larger "domestic Central American" market remains an advantage for Central American entrpreneurs.[39]

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[35] UNIDO, "Background report: the implications of regional integration for the industrial sector in Central America", Vienna 1992, p. 5.

[36] Since the mid 1980s Costa Rica, Guatemala and El Salvador joined the GATT. Nicaragua was member of GATT since 1948. Honduras announced plans to join GATT in 1992.

UNIDO, "*Modernisazion del sector industrial en centroamerica: Hacia la formulacion de un programa de accion*", Vienna 1993, p. 48.

[37] UNIDO, "*Lineamientos de cooperacion tecnica para un programa de modernizacion industrial en Centroamerica*", Vienna 1993, p. 7.

[38] Eduardo Gitli, Gnilla Ryd, "Latin American Integration and the Enterprise for the Americas Initiatve", *Journal of World Trade*, August 1992, p. 32.

[39] Especially in the medium term, extra-regional export efforts of Central American countries will face the challenge of increased competition. So far, most Central American countries (with the exception of Nicaragua in the 1980s) were granted a privileged access to the US market through the Caribbean Basin Initiative (CBI). However, with Mexico joining NAFTA in 1994 most of those privileges will lose in importance and are expected to lead to shifts of exports in favor of Mexico. (See World Bank, Central America at crossroads, June 1992, p. 17.) A positive outcome of the GATT Uruguay round and the subsequent massive liberalization of world trade is - in contrast to Latin America as a whole - also seen rather as a threat than an opportunity for Central America. Central American countries would - if world trade was to be seriously liberalized - increasingly face the tough competition from east and south east Asian countries on the US market. The same holds true for the European market. Quota systems so far have held back the export drive of east and south east Asian countries while the actual tariffs charged for Central American countries on

b) Successful individual attempts to integrate the economies of Central America into the world economy have already been made since the mid 1980s. Especially the *maquiladora* sector showed good growth rates in a number of Central American countries. Nevertheless, no country in Central America demonstrated in the 1980s a significant increase of the share of industry in GDP, and some, notably Guatemala, even recorded a significant decline. Even Costa Rica, which staged the most successful recovery from the debt crisis of the early 1980s and has the most advanced economy of all Central American countries, saw industry's share in GDP fall over the decade.[40] Traditional as well as non-traditional exports increased in Central America due to trade liberalization, but these new exports do not necessarily have their origins in the manufacturing sector. They mainly come from other sectors of the economy, in particular agriculture (see Tables 20, 21, 22, 23, 24) so that increases in exports due to trade liberalisation may go hand in hand with some forms of (at least temporary) "deindustrialisation" (as also seems to have been the case for instance in the southern Cone of Latin America in the 1970s before the trend could be reversed a decade later).[41] Indeed, throughout the 1980s the structure of Central American exports became increasingly concentrated on traditional products. The share of coffee and bananas in total exports rose by over 10 percentage points to nearly 55 percent of the total while the share of exports of manufactures declined. For the region as a whole the share of manufactures in total exports dropped from 26 percent to 20 percent.[42] The lesson for the manufacturing sector in Central America thus seems to be clear. Per se the model of the late 1980s, based upon export led growth and trade liberalization but foregoing the option of regional integration may provide overall economic growth (see Table 5) but it does not guarantee industrial dynamism which would be the basis for a path towards sustained growth.[43]

c) The major problems associated with such direct integration efforts without first creating strong intra-industry linkages on a regional level are that the subsequent trade flows are strongly influenced by existing comparative advantages and may even delay the creation of new comparative advantages. As was mentioned earlier, for Central America as a whole the existing comparative advantage - with the exception of one or two countries - is still the abundant availability of cheap, unskilled labour. The calculation of RCA (revealed comparative advantage) indices shows very clearly that Central America has not yet left the stage where it could count - in a hypothetical global free trade environment - on other comparative advantages than abundant cheap labour (see Table 7 and Table 8). In contrast to other developing countries comparative advantages based upon natural resources only play a secondary role which is mainly due to both the lack of endowment with natural resources and the often reported law quality of such resources.

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manufactured goods are negligible. About 30 percento of Central American exports enter the EC duty free, and additional 7 % are eligible for treatment under the GSP and another 46 % enter at a duty of just 5%. (See World Bank, Central America at crossroads, June 1992, p. 19.)

[40] UNIDO, "Economic Integration in Central America: An overview of implications for industrial modernization in the 1990s", Vienna 1993, p. 4.

[41] UNIDO, "Economic Integration in Central America: An overview of implications for industrial modernization in the 1990s", Vienna 1993, p. 4.

[42] World Bank, *Central America at a Crossroads*, June 1992, p. 8.

[43] In this context should also be seen the following statement made by Mr. Romulo Caballeros Otero (Head of the Economic Development Section of the ECLAC Subregional headquarters in Mexico: "International openness.. must be understood as a willingness to accept criteria of greater competiveness and benefits in trade flows, together with a policy of market diversification. It is [however] not a synonym for unrestricted liberalization or deregulation" (Romulo Caballeros Otero, "Reorintation of Central American Integration", *CEPAL Review No. 46*, April 19, p. 131.)

Table 7: **Manufactured products with the highest RCA ratios**

Country	Sector	Factor intensiveness	RCA 1986-88	RCA 1976-78	change from 1976-78
Costa Rica	Leather	UL	2.42	0.87	1.55
	Wood, Cork	NR	0.92	0.94	-0.02
	Furniture	UL	0.59	0.48	0.11
El Salvador	Footwear	UL	0.92	1.61	-0.69
	Travel goods, handbags	UL	0.09	0.77	-0.68
	Clothing	UL	-0.07	0.39	-0.46
Guatemala	Essential. oils, perfume	HC/T	2.05	0.55	1.50
	Wood, cork	NR	0.73	-0.33	1.06
	Plumb. heating, lightning	HC/T	0.65	-2.33	2.98
Honduras	Wood, Cork	NR	3.59	3.60	-0.01
	Furniture	UL	0.66	0.21	0.45
	Leather	UL	-0.11	-0.03	-0.08
Nicaragua	Wood, Cork	NR	0.13	0.91	-0.78
	Furniture	UL	-0.14	-0.24	0.10
	Travel goods, handbags	UL	-0.15	-0.37	0.22

Source: *IDB, based on UNSO, COMTRADE data base.*

NR ... natural resource intensive
UL ... unskilled labor intensive
HC ... human capital intensive
T ... technology intensive

Table 8: **Revealed Comparative Advantage (RCA) ratios of Central American countries in selected industries: (avg. 1986-88 and changes from avg. 1976-1978)**

	Costa Rica		El Salvador		Guatemala		Honduras		Nicaragua	
	1986/ 1988	1976/ 1978	1986/ 1988	1976/ 1978	1986/ 1988	1976/ 1978	1986/ 1988	1976/ 1978	1986/ 1988	1976/ 1978
Textiles	-1.45	-1.24	-0.16	0.25	-0.24	-0.31	-1.71	-1.85	-2.27	-1.04
Clothing	0.56	-0.09	-0.07	0.39	0.35	-0.09	-0.15	-0.44	-0.53	-0.53
Leather	2.42	0.87	-2.56	-0.65	-0.69	0.02	-0.11	-0.17	-0.62	0.73
Footwear	-0.01	-1.24	0.92	1.61	0.13	0.37	-0.61	-0.71	-0.62	-0.23
Non-metallic minerals	-0.44	-0.92	-1.65	-1.00	0.19	0.04	-1.43	-1.56	-1.59	-0.98
Iron & Steel	-2.03	-1.30	-1.85	-1.10	-1.42	-1.42	-1.97	-2.53	-2.77	-1.12

Source: IDB, based on U.N. data and COMTRADE data base.

Statistics also show that Central American countries owed much of their success in exports in the (late) 1980s - after trade liberalization - to an increase of exports requiring low levels of skills. The share of "unskilled labor" products in total exports significantly increased during the 1980s[44]. This is also reflected in the fact that the overall share in total export earnings which was paid to unskilled labor increased while the share which went to "qualified labor" fell.[45] Especially in respect to exports going to OECD countries the share of technology intensive and qualified labour intensive products declined.[46]

Industries created upon the existence of unskilled labor as the main resource base fulfill a positive role insofar as they immediately create employment opportunities and thus contribute to poverty alleviation. But they often do not help to increase the technological level of production and the manufacturing value added, and they often do not lead - at least in the short run - to a major upgrading of the human resource base and the development of a skilled labour force. Instead, there seems to be certain tendency towards a perpetuation of the status quo and existing trade flows which may not be to the advantage of Central America in the long run.

d) The previous argument can be further substantiated. World wide, intra-industry trade has proven in the past two decades to have been by far the most dynamic element of trade in manufactured goods. Indeed, there even seems to be a stong statistical correlation of countries having high shares in intra-industry trade and showing high levels of living standards (such as developed countries) and/or countries showing strong economic growth rates (such as the newly industrialized economies).[47] Data indicate that the attempts made by Central Ameircan countries to individually integrate into the world economy in the late 1980s did not contribute much to an increase in intra-industry trade. Compared with 1979 the index of intra-industry trade with OECD countries only slightly increased from 17 to 21 percent, i.e. far less than the increases experienced by most other regions and countries, indicating that Central America was actually not able to benefit much from some of the most lucrative elements of international trade in recent years (See Table 9). The trade structure indeed basically followed traditional patterns during the 1980s. 2/3 of total imports were capital goods as well as intermediate manufactures while exports concentrated on agricultural goods such as coffee and bananas (more than 1/2 of exports).[48] Although the lack of a functioning regional market was certainly not the only reason for that (negative) phenomenon it nevertheless seems to have contributed to it. In other words, it can be argued that even for

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[44] UNIDO, "*Estructura de proteccion e incentivos a la industrializacion en Centroamerica*", Vienna 1993, p. 43.

[45] These general tendencies can be very well illustrated in the case of Guatemala:

Cost structure of total manufactured exports (Guatemala) in percent:

	1987	1989	1991
unskilled labor	22.9	30.9	38.3
skilled labor	20.2	17.8	15.7
costs for technology	21.4	16.1	13.7
inputs of natural resources	35.4	35.2	32.4
	100.0	100.0	100.0

Source: UNIDO, "Estructura de proteccion e incentivos a la industrialilizacion en Centroamerica", Vienna 1993, p. 10.

[46] UNIDO, "*Lineamientos de cooperacion tecnica para un programa de modernizacion industrial en centroamerica*", Vienna 1993, p. 2.

[47] UNIDO, "Trade integration and industrial restructuring - the case of Mercosur", Vienna 1993, Table 3, p. 8.

[48] World Bank, *Central America at a Crossroads*, June 1992, p. 8.

improved extra-regional intra-industry trade a strong domestic industrial base - which can be strenghtened due to improved regional linkages by the existence of a common regional market - seems to be an element that actually should contribute to stronger participation in lucrative international intra-industry trade activities.

Table 9: Intra-industry trade (ITT) indices of OECD countries with selected regions			
	1970	1979	1989
Central America	4.6	17.1	20.9
Carribbean	12.7	22.9	31.1
Mexico	26.2	33.5	59.0
Latin America	10.3	18.3	38.0
Africa (excl. Rep. of South Africa)	6.6	7.9	18.4
Middle East	9.6	8.4	24.6
Other developing Asia	9.7	12.9	24.0
"Ex-socialist" countries	35.9	32.7	35.2
Source: IDB, based on U.N. Comtrade data base.			

To put it differently, regional integration can be seen as an instrument which - if properly applied - should help companies working in the region to improve existing levels of comparative advantage (including the quality of goods produced which needs however to be specifically addressed) so that in the end they are able to influence trade flows with third countries to the overall advantage of Central America. In contrast to the old Ricardo Theorem of the mutual advantages for all parties involved in free trade activities (which is perfectly allright if one assumes a static environment), it can be argued that the concept of comparative advantages should not be seen as a static concept only but as a dynamic concept with comparative advantages being influenced and changed by actual economic activities being pursued by a trading partner. In other words, individual Central American countries should not have to concentrate exclusively on the export for agricultural crops (banana, coffee etc.) or the production of manufactured goods using cheap, unskilled labor, i.e. fields where they do have a comparative advantage, but they should be given the possibility to develop comparative advantages in various other manufacturing subsectors as well. An important point hereby is the "learning curve" argument[49], i.e. the ability of

[49] "Learning" can be considered as an externality. For all markets which are characterized by strong externalities it cannot be ruled out that they may have a tendency to result in some kind of "market failure" (as can be seen in respect to pollution). Free trade among countries with one lacking the "learning experience" may thus result in sub-optimal results which in the case of free trade between developed and developing countries would be to the disadvantage of the latter. At the same time the reintegration of a developing country into the world economy which goes hand in hand with free trade and unrestricted investment possibilities may - up to a certain degree - contribute

companies to learn how to produce more efficiently due to an increase in output which is facilitated by the existence of a larger regional market.[30] A certain but not dramatic increase in competition is thereby useful to make companies change and actively look for more adequate technolgies and organizational methods to improve efficiency and make this a continous process. Regional integration enables companies to engage in such learning exercises to gain sufficient strength so that companies in the end should be able to compete with quality products on international markets.[31]

e) Another argument in favor of regional integration as opposed to immediate direct integration into the world economy is that the industrial interwovenness of an economy (inter- and intra industry linkages) may have positive effects on total efficiency and the speed technical improvements in one sector leads to the modernisation of other areas.[32] For instance, a successful product innovation may stimulate the suppliers of machines to innovate their production processes, and the suppliers of intermediate products for machines to design better parts. Thus, starting from some key producers, positive effects will propagate through the whole economy. Such effects will be the greater, the better the various parts of the economy are equipped to respond to such impulses. Although it is questionable whether such an outlined mechanism would work in the Central American context, it is clear that given the extremely small domestic markets it could certainly not work in individual countries. If individual countries were to be integrated into the world economy most of the stimulative effects from product innovations or a changes in the demand pattern would simply "leak" into the world economy with no direct reponse to be expected for the country concerned.

f) A further problem associated with quick attempts of reintegrating a country into the world economy by fast reduction of import protection is a likeliness of increased unemployment, at least in the initial phase of the restructuring process, as enterprises are forced to reduce the level of their workforce in the drive to increase the level of efficiency, thereby increasing social tensions. Although increased unemployment in the initial phase of any restructuring process cannot be ruled out irrespective of whether the restructuring process is due to regional integration or directly due to fast integration into the world economy, there is nevertheless a valid point in favor of a "smoother" regional approach. Most industrial sectors in various Central American countries are confonted with similar problems and start in many cases from similar (low) technological levels of production with often outdated capital equipment. As one cannot expect restructuring of industrial sectors to occur over night in Central American countries, the dangers for industry in any of the countries of Central America to lose out against increased competition are limited while the expected chances to gain through improvements in the organization of enterprises are much higher in regionally integrated markets than if those companies had to compete immediately on

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towards a reduction in the existing technology gap and thus help to increase the "learning experience" and hence eventually reduce the conditions for the market failure. However, this process can take a long time and there have been raised strong arguments against this occurring at all. The experiences of Silicon Valley and Route 128 for instance tend to suggest that there are indeed important externalities in the learning and R&D process which do not favor a fast spreading of learning experience beyond certain regions, at least as long as one does not allow for a free labor movement as well. It has been argued that especially the "intellectual ferment" in such areas contributed to even more innovative activity. Some studies of the late 1980s (Robert Lucas, 1988, Joseph Stiglitz 1987, Paul Romer, 1986) have thus argued that one of the major differences between the more and less developed areas in the world actually arise from "learning by doing" and limits on the ability to transfer what learning occurs across international boundaries. (For a more detailed discussion see Josef Stiglitz, "Perspectives on economic development - markets, market failures, and development", *The American Economic Review*, May 1989 p. 197.)

[30] UNIDO, "*Trade Integration and Industrial Restructuring: The case of Mercosur*", Vienna 1993, p. 6; Molle, Willem, "*The economics of European integration. theory, practice, policy*", Hants (UK), 1990, p. 110.

[31] An important role in this context play (quality) standards as well as their verification and certification. Such standards should not be set too low and should be slowly increased to reach international levels in order not to endanger the integration into the world economy.

[32] Molle, Willem, "*The economics of European integration, theory, practice, policy*", Hants (UK), 1990, p. 111.

international markets without having had adequate opportunities to reach first acceptable levels of competitiveness in a regional market environment. In other words, industrial restructuring under a system of regionally integrated markets should lead to a more healthy "evolutionary" process instead of dangerous shock therapy which seriously threatens employment opportunities, at least in the short run.

At the same time, a balance between regional integration and integration into the world economy has to be found which is certainly not an easy task. The orignal concept of regional integration in the 1960s of massive regional protection and quantitative restrictions indeed supported inefficiencies and created a massive anti-export bias which in practice could not be really removed with parallel introduced export promotion schemes. Furthermore, complete protection of the domestic market enabled both Central American enterpreneurs as well as multinationals operating in Central America to earn monopoly rents at the expense of Central American consumers, thus further aggravating the effects of existing uneven income distribution and indirectly contributing to the increase of social tensions in the region (which then inter alia also led to the need for significant increases in (unproductive) military expenditures in the region which only could be "sustained" at the expense of economic and social progress.

It thus seems to be important not to repeat the same mistakes again in the new integration efforts in the 1990s. Indeed, the new common external tariff, which will not exceed 20 percent[53], can be seen as a an adequate response to previous negative experiences with too high protection of the regional market. The new common external tariff, to be fully phased in by 1995, will be rather flat and consists of a rate of 5 percent on non-competing capital and intermediate goods, 10 percent on competing capital and intermediate goods, 15 percent on non-competing consumer goods and 20 percent on competing consumer goods.[54] The reduction of import duties for goods originating in third countries to a maximum 20 percent should indeed prevent Central American industry not to lose sight of international developments and prevent it from "exploiting" Central American consumers (as well as from de facto contributing towards the creation of an underground economy based on lucrative smuggling activities) and from making (completely) uneconomical allocations of scarce capital as happened in the past. A remaining moderate protection from third countries imports - as will be achieved with the 20 percent ceiling on the common external tariffs[55] - can be justified on the grounds that Central American industry is certainly disadvantaged in respect to a number of essential inputs.

The studies undertaken have indeed shown that Central American industry has to cope with high energy costs (with electricity prices between 40 and 100 percent higher than prices charged in the USA or Mexico and petrol prices more than double of what is charged in Northern America), high interest rates (more than 20 percent in a number of Central American countries), high transport costs, as well as deficiencies in respect to the telecommunication sector[56].

From an industry point of view, all these input prices are certainly far to high to guarantee "fair competition". This is why calls have been made to reduce them to international levels. Insofar the distorted prices are due to bottlenecks in the infrastructure (ports, roads, telecommunication lines etc.), the price

[53] Inter-American Development Bank, *The new challenges for Central American development - presentation of the private sector of Central America, requiested by FEDEPRICAP*, March 1993, p. 2.

[54] World Bank, *Central America at a Crossroads*, Washington 1992, p. 6.

[55] For a detailed analysis of the tariff structure in Central America see UNIDO, "Estructura de proteccion e incentivos a la industrialization en Centroamerica", Vienna 1993.

[56] UNIDO, *"Modernizacion del sector metalmecanico centroamericano: Potencial de cooperacion, necesidades, y limitaciones"*, Vienna 1993, p. 13.

margins vis a vis "international" input prices may be taken as an indication for the urgency and priority in respect to the improvement of the local infrastructure. However, given the actual factor endowment in Central America, one has to be careful to recommend any further interference in the local price system, even though this might be tempting from a purely "industrial" perspective. High (nominal) interest rates have indeed helped to mobilize and repatriate funds which otherwise would not have been available at all for industry to even consider modernisation and expansion, and high energy costs are certainly also a reflection of the lack of domestic resources in this field.[57] Interest rates and energy prices at for instance the lower US-levels could indeed give wrong incentives to industry in Central America to concentrate its activities in energy and capital intensive lines of production instead of labour intensive but low energy consuming fields of manufacturing which should be Central America's logical priority areas given its factor endowment.

However, taking the pattern of relative prices in the region for granted, calls for the maintenance of moderate tariff protection (such as the envisaged maximum 20 percent) vis-à-vis third countries, in order to smoothen the transtion of whole industrial subsectors.

B) <u>Importance of regional trade in manufactured products</u>

Given the poor economic situation in all Central American countries in the 1980s which led to mutual loss of confidence concerning the ability and willingness of neighbouring CACM countries to settle open bills, major attempts had been made in all countries of Central America to re-direct trade flows away from the regional market towards markets overseas. (Apart from the special case of Sandinista-Nicaragua this meant increased efforts to penetrate the US market). A whole range of export incentives was introduced for that purpose which only applied to overseas markets and thus created an anti-CACM bias in respect to exports. At the same time, import restrictions through non-tariff trade barriers (such as restrictions in the use of foreign exchange) mainly applied to consumer goods. As consumer goods are among the prime export products of Central American countries, such trade barriers affected intra-regional trade more than extra-regional trade. This is why intra-regional exports of manufactured products (measured as an unweighted average of all five CACM countries) declined from more than 50 percent of all manufactured exports in 1978 to slightly more than 30 percent a decade later (see Table 11), or from 13 percent of domestic production to just 4 percent (unweighted average) (see Table 12). Such levels of both intra-regional as well as extra-regional trade are rather small, especially if compared with small countries in Europe (such as Denmark, Belgium, Luxemburg, Netherlands, Sweden, Norway, Finland, Switzerland, Austria etc.) which not only in absolute but also in relative terms are far more strongly integrated in their respective regional markets and are thus able to overall export a far higher proportion of goods domestically produced. (See Table 14).

Apart from the special case of Costa Rica which indeed very successfully managed to boost extra-regional exports in the 1980s, the decline of exports to the region in general went hand in hand with declines in extra-regional exports (from 12 percent of production in 1978 to 8 percent a decade later). (See Table 12). In other words, Central American countries did not only suffer from the mutual loss of markets in the region but they also lost in exports of manufactured goods to extra-regional foreign markets. Thus, if the weakening of regional cooperation has led to a loss of competitiveness, which also affected extra-regional trade negatively, increased trade relations within Central America based upon free access to a once again united regional market should indeed assist Central American companies to become more competitive in international business as well.

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[57] In this connection is interesting to note that the highest interest rates for industry (26 - 32 percent) are actually found in Costa Rica, the most advanced and most successful country of Central America, while El Salvador is at the bottom in Central America with just 14-15 per cent. Interest rates in Guatemala range from 20 to 21 per cent and in Honduras from 22 to 26 percent.

Table 10: Exports of Central America to the rest of Central America

	1975	1980	1985	1986	1987	1988	1989	1990
Exports to Central America (in million Central American pesos)	536.4	1,129.2	487.8	417.6	506.1	549.0	651.7	633.9
in % of total exports								
Central America	22.8	23.1	12.9	10.3	13.3	13.8	15.4	14.4
Costa Rica	21.7	27.0	15.2	9.3	9.9	11.0	10.8	9.1
El Salvador	26.6	27.5	14.1	11.7	20.2	23.0	36.7	26.5
Guatemala	26.2	26.6	19.3	18.3	23.7	22.9	22.8	23.1
Honduras	8.6	9.9	2.5	2.1	3.1	2.7	4.0	4.0
Nicaragua	24.7	16.7	8.0	6.2	6.4	8.1	8.6	11.3

Sources: ECLAC and SIECA, quoted in Romúlo Caballeros Otero, Cepal Central America, *CEPAL Review*, No. 46, April 1992, p. 129.

Table 11:	Percentage of total manufactured exports of individual countries going to Central America:	
	1978	1987
Costa Rica	49.4	24.4
El Salvador	75.3	53.7
Guatemala	58.5	49.7
Honduras	22.2	11.0
Nicaragua	49.4	18.3
Unweighted average for for Central American countries	51.8	34.4

Source: UNIDO, Economic integration in Central America: An overview of implications for industrial modernization in the 1990s, Vienna 1993, Table 4.

Table 12:	Percentage of total manufacturing production exported to:			
	Central America		Rest of the world	
	1978	1987	1978	1987
Costa Rica	8.5	4.4	8.7	13.6
El Salvador	18.0	6.5	5.9	5.6
Guatemala	21.3	8.8	15.1	8.9
Honduras	5.3	1.1	18.6	8.9
Nicaragua	12.6	1.1	12.9	4.9
Unweighted average for Central America	13.1	4.4	12.2	8.4

Source: UNIDO, Economic integration in Central America: An overview of implications for industrial modernization in the 1990s, Vienna 1993, Table 4.

Table 13:: Shares of CACM countries in total intra-regional exports			
	1984	1986	1989
- Guatemala	39.7	46.0	40.1
- El Salvador	21.7	21.8	28.7
- Costa Rica	26.8	24.1	21.8
- Honduras	6.6	4.5	4.9
- Nicaragua	5.2	3.6	3.8
Total	100.0	100.0	100.0
Total intra-regional exports (in million US-dollar)	719.2	417.6	633.8

Source: The Economist Intelligence Unit, Central America - Country Profile, 1991/92, p. 9.

Table 14: Level of integration into the world economy: Trade flow balances - central American countries compared with small European countries (1989)

	Import cover (export/import ratio)	Trade dependency ratio (exports and imports in % of GDP)	Exports in percent of GDP
Costa Rica	78	59	25.9
El Salvador	54	30	10.5
Nicaragua	25	36	7.2
Guatemala	80	9	4.0
Honduras	110	49	25.7
Central America unweighted average		**36.6**	**14.7**
"Small" European countries			
Norway	114	53	28.2
Switzerland	88	63	29.5
Sweden	105	60	30.7
Netherlands	103	96	48.7
Denmark	105	61	31.2
Finland	95	47	22.9
Austria	84	56	25.6
Belgium	101	128	64.3
Average "small" European countries		**70.5**	**35.1**

Source: UNDP, Human Development Report 1992, New York 1992, p. 164 and p. 199.

Despite a massive decline in intra-regional trade in the first half of the 1980s, the relative weight of intra-regional trade in manufactured goods remained above average. Around 60 percent of non-traditional manufactured exports (manufactured goods excluding food, textiles and clothing) went in the late 1980s to the region as opposed to a share of less than 15 percent for total exports. (See Table 20 and Table 22). This gives a good indication of the importance of a functioning co-operation on the regional level for the manufacturing sector, in particular once internal trade restrictions are abolished.

One of the results of the analysis of existing intra-regional trade flows is that trade within the region is heavily underrepresented in subsectors which are important in terms of output and "overrepresented" in relative terms in those subsectors which are of minor importance in terms of production.[38] This results from the strong weight of gross output of food processing in the industrial structure of Central American countries. Food, beverages and tobacco account for around half of all manufacturing output in Central America but represent less than 15 percent of total intra-regional exports. Very similar resource endowments available for food processing in all countries and the lack of adequate warehouses in the tropical regions of Central America to store perishable food products for a prolonged period of time make progress towards major inter-regional specialization in food processing difficult. Even in industrialized countries, food products in general tend to be processed close to where they are harvested or produced. Nevertheless, like in other industrial sectors, there is a lot to gain from enlarged intra-industry trade in food processing, especially due to the elimination of still severe restrictions in respect to trade in raw material inputs. But this potential should be assessed with caution. Aggregate figures indeed seem to hide as much as they reveal. For food products targetted at local consumption, cooperation is not as negligible as aggregate figures on food trade suggest. Using the broad SITC categories (which do not distinguish between processed and unprocessed food items), one can see that if one excludes major export crops (coffee, banana, fruits) the share of interregional trade in food items is even slightly above the overall trade average (see Table 20, Table 23) even so it does not reach the level of interregional trade in manufacturing in general (See Table 22 and Table 21).

By contrast, intra-regional trade is strong in chemicals (subsector 35, i.e. chemicals, plastics, petroleum derivatives and rubber) which accounts for around 20 percent of total manufacturing production in Central America and for nearly 35 percent of total intra-regional exports. Other sectors which are strong in intra-regional trade and which should benefit from a stronger integration thrust are paper, textiles and "metal products, machinery and equipment".

[38] See UNIDO, *"Economic Integration in Central America: an overview of implications for industrial modernization in the 1990s"*, Vienna February 1993, p. 12.

Table 15: Manufacturing exports of Central American countries

	Manufactured exports in % of nominal GDP		Share of manufactured exports in total exports in	
	Average 1970-75	Average 1985-1987	Averages 1970-75	Averages 1985-87
Costa Rica	4.8	5.4	21.5	21.1
El Salvador	5.1	2.3	29.8	18.3
Guatemala	5.3	2.7	26.7	18.3
Honduras	1.5	0.8	6.9	3.9
Nicaragua	3.3	0.6	16.1	6.0
Central America (unweighted average)	**4.0**	2.4	**20.2**	**13.5**
Latin America	1.5	3.0	14.5	28.2

Sources: IDB based on United Nations Statistical Office, COMTRADE data base for trade, IDB for GDP data.

Table 16: Manufactured exports in percent of domestic production (1987) (CA= Central America; ROW = rest of world)

	Costa Rica		El Salvador		Guatemala		Honduras		Nicaragua		CACM (unweighted avg)	
	CA	ROW	CA	ROW	CA	ROW	CA	ROW	CA	ROW	CA	ROW
Food prod.	1.4	12.7	1.0	4.5	3.5	10.9	4.0	12.6	0.2	7.4	2.0	9.6
Text., cloth.	7.1	38.8	11.1	16.2	11.6	6.1	3.7	1.9	0.6	1.1	6.8	12.8
Wood, furnit.	2.4	9.9	0.9	1.8	10.9	10.7	2.6	27.5	1.1	2.2	3.6	10.4
Paper	2.2	3.2	33.8	3.7	7.8	0.5	0.4	2.7	2.6	0.1	9.4	2.0
Chem.	6.3	10.4	11.8	5.4	18.0	9.5	1.3	1.2	2.8	0.9	8.0	5.5
Non-metal. min. prod.	6.5	6.9	0.9	0.1	9.6	4.5	0.4	3.3	0.6	0.0	3.6	3.0
Basic metal industr	..	..	23.8	2.1	29.1	4.4	13.8	1.8	..	..	..	..
Metal prod.	5.7	10.2	16.3	3.0	12.3	2.4	1.3	0.1	2.5	0.6	7.6	3.3
Total manu-fact.	4.4	13.6	6.5	5.6	8.8	8.9	1.1	8.9	1.1	4.9	4.4	8.4

Source: UNIDO, "*Economic Integration in Central America: an overview of implications for industrial modernization in the 1990s*", Vienna 1993, Table A1 to A5.

Table 17: Net-manufactured exports (1987) in million dollars (exports less imports_ (CA= Central America; ROW = rest of world)

	Costa Rica		El Salvador		Guatemala		Honduras		Nicaragua		CACM
	CA	ROW	CA	ROW	CA	ROW	CA	ROW	CA	ROW	ROW
Food prod.	-2.9	84.9	-18.0	-22.6	18.3	29.4	-2.4	46.8	-1.4	16.1	154.6
Text., cloth.	-15.8	4.7	10.8	6.0	6.2	-39.7	1.5	-27.6	-7.8	-47.4	-104.0
Wood, furnit.	1.6	9.3	-8.7	-0.9	2.6	1.4	3.8	39.4	0.6	-5.2	44.0
Paper	-4.0	-88.4	13.6	-39.2	-7.3	-56.4	-4.4	-35.9	-0.1	-21.4	-241.3
Chem.	1.7	-376.2	-25	-272.1	42.9	-498.1	[illegible].0	-325.0	-14.4	-337.4	-1,808.8
Non-metal. min. prod.	3.8	-12.5	-8.9	-10.3	8.9	-14.7	-4.1	-11.6	-0.2	-9.6	-58.7
Basic metal industr	7.4	-87.3	-4.7	-53.3	-2.6	-77.8	-2.0	-40.7	1.6	-39.6	-298.7
Metal prod.	0.2	-396.2	-1.5	-270.9	-2.4	-407.2	-3.4	-247.8	-3.7	-248.1	-1,570.2
Other	1.5	-8.6	0.9	-3.9	0.6	-12.7	0.3	-18.1	-0.5	-3.8	-47.1
Total manu-fact.	1.5	-870.3	-41.5	-667.2	67.2	-1075.8	-30.7	-620.5	-25.9	-696.4	-3,930.2
Domestic pro-duction	2,489.6		1,836.0		2,274.5		1,837.2		1,277.9		9,715.2
Surplus/ deficit in % of domestic pro-duction	0.06	-34.96	-2.26	-36.34	2.95	-47.30	-1.67	-33.77	-2.03	-54.50	-40.5

Source: UNIDO, "*Economic Integration in Central America: an overview of implications for industrial modernization in the 1990s*", Vienna 1993, Table A1 to A5.

Table 18:: Structure of manufactured exports (1987, based on nominal US-$ data) in per cent (exports to all countries)

	Costa Rica	El Salvador	Guatemala	Hon-duras	Nicaragua	CACM	Latin America
Total manu-factured exports (mio. US-$)	736.7	526.6	673.4	336.8	162.1	2,435.6	65,491.0
of which in %							
Food	59.6	76.4	67.2	77.2	88.0	69.7	22.9
Beverages	0.8	0.2	0.1	0	0.4	0.3	0.7
Tobacco	0.1	0.1	0.1	2.0	0.4	0.3	0.1
Textiles	2.5	8.5	4.4	0.8	3.0	4.1	3.0
Wearing apparel	6.0	0.8	1.3	0.8	1.2	2.5	1.4
Leather	1.0	0.2	0	0.2	0	0.4	1.3
Footwear	0.6	2.0	0.8	0.1	0.1	0.8	2.0
Wood	1.0	0.1	1.3	12.4	0.5	2.4	1.2
Furniture	0.7	0.1	0.3	0.6	0.2	0.4	0.1
Paper	1.0	3.7	0.8	0.9	0	1.4	2.2
Print. & Publ.	0.4	0.4	0.2	0.1	0	0.3	0.3
Ind. Chem.	2.8	2.3	2.3	0.8	3.1	2.3	7.5
Other Chem.	4.3	5.0	11.5	0.8	0.1	5.7	1.3
Petrol. Refin.	1.6	1.6	0.1	0.5	0	0.9	12.1
Misc. petrol.	0.1	0.1	0	0	0	0	0.1
Rubber prod.	3.3	0.1	2.0	0.4	0	1.6	0.6
Plast. prod.	1.9	0.9	1.2	0.1	0.1	1.1	0.2
Pottery, China	0.2	0	0.4	0	0	0.2	0.2
Glass	1.3	0.1	1.5	0	0	0.9	0.5
Oth. non-metal min.	0.2	0.1	0.3	0.8	0	0.3	0.6
Iron & Steel	1.5	0.1	1.1	0.4	2.1	1.0	5.3
Non-ferr. metals	0.2	2.5	0.1	0.1	0.1	0.6	6.6
Metal prod.	1.6	1.1	1.2	0.5	0.4	1.2	1.0
Non-electr. machin.	1.1	0.6	0.5	0.1	0	0.6	4.1

Table 18:: **Structure of manufactured exports (1987, based on nominal US-$ data) in per cent (exports to all countries)**

	Costa Rica	El Salvador	Guatemala	Hon-duras	Nicaragua	CACM	Latin America
Electr. machin.	3.4	1.1	0.9	0.1	0	1.5	2.2
Transp. equipm.	0.2	0.1	0.2	0	0	0.1	10.0
Prof.& Scient. goods	0.3	0.1	0.1	0	0.4	0.1	0.4
Oth. manuft.	2.3	0.5	0.3	0.5	0	1.0	0.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: UNIDO Global Database 1992.

Table 19:: Structural changes in the export pattern of Central American countries
(in per cent of manufactured exports)

	Costa Rica		El Salvador		Guatemala		Honduras		Nicaragua	
Sectors	1975	1987	1975	1987	1975	1987	1975	1987	1975	1987
Total manufactured exports (mio. US-$) of which in %	316.4	736.7	422.2	526.6	486.9	673.4	172.2	336.8	228.5	162.1
Food	62.1	59.6	64.3	76.4	66.9	67.2	51.5	77.2	66.3	88.0
Beverages	0.1	0.8	0.1	0.2	0.1	0.1	0.1	0	0.1	0.4
Tobacco	0.2	0.0	0.1	0.1	0.3	0.1	1.1	2	0.7	0.4
Textiles	4.5	2.5	8.4	8.5	6.2	4.4	2.8	0.8	6.5	3
Wearing apparel	1.8	6.0	1.6	0.8	2.0	1.3	0.7	0.8	0.5	1.2
Leather	0.5	1.0	0.4	0.2	0.2	0	0.4	0.2	0.4	0
Footwear	0.5	0.6	1.7	2.0	1.3	0.8	0.1	0.1	1.2	0.1
Wood	0.9	1.0	0.1	0.1	0.8	1.3	23.2	12.4	3.2	0.5
Furniture	0.5	0.7	0.4	0.1	0.1	0.3	0.2	0.6	0.3	0.2
Paper	1.7	1.0	2.6	3.7	1.8	0.8	0.5	0.9	0.2	0
Print. & Publ.	0.2	0.4	1.0	0.4	0.3	0.2	0.1	0.1	0.1	0
Ind. Chem.	8.3	2.8	3.6	2.3	2.2	2.3	3.6	0.8	11	3.1
Other Chem.	4.8	4.3	3.7	5.0	6.8	11.5	3.0	0.8	1.5	0.1
Petrol. Refin.	0.1	1.6	1.2	1.6	0.1	0.1	7.1	0.5	0.5	0
Misc. petrol.	0.1	0.1	0.2	0.1	0.1	0	0.1	0	0.2	0
Rubber prod.	1.9	3.3	0.1	0.1	1.6	2	0.2	0.4	0.3	0
Plast. prod.	2.4	1.9	0.2	0.9	0.7	1.2	0.5	0.1	0.6	0.1
Pottery, China	0.1	0.2	0.1	0	0.1	0.4	0.1	0.1	0.9	0
Glass	0.1	1.3	0.1	0.1	3	1.5	0.1	0.1	0.1	0
Oth. non-metal min.	0.1	0.2	0.2	0.1	0.2	0.3	1.7	0.8	0.6	0
Iron & Steel	1.2	1.5	1.0	0.1	0.9	1.1	1.4	0.4	1.9	2.1
Non-ferr. metals	0.2	0.2	1.0	2.5	0.1	0.1	0.4	0.1	0.2	0.1
Metal prod.	2.5	1.6	1.3	1.1	1.1	1.2	1.1	0.5	1.8	0.4
Non-electr. mechin.	1.0	1.1	0.8	0.6	0.3	0.5	0.1	0.1	0.2	0

Table 19:: Structural changes in the export pattern of Central American countries (in per cent of manufactured exports)

	Costa Rica		El Salvador		Guatemala		Honduras		Nicaragua	
Electr. machin.	3.7	3.4	2.3	1.1	1.9	0.9	0.1	0.1	0.6	0
Transp. equipm.	0.1	0.2	0.5	0.1	0.5	0.2	0.1	0.1	0.1	0
Prof.& Scient. goods	0.1	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.4
Oth. manuft.	2.3	2.3	0.8	0.5	0.3	0.3	0.1	0.5	0.1	0
Concentration index[1]	11.40	10.87	11.82	14.07	12.29	12.43	10.20	14.34	12.28	16.2

Source: UNIDO Global Database 1992.

[1] measured by the standard deviation; the lower the number, the more diversified is the export structure; any reduction of the figure thus indicates an increase of diversification.

Table 20:	Exports of Central American countries - all goods (incl. agricultural, mining and manufactured products)							
	1965	1970	1975	1980	1985	1986	1987	1990
Total exports (mio US-$)	749.5	1,094.2	2,295.7	4,465.0	3,500.5	3,873.3	3,669.9	4,555.3
Index: 1980 = 100	16.8	24.5	51.4	100.0	78.4	86.8	82.2	102.0
in % of total exports going to:								
Central America	17.8	26.2	23.4	25.4	15.5	18.7	14.1	14.6
USA	37.0	34.7	32.5	35.7	37.5	43.9	42.1	43.0
Canada	0.5	0.5	0.9	0.4	1.3	1.4	1.6	3.4
Mexico	..	0.2	0.9	0.6	0.6	0.4	0.4	1.4
NAFTA	37.6	35.4	34.2	36.7	39.5	45.6	44.1	47.8
South America and Caribbean (= Latin America excl. Mexico and Central)	1.3	2.3	3.8	3.4	4.6	4.8	4.6	4.5
EEC (9)	23.4	22.2	24.0	23.0	21.6	25.3	23.7	21.5
Japan	14.0	7.6	7.0	3.1	5.2	5.1	3.6	3.2
Rest of the world	5.9	6.3	7.6	8.4	13.6	8.5	9.9	8.4
Source:	World Bank, Central America at a Crossroads, Washington, June 1992, Table 4.							

Table 21: Clothing and textiles exports of Central American countries

	1965	1970	1975	1980	1985	1986	1987
Exports of textiles and clothing (million $)	24.0	68.1	119.3	259.2	113.5	107.1	146.3
Index: 1980 = 100	9.3	26.3	46.0	100.0	43.8	41.3	56.4
Exports of all goods (million $)	749.5	1,094.2	2,295.7	4,465.0	3,500.5	3,873.3	3,669.9
Share of textiles and clothing in total exports	3.2	6.2	5.2	5.8	3.2	2.8	4.0
Textiles and clothing exports going to (in %):							
Central America	98.6	96.5	84.9	85.7	55.9	35.1	36.5
USA	0.7	2.0	8.0	5.9	30.9	53.2	55.0
Canada	0.0	0.0	1.6	0.1	1.4	1.7	1.8
Mexico	0.0	0.1	0.1	0.1	0.1	0.1	0.2
NAFTA	0.7	2.1	9.7	6.1	32.4	55.0	57.0
South America and Caribbean (= Latin America excl. Mexico and Central)	0.6	0.8	1.5	4.2	5.9	6.6	3.2
EEC (9)	0.0	0.3	2.5	3.6	5.4	1.9	3.1
Japan	0.0	0.0	0.2	0.1	0.1	0.0	0.0
Rest of the world	0.1	0.3	1.2	0.3	0.3	1.4	0.2

Source: World Bank, Central America at a Crossroads, Washington, June 1992, Table 4.

Table 22: "Non-traditional manufactured exports" of Central American countries (manufactured goods excluding clothing and textiles and excluding food items; SITC 5+6-65-68+8-84+9-971 Rev. 2)

	1965	1970	1975	1980	1985	1986	1987
Non-textiles, non food exports (million $))	63.5	165.9	398.5	867.2	517.6	461.1	545.9
Index: 1980 = 100	7.3	19.1	46.0	100.0	59.7	53.2	63.0
Exports of all goods (million $)	749.5	1,094.2	2,295.7	4,465.0	3,500.5	3,873.3	3,669.9
Share of non-traditional manufactures in total exports	8.5	15.2	17.4	19.4	14.8	11.9	14.9
non-traditional manufactured exports going to (in %):							
Central America	90.6	89.4	80.4	77.1	68.9	59.2	59.1
USA	3.5	3.0	3.5	8.3	11.7	18.2	18.1
Canada	0.1	0.0	0.1	0.1	1.1	0.1	0.4
Mexico	0.1	0.5	4.2	1.8	1.2	1.8	0.5
NAFTA	3.7	3.5	7.8	10.2	14.0	20.1	19.0
South America and Caribbean (= Latin America excl. Mexico and Central)	3.2	5.3	8.4	10.1	15.5	18.1	18.9
EEC (9)	0.7	0.6	1.1	2.0	1.2	1.3	1.5
Japan	0.0	0.3	0.1	0.1	0.0	0.1	0.1
Rest of the world	1.8	0.9	2.2	0.5	0.4	1.2	1.4

Source: World Bank, Central America at a Crossroads, Washington, June 1992, Table 4.

Table 23: Food exports of Central American countries (processed and unprocessed); total value of exports (in million US-dollar) and share going to Central America (in %)

		1965	1970	1975	1980	1985	1986	1987
Fruits and nuts	Value in mio $	57.4	156.5	232.3	535.1	586.4	627.4	752.7
	Index 1980 = 100	10.7	29.3	43.4	100.0	109.6	117.3	140.7
	Share going to CACM in %	1.8	1.4	0.9	3.1	1.1	1.3	1.0
Bananas	Value in mio $	85.9	154.6	229.1	508.4	563.2	594.5	726.5
	Index 1980 = 100	16.9	30.4	45.1	100.0	110.8	116.9	142.9
	Share going to CACM in %	0.5	0.0	0.2	0.3	0.0	0.0	0.0
Coffee	Value in mio $	283.8	347.3	543.8	1,365.8	1,326.2	1,343.5	1,222.2
	Index 1980 = 100	20.8	25.4	39.8	100.0	97.1	98.4	89.5
	Share going to CACM in %	0.2	0.1	0.1	0.0	0.0	0.1	0.0
Other food products	Value in mio $	105.2	205.8	597.7	807.0	529.4	576.5	591.6
	Index 1980 = 100	13.0	25.5	74.1	100.0	65.6	71.4	73.3
	Share going to CACM in %	38.6	29.7	14.8	20.5	14.0	12.2	16.9
Memo:	Share of all exports going to CACM	17.8	26.2	23.4	25.4	15.5	10.7	14.1

Source: World Bank, Central America at a Crossroads, Washington, June 1992, Table 4.

C) Ways to foster industrial restructuring and regional integration

The reports contain a number of proposals to strengthen the process towards industrial modernisation and regional integration. In the following a discussion some of them will be highlighted.

An important precondition for a successful reorganisation of industry is to establish transparent and harmonized rules for competition in the regional market. So far, the lack of such rules on the regional level has led to a certain degree of uncertainty which is likely in a number of sectors to have unnessarily prolonged the de-industrialization process of the 1980s.[59] Successful industrial and commercial policies do not only have to tackle questions of tariffs and rules that govern foreign trade (such as "rules of origin") but also question of technical standards and norms, the certification and control of standards as well as general competition rules including antidumping rules[60], anti-trust legislation, legislation concerning mergers and acquisitions, rules concerning the rights of consumers, including rules of what has to be written on etiquettes and what is allowed to be sold on the regional market taking into consideration health and safety requirements of goods sold.[61] An important role in the respect also plays the subsidization of enterprises. In principle government interference in the markets by granting enterprises subsidies cannot continue except in special cases.[62] Some enterprises may be deemed to play a strategic role on social or other grounds. The creation of mechanisms or institutions on the regional level - perhaps taking some of the EC institutions as a model - may be considered as a way to handle these exceptional cases in non-adversarial ways. If subsidies have to be granted, their potential distorting impact on competition on the regional level should be minimized.

Regionally integrating and liberalizing the economies and reducing state interference in respect to prices and ownership - which is a precondition for successful attempts to modernize the industrial sector in Central American countries -, is not equivalent with calling for a full scale "laissez faire approach" which eventually may lead to less competition instead of more. Competition which should lead to progress for the people in the region and to increases in their living standards needs strong governments to secure markets to function efficiently. Thus, in the EC for instance competition policy played from the very early start a decisive role. Early experiences in MERCOSUR also clearly showed that mere liberalization and abolition of trade barriers, while leaving the private sector completely alone to adjust, can have negative side effects and even be counter-productive. Industry immediately started to negotiate private cross-border sectoral agreements that had an built-in bias towards restrictive trade practices and trade diversion. Thus eventually governments had not other choice but to interfere in those negotiations at the sub-sectoral level (and take a clear stand on questions such as local content requirements, rules of origin etc).[63]

The lesson for Central American governments is therefore, that regional integration and liberalization of intra-regional trade has to go hand in hand with governments - at the regional level - taking initiative to clearly define the rules of the game. At the same time the reports emphasized that governments do not have a direct role to play in the restructuring process of enterprises, neither on the national nor on the regional level. Restructuring of enterprises remains a task to be fulfilled by industry

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[59] UNIDO, "*Competividad de la agroindustria de Centroamerica*", February 1993, p. 18.

[60] UNIDO, "Industrial Modernization in the Central American Textile Industry: The potential for regional cooperation", February 1993, p. 40.

[61] UNIDO, "*Competividad de la agroindustria de Centroamerica*", February 1993, p. 18.

[62] UNIDO, "*Politicas para la reestructuracion industrial de centroamerica*", Vienna 1993, p. 17.

[63] See UNIDO, "*Trade integration and industrial restructuring, the case of Mercosur*", Vienna 1993, p. 13.

itself. Assistance should be mainly given through private industry organizations, including Chambers of Commerce.[64]

Other industrial policy proposals consist of identifing nuclei to promote comparative advantages at sectoral levels, mainly making use and assisting institutions such as chambers of commerce or other associations of tra'e and industry. For R&D, existing laboratories are other potential "nuclei" for further development and specialization on the regional level.[65] Such "nuclei" on a subsectoral level may be identified in respect to joint export promotion activities, total quality management, technical assistance, technology management, research and development activities at the regional level, joint techno-economic intelligence activities[66] to gain and make use of information concerning possibilities to increase competitiveness at the enterprise level, etc.[67] Such institutions should also fulfill the role of information exchange as the project papers suggest that there is still little information available on the potential for complementarity and specialization both within the countries and within subsectors in various countries of the region.[68] The basic idea is to strengthen existing (private) institutions at the subsectoral level in the region to supply industry with cost effective services for the whole of Central America. In the initial phase these nuclei will have to be subsidized. They will have to offer their services free or at sensibly reduced prices in order for the business community to get acquainted and learn to make best use of services available. But the level of subsidies should thereafter be continously reduced with private industry taking progressively over the cost for the operations, which should also allow for the seizing of such operations in case demand is not sufficiently strong. This is not only important to reduce the financial burden for governments but it also to give right incentives to those services that are really in demand and prevent that industry in the end - just because services are free of charge - is supplied with services it does not really need (or can make efficient use of) while being deprived of services which are necessary to guarantee a prosperous development of the firm.[69]

Among the greatest needs in all sectors one finds training and upgrading of the human resource base. For nearly all sectors and countries one finds already some type of training programmes. However, in many cases these programs do not fulfill the expectations of industry concerned. First of all a stronger participation of industry in the establishment and running of such programme should help to adapt actual training to the actual needs of industry. Furthermore, there is an urgent need to technologically upgrade

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[64] In most countries the trends are already going that way. Costa Rica, for instance, has already abandoned its experiments with mixed private-public sector institutions and handed over the industrial reconversion programme to the Chamber of Commerce. In El Salvador, the ministry of industry has de facto handed over its industrial reconversion programme to the Association of Industrialists of El Salvador. In Guatemala, the industrial reconversion programme already started under the leadership of the Chamber of Industry. Honduras and Nicaragua have already announced plans also to follow that model. (UNIDO, "*Politicas para la reestructuracion industrial de Centroamerica*", February 1993, p. 18.)

[65] UNIDO, "*Modernisacion del sector metalmecanico centroamericano: potencial de cooperacion, necesidades y limitaciones*", February 1993, p. 47.

[66] In this context UNIDO's INTELL project may be an interesting starting point. See UNIDO, *Competividad de l Agroindustria de Centroamerica*, February 1993, pp. 54-55.

[67] For more details concerning this proposal see UNIDO, "*Competitividad de la agroindustria de Centroamerica*", February 1993, pp. 50-60.

[68] UNIDO, "Industrial Modernization in the Central American Textile Industry: The potential for regional cooperation", February 1993, p. 38.

[69] For more details concerning this proposal see UNIDO, "*Competitividad de la agroindustria de Centroamerica*", February 1993, pp. 50-60.

existing training centers.[70] In this field the international community should assist the countries of Central America. Again, a regional approach could save costs and extend the overall quality and offer of the training opportunities available with specific skills being taught in different centers in Central America. The same applies to specialization in technical fields at university levels.[71] Special emphasis should be given to training for "Total Quality Management" and "Technolgical Management".[72]

Both regional integration and restructuring of the industrial sector can be fostered through a massive strengthening of support given to the subcontracting exchange ("bolsa de subcontratación") on the regional level[73] which has been set up by FEDEPRICAP (Federation of Private Industry of Central American and Panama). Indeed, a successful implementation of that idea into general practice might be one key to a fast and successful rehabilitation of industry in Central America given the global trends towards flexible specialization which put a premium on successful intra-firm cooperation. A major problem with the successful implementation and transformation of this idea into practice so far has been a lack of tradition of cooperation and of trust between firms, both at the national and the regional level.[74] The existence of deep rooted suspicision of competitors and a general unwillingness to share experience have been clearly revealed in interviews with managers.[75] In addition, there is a major problem concerning the perceived quality and consistency of products from suppliers from the region.[76] This problem exists both between firms within individual Central American countries and is even more pronounced between firms of different countries. For instance, firms in general are still very reluctant to join together to supply large export orders because they individually fear that their potential partners would not be able to guarantee the quality of their contribution. Instead, firms indicated their willingness - if necessary - to cooperate with firms outside Central America, due to the belief that imports from outside the subregion (always) have better quality than similar products products within Central America.[77] In order to change this mental barrier towards cooperation a programme of seminars should be organized acquaint managers on international trends and enhance their awareness of the need for such cooperation[78] and to establish informal contacts among players in the regional market. So far, enterprises seem to be only relatively well connected with each other on the national level through trade associations, family ties and personal

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[70] See for example UNIDO, "Modernisacion del sector metalmecanico centroamericano: potencial de cooperacion, necesidades y limitaciones", February 1993, p. 43.

[71] UNIDO, "*Modernisacion del sector metalmecanico centroamericano: potencial de cooperacion, necesidades y limitaciones*", February 1993, p. 45.

[72] A pilot project in this respect has already been started in Costa Rica under the title of GEGESTI (and with support of UNIDO) which could be expanded to cover all Central American countries. (See UNIDO, *Competitividad de la Agroindustria de Centroamerica*, February 1993, p. 55.)

[73] UNIDO, "Modernisacion del sector metalmecanico centroamericano: potencial de cooperacion, necesidades y limitaciones", February 1993, p. 19.

[74] In this cultural context one can also see the "golden rule" applied by Central American industrialists which asks entrepreneurs to "avoid partners" wherever possible. (UNIDO, *Competividad de la agroindustria de Centroamerica*, Vienna 1993, p. 52.).

[75] UNIDO, "*Industrial Modernization in the Central American Textile Industry: The potential for regional cooperation*", February 1993, p. 36.

[76] UNIDO, *Modernizacion del sector metalmecanico centroamericano: potencial de cooperacion, necesidades y limitaciones*, February 1993, p. 5.

[77] UNIDO, "*Industrial Modernization in the Central American Textile Industry: The potential for regional cooperation*", February 1993, p. 36.

[78] UNIDO, "*Industrial Modernization in the Central American Textile Industry: The potential for regional cooperation*", February 1993, p. 38.

friendships, creating both formal and informal information channels; however similar links on the subregional level range from weak to non-existent.

Finally, it has been made explicit that in nearly all central American countries bureaucratic delays to obtain the necessary permits to open up new businesses are rather the rule than the exception. The time and costs connected with the registration of new enterprises is excessive. Although in this respect a regional approach is not necessary, it has to be made clear that this is 'regional' problem to be addressed by all authorities in Central America.[79]

D) Hurdles to regional integration

Although having strongly emphasized the overall advantages of a regional appraoch for Central America, it does not automatically follow that each sector in each country is a potential winner.

Regional integration should lead to more competition, thus compelling firms to upgrade their efficiency and expand the scope for intra-industry specialization. The increase of competition may however endanger the survival of firms and put at risk entire industrial subsectors in individual countries. The idea of a successful regionally integrated Central American market is one of increased intra-industry specialization with enough companies in any small market segment to guarantee a competitive environment, but not one of too strong "inter-industry" specialization which would lead to a major reallocation of whole industrial subsectors in the region and thus to a concentration of whole industrial subsectors in one or the other country.

Although threats of inter-industry specialization leading to the failure of whole industrial subsectors in individual countries cannot be completely ruled out, they seem to have been more "real" in the past. In the past such threats had to be taken seriously especially due to the drive of companies to produce everything by themselves while engaging in vertical integration efforts. Modern forms of organization tend to avoid emphases on vertical integration which often prevents achieving low-cost production systems. Many large companies in developed countries have already changed to what is called "lean production" systems, concentrating their activities on those areas where they have a strong competitive advantage while subcontracting out other tasks to specialized firms. A precondition for such systems to work is the existence of both large enough markets as well as firms ready to take up the challenge to fight for the new emerging market niches. In other words, with the emergence of ever more complex industrial systems under the conditions of free markets, systems which are characterized by an ever larger number of intermediate stages and specialized tasks to be fulfilled, one can hardly assume that for all of those different stages and tasks along any production chain, one country in Central America would always offer the most cost effective preconditions.

Indeed, the investigations undertaken for that project clearly show for each subsector quite significant differences in the factor endowment, the quality of inputs and factor prices in the different countries of Central America. This is confirmed by UNDP and World Bank statistics. (See Table 24 and Table 27). Central American countries differ from each other significantly in respect to salaries, the level of skills available for manufacturing enterprises, energy costs, capital costs as well as the quality and prices of various material inputs which indeed should open for each country specific niches to operate efficiently in a common Central American market.[80]

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[79] UNIDO, *Politicas para la reestructuracion industrial de Centroamerica*, Vienna 1993, p. 17.

[80] See UNIDO, "Industrial modernization in the central American textile industry: the potential for regional cooperation", Vienna 1993, pp. 4-27.

See UNIDO, "Modernizacion del sector metalmecanico centroamericano: potencial de cooperacion, necesidades y limitaciones", Vienna 1993, pp. 13-16.

In terms of electricity prices (and energy prices in general) Costa Rica and El Salvador are within Central America the two most competitive countries in contrast to Honduras and Guatemala. However, not only the actual price of electricity but also the reliability of electricity supply is an important factor in determining a country's attractiveness for industry. Costa Rica is in this respect by far the most advanced country in the region.

Costa Rica is also the country with by far the highest salaries and wages in the region. However, in return it is also the country with the best developed human resource base in the region. In other words, any integration of the markets in Central America is likely to lead to a loss of low-paid/low skill/low productivity jobs in Costa Rica in favour of neighbouring countries. On the other hand, Costa Rica would benefit from the integration for all kinds of R&D and technologically more advanced production activities in the region, where it has a comparative advantage.[81] It is of course questionable whether a concentration of high-tech activities in Costa Rica is or would be acceptable to other countries in the region. A decentralization of technology activities, including the foundation of regional research institutes in other Central American countries and/or their spread over various Central American countries would thus probably be a politically more advisable approach, irrespective of existing comparative advantages for Costa Rica in this area.

One of the crucial elements in respect to restructuring is the availability of funds at reasonable costs. Interviews with managers in all investigated subsectors reveal that the lack of cheap and easily available finance was generally considered the most severe hurdle towards successful restructuring.

Caution is however needed when dealing with capital cost data. First of all enterprises need both the availability of capital (easy access to loans and to capital markets) and reasonably low interest rates to make investment profitable. Very low or even negative interest rates, however, are no real help for enterprises if this takes place under conditions of severe credit rationing, and even worse, if it relies on centrally planned capital allocation mechanisms. This indeed seems to have been the case in various Central American countries in the past.

High nominal interest rates do not necessarily mean high capital costs and are not enough of a proof to justify calls for a reduction of interest rates. The only correct measure for the actual burden of capital costs for industrial enterprises are "real interest rates", i.e. nominal interest rates less inflation.[82] Those can only be determined ex-post. As the countries of Central America - with the exception of El Salvador - successfully managed to reduce their respective inflation rates during 1992, real interest rates significantly increased for industry. This left the region with real interest rates of around 9 percent on

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See UNIDO, "Competitividad de la agroindustria de Centroamerica, Vienna 1993, pp. 5-46.

See UNIDO, "Modernizacion industrial en Centroamerica: el subsector cuero y calzado, Vienna 1993.

[81] See also UNIDO, *"Modernisacion del sector metalmecanico centroamericano: Potencial de cooperacion, ne :sidades y limitaciones"*, February 1993, p. 9 and p. 45.

[82] Given a price increase (inflation rate) "p" and a nominal interest rate "i", the real interest rates should be correctly calculated as $r=((100+i)/(100+p)*100)-100$. In order to obtain a mere idea of magnitudes of the levels of real interest rates, one can simply deduct the inflation rate from the nominal interest rates, i.e. $r^{*}=i-p$. The following calculations in the tables use the (simple) latter approach.

Nominal interest rates as presented in Table 24 were those prevailing for industry in mid 1992. In order to arrive at the real interest rates, the inflation rates based upon (the only available) December to December figures of the consumer price index based on information provided by CEPAL were calculated. (This means that the calculated real interest rates for industry in 1992 are likely upwards biassed).

average, which are rather high by international standards.[23] Especially enterprises in Honduras seem to have been hit by high real interest rates in 1992. In contrast, enterprises in El Salvador should have been easily able to repay their debts given the existence of negative real interest rates.

Results differ slightly if based on IMF data. According to this set of data real interest rates were in Central America on average slightly less than 7 percent in 1992 after just 1 percent in 1991 and negative values for 1990. Against this background it becomes indeed understandable that the "high cost of capital" was such a cause of concern in nearly all enterprises visited in 1992. The highest real interest rates in 1992 were registered in Honduras, followed by Guatemala and Costa Rica. El Salvador showed slightly negative real interest rates. (For Nicaragua no data have been available). Over the whole 1986-1992 period, however, it is interesting to note that by far the highest real interest rates had to be borne by companies in Costa Rica (!), followed at some distance by companies from Honduras. Companies in El Salvador and Guatemala on the other hand enjoyed - on average - even negative real interest rates.

An interesting phenomenon in this context was that Costa Rica - despite extremely high real interest rates - enjoyed by far the highest investment rates in the region (24 percent of GDP in 1989 as compared to just 13-16 percent of GDP in the other Central American countries). (See Table 26). Apart from social stability, a further factor behind that positive result seems to have been Costa Rica's high saving ratio (21 percent of GDP) which was favoured by such highly attractive interest rates. (High real interest rates also prevented capital flight in contrast to other Central American countries in the 1980s). In El Salvador or Guatemala where negative interest rates prevailed, the saving the savings ratio was significantly lower (between 6 and 8 percent) than in Costa Rica. In between the two extremes of Costa Rica and El Salvador was Honduras. Honduras had compared with Costa Rica both lower interest rates and savings ratios while compared with El Salvador both interest rates and savings ratios were higher. The domestic financing gaps for investment (savings rate less investment rate) had a clear positive correlation with real interest rates. They were small in Costa Rica, slightly larger in Honduras, high in Guatemala and particularly large in El Salvador. As over a prolonged period of time, in no country major deviations between the investment and savings ratios can be sustained there remains certainly an argument in favor of positive real interest rates in order to create the financial basis to enable investment, even if this may not be recognized by industry. Data suggest that the easy availability and the easy access to funds seems to be ultimately of more importance to industry than the actual costs in terms of interest rates. Calls made for major reductions in the level of interest rates are certainly understandable and justified from the perspective of specific industries which have to bear the burden of high financial costs, but extreme care has to be taken in order not to frighten off private depositors by subsequent declines in (real) interest rates which could do industry in the long run more harm than good. Any proposed interference in the interest setting mechanism would have to be done - if regarded as unavoidable in order not to endanger the future a whole subsector - with utmost care which might call rather for investment subsidies instead of administered reductions in the level of interest rates. Furthermore, the more the markets of Central America become integrated, the harder and the less successful are likely to be measures taken on the national level to interfere in a market determined interest setting mechanism. Thus, any (unavoidable) interference will have to be done as a co-ordinated action on the regional level.

[23] Excluded from that analysis was Nicaragua due to lack of data available.

Table 24:	Factor prices in Central American countries in 1992 (in US-$, unless otherwise stated)					
	Costa Rica	El Salvador	Guatemala	Nicaragua	Honduras	Central America (un-weighted average)
Minimum salary[a]	**153**	**84**	**30**	**50**	**40**	**71.4**
Electricity (per KWh in $)	**0.072**	**0.069**	**0.102**	..	**0.11**	**0.09**
Nominal interest rates for industry	**26%-32%**	**14%-15%**	**20%-21%**	..	**22%-26%**	**22%**
Inflation 1991	25.3	9.8	10.2	775.4	21.4	16.7[b]
Inflation 1992	18.1	16.8	11.6	2.2	5.4	13.0
Real interest rates 1992 for industry	**8%-14%**	**-2.8% to -1.8%**	**10%-11%**	..	**17%-21%**	**9%**

Source: UNIDO, *Modernizacion del sector metalmecanico centroamericano: Potencial de cooperacion, necesidades y limitaciones*, Vienna 1993; inflation data: based on consumer price index; CEPAL, *Notas sobre la economia y el desarrollo*, December 1992, p. 43.

a/ In all countries additional charges amount to about 1/3 of the salaries.
b/ excluding Nicaragua

Table 25: Real interest rates in Central American countries

Country		1986	1987	1988	1989	1990	1991	1992	1986-1992 avg. **)
Costa Rica	Lending rate	21.8	23.8	28.7	29.2	32.6	38.9	28.5	29.1
	Consumer price index (1985=0)	111.8	130.7	157.9	184.0	219.0	281.9	343.3	
	Inflation	11.8	16.9	20.8	16.5	19.0	28.7	21.8	19.4
	Real interest*)	10.0	6.9	7.9	12.7	13.6	10.2	6.7	9.7
El Salvador	Lending rate	14.0	17.0	17.0	18.5	21.2	19.7	16.4	17.7
	Consumer price index (1985=0)	131.9	164.7	197.3	232.1	287.8	329.2	..	
	Inflation	31.9	24.9	19.8	17.6	24.0	14.4	16.8[a]	21.3
	Real interest rate *)	-17.9	-7.9	-2.8	0.9	-2.8	5.3	-0.4	-3.6
Guatemala	Lending rate	13.2	14.0	15.2	16.0	23.3	34.1	19.4	19.3
	Consumer price index (1985=0)	136.9	153.8	170.5	189.9	268.1	357.1	..	
	Inflation	36.9	12.3	10.9	11.4	41.2	33.2	11.6[a]	22.5
	Real interest rate *)	-23.7	1.7	4.3	4.6	-17.9	0.9	7.8	-3.2
Honduras	Lending rate	16.1	15.5	15.4	15.4	17.1	21.9	21.6	17.6
	Consumer price index (1985=0)	104.4	106.9	111.8	122.8	151.4	202.8	220.7	
	Inflation	4.4	2.4	4.6	9.8	23.3	34.0	8.8	12.5
	Real interest rate *)	11.7	13.1	10.8	5.6	-6.2	-12.1	12.8	5.1
Nicaragua	Inflation	747	1,347	33,547	1,689	13,490	775	2.2	..
Central America	Lending rate	16.3	17.6	19.1	19.8	23.6	28.7	21.5	20.9
	Inflation	21.3	14.1	14.0	13.8	26.9	27.6	14.8	18.9
	Real interest rate *)	-5.0	3.5	5.1	6.0	-3.3	1.1	6.7	2.0

Source: IMF, International Financial Statistics, March 1993.
a/ CEPAL, Notas sobre la economia y el desarrollo, December 1992, p. 43.

*) simplified calculation: lending rate less inflation rate
**) simplified calculation: arithmetic average
***) excluding Nicaragua

Table 26: Relationship between interest rates and investment and savings in Central American countries

	Real interest rates (average 1986-1992)	Real interest rates 1989	Gross domestic investment in % of GDP (1989)	Gross domestic saving in % of GDP (1989)	Financing gap of investment in % of GDP
Costa Rica	9.7	12.7	24	21	3
El Salvador	-3.6	0.9	16	6	10
Guatemala	-3.2	4.6	14	8	6
Honduras	5.1	5.6	13	11	2
Central America (avg.)			17	12	5
Developing countries			25	26	-1
Industrial countries			23	23	0

Sources: UNDP, Human Development Report 1992, p. 175; IMF, International Financial Statistics, March 1993, CEPAL, Notas sobre la economia y el desarrollo, December 1992, p. 43.

Table 27: Factor quality (human resources/technological level) 1989/90

	Costa Rica	El Salvador	Guatemala	Nicaragua	Honduras	Central America (unweighted average)	Developing countries	Industrialized countries
Mean years of schooling	5.7	4.1	4.1	4.3	3.9		3.7	10.0
Adult literacy rate	93	73	55	..	73	74	64	98
In percent of relevant age group:								
Primary net enrolment 1988/89	86	70	..	73	91	80	88	close to 100
Secondary education 1988/89	41	26	21	37	32	31	41	85
Tertiary graduates in % of age group (1986-88)	2.7	1.7	..	0.9	0.5	1.5	1.2	9.4
Science graduates as % of total graduates	24	28	..	38	38	32	31	36
Scientists and technicians per 1,000 people	..	1.4	1.4	..	1.9	1.6	8.9	81.0
Public expenditure on education in % of GNP	4.4	2.0	1.8	3.9	4.9	3.4	2.2	5.9
Share of higher education in total education expenditure (in %)	39.9	..	..	16.0	20.7	25.5	17.2	20.0
Communications:								
Daily newspaper circulation (North = 100)	26	13	4	..	12	14	13	100
Telephones: (North = 100)	31	6	3	..	3	11	6	100

Sources: UNDP, Human Development Report 1992, New York 1992 and World Bank, World Development Report 1992, Washington 1992, p. 274.

Practical hurdles on the way towards regional integration result from a number of non-tariff trade barriers that still persist although some progress in dismantelling those restrictions since the mid 1980s has already been accomplished.

Nevertheless, especially quantitative restrictions have become a highly distorting element in regional trade (as well as intra-regional trade). The case of Guatemala for example showed that as of mid 1992 a significant number of both industrial and non-industrial goods were still subject to special licences ("licencias previas") or even outright prohibitions to import. Such quantitative restrictions affect the textile industry, pharmaceuticals, pesticides, electrical and electronic equipment (including radios), metalic products etc.[84] Restrictions of this kind are among the first to be abolished if the aim is to foster regional links.

By far the most important non-tariff trade barriers are administrative delays and red tape in intra-regional trade activities. A streamlining of procedures is urgently needed.

Other trade barriers include the so-called surcharges ("sobretasas") which officially have been raised for fiscal reasons only but which act exactly like tariffs. In some but not all countries such surcharges excluded imports from other Central American countries.[85] However, those surcharges are progressively being phased out. They have already been reduced up to 1992 to just between 3 and 10 percent, and should thus not be any serious barrier to trade in the future.[86]

In a some Central American countries one also finds specific consumption taxes which can go over 100 percent (Nicaragua); however, in most cases they do not surpass 30 percent[87]. Although these consumption taxes are officially not directly linked to imports it can be claimed that they de facto fulfill a similar role as import duties, if they are introduced on products which are not produced in the country. In how far existing consumption taxes indeed act as an impediment to regional trade is not clear and still needs further investigations.

Furthermore, restraints to regional trade are also found in foreign exchange legislations. Exporting companies in Central America are often forced by their national authorities to request their foreign clients to pay their bills within a very short period of time after delivery (on average approximately within one month).[88] In addition, in some countries (e.g. Guatemala) rules were established that deposits have to be made in advance with the national banks with the subsequent loss in interests by the importing company. Of far greater importance is and will remain the actual foreign exchange policies pursued by individual countries in Central America. With open markets, small changes in the relative value of currencies vis a vis other countries in Central America can dramatically increase or decrease the "competitiveness" at the expense or to the benefit of regional trading partners. A coordinated policy on

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[84] UNIDO, Estructura de proteccion e incentivos a la industrializacion en Centroamerica, February 1993, p. 27.

[85] In Honduras for example, such surchages were not raised on imports from other Central American countries. See UNIDO, *Estructura de proteccion e incentivos a la industrializaion en Centroamerica*, February 1993, p. 16.

[86] UNIDO, *Estructura de proteccion e incentivos a la industrializacion en Centroamerica*, February 1993, p. 16.

[87] In Honduras consumer taxes range from 10 percent (alcohol, perfumes, toys, electrical gadgets, etc.) to 20 and 30 percent for cars with high cylinders. In Costa Rica consumer taxes range from 0 to 75 percent depending on the degree of necessity ("basic needs concept"), in Nicaragua they range from 15 percent to 110 percent (cars). The highest rates in all countries are for cars, oil, beer, wine, alcohol and tobacco. (UNIDO, *Estructura de proteccion e incentivos a la industrializacion en Centroamerica*), Vienna 1993, p. 21.)

[88] Guatemala: 45 days, El Salvador 40 days, Honduras: depending on the product between 30 and 120 days; Nicaragua: 5 days, Costa Rica: depending on the good between 30 and 360 days. UNIDO, *Estructura de proteccion e incentivos a la industrializacion*, February 1993, p. 22.

the regional level which helps to maintain the competitiveness of Central American products vis a vis the rest of the world while - if necessary - carefully readjusting internal Central American currencies to take account of differences in inflation rates is of greatest importance.

Problems have also been identified in respect to exports. Not only in respect to imports but also for a number of export items Central American countries (such as Guatemala and Honduras) in the past introduced quantitative restrictions or licences which are still in use, in particular for raw materials (such as wood and meat) or other agricultural products (in particular sugar).[89] Scrap as an input for the iron and steel industry has been another product category for which trade has been restricted on the export side.[90] Furthermore, export duties on traditional export items were often used for (mainly) fiscal reasons in the past. These export duties have already lost significantly in importance or have been even abolished. (They however tended in any case to affect more extra-regional than intra-regional trade). A (small) problem still poses the promotion of non-traditional extra-regional exports by CAT systems ("certificado de abono tributario") which in one way or another exist in all Central American Countries.[91] The objective of such systems was to compensate for the existing anti-export bias by subsidizing extra-regional exports. Formulated in a different way, this was equivalent to a government policy aiming at redirecting non-traditional exports away from markets in Central America to markets overseas. However, the decision has already been made in a number of Central American countries (e.g. Costa Rica and Nicaragua) to phase out these specific promotion schemes for extra-regional exports by 1997[92], parallel to the reduction of the anti-export bias by means of reduction of import duties and the depreciation of currencies which already has taken place. Similar problems like those resulting from the drawback systems (such as the CAT) were also identified in respect to the maquiladora system ("free zones"). Such mechanisms have played and play an important role to boost extra-regional exports. However, at the same time they often prevent the creation of linkages to the domestic economy and in even more so the creation of linkages to the region as a whole. Without endangering the operations of such overall successfully working schemes, attempts should be made, nevertheless, to better integrate the local Central American economies to significantly increase the supplies to these free zones with inputs from Central American countries other than just unskilled labour.

E) Trade-offs for Central American countries and industries engaging in a regional integration process ("analysis of competitiveness of major industrial subsectors")

Although there are good reasons to expect regional integration to lead to more intra-industry specialization and intra-industry trade instead of mere inter-industry or inter-sectoral specialization - as was argued in the previous chapter, it would not reflect reality to assume that eventually all industrial sectors in all Central American countries will be winners due to the integration process. Normally one can assume that competitive sectors will be to gain most from regional integration while non-competitive sectors are doomed to lose.[93] Thus, in this chapter the competitiveness of various sectors will be discussed in order to obtain some indications on the possible implications of regional integration.

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[89] See UNIDO, *Modernizacion del sector industrial en Centroamerica: hacia la formulacion de un programa de accion*, February 1993, p. 47.

[90] UNIDO, *Modernizacion del sector metalmecanico centroamericano: Potencial de cooperacion, necesidades y limitaciones*, February 1993, p. 1.

[91] See UNIDO, *Modernizacion del sector industrial en Centroamerica: hacia la formulacion de un programa de accion*, February 1993, p. 47.

[92] Guatemala: 45 days, El Salvador 40 days, Honduras: depending on the product between 30 and 120 days; Nicaragua: 5 days, Costa Rica: depending on the good between 30 and 360 days. UNIDO, *Estructura de proteccion e incentivos a la industrializacion*, February 1993, p. 22.

[93] See UNIDO, *Economic Integration in Central America: An overview of implications for industrial modernization in the 1990s*, Vienna 1993, p. 22.

The diagnostical papers prepared under the project for the agro-industrial subsectors, the textile and clothing industries, the leather and footwear industries and the metal- and engineering industries show in a detailed way the strengths and weaknesses of these industries in Central American countries and their specific restructuring needs. Further detailed information based upon UNIDO statistics on the competitive strengths of the main industrial subsectors is found in the background paper to regional integration and restructuring in Central America. In addition, the overview paper discusses the main industrial subsectors and their levels of competiveness. Here it was argued that without further restructuring taking place, greatest benefits of regional integration due to trade liberalization would accrue to Costa Rica, followed by Guatemala and El Salvador while the weaker economies in the region, i.e. Honduras and Nicaragua, could turn out to be losers.[94] Thus, in order not to endanger the integration process, efforts of regional and international institutions should focus on improving both the social and physical infrastructrure (including training programmes for skilled workers and managers to upgrade the human resource base in Central America) with special emphasis being given to the weaker countries in order to compensate them for any potential losses due to the integration process.[95] Although the basic pattern of competitiveness with Costa Rica leading, followed by Guatemala and El Salvador (or El Salvador and Guatemala) and Nicaragua and Honduras lagging behind, is reflected in several industrial subsectors, but it is certainly not valid for all subsectors.

In the following paragraphs the main findings of the analysis of competitiveness of the four subsectors investigated, will be summarized. If one assumes that existing competitive strengths and weaknesses will become even more pronounced in the process of integration, the following picture emerges:

- Agroindustries

The revealed comparative advantages in agroindustries which account in Central America for about 45 percent of MVA (1990)[96] in respect to trade with the USA have been the following:

[94] The actual outcome of integration is of course not necessarily only a question of competitiveness. Thus, it has also been argued that Costa Rica which in the early 1990s had the highest tariffs, would be most strongly hit by the reduction of external tariffs to just 20 percent by 1995 while other Central American countries already reduced their tariffs as part of their structural adjustment programs. This line of argument is not necessarily correct as Costa Rica traditionally put less emphasis on non-tariff trade barriers than its Central American neighbours. Thus, while Costa Rican industry will be affected by reduced tariffs, the industries in other countries are likely to be affected by less non-tariff trade barriers. Nevertheless, the problem from a theoritical point of view is that Central American countries are going to experience both regional integration and liberalization of extra-regional trade in the 1990s. In this chapter only the results of regional integration will be discussed; not discussed will be the overall combined effects of regional integration and extra-regional trade liberalization. In the subsectoral papers those issues have been analyzed as well but they do not seem to really significantly change the overall picture.

[95] See UNIDO, *Economic Integration in Central America: An overview of implications for industrial modernization in the 1990s*, Vienna 1993, p. 24.

[96] UNIDO, Global Database 1992.

Table 28: Revealed Comparative advantage of agro-industrial exports to the USA (1989); (any figure larger than 1 indicates a comparative advantage)

	Costa Rica	El Salvador	Guatemala	Honduras
Frozen meat	17.2	3.9	16.2	18.3
Frozen fish	7.2	0.8	0	1.1
Other sea food	2.7	14.4	6.5	30.4
Processed vegetables	3.8	2.5	9.6	1.7
Frozen vegetables	3.9	5.3	18.9	1.8
Fruits (excl. banana)	12.3	2.4	4.8	10.9
Frozen fruits	30.5	6.2	80.4	26.6
Sugar	7.4	18.2	24.6	13.1
Coffee	10.2	83.3	53.8	14.4
Banana	111.5	0	70.5	257.3

Source: UNIDO, *Competividad de la agroindustria de Centroamerica*, Vienna, February 1993, p. 47.

In the paper it was argued that an integrated regional market for agroindustries is likely to lead to specializations of Central American countries in the following fields:

Costa Rica: milk products (including cheese), meat, oil, fish
El Salvador: packaging industries for food products, fruits
Guatemala: processed and frozen vegetables and fruits
Honduras: fruits, oil and vegetables
Nicaragua: meat

The basic problems for non-traditional products of the agro-industry (i.e. all products excluding banana, coffee and sugar) are the low quality and high costs of material inputs as well as the lack of effective distribution channels.[97]

This general statement needs some qualifications. In respect to meat production, Nicaragua for instance has a rather good quality of inputs (especially cows) although it lacks "genetic" quality. Furthermore, the ex-ante selection and classification of meat needs to be improved to guarantee quality of output of meat processing plants. Next to Nicaragua Costa Rica is also well placed for meat processing. Guatemala has a significant production of meat but so far has not been able to control effectively the

[97] UNIDO, *Competitividad de la agroindustria de Centroamerica*, February 1993, p. 30.

slaughtering activities. Products destined for the local market are still far from fulfilling international standards.[98]

Processed vegetables play an important role in Guatemala. 8 enterprises are specialized in freezing operations and a number of enterprises is specialized in the processing of vegetables into tin products. Major problems are found in the backwardness of the agricultural sector which limit the progress of the processing industries. Capacity utilization is thus rather weak (59 percent). The levels of hygene must still be improved. Significant problems are found in the whole production chain, starting with the specification of seeds, inspections, correct use of agro-chemicals, etc.

Processed fruits (pineapples, melons, mangos, strawberries etc.) are important export articles or at least have the potential to become important export products in all Central American countries, in particular in Honduras and Costa Rica[99]. Studies undertaken have shown that export industries based on such fruits (plantation and packaging) in Guatemala promise rates of return of between 20 and 30 percent. Especially for exotic foods the markets are still rapidly growing in industrialized countries. Bottlenecks are mainly found in the transport system.

The production of vegetable oils has significantly increased in Costa Rica, Guatemala and slightly in Honduras. It decreased in Nicaragua and El Salvador. Especially Costa Rica seems to show clear comparative advantages in this field. Investment projects (especially in the field of palm oil production and processing) with rates of return of around 40 percent are no exception.[100]

The same is true for fish processing. Also in this area Costa Rica is leading. Nicaragua is strong in the catch of fishes but it does not have an important fish can industry to process fishes. In respect to sea food other than fishes ("camarones") El Salvador and Honduras register comparative advantages.

Concerning milk products, Costa Rica is by far the the most advanced producer in the region. However, milk as raw material is rather expensive, ranging from $0.2 in Costa Rica to $0.32 in Guatemala as compared with $0.1 in New Zealand or Uruguay, or $0.15 in Argentina and Chile which does not give Central America much chances to specialize in processed milk products. Apart from Costa Rica, producers of milk are only renumerated for quantity delivered but not for quality of their product. Correct labels for milk products so far are only compulsory in Costa Rica and Guatemala.

One problem which has to be addressed explicitly in respect to agroindustries are the actual effects of assistance in kind by the international community which can have distorting effects on the local markets and endanger economic development. For instance milk powder has been distributed to the population in various countries. It was subsequently bought up cheaply by some local enterprises, mixed with water and fresh milk and sold again as fresh milk on the domestic market. Irrespective of the question of legality, there is a danger that such practices could severely distort in future not only the domestic but the regional markets of Central America as well, reducing the incentives of enterprises and agriculture to invest and expand their operations in this field.[101]

Reasons for specialization in the field of agro-industries are to be found inter alia in the necessity to create effective distribution channels as well as due to increased demands of industrialized countries in respect to quality requirements and health norms to be fulfilled for goods being allowed to enter

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[98] UNIDO, *Competitividad de la agroindustria de Centroamerica*, February 1993, p. 31.

[99] UNIDO, Competitivad de la Agroindustry de Centroamerica, Vienna 1993, p. 46.

[100] UNIDO, *Competitividad de la agroindustria de Centroamerica*, Vienna, February 1993, p. 45.

[101] UNIDO, *Competitividad de la iagroindustria en Centroamerica*, February 1993, p. 11.

industrialized countries which ask for significant investments (high-tech laboratories) that are certainly not economical if made by every single small enterprise in each country.

- Textiles and clothing

One of the striking facts of the analysis of data of the late 1980s was that on an aggregate level in textiles - in contrast to clothing - all Central American countries show a comparative disadvantage. The most competitive country within the region in textiles (i.e. the country with the least comparative disadvantage) is El Salvador, followed by Guatemala. In the case of clothing Costa Rica shows the strongest revealed comparative advantage, followed by Guatemala (see Table 29). Textiles and clothing account in Central America together for about 8 percent of MVA.[102]

On a more disaggregated level one can see that El Salvador has a comparative advantage in yarns and in non-garment textile products. The other countries each have a specific strength in particular areas within the garment industry with Guatemala leading in women's clothes, Costa Rica in men's clothing and knitwear, and Honduras in underwear (see Table 30).

Costa Rica is furthermore particularly strong in wool clothing, suit-type coats for men and in skirts. El Salvador is competitive in cotton yarns (both carded and combed) and cotton towels. Guatemala has a comparative advantage in knit fabric. The main garments in which Guatemala is the leader are women and girl's coats, suits, trousers and skirts. In general, Gutamala has a revealed comparative advantage in women's outwear. Honduras is strong in cotton sheeting and cotton twills as well as in cotton shirts, trousers for men and boys, cotton underwear and brassiers.

As far as different processes within the production chain are concerned, El Salvador is strong in spinning. It has the largest spinning industry as well as the two most modern mills in Central America. Honduras shows strengths in some woven cotton fabrics and Guatemala in knit fabrics.[103] It is interesting to note that in contrast to general trends Costa Rica has been reported to be technologically relatively backward in both spinning (with the exception of polyester yarns), weaving and finishing.[104] In the garment industry there is evidence of some specialization potential by different types of products with Costa Rica relatively strong in wool products, more sophisticated men's wear, Guatemala in women's outwear (both cotton and synthetic fibres) and Honduras in underwear and less sophisticated cotton men's wear (shirts and trousers).

Given the economic difficulties of Nicaragua in the late 1980s Nicaragua did not show any comparative advantages. The quality of yarn produced was reported to have been very deficient, and quality control totally inadequate. The technological level in weaving was reported to have been even more backward than in spinning. Lack of spare parts restrained operations to 50 percent of capacity in weaving. In knitting out of three (state) firms one had to be closed down because it was totally obsolete and quality control in industry was reported to have been neglected. In finishing the situation is even worse. Technological backwardness and poor quality because of poor raw material inputs is also a charcteristic

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[102] UNIDO, Global Database 1992.

[103] See UNIDO, *Industrial modernization in the Central American textile industry: the potential for regional cooperation*, February 1993, pp. 29-31.

[104] See UNIDO, *Industrial modernization in the Central American textile industry: the potential for regional cooperation*, February 1993, p. 5.

of the output of the clothing industry.[105] However, this negative description of the status quo does not mean that Nicaragua could not develop comparative advantages within the textile-clothing industry in the 1990s, given the fact that Nicaragua is still the second largest producer of cotton in Central America after Guatemala. In any case, past performance in textiles and clothing as well as in other sectors does not necessarily have to be useful indicator for the future potential of that country[106] which until recently had put most of its efforts into military defence.

Table 29: Revealed comparative advantage in textiles and clothing for Central American countries (RCA measured by the normalized net export ratio - 1986-88)

	Textiles	Clothing
Costa Rica	-1.45	0.55
El Salvador	-0.16	-0.07
Guatemala	-0.24	0.35
Honduras	-1.71	-0.15
Nicaragua	-2.27	-0.53

Source: UNIDO, *Industrial modernization in the Central American textile industry: the potential for regional cooperation*, February 1993, p. 29.

[105] See UNIDO, *Industrial modernization in the Central American textile industry: the potential for regional cooperation*, February 1993, pp. 24-28.

[106] See UNIDO, *Industrial modernization in the Central American textile industry: the potential for regional cooperation*, February 1993, pp. 29-31.

Table 30: Revealed comparative advantage for selected textile and clothing products

	Costa Rica	El Salvador	Guatemala	Honduras
Yarn		7.5		
Textile articles n.e.s.		15.0		
Men's outwear not knit	28.7		9.1	
Women's outwear not knit	20.7	16.3	23.6	15.0
Undergarments not knit	25.3			85.0
Outwear knit non-elecastic	3.3			
Undergarments	47.3	11.3		75.0

Source: UNIDO, *Industrial Modernization in the Central American textile Industry: The Potential for Regional Cooperation*, Vienna, February 1993, p. 30 (measured by the Balassa method, based on UNCTAD data).

- Leather and footwear

The leather and footwear industry, which contributes around 2 percent to MVA in Central America[107], showed in recent years, in particular in Costa Rica and El Salvador, that it has significant potential to expand. In Guatemala the footwear sector showed goods results while the leather industry has obvious problems. In Honduras the industry is stagnating and in Nicaragua it declined and only slowly starts to regain strengths. (See Table 31, Table 32 and Table 33). The best export potential for Central American footwear is in male mocassins, in the "working shoe segment" and in "cappelladas" ("cortes").[108]

[107] UNIDO, Global Database 1992.

[108] UNIDO, *Modernizacion industrial en centroamerica: el subsector curea y calzado*, Vienna 1993, p. 20.

Table 31: Leather and footwear industry (gross output in US-$)				
	Costa Rica	El Salvador	Guatemala	Honduras
1987	27.2	44.0	31.1	21.2
1988	28.1	54.0	32.3	22.7
1989	38.2	62.2	34.6	18.2
1990	40.3	58.3	34.1	19.2
1991	41.0	63.1	35.6	19.7
Average annual growth	10.8	9.4	3.4	-1.8

Source: UNIDO, Modernizacion industrial en Centroamerica: el subsector cuero y calzado, Vienna 1993, pp. 83 ff.

Table 32: Gross output of tanneries in US-$				
	Costa Rica	El Salvador	Guatemala	Honduras
1987	14.2	26.0	17.2	12.1
1988	14.4	36.3	16.8	12.4
1989	18.9	39.8	17.5	10.6
1990	20.8	38.1	17.0	11.1
1991	21.1	39.4	17.4	11.8
Average annual growth 1987-91	10.4	11.0	0.3	-0.6
Source:	UNIDO, Modernizacion industrial en Centroamerica: el subsector cuero y calzado, Vienna 1993, pp. 83 ff.			

Table 33: Gross output of footwear in US-$				
	Costa Rica	El Salvador	Guatemala	Honduras
1987	9.9	4.5	10.7	8.2
1988	10.6	13.7	12.3	9.5
1989	15.3	17.6	13.6	6.9
1990	14.9	16.4	13.6	7.6
1991	15.5	19.1	14.8	8.4
Average annual growth	11.9	43.5	8.4	2.4
Source:	UNIDO, Modernizacion industrial en Centroamerica: el subsector cuero y calzado, Vienna 1993, pp. 83 ff.			

Although the leather and footwear industry should have potential to expand in the future, that expansion is restrained by low priority given so far to these very dynamic industrial subsectors. The skills of the workforce are generally very low which is both true for qualified personnel and "medium" qualified personnel. Training facilities in this field are either inexistent or extremely badly equipped to fulfill their tasks. Investment into this sector was extremely poor in the 1980s which contributed to Central America losing its competitive strength in this sector, a trend which only has started to change again in the early 1990s. Basic cost accounting techniques are often unknown which repeatedly leads to wrong managerial decisions. Companies tend to produce a wide range of products in small quantities, neglecting possibilities of specialization and subsequent cost reductions. Other major problems for the leather and footwear industry are shortages in the quantity and especially quality of locally available raw materials as the best skins tend to be exported and not further processed. Furthermore, the classification system for the raw materials does not (yet) work.

Based on 1987 data the RCA analysis has shown that in respect to competitiveness of primary goods exports (hides and skins, including the initial phases of leather processing) Costa Rica is clearly leading, followed - at some distance - by Honduras and El Salvador. The overall most competitive countries in footwear are located in El Salvador and Guatemala, followed by those in Costa Rica. (See Table 34). However, in recent years a shift took place in favor of Costa Rica and El Salvador. (See Table 31, Table 32 and Table 33).

It has been pointed out in the paper that in terms of employment and industrial output leather and footwear play a rather important role in all Central American countries but Costa Rica.[109] Nevertheless, Costa Rica's competitiveness vis a vis its Central American neighbours is strong in leather and in some quality segments of the footwear industry; for mass production of cheap but low quality footwear Costa Rica is beaten by other Central American countries.[110] Despite its revealed strength in leather exports, productivity rates of the Costa Rican leather industry are still behind those of leading industrialized countries such as Italy, Spain or France. In contrast to other sectors, the technological level of Costa Rican enterprises in the leather and footwear sector is rather low and enterprises show a low degree of specialization. The Costa Rican leather and footwear sector is characterized by a large number of small and medium sized enterprises which are still mostly using traditional (not technology intensive) crafts techniques. Like in other Central American countries, Costa Rican manufacturers are negatively affected by the lack of high quality inputs on the local market as high quality leather tends to be exported. Skill levels of the workforce - in contrast to other sectors in the country - are rather low. There is also a need for upgrading of design capabilities. (All of these reported shortcomings are however not a unique feature of Costa Rica but generally valid characteristics of all Central American countries).

El Salvador has certainly some strengths in mass footwear, although leather has to be imported (including from Costa Rica) to guarantee basic quality standards. El Salvador is in particular competitive in male moccasin shoes. Nevertheless, in direct competition with export products from countries such as the Republic of Korea, Taiwan and China, - which are specialized in a number of similar market niches as El Salvador - the shoe industry of El Salvador (as it is) is not yet in a position to maintain market shares unless protected by import duties on the local (regional) market and import restrictions for El Salvador's major Asian competitors on the US market. In other words, while El Salvador is in principle likely to gain from regional integration in respect to footwear, this is not necessarily the case if such re-integration into a common Central American market went parallel with a complete opening of the regional market. On the other hand, El Salvador has competitive strengths to gain from further regional integration efforts that go beyond the borders of Central American countries (in particular NAFTA). However, any general liberalization of world trade (such as would be the case after a successful conclusion of the Uruguay round in the GATT negotiations) is not necessarily to the immediate advantage of El Salvador's shoe industry.

[109] UNIDO, *Modernizacion industrial en entroamerica: el subsector curo y calzado*, Vienna February 1993, p. 14.

[110] UNIDO, *Modernizacion industrial en entroamerica: el subsector curo y calzado*, Vienna February 1993, p. 27.

The same is basically also true for Guatemala. While the leather industry has been stagnating in Guatemala, the footwear industry showed signs of dynamism and plays an overall important role. For many years Guatemala used to have the largest production capacities for footwear in Central America, a position it now lost to El Salvador and Costa Rica. More than other Central American countries, Guatemala has been affected by low quality of domestic raw material inputs. Only imports (mainly from Costa Rica, El Salvador and Mexico) are in general of acceptable quality. The level of technologies used is mostly outdated and the skills of the workforce tend to be very low. The local tanneries are generally very old and they process hides and skins rather inefficiently. Quality considerations so far hardly have played any major role.

Like in other Central American countries, footwear manufacturers in Honduras are confronted with only low quality inputs that are domestically available as better quality hides and skins (and partly leather) are immediately exported. Measures taken to upgrade the workforce have so far not fulfilled the expections. Both leather and the footwear industry stagnated in recent years.

Nicaragua suffered a severe decline in the leather and footwear industry in the 1980s. From 15,000 to 20,000 employees in the early 1980s, the industry was compelled to reduce its operations which allowed to employ just 6,000 employees in the early 1990s. Increased competition from China, Taiwan and Korea, (mainly via Panama) was inter alia responsible for the decline in Nicaragua's footwear industry. Four of the six tanneries in the country had to cease their operations in the 1980s, and the remaining ones have to cope with equipment that is largely outdated, i.e. both technically as well as economically obsolete. At the same time, Nicaragua is relatively well placed in respect to the quality of its raw materials (hides and skins) which should enable good quality output of finished products once the technological obstacles in manufacturing are solved.

Table 34: Revealed comparative advantage of leather and footwear vis a vis the world (1987)

	Costa Rica	El Salvador	Guatemala	Honduras	Nicaragua
Leather	1.44	0.24	0.02	0.30	0.07
Footwear	0.57	1.92	0.70	0.06	0.05

Source: UNIDO, Global Database 1992.

RCA according to the Balassa methods;
RCA > 1 indicates a revealed comparative advantage.
RCA = $(X_{ij}/X_{wj}) / (X_{im}/X_{wm})$
X = value of exports; j = sector whose competitiveness is being measured; i = the country whose competitiveness is being measured; m - all manufactures; w = world

- Metal- and engineering industries

On an aggregate level, the metal and engineering industries (ISIC 37 and 38) account for 8 1/2 percent of MVA in the region.[111] The most advanced country in engineering in the region is certainly Costa Rica[112], followed by Guatemala and El Salvador. The overall least competitive industries are found in Honduras and Nicaragua (see Table 35, 36, and Table 37). The analysis of revealed comparative advantage shows that vis a vis the rest of the world, no Central American country has special strengths, if measured on the aggregate level.

In general terms, Costa Rica shows relative competitive strengths in fabricated metal products and electrical machinery. Costa Rica is especially in technogical terms far ahead of its neighbours; the incorporation of electronics, in particular CAD (computer aided design) is the norm and not the exception. Costa Rica is also clear leader in respect to industrial robots. Costa Rica has still significant capacities to expand its production of injection moulds ("moldes de inyeccion") and extrusions for plastics and rubber ("extrusion de plasticos y hules"). The local production of electronic circuits has further helped Costan Rican enterprises to upgrade their capital equipment.[113] While Costa Rica is most advanced in the field of engineering, it is far less so in the early stages of metal production such as in the case of rolling mills ("laminacion").

Good progress on the way towards modernization has also been reported from Guatemala. Guatemala has its strengths in fabricated metal products. Rolled products as well as wiredrawing ("trefilados") are produced efficiently in terms of economies of scale and technological level, giving Guatemala a comparative advantage in particular in sheets and plates ("lamina"). Furthermore, Guatemala is the country in Central America in which the willingness of management to cooperate with other firms, exchange information and search for complementarities to increase competitiveness seems to be largest. (see Table 35, 36).

El Salvador has overall a similar level in the metal industries (metals and engineering) such as Guatemala. The relative strengths of El Salvador are in non-ferrous metals and in fabricated metal products. Despite - for Central American standards - respectable output figures, El Salvador suffers from rather low levels of skills of its workforce, outdated equipment, a lack of quality control as well as a lack of standards to guarantee certain minimum levels of quality.[114] However, El Salvador, like Guatemala, has already started to modernize its industry. More than in Costa Rica or Guatemala, there seems to be a strong reluctance towards cooperation with other firms. It is characteristic for firms in El Salvador to aim at the largest degree of autonomy possible, producing whatever they can themselves, thereby disregarding cost considerations. This is especially true for agro-industries which often engage in metalworking operations, irrespective of costs.

So far, the technological level in metal producing and engineering is lowest in Honduras. On an aggregate level, Honduras does not show comparative advantages in any major subsector, it does not have much of specialization. Nevertheless, Honduras shows in a few product categories, such as production of keys highly promising results. Honduras is furthermore a producer of electrical lamps, of

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[111] UNIDO, Global Database 1992.

[112] UNIDO, *Economic Integration in Central America: an overview of implications for industrial modernization in the 1990s*, Vienna 1993, p. 19

[113] UNIDO, *Modernizacion del sector metalmecanico centroamericano: potencial de cooperacion, necesidades y limitaciones*, February 1993, p. 37.

[114] UNIDO, *Modernisacion del sector metalmecanico centroamericano: potencial de cooperacion, necesidades y limitaciones*, February 1993, p. 8.

some agricultural machinery, and it has an industry to treat metals against corrosion ("industria corona") which might be interesting for other countries in the region to cooperate with.

Like Honduras, Nicaragua does not show any comparative advantages in "metalmechanics" on an aggregate level. During the Sandinista regime, the industry was largely nationalized. As heavy industry - following the socialist development model - was given priority, Nicaragua's metal and engineering industries are characterized by excessive capacities in terms of both machinery and personnel. At the same time one finds that in many firms the equipment is outdated or outright obsolete. In general, the industry in Nicaragua suffers from high operating costs, irregular quality and supply of inputs and a general lack of motivation among the workforce. Nevertheless, also in Nicaragua positive exceptions exist, such as at IMEP, a producer of agricultural equipment, or SOLNIK, a producer of electrodes, which operate efficiently in their respective markets.[115] First attempts to improve the overall situation by privatization have been initiated.

[115] UNIDO, *Modernizacion del sector metalmecanico centroamericano: potencial de cooperacion, necesidades y limitaciones*, Vienna 1993, p. 12.

Table 35: General qualitative evaluation of competitiveness of enterprises in "Metalmechanicas" in Central America

Points:

1 .... needs much attention
2 .... deficient
3 .... acceptable but needs attention
4 .....good
5 .... very good

	Costa Rica	El Salvador	Guatemala	Honduras	Nicaragua
Technology	3	3	4	2	2
Quality	3	3	3	1	1
Production	3	3	3	2	1
Market	4	4	3	1	1
Price	2	2	2	2	4
Finances	4	3	4	3	2
Management	4	3	3	2	1
Human Resources	4	2	2	2	3
Technical Assistance	4	2	2	1	3
Total (highest score is best)	31	25	26	16	18

Technology:	level of technology used, maintenance programme,
Quality:	quality control mechanism, accomplishment of norms
Production:	capacity utilization, production control mechanism
Markets:	market projection methods, market research, and follow up activities
Prices:	price level, cost accounting, competitiveness
Finances:	debt/equity ratio, liquidity, possibilities to obtain new funds
Management and organization:	administrative capacity, organisation of enterprise
Human Resources:	professional level of training schemes, in-house training, national training programmes
Technical assistance:	ability to make use of technical assistance granted, programmes available

Source: CEPAL, Reconversion Industrial En Centroamerica, April 1990, p. 113.

Table 36: Additional qualitative evaluation of factors determining competitiveness of enterprises in "Metalmechanicas" in Central America

Points:

1 .... deficient
2 .... acceptable but still needs attention
3 .....good

	Costa Rica	El Salvador	Guatemala	Honduras	Nicaragua
Productive versatility	3	3	3	2	2
Level of modernization	3	2	3	1	2
Technical skills and effectiveness of technical training	2	2	2	1	2
Level of administrative skills	2	2	2	1	1
"Complementation"	2	2	3	1	1
Total (highest score is best)	12	11	13	6	9
Results of general qualitative evaluation (Table 35, 36)	31	25	26	16	18
Grand Total	43	36	39	22	27

Productive versatility	Ability of companies to change production lines fast to react to market changes
Modernization	Technological level of production (including steps initiated which will lead to modernization)
Technical skills and effectiveness of technical training	Actual level of technical skills of the workforce (including those in laboratories)
Skills of administration	measured in terms of ability to make adequate market projections and have sufficient technical knowledge etc.
"Complementation"	willingness of management to cooperate with other firms, exchange information and search for complementarities to increase competitiveness

Source: UNIDO, Modernizacion del sector metalmecanico centroamericano: potencial de cooperacion necesidades y limitaciones, February 1993, p. 44.

Table 37: Revealed comparative advantage in basic metals and engineering (ISIC 37 and 38) vis a vis the world (1987)					
	Costa Rica	El Salvador	Guatemala	Honduras	Nicaragua
Iron and steel	0.38	0.02	0.26	0.10	0.47
Non-ferrous metals	0.10	1.04	0.03	0.05	0.02
Basic metals (ISIC 37)	**0.28**	**0.39**	**0.17**	**0.08**	**0.31**
Fabricated metal products	0.51	0.35	0.36	0.14	0.12
Non-electr. machinery	0.07	0.04	0.03	0.01	0.00
Electr. machinery	0.34	0.10	0.08	0.01	0.01
Transport equipment	0.01	0.00	0.01	0.00	0.00
Prof. and scient. goods	0.07	0.02	0.02	0.00	0.09
Fabricated metals, machinery, equipment, scient. goods (ISIC 38)	**0.13**	**0.06**	**0.05**	**0.01**	**0.02**
Source: UNIDO, Global Database 1992 (Balassa measure; RCA > 1 indicates a revealed comparative advantage).					

D) <u>Options and actions to be taken to compensate industries for potential losses due to regional integration in order not to endanger the integration process</u>

As has been pointed out, regional integration is to the overall advantage for Central America, but not necessarily for each subsector in each country. Without any interference in the market process, the most competitive industries, i.e. mainly those situated in Costa Rica, El Salvador and Guatemala are likely to gain most from regional integration efforts while the weaker economies (in most subsectors Honduras and Nicaragua) could turn out to be losers. Such a scenario is extremely dangerous for the success of long-term cooperation among CACM countries. Following the general Pareto-criterium, the integration should have as a firm minimum constraint not to make any participating member worse off. At the same time, it has to be emphasized as well that an "even" spreading of gains among all members might not be the solution as it actually reduces the incentives for individual members to improve efficiency and/or prompts them to reconsider their participation in the 'club'.[116]

[116] The relevance of this argument was indirectly confirmed in Europe. Opinion polls suggest that one of the reasons behind the negative vote on the Maastricht treaty by the Danish electorate (1992) was that the treaty concerning a European Union also foresaw a significant increase of funds to be channelled from "rich northern Europe" to "poor southern Europe" in order to increase internal coherence.

Despite a number of well known shortcomings, the EC is nevetheless a good example worthwhile to be seriously studied for possible applications within the Central American context. The stronger members with the most competitive industries (in particular Germany but also some other "northern" countries), which potentially also are the main beneficiaries of an extended "domestic" market, have in the EC model de facto agreed to pay in more and receive less out of the common pool than the weaker members. With the membership fee linked to some indicators of wealth creation or use of wealth (in the EC a combination of value added tax, external tariffs and GDP), and part of that money being allocated for structural or regional funds[117], a redistribution mechanism was created which indeed channels some of the gains of regional cooperation to disadvantaged areas to improve existing low levels of physical infrastructure and/or to support the creation and running of re-training facilities that are necessary to cope with those unmployed which have lost their jobs in the wake of the restructuring process that was prompted by increased competition due to the abolition of trade barriers. In other words, those structural and regional funds do not aim to maintain existing structures but to assist industrial subsectors and whole regions to accelerate the necessary restructuring process by primarily enabling redundant labour to shift back again into areas where there is "real" demand and to improve infrastructure (transport systems, telecommunications systems etc.) in order order to remove obstacles for new economic activities to develop.

Of course, any such redistribution system of "integration gains" is not without problems. First of all, it is in most cases difficult to determine how much individual countries or industrial subsectors really gain from an enlarged "domestic" market. A larger "domestic" market may not only boost intra-regional trade but also help to increase extra-regional exports and increase the purchasing power of the population, thus increasing the sales on the original domestic market as well. Thus, there is a bias in underestimating the potential gains, reducing individual countries' readiness to allocate funds for infrastructure investment and upgrading of skills in neighbouring countries which is however a precondition to strengthen regional coherence.[118] On the other hand, there is always the danger of large bureaucracies emerging in managing the redistribution process which in the end may cost a lot and significantly reduce the potential gains from cooperation.[119] Furthermore, there is always the possibility that countries in one way or another start cheating, playing with statistics or de facto allowing tax evasions on items which are subject to common taxation, etc., thus reducing the overall contribution into the common pool. Even more sophisticated possibilities to betray one neighbour exist in using the common funds, with in addition the possibility of Mafia like organizations to emerge which in cooperation with local politicians (who are seeking reelection), specialize in attracting those common funds.

Although certainly not without problems which need to be carefully addressed, a regional redistribution system of additional wealth created through improved regional cooperation should nevertheless be seriously considered, with funds raised being used to help to reduce the negative - but often unavoidable - side effects of restructuring of the industrial sector, prompted by increased competition.

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[117] There is for instance a European fund for regional development, a European social fund and a European agricultural fund.
See Kopeining, M., "Die Strukturfonds sollen all Mitglieder auf Binnanmarktniveau heben - die Euro-Milliarden für die Schlußlichter der EG", *Kurier*, 25 March 1992, p 7.

[118] In contrast, the losses due to the elimination of a common regional market - as was documented in this paper - are far more obvious and easy to detect.

[119] Despite frequent criticism raised, the EC administration only costs member states 5 percent of the EC budget or 0.05 percent of member states' GDP; however for organizations covering a smaller area the actual fixed costs may be higher.

One of the main preconditions for such a system to work in the Central American context is a dramatic improvement of the statistical base which so far seems to be based on rather crude estimates. This should also include national statistical offices checking, and if necessary asking third sources (national banks, international organizations etc.) to correct obviously wrong figures. So far, statistics published by different sources concerning Central American countries differ significantly from one another which reduces overall credibility of any figure presented and is thus likely to render intra-regional transfer of funds difficult.

In order to gain some ideas of possible magnitudes of such regional redistribution systems, the EC example may give some interesting insights. The EC spent some $70 billion within the 1987-1993 period (or $12 billion a year[120], and it is supposed to spend some 14 billion ECU ($18 billion) in 1993 alone[121]) on structural funds. Far less redistributive - but of significant importance for the technological progress and thus the creation of new jobs - are also common funds to foster and support R&D cooperation among enterprises and between enterprise, laboratories and universities. (ECU 5.7 billion for 1990-1994; i.e. some $1.8 billion a year).

Although such figures may sound impressive but irrelevant for Central America, they are certainly not irrelevant if analyzed in relative terms and insofar give some good indications about the "EC compromise" in respect to the redistribution of integration gains to disadvantaged regions. So far the total EC budget accounts for only about 1 percent of GDP[122] of member states of which some 11 percent are used for regional policy and 8 percent for social policy (i.e. some 19 percent of the EC budget flows into various structural funds) and a further 4 percent is directly allocated for industry, energy and research (break up for 1990).

In other words, excluding the controversial EC agricultural policy that costs the EC some 60 percent of its budget - but which of course also has some important regional redistributive effects - between 0.20 and 0.25 percent of EC member states' GDP is used to be channelled through the EC to secure coherence and to redistribute gains from close regional cooperation.[123] If one assumes for Central America a similar share of some 0.2 percent of GDP for regional redistribution purposes to reduce some of the negative side effects of regional integration and structural adjustment, those structural funds for Central America would have to have - based on 1990 figures - a magnitude of some $50 million p.a.[124] which is certainly not a dramatically large sum, considering that the inflow of development assistance in the late 1980s was alone some $1.4 billion p.a.[125] Funds at such magnitudes should also be relatively easy set up. In the initial phase of increased regional cooperation additional contributions by the international community should also be considered. It has however to be made clear from the very outset that those 0.2 percent of GDP could only be an addition to national programs to assist the restructuring

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[120] See Kopeining, M., "Die Strukturfonds sollen alle Mitglieder auf Binnanmarktniveau beben - die Euro-Milliarden für die Schlußlichter der EG", *Kurier*, 25 March 1992, p. 7.

[121] Amt for amtliche Veröffentlichungen der europäischen Gemeinschaften, *Die europäische Gemeinschaft 1992 and danach*, Luxembourg 1991, p. 14.

[122] Amt for amtliche Veröffentlichungen der europäischen Gemeinschaften, *Die europäische Gemeinschaft 1992 and danach*, Luxembourg 1991, p. 31.

[123] It is interesting to note in this context that overall social redistribution ("social security") on the national level within member states remains with some 25 percent of GDP far larger than any cross border regional re-distribution.

[124] GDP in current dollar for Central America was $25.9 billion in 1990 according to UNIDO, REG database 1992. For a more detailed break up of GDP figures see UNIDO, *Background report: the implications of regional integration for the industrial sector in Central America*, Vienna, July 1992, p. 6.

[125] OECD, *development co-operation*, Paris 1990, p. 224.

process of industry. It also has to be remembered that the actual GDP in Central America is indeed extremely small. In order to illustrate this point: if calculated on a per capita basis instead of as a percentage of GDP, EC equivalent structural funds for Central America would have to have a magnitude of some $900 million p.a. instead of just $50 million. In other words, those 0.2 percent of GDP are more of a lower limit than a basic guideline for the next years, i.e. in the initial transformation phase of increased regional integration higher funds are likely to be needed to assist Central American companies and regions in their restructuring efforts and to contribute to schemes which aim at re-training employees and upgrading the skills of redundant labour. In the medium term, with GDP in Central America rising again to more acceptable levels, those funds should however not automatically grow in line with GDP but be slowly reduced in relative terms, i.e. moved back to the EC level of some 0.2 to 0.25 percent of GDP, in order not to endanger long-term cooperation among CACM countries and make it attractive for the most competitive countries (in particular Costa Rica) not to leave the "expensive" club. More detailed proposals on a subsectoral level of how to use those funds to strengthen and technologically upgrade existing institutions are made in the papers of that project.

E) Summary and conclusions

In this paper it was argued that irrespective of increased efforts of Central American countries to seek a stronger integration into the world economy, Central American economies and in particular Central American industry is to gain from an enlarged "domestic" market. The aim is to increase intra-industry cooperation in order to increase the overall levels of efficiency of industry in Central America and make it internationally competitive. The first precondition is to remove existing internal trade barriers which were created during the 1980s. Like internal non-tariff trade barriers external non-tariff trade barriers, in particular quota systems or outright import prohibitions, should be abolished as well. This however does not mean to leave Central American producers without any protection. Moderate external tariff trade barriers such as the envisaged maximum 20 percent import duties certainly have to remain in place at least for a transitory period (which is of importance for many industrial subsectors which have to face direct competition from highly efficient Asian competitors which operate in some of the same market niches as Central American producers.) Of significant importance is also the monetary policy which needs to be coordinated and has to find an equilibrium between guaranteeing the international competitiveness of industry in Central America and maintaining a degree of monetary stability (in order not to endanger the inflow of foreign investment) while at the same time not distorting intra-regional trade by unilateral depreciations by individual members of the CACM that go beyond inflation rate differentials. Of less immediate importance is the coordination of fiscal policies as long as in all countries massive fiscal and trade imbalances can be avoided (which is in any case a condition imposed upon Central American countries by all IMF/World Bank stabilization and structural adjustment programmes).

Although the general tendencies towards liberalization and deregulation have been certainly necessary, care has to be taken, in order not to further aggravate the already extremely fragile situation of people in the lowest income group brackets. The answer in this regard should however not be the subsidization or special protection of enterprises or industrial subsectors working with outdated technology, but to actively assist affected industrial subsectors to accelerate the transformation process and become competitive. Some of the gains from regional integration should be used explicitly for that purpose. Thus, in addition to national programs it has been proposed - following the EC example - to allocate in the long run some 0.2 to 0.25 percent of GDP of Central American countries (with part of those funds as well as additional funds provided by the international community) to special structural funds on a regional level which should assist enterprises to retrain their workforce, or be used for sector specific local retraining schemes as well as to improve bottlenecks in infrastructure (transport, telecommunications, energy supply etc.) in order to create preconditions for new economic activities to emerge. The governments on their part have been called to carefully investigate their bureaucratic procedures and reduce as much as possible red tape in order not to hamper the entrepreneurial spirit. More detailed proposals of how to use such funds effectively, including an improvement of R&D facilities and the upgrading of the workforce by more specialized sub-sectoral training institutions have been discussed in other papers of this project. A general idea put forward in this respect has been to identify already existing "nuclei" to promote comparative advantages in the region. As a general principle, it has thereby been repeatedly emphasized that there was in most cases no need for new institutions to be created as the institutions that are necessary to fulfill the envisaged tasks basically already exist in Central America, but that there was an urgent need for upgrading existing institutions as their operations so far have been heavily restrained by lack of funds, available human resources and inadequate modern equipment.

Furthermore, it was made clear that an enlarged domestic market does not automatically function by itself. Apart from providing training facilities and improve the level of infrastructure, the governments have also to explicitly lay down the rules of the game, i.e. harmonize technical standards and norms as well as the certification and control of such standards, determine rules of origin, create an efficient merger and acquisition legislation, lay down anti-trust rules, rules concerning the rights of consumers, etc.

After having suffered severe setbacks in the general development process during the 1980s, Central American countries have already started to regain strengths and engage in a transformation process of their industrial structure. Although still a lot has to be done and the need for support by the international community persists as Central America is still far away from economic levels which could guarantee the bulk of its population decent living standards, Central America is basically on the right track and there seems to be for the first time in a decade a general consensus of what kind of actions to be taken and what kind of economic policies to be pursued, and that regional integration and cooperation is a preconditions for future success. Although regional cooperation is far from being an easy task, improved regional cooperation and restructuring of the industrial base together with improvements in agriculture and services and an overall stronger quality consciousness are likely to be the only options available for Central American countries to leave the vicious circle of poverty, social instability and even more poverty, in which those countries were trapped in the last decade.

Appendix

Table A1: Workforce in large scale manufacturing in Central America (in thousand)

Manufacturing subsector		Costa Rica		El Salvador		Guatemala		Honduras		Nicaragua		CACM	
ISIC		1980	1990	1980	1990	1980	1990	1980	1990	1980	1990	1980	1990
31	Food, beverages	21.7	34.6	12.3	5.4	87.4	100.4	18.6	26.3	17.1	23.3	157.1	190.0
32	Textiles, clothing	15.0	30.5	3.7	2.5	1.2	2.1	7.9	9.1	10.8	8.6	38.6	52.8
32	Leather, footwear	1.8	5.0	9.1	7.6	3.1	3.4	2.0	1.9	1.3	1.5	17.3	19.4
33	Wood, furniture	4.2	6.4	0.6	0.4	3.6	5.6	10.9	13.0	1.4	1.2	20.7	26.6
34	Paper	3.5	6.9	3.1	2.3	5.0	5.4	3.2	4.2	0.9	1.6	15.7	20.4
35	Chemicals	8.3	16.6	4.8	5.3	10.6	15.3	4.5	7.4	4.4	5.3	32.6	49.9
36	Non-metal. minerals	2.6	4.8	1.4	1.1	6.0	5.6	3.0	2.6	1.4	1.9	14.4	16.0
37	Basic metals	0.3	0.2	0.8	0.7	1.3	1.2	0.1	0.6	0.2	0.1	2.7	2.8
38	Machinery, transport equipment	8.2	12.5	2.9	2.5	7.9	7.8	4.2	4.6	2.5	3.9	25.7	31.3
39	other	0.5	1.7	0.4	0.3	0.4	0.6	0.6	1.2	0.1	0.2	2.0	4.0
3	Manufacturing	64.2	116.9	39.2	25.4	82.4	94.5	55.0	70.8	34.0	47.7	274.8	355.3

Source: UNIDO, Global Database 1992.