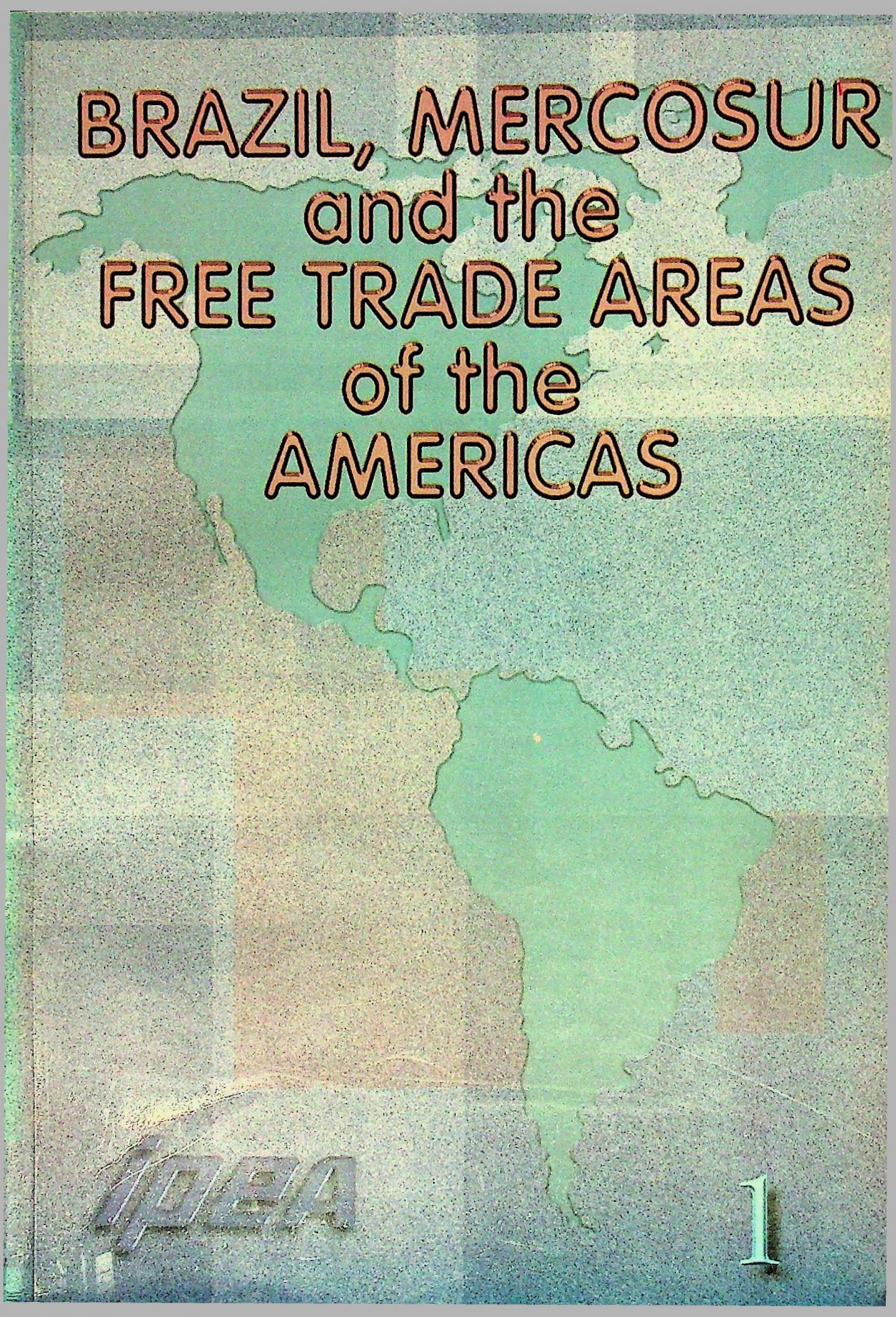
BRAZIL, MERCOSUR and the FREE TRADE AREAS of the AMERICAS



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Brazil, Mercosur and the Free Trade Area of the Americas

Volume 1

Brasilia, 2000

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SUMMARY

Volume 1

ACKNOWLEDGEMENTS

This book includes papers presented in the seminar "ALCA and MERCOSUR: The Brazilian Economy and the Process of Interregional and Hemispheric Integration", held in Brasilia, on October 5-6, 1998.

The seminar was proposed by the former President of the Institute of Applied Economic Research (IPEA), Mr. Fernando Rezende, and was made possible thanks to the support from the Inter-American Development Bank (IDB). The IDB provided financial support as well as the collaboration of a team of experts who authored some of the papers and helped to prepare the event. At IPEA, the Department of Sectoral Studies and the Department of Cooperation and Development were responsible for the organization of the meeting and the publication of this book.

As is always the case in events involving people and institutions from different countries, this seminar required a significant effort of cooperation from many quarters. First, we would like to stress the essential contribution of Professor Marcelo de Paiva Abreu, to whom we remain grateful. He was in charge of the conception of the program, the selection of papers and contacts with the authors and was involved with many of the technical and administrative procedures. We also would like to thank the authors of the papers, the commentators, the section's coordinators and the administrative staffs of both the IDB and IPEA.

With this book, IPEA hopes to contribute to a better understanding of the issues related to the process of economic integration among countries in the Americas and to further the dissemination of knowledge on future actions, programs and public policies in this field.

Luís Fernando Tironi
Director of the Department of Sectoral Studies

Roberto Borges Martins
President of IPEA

FOREWORD

This book includes all papers presented in the international seminar held in Brasilia, on October 5-6, 1998, sponsored by IPEA and the Inter-American Development Bank, on the Brazilian economy and sub-regional and hemispheric integration processes.

The keynote addressed by Barry Eichengreen examines the issue of single currency within MERCOSUR. Selected impacts of the FTAA, especially on the Brazilian economy, are examined by Raúl Hinojosa-Ojeda and Sherman Robinson and by Alexandre Carvalho and Maria Andreia Parente using CGE (computer general equilibrium) and partial equilibrium methodologies, respectively. Economic and strategic issues facing the FTAA are dealt within the paper by Robert Devlin, Antoni Estevadeordal and Luis Jorge Garay.

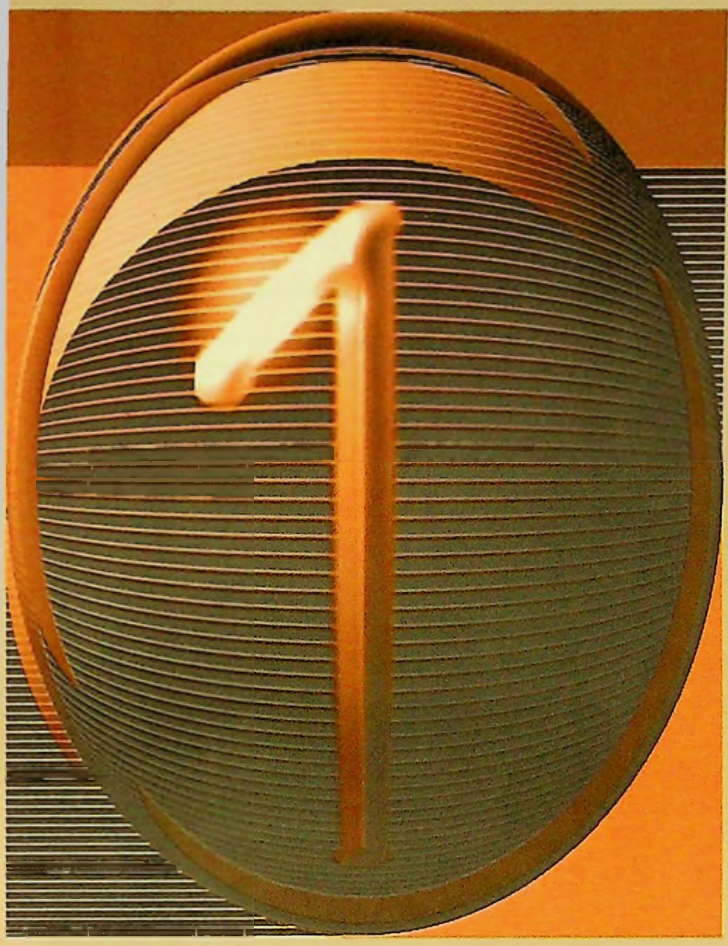
Two selected issues, thought to be of special relevance, rules of origin and competition policies, were analyzed in papers by Luís Jorge Garay and Rafael Cornejo, and José Tavares. The competition policy paper by José Tavares de Araújo Jr. draws lessons from CER (Closer Economic Relations Agreement between Australia and New Zealand) experience.

Selected sectors have been considered in other papers covering services and goods. Papers on services included financial services and telecommunications services. The paper on financial services by Afonso Bevilaqua and Eduardo Loyo examines the impact of liberalization on the Brazilian banking sector. The paper on telecommunications, by Renato Galvão Flôres Jr., deals with sectoral issues raised by integration within the context of MERCOSUR and FTAA.

There were two papers or sets of papers on goods. The impact of integration initiatives in the Americas on agriculture were analysed in a paper by Dominique van der Mensbrugghe and Ramiro Guerrero. Daniel Chudnovsky and Paulo Bastos Tigre presented summaries of preliminary results of papers on the impact of MERCOSUR on four different sectors: automotive, dairy, machine tools and petrochemicals. This book incorporates fuller versions.

It has been proved impossible to obtain a revised version of the paper presented by Hinojosa-Ojeda and Robinson on Brazil, the US and the FTAA. The original version has been included.

Comments have been edited.



1 Macroeconomic Coordination and Hemispheric Integration

THEME I: MACROECONOMIC COORDINATION AND HEMISPHERIC INTEGRATION

Chairman: *Antônio Carlos Cerqueira Antunes*

SUMMARY

KEYNOTE ADDRESS: "DOES MERCOSUR NEED A SINGLE CURRENCY?"

Barry Eichengreen

1. The Issues

THE MACROECONOMIC TURBULENCE that accompanied the formation of MERCOSUR makes it seem truly remarkable that the four countries involved in fact succeeded in taking this momentous step toward regional integration. No sooner was the free trade area formed than Argentina launched its Convertibility Plan. Inflation came down from well over 1,000 per cent to little more than one per cent per annum, and the real economy entered a three-year period of rapid growth.[1] The real exchange rate *vis-à-vis* Brazil, Argentina's main MERCOSUR partner, appreciated sharply (Figure 1), and Argentina's bilateral trade surplus with Brazil sunk deep into deficit (Figure 2). Starting in 1992, the authorities in Argentina responded by imposing anti-dumping duties and safeguarding measures against Brazilian exports of farm machinery, spark plugs, steel, refrigerators, paper, textiles and chemicals. In 1994 the tables turned. Brazil launched the Real Plan, introducing its new currency on July 1st and bringing down inflation from more than 1,000 per cent to the low double digits. As in Argentina three years before, the economy boomed. But now it was the turn for the Brazilian currency to appreciate against that of its principal MERCOSUR partner and for the bilateral trade balance to swing sharply in Argentina's favor, to the discomfort of Brazilian firms, particularly those producing automobiles and other consumer durables in competition with exporters to their west. In early 1995 the authorities in Brasilia raised tariffs, imposed import quotas, and restricted the availability of trade credit in order to limit the impact of surging Argentine exports on Brazilian producers.[2]

Yet, despite this macroeconomic turbulence and these setbacks on the road to free trade, regional integration has made significant progress.

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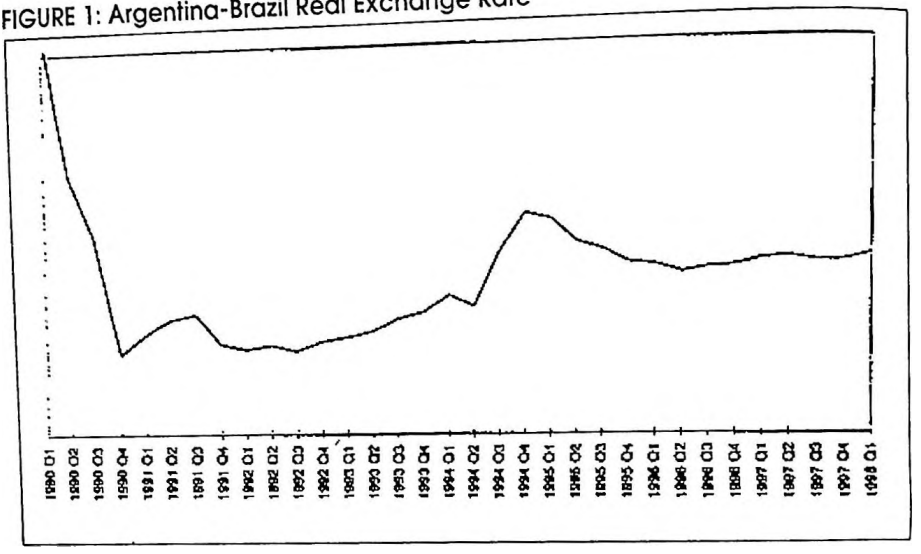
1 Annual growth rates exceeded 7% per annum from 1991 through 1994.

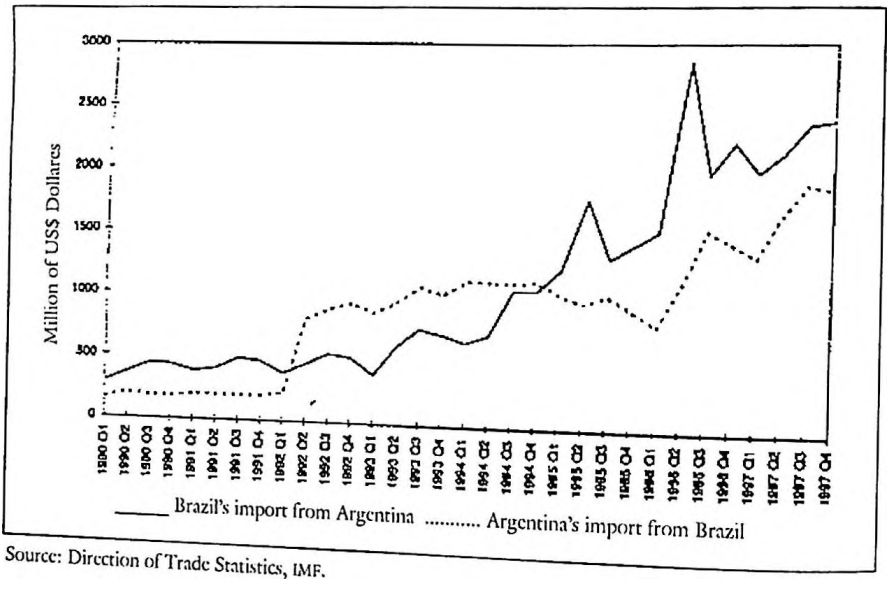
2 To describe in the text how this dispute, centered on the automobile and automotive parts industry, played itself out would divert us from our main point. Briefly, the two countries negotiated a bilateral agreement under which Brazil exempted cars assembled in MERCOSUR from its tariff increase but required the maintenance of other restrictive measures until the year 2000. Companies with plants only in Argentina are entitled to ship a specified quantity of exports to Brazil while paying only half the prevailing rate of tariff. Companies with plants in both Argentina and Brazil are exempted from the tariff in return for a commitment to run balanced bilateral trade between the two countries.

FIGURE 1: Argentina-Brazil Real Exchange Rate*



* Pesos per Real nominal exchange rate over the ratio: price index in Brazil over price index in Argentina.
Source: International Financial Statistics, IMF.

FIGURE 2: Argentina-Brazil Trade



Source: Direction of Trade Statistics, IMF.

One conclusion that might be drawn from this experience is that macroeconomic policies and performance in the countries participating in a free-trade area are quite irrelevant to the solidarity of their commercial arrangement. In this view, the doubling of the share of intra-MERCOSUR trade in the total trade of the four member countries over its first five years, in the face of dramatic macroeconomic divergences, puts paid to the notion that a vibrant and successful free-trade agreement requires the harmonization of macroeconomic and exchange-rate policies.

The other potential conclusion, of course, is that MERCOSUR survived the period only by dint of a number of exceptional – and exceptionally propitious – conditions.[3] First, there was the fact that trade between the free-trade area's principal members started out from unusually low levels. Import surges hurt, but the pain was assuaged by the fact that import competition was so low at the start. Second, there was the fact that these import surges occurred against the backdrop of unusually rapid growth in the country adversely affected. Rapid growth papers over many ills and makes possible policy reforms that would be unsupportable otherwise. And third, there was the fact that the global environment was propitious. The world economy was growing. The imports of other regions were growing. Foreign finance was readily available courtesy of the low level of interest rates in the major money centers. The Tequila crisis interrupted this bliss, but it affected mainly Argentina precisely in the period when that country was being helped by the surge of exports to Brazil.

The plausible inference to draw from this view is that macroeconomic disharmony and exchange-rate fluctuations will be more disruptive in the future than the past. Growth will not continue forever at an annual rate of seven per cent. Tightening global credit conditions can make domestic adjustment more painful, as we have already seen following the onset of the Asian crisis. The rapid growth of intra-regional trade, which is now more than four times its 1991 level in dollars, means that formerly second-order effects have now assumed first-order importance. That we have not yet seen these chickens come home to roost in the form of a serious protectionist backlash may once again reflect exceptional and temporary circumstances. Inflation has been running at reasonably similar rates in Argentina and Brazil. The real exchange rate between the two countries has been reasonably stable, the tendency for the Real to appreciate in real terms due to somewhat higher inflation in Brazil having been offset by the fact that the Peso is rigidly pegged to a strong and strengthening US dollar. But who knows whether such propitious conditions will persist? Now that the Asian crisis has infected

[3] One expression of this view is Bouzas (1997).

financial markets worldwide, including those of Latin America, one cannot help but wonder whether the answer to this question will have changed by the time these words are transmitted from my computer to the desks of conference participants.

For all these reasons, the issue of whether MERCOSUR needs closer macroeconomic policy harmonization, and in particular an exchange-rate stabilization agreement or even a single currency, is back on the table. In fact, it has been back for some time, authors like Roberto Lavagna and Fabio Giambiagi having advocated a MERCOSUR monetary union in a series of articles, and President Menem having raised the idea last December and again at the regional summit this last June.[4] The politicians may have mixed motives, to be sure. Some in Argentina may be interested in a single MERCOSUR currency as an exit strategy from the Convertibility Plan, while some in Brazil may see it as that country's salvation from large budget deficits and the specter of a disorderly devaluation. But, as I argue below, there is a coherent political-economy logic for why the members of the customs union might contemplate a common currency. In doing so, however, they should bear in mind that the list of preconditions for a single currency to operate smoothly is rather formidable, and it is not clear that the members of MERCOSUR union are prepared to satisfy them.

2. Three Views of the Links Between Exchange Rates and Regional Integration

When assessing the need for and feasibility of measures to stabilize exchange rates among the members of a regional arrangement, it is important to be clear about why one thinks currency fluctuations matter. One view is that exchange-rate variability disrupts trade and market integration. It complicates price comparisons, requires importers and exporters to incur the extra costs of hedging, and reduces the volume of intra-regional trade. This has long been the official position of the European Commission and others when advancing the argument that the Single European Market needs a single currency.[5] Indeed, there is some empirical merit to their position. As the literature on exchange-rate variability and trade grows increasingly refined and sophisticated, there does appear to be an emerging consensus that there is a statistically significant, if relatively small, negative impact of exchange-rate variability on trade.[6] Recent studies suggest that the US and

[4] I have in mind Giambiagi (1997, 1998), Lavagna and Giambiagi (1998) and Edwards (1998), among others.

[5] See Emerson et. al (1990) for a clear expression of the Commission view.

[6] See for example Frankel and Wei (1993) or Holly (1995).

Canadian markets are significantly less integrated with one another than are the different US states, this despite the virtual absence of tariff and non-tariff barriers to trade between the two countries, suggesting that their separate currencies do in fact pose a non-negligible barrier to trade.[7]

This evidence does not suggest any fundamental incompatibility, however, between regional integration and the maintenance of separate national currencies possibly fluctuating against one another. All it suggests is that trade between Argentina and Brazil may never grow as intense as trade between pairs of Argentine provinces or pairs of Brazilian states. This is not a disaster. It is not a dire threat to South America's customs union. It is by no means incompatible with regional integration.

A second view of why an integrated economic zone needs stable exchange rates or even a single currency is that exchange-rate swings unleash import surges that antagonize concentrated interests. The adversely-affected interests lobby for countervailing duties and hence against the maintenance of regional free trade. In this view, separate national currencies, insofar as they make exchange-rate variability an unavoidable fact of economic life, are dangerously corrosive of political support for regional free trade. They are fundamentally incompatible with market integration not because they complicate price comparisons or introduce costs of hedging but because they produce exchange rate swings, import surges and, ultimately, a protectionist backlash. This is the other argument for why Europe's Single Market created irresistible pressure for a single currency. Support for it can be found in the protectionist backlash in France and elsewhere in Europe following the depreciation of sterling and the lira in the latter part of 1992.[8] Further support is evident in the backlash against hemispheric integration in the United States, especially in the US South West, following the depreciation of the Mexican peso and the surge of US imports from South of the border in 1995. Support can also be found in the trade conflicts between Argentina and Brazil between 1992 and 1995.

A third view is that all this is hogwash – that there is no incompatibility between regional integration and fluctuating exchange rates. The North American Free Trade Agreement, in this view, cements the case. The exchange rates between the three NAFTA countries continue to fluctuate widely. In recent months, for

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[7] See McCallum (1995) and Engel and Rogers (1996). Whether these differences between cross-border trade on the one hand and trade between Canadian provinces or US states on the other really reflects the effects of separate currencies, as opposed to other policies, is a question to which I return below.

[8] As documented in Eichengreen and Ghironi (1996).

example, both the Canadian dollar and the Mexican peso have depreciated significantly against the US dollar, reflecting the global slump in primary-commodity prices. Trade tensions may arise from time to time, but no one is threatening to back out of NAFTA. There is no serious talk of a single currency for North America, or of Canada and Mexico adopting the US dollar. Rather, exchange-rate fluctuations within the region reflect shifts in the international competitive position of the three participating countries, in particular the relatively heavy dependence of Canada and Mexico on the production and export of primary commodities. To remove the exchange rate as an instrument of adjustment within the free trade area would be to shut off one of its few remaining safety valves.

3. Reconciling the Perspectives

In fact, there is no real incompatibility between these views. Whether or not exchange rate movements threaten regional integration depends on two things: the depth of that integration, and the source of the disturbances in response to which the exchange rate moves.

Depth of Integration. A sharp exchange rate swing is more likely to provoke a political backlash against regional integration when policy makers are seeking to create a truly unified regional market, not when integration stops at the border – that is, when it is limited to the creation of a free trade area or a customs union. The deeper is integration, the higher will be the cross-price elasticity of demand for similar products produced in different parts of that integrated market, and the more intense will be the political dislocations associated with a sudden shift in the exchange rate. Tariff barriers between the three NAFTA partners may be minimal, but there remain a variety of subtler restrictions on cross border trade: different public procurement rules in different countries, differential access to the domestic distribution system, and different degrees of government subsidization for public enterprises and national champions. A change in the exchange rate between the two dollars, for example, will affect the relative competitiveness of US and Canadian producers across a wide range of industries, but import-competing firms will still enjoy some limited protection courtesy of a variety of regulatory impediments to trade. The pressure they experience will be correspondingly less intense.

In the European Union, on the other hand, the goal of the Single Market is to eliminate these hidden obstacles to cross-border competition and to put producers selling into, say, the French market on an even footing whether they are located in France or in any one of the other 14 EU countries. The European Commission is empowered, therefore, to require governments to rescind measures favoring their domestic producers. It has (not always successfully, but increasingly) challenged subsidies for domestic champions, government procurement practices that favor

domestic producers, health and safety regulations that favor some producers over others, and restrictions on the ability of foreign truckers to use domestic roads. The power to determine whether governments can restrict the purity of the beer or the pasteurization of the cheese having been delegated to the Commission (not without resentment, to be sure), competition among producers has become correspondingly more intense. In such an environment, a change in the exchange rate that arbitrarily shifts competitive advantage from one set of national producers to another can have powerful effects on profitability and understandably provokes a strong reaction.

It follows that supplementing regional integration with an initiative to stabilize the exchange rate or move toward a single currency becomes more urgent when integration moves beyond the establishment of a free trade area or a customs union to the creation of a deeply integrated market. Citizens of my own country – indeed, my own state – will appreciate the point. It is hard to imagine the successful maintenance of political support for free interstate commerce between the 50 US states if there existed 50 state currencies fluctuating against one another. At the beginning of the 1990s, when California suffered a more severe recession than the rest of the country, it might have benefitted from possessing a separate currency which it could have depreciated against that of the other 49 US states. But it is not hard to imagine the reaction of the other 49: they would have screamed bloody murder about unfair currency manipulation and exchange dumping by a desperate government in Sacramento and slapped countervailing duties on exports from California.

Nature of the Disturbance. When the exchange rate of one's customs-union partner depreciates because of the deteriorating competitiveness of producers in that country, and when that adjustment is gradual, there should be little political reaction. Thus, when a country experiences relatively rapid inflation that would otherwise price domestic producers out of international markets, some downward adjustment in its exchange rate will be necessary to restore the initial equilibrium. When a country like Canada which depends very heavily on exports of primary commodities is hit by a decline in world commodity prices, its exchange rate must adjust downward to reduce domestic costs of production (valued at world prices, since it is in world markets that commodity prices are set). Again, the change in the exchange rate just restores the initial equilibrium and should not provoke a political reaction. These are simply instances of the exchange rate playing its textbook safety-value role.[9]

[9] Indeed, if the exchange rate and domestic prices move smoothly and in tandem, as in the more classical versions of the model, equilibrium will never be disturbed.

In reality, things do not always work this way. If the exchange rate has been pegged as a centerpiece of the authorities' economic policy strategy and now has to be adjusted because one or another of the aforementioned problems has rendered its previous level unsustainable, that adjustment will be a shock to confidence even if it is a consequence of events that were no fault of the government's own. Typically, interest rates will have to be hiked until investor confidence turns. For this and other reasons, a recession may follow. As an increased share of domestic production is shifted toward export markets, the country's customs-union partners will experience the adjustment not as a smooth return to an initial equilibrium but rather as a contractionary devaluation with negative repercussions abroad. Domestic producers experiencing more intense import competition will not be happy with this result.

And, of course, if the change in the exchange rate is engineered by the foreign country to steal a competitive advantage rather than to correct an initial disequilibrium, it is even more likely to provoke a political backlash abroad.

Implications for MERCOSUR. Thus, whether one believes that MERCOSUR needs a regional exchange-rate-stabilization agreement or a common currency depends first on what kind of integrated regional market its architects are building. A customs union like NAFTA, in which integration is limited to the removal of tariffs and other barriers at the border, can be sustained despite the existence of separate national currencies with exchange rates that fluctuate against one another. But deeper integration, extending to the harmonization of domestic regulations of all kinds, a la the European Union, implies even more open domestic markets and more intense cross-border competition, making exchange-rate changes more disruptive. If South American policy makers are prepared to stop at the customs-union stage, then exchange-rate fluctuations matter less. If they intend to press ahead to deeper integration, then they, like their European counterparts, will also have to contemplate monetary integration.

Some will object that the NAFTA solution is not feasible for MERCOSUR because Brazil is not the United States. The US is both far and away the largest member of the North American Free Trade Agreement and a bastion of monetary stability. Fluctuations in the exchange rate of the Canadian dollar and the Mexican peso are not inconsequential for the United States, but the consequences are tolerable because the Mexican and Canadian economies are so small relative to the American. And fluctuations in the exchange rate of the US dollar, while not inconsequential for Canada and Mexico, are acceptable so long as US monetary policy remains on a sound and stable footing. Brazil neither dominates MERCOSUR to the same extent, nor does it have a comparable track record of monetary stability. Both objections are valid, of course. Because Brazil's MERCOSUR partners are large enough to have a first-order impact on its economy, exchange rate

fluctuations emanating from those other countries are likely to make exchange rates a touchier issue than they are in NAFTA.[10] And if the largest country in MERCOSUR fails to follow stable monetary policies, the repercussions for the cohesion of the customs union could be quite serious. But if Brazil fails to follow stable monetary policies, alternatives to variable exchange rates are not viable either.

4. Is Exchange Rate Variability within MERCOSUR a Problem?

How much exchange-rate variability is too much? This is not a question that can be answered in the abstract. Some metric, or basis for comparison, is required. As a basis of comparison for the MERCOSUR countries, I use the levels of exchange-rate variability typical of advanced-industrial countries and other middle-income developing countries with broadly similar characteristics.

What characteristics of countries should be considered when estimating how much exchange-rate variability is economically and politically acceptable? Here I build on some previous work with Tamim Bayoumi drawing on the theory of optimum currency areas.[11] Contributions to the literature on optimum currency areas (OCA literature for short), starting with Mundell (1961), point to characteristics of countries that make stable exchange rates and/or monetary unification more or less desirable. Among the most important of these characteristics are:

- *Asymmetric output disturbances between a given pair of countries.* The greater the asymmetry of output movements, the higher the value placed on changes in the exchange rate as an instrument of relative price adjustment. Empirically, we measure output disturbances as the standard deviation of the change in the log of relative output in two countries. Thus, for countries in which business cycles are symmetric and outputs move together, the value of this measure is small.
- *Dissimilarity of the commodity composition of production and trade.* When the commodity composition of production and trade is very different across two countries, sector-specific shocks are likely to affect them very differently, placing a premium on exchange-rate variability. This is the determinant of preferences for exchange-rate stability emphasized by Kenen

[10] Actually, the contrast with the United States should not be overdrawn. Purchasing-power-parity weights for 1995 suggest (according to the World Bank's World Development Report) that whereas the US accounted for 85 per cent of NAFTA GNP, Brazil accounted for fully 72 per cent of that of MERCOSUR.

[11] Eichengreen and Bayoumi (1996), Bayoumi and Eichengreen (1997).

(1969). To construct this variable, we collected data on the shares of manufactures, food, and minerals in total merchandise trade for each country. The dissimilarity of any two countries' exports was then defined as the sum of the absolute values of the differences in each share, so that higher values indicate less similarity in the composition of exports.

- *Trade linkages.* The more two countries trade, the more they will value bilateral exchange rate stability which minimizes relative price disturbances disruptive to commerce between them. Empirically, we measure the importance of bilateral trade as the average value of exports to the partner country, scaled by GDP, for each pair of countries concerned.

- *Size.* Small countries benefit the most from the unit of account, means of payment and store of value services provided by a common currency or a stable exchange-rate link. Indeed, the tendency for small countries to opt for pegged exchange rates would appear to be one of the few robust findings from the literature on choice of exchange-rate regime.[12] We measure these benefits of a more stable currency by the arithmetic average of the log of real GDP in us dollars of each pair of countries.[13]

To operationalize these insights from OCA theory, we regress the variability of bilateral real exchange rates for a sample of country pairs on these four measures for each set of partner countries. OCA theory predicts that exchange rate variability should rise with the asymmetry of output movements, the dissimilarity of exports and country size (the signs on these three variables should be positive), while falling with trade linkages (the sign on this variable should be negative). Previously, we estimated the model for an extended European sample of 20 countries (to gain insight into the implications of European monetary unification) and for Japan and 19 of its leading trading partners (to shed light on the advisability of a collective exchange rate peg in Asia). Here, the sample is extended to include the MERCOSUR countries, and the results including these observations are compared with those limited to the non-MERCOSUR countries for various periods of time. If exchange rate variability among the MERCOSUR countries is significantly higher than that between other countries with otherwise comparable

[12] See Honkapohja and Pikkarainen (1992).

[13] The obvious alternative, suggested by McKinnon (1964), is to look at openness instead of (or in addition to) country size. Both Honkapohja and Pikkarainen (1992) and Bayoumi and Eichengreen (1997) find that this variable has surprisingly little additional explanatory power when added to a regression that already includes country size (and that it does not diminish the importance of the economy-size variable).

characteristics, then there is a strong presumption that observed levels of currency variability within MERCOSUR are a problem.

There are some caveats and problems to worry about before taking these results at face value.

- *Endogeneity.* Frankel and Rose (1996) highlight the possible endogeneity of the optimum currency area criteria. In particular, the correlation of business cycle disturbances across countries, or the level of bilateral trade, might itself be significantly affected by the extent to which governments succeed in stabilizing the exchange rate. (It would be a stretch to make similar arguments for country size or export composition, at least over the limited time span considered here.) Bayoumi and Eichengreen (1998) instrument these variables, drawing instruments from the gravity model (which seeks to explain the bilateral trade whose endogeneity is of potential concern here in terms of the distance between each country pair, contiguity, and common language). Reassuringly, the instrumental-variables estimates are little different from those reported here.
- *Stability.* There is reason to worry that the relationship between exchange rate variability and country characteristics will shift over time, especially for the MERCOSUR countries, whose economic circumstances and international economic policies have changed so dramatically over recent years. To get at this question, I undertake extensive sensitivity analysis, reporting results for various subperiods: 1973-82, 1983-96, and 1990-96.
- *Omitted variables.* There is always the worry that a particular set of countries display higher or lower exchange rate variability than predicted because of the influence of other characteristics omitted from the model. An obvious example for the MERCOSUR countries is that they now prefer relatively stable exchange rates, although have actually experienced relatively unstable exchange rates, because of their historical predisposition to high inflation.[14] Looking forward, however, the relevant question is whether the MERCOSUR countries, as they join the club of economies with a tradition of price stability, will then come under pressure to take additional measures to achieve greater exchange rate variability. That is the question the regressions here are designed to address.
- *Independence of observations.* A possible technical concern, given that the data set is composed of the entire network of bilateral exchange rates for the

[14] Bayoumi and Eichengreen (1997) confirm that country pairs across which the relative rate of growth of money supplies is more variable tend to have more variable exchange rates.

sample of countries considered, is that not all of the observations for the dependent variable are independent of one another. But while it is true that changes in bilateral exchange rates are not independent (given triangular arbitrage), the standard deviations of these rates are independent because covariances differ across pairs of countries.

Real versus nominal exchange rates. Real exchange rates matter for relative prices, but governments control (or can attempt to control) only nominal exchange rates. As is well known, however, the two variables are highly correlated: contrary to the predictions of purchasing-power-parity theory, the variability of the nominal exchange rate is a strong predictor of the variability of the real exchange rate.[15] In the present context it turns out to be a matter of indifference whether one analyzes the determinants of real or nominal exchange rate variability. For simplicity I concentrate on the results for real exchange rate variability in the text and report those for nominal exchange rate variability in the appendix.

The upper-left-hand panel of Table 1 shows the basic results for the extended European sample (as in Bayoumi and Eichengreen 1997).[16] All four variables enter with their expected signs and with coefficients that different significantly from zero at the 99 per cent confidence levels. Larger countries, countries with unusually asymmetric business cycles, and countries whose exports are highly similar to one another's tend to prefer more exchange rate variability, while countries that trade more with one another tend to prefer more stable exchange rates. The upper-right-hand panel shows analogous results for Japan and its trading partners, over a somewhat longer period to compensate for the existence of missing observations (as in Eichengreen and Bayoumi 1996).[17] Again, all four OCA variables enter with their predicted signs, although the coefficient on the composition of exports is much smaller and no longer differs significantly from zero at standard confidence levels. Business-cycle synchronization matters a bit more than for the OECD as a whole, and the extent of bilateral trade and economic size appears to matter less, but the overall fit is only slightly less satisfactory than that for the OECD (Table 1).

[15] See for example Mussa (1979).

[16] The sample of countries for these regressions is Germany, France, Italy, the UK, Austria, Belgium, Denmark, Finland, Greece, Ireland, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, Australia, New Zealand, Japan, Canada and the United States.

[17] In this case the country sample is Australia, Belgium, Canada, France, Germany, Indonesia, Italy, Korea, Malaysia, the Netherlands, New Zealand, the Philippines, Singapore, Spain, Thailand, the United States and the United Kingdom, along with Japan.

The lower-left-hand panel consolidates the data for these two previous samples and adds that for the MERCOSUR countries, estimating the model for the 1973-82 subperiod. Again the model does a good job of explaining bilateral exchange-rate variability: all four variables enter as predicted, the extent of bilateral trade is significant at the 95 per cent level, and the other variables are significant at the 99 per cent level. The panel to its right shows that the soon-to-be MERCOSUR countries had unusually variable exchange rates even in this earlier period. "DMERC" is a dummy variable taking on a value of unity when both the countries in a given pair are present-day MERCOSUR members. The effect is large: the magnitude of the coefficient on this dummy is twice the size of the mean of the dependent variable (Table 2).

TABLE 1: Optimum Currency Area Regressions for Real Exchange Rate Variability

EUROPE: 1953-92

LS // Dependent Variable is SDR
Date: 07/07/98 Time: 14:11
Sample: 1 210
Included observations: 210

Variable	Coefficient	Std. Error	t-Statistic	Prob.
SDY	0.743	0.165	4.5101	0.000
DISSIM	0.054	0.009	5.8027	0.000
TRADE	-1.104	0.180	-6.1481	0.000
SIZE	0.024	0.003	7.9207	0.000
C	-0.064	0.020	-3.2567	0.001

R-squared	0.397	Mean dependent var	0.100
Adjusted R-squared	0.385	S.D. dependent var	0.046
S.E. of regression	0.036	Akaike info criterion	-6.636
Sum squared resid	0.263	Schwarz criterion	-6.557
Log likelihood	403.823	F-statistic	33.699
Durbin-Watson stat	1.429	Prob(F-statistic)	0.000

MERCOSUR: 1973-82 (Without dummy)

LS // Dependent Variable is SDR
Date: 07/07/98 Time: 14:32
Sample: 1 465
Included observations: 461
Excluded observations: 4

Variable	Coefficient	Std. Error	t-Statistic	Prob.
SDY	2.386	0.238	10.0441	0.000
DISSIM	0.072	0.017	4.3049	0.000
TRADE	-1.046	0.460	-2.2757	0.023
SIZE	0.022	0.006	3.5846	0.000
C	-0.090	0.034	-2.6348	0.009

R-squared	0.244	Mean dependent var	0.168
Adjusted R-squared	0.238	S.D. dependent var	0.146
S.E. of regression	0.127	Akaike info criterion	-4.110
Sum squared resid	7.402	Schwarz criterion	-4.065
Log likelihood	298.219	F-statistic	36.830
Durbin-Watson stat	0.765	Prob(F-statistic)	0.000

JAPAN: 1976-95

LS // Dependent Variable is SDR
Date: 07/07/98 Time: 14:22
Sample: 1 153
Included observations: 152
Excluded observations: 1

Variable	Coefficient	Std. Error	t-Statistic	Prob.
SDY	0.946	0.216	4.3774	0.000
DISSIM	0.007	0.010	0.7578	0.450
TRADE	-0.864	0.121	-7.1184	0.000
SIZE	0.008	0.003	2.6392	0.009
C	0.050	0.023	2.1301	0.035

R-squared	0.352	Mean dependent var	0.126
Adjusted R-squared	0.334	S.D. dependent var	0.040
S.E. of regression	0.033	Akaike info criterion	-6.812
Sum squared resid	0.157	Schwarz criterion	-6.712
Log likelihood	307.019	F-statistic	19.923
Durbin-Watson stat	1.707	Prob(F-statistic)	0.000

MERCOSUR: 1973-82 (With dummy)

LS // Dependent Variable is SDR
Date: 07/07/98 Time: 14:38
Sample: 1 465
Included observations: 461
Excluded observations: 4

Variable	Coefficient	Std. Error	t-Statistic	Prob.
SDY	2.247	0.232	9.7005	0.000
DISSIM	0.078	0.016	4.8166	0.000
TRADE	-1.133	0.446	-2.5415	0.011
SIZE	0.026	0.006	4.2981	0.000
DMERC	0.283	0.052	5.4979	0.000
C	-0.105	0.033	-3.1701	0.002

R-squared	0.291	Mean dependent var	0.168
Adjusted R-squared	0.283	S.D. dependent var	0.146
S.E. of regression	0.124	Akaike info criterion	-4.170
Sum squared resid	6.941	Schwarz criterion	-4.116
Log likelihood	311.041	F-statistic	37.396
Durbin-Watson stat	0.864	Prob(F-statistic)	0.000

TABLE 2: Optimum Currency Area Regressions for Real Exchange Rate Variability (contd.)

MERCOSUR: 1983-96 (Without dummy)

LS // Dependent Variable is SDR
Date: 07/07/98 Time: 14:50
Sample: 1 465
Included observations: 464
Excluded observations: 1

Variable	Coefficient	Std. Error	t-Statistic	Prob.
SDY	5.031	0.277	18.1530	0.000
DISSIM	0.085	0.015	5.5289	0.000
TRADE	-1.274	0.359	-3.5492	0.000
SIZE	0.032	0.006	5.6450	0.000
C	-0.258	0.036	-7.1603	0.000

R-squared	0.505	Mean dependent var	0.183
Adjusted R-squared	0.501	S.D. dependent var	0.164
S.E. of regression	0.116	Akaike info criterion	-4.305
Sum squared resid	6.130	Schwarz criterion	-4.260
Log likelihood	345.388	F-statistic	117.292
Durbin-Watson stat	0.830	Prob(F-statistic)	0.000

MERCOSUR: 1983-96 (With dummy and interaction terms)

LS // Dependent Variable is SDR
Date: 07/07/98 Time: 14:58
Sample: 1 465
Included observations: 464
Excluded observations: 1

Variable	Coefficient	Std. Error	t-Statistic	Prob.
SDY	4.767	0.282	16.8803	0.000
DISSIM	0.092	0.015	6.0721	0.000
TRADE	-1.383	0.353	-3.9195	0.000
SIZE	0.034	0.006	6.1797	0.000
DMERC	-0.445	0.435	-1.0223	0.307
INTSDY	-56.105	24.020	-2.3357	0.020
INTDISSIM	1.289	0.619	2.0831	0.038
INTTRADE	-19.544	10.469	-1.8668	0.063
INTSIZE	1.393	0.598	2.3289	0.020
C	-0.267	0.036	-7.4486	0.000

R-squared	0.531	Mean dependent var	0.183
Adjusted R-squared	0.522	S.D. dependent var	0.164
S.E. of regression	0.113	Akaike info criterion	-4.337
Sum squared resid	5.811	Schwarz criterion	-4.248
Log likelihood	357.807	F-statistic	57.171
Durbin-Watson stat	0.973	Prob(F-statistic)	0.000

MERCOSUR: 1983-96 (With dummy)

LS // Dependent Variable is SDR
Date: 07/07/98 Time: 14:51
Sample: 1 465
Included observations: 464
Excluded observations: 1

Variable	Coefficient	Std. Error	t-Statistic	Prob.
SDY	4.760	0.279	17.0819	0.000
DISSIM	0.092	0.015	6.0792	0.000
TRADE	-1.390	0.353	-3.9374	0.000
SIZE	0.034	0.006	6.2327	0.000
DMERC	0.213	0.048	4.3903	0.000
C	-0.266	0.035	-7.5261	0.000

R-squared	0.525	Mean dependent var	0.183
Adjusted R-squared	0.520	S.D. dependent var	0.164
S.E. of regression	0.113	Akaike info criterion	-4.342
Sum squared resid	5.883	Schwarz criterion	-4.288
Log likelihood	354.952	F-statistic	101.425
Durbin-Watson stat	0.938	Prob(F-statistic)	0.000

The three panels of Table 2 contrast the results for the more recent (1983-96) period and the entire sample of countries. Again, the model fits rather well, if anything better than in the earlier period.[18] As in the earlier period, the dummy variable for pairs of MERCOSUR countries enters positively and with a statistically significant coefficient, now on the order of 1 ½ times (down from two times) the standard deviation of the dependent variable. The bottom panel of Table 2 interacts the entire vector of country characteristics (as well as the constant term) with the dummy variable for pairs of MERCOSUR countries. In other words, I ask what country characteristics associated with a preference for exchange rate stability elsewhere in the world do not appear to deliver that result in the Southern Cone. It turns out that all the country characteristics pointed to by the theory of optimum currency areas behave differently within MERCOSUR than elsewhere.[19] The tendency for large countries to tolerate greater exchange rate variability is especially prominent within MERCOSUR; this, obviously, is the Brazil effect – a reflection of that country's exceptional behavior. The tendency for countries experiencing booms and bursts at different times to prefer greater exchange rate variability is less pronounced within MERCOSUR than elsewhere; if anything the opposite is true. This presumably reflects the extent to which the exchange rate was used as a nominal anchor in disinflation episodes rather than for standard business-cycle-smoothing purposes. Finally, the tendency for countries with similar exports to prefer stable exchange rates is stronger within MERCOSUR than elsewhere. Why is not clear, although one might posit that the tendency for close export competition to raise political hackles creates particularly strong pressure for exchange-rate stabilization within the grouping. The fact that the association between bilateral trade and exchange-rate stability is even stronger among the MERCOSUR countries than elsewhere is consistent with this interpretation.

Finally, I report the same results for the 1990s (Table 3). The basic results are little changed: the signs and significance of the OCA variables and the MERCOSUR dummy are the same as before, and the latter remains about 1 ½ times the standard deviation of the dependent variable. The version of the model with the complete vector of interaction terms suggests that it is mainly in the stronger association between exchange rate variability and economic size and the weaker effect of exchange rate variability and asymmetric business cycle fluctuations that the MERCOSUR countries differ from the rest of the world. Again, this points to

[18] Note the rise in the adjusted R^2 from 0.23 to 0.54.

[19] Here I concentrate on the results for the 1983-96 subperiod, although those for the longer time span differ little in their essentials.

the importance of Brazil and to the importance of exchange-rate-based stabilization.

These interpretations are confirmed by the scatter plots in Figures 3 and 4, where actual exchange rate variability is plotted against that predicted by the various models. Most of the MERCOSUR-pair observations, denoted by diamonds, are to the right and below the line where actual and predicted are equal. Note that the MERCOSUR pairs tend to fall into two clusters, one of relatively high and one of relatively low variability. For the sample period 1983-96, the high variability observations are those for Argentina and its MERCOSUR partners, reflecting the effects of that country's high inflation and succession of failed stabilization attempts prior to 1991. When the sample period is limited to the 'nineties, they are those for Brazil and its MERCOSUR partners, again reflecting the exchange-rate disruptive effects of high inflation and sudden stabilization.

TABLE 3: Optimum Currency Area Regressions for Real Exchange Rate Variability (contd.)

MERCOSUR: 1990-1996 (Without dummy)

LS // Dependent Variable is SDR
Date: 07/07/98 Time: 15:06
Sample: 1 465
Included observations: 464
Excluded observations: 1

Variable	Coefficient	Std. Error	t-Statistic	Prob.
SDY	5.623	0.336	16.7479	0.000
DISSIM	0.053	0.019	2.7130	0.007
TRADE	-1.220	0.393	-3.1052	0.002
SIZE	0.022	0.006	3.4580	0.001
C	-0.182	0.040	-4.5425	0.000

R-squared	0.440	Mean dependent var	0.156
Adjusted R-squared	0.435	S.D. dependent var	0.173
S.E. of regression	0.130	Akaike info criterion	-4.068
Sum squared resid	7.774	Schwarz criterion	-4.023
Log likelihood	290.286	F-statistic	90.033
Durbin-Watson stat	0.726	Prob(F-statistic)	0.000

MERCOSUR:1990-1996 (With dummy and interaction terms)

LS // Dependent Variable is SDR
Date: 07/07/98 Time: 15:08
Sample: 1 465
Included observations: 464
Excluded observations: 1

Variable	Coefficient	Std. Error	t-Statistic	Prob.
SDY	5.324	0.329	16.1706	0.000
DISSIM	0.058	0.019	3.0985	0.002
TRADE	-1.350	0.380	-3.5550	0.000
SIZE	0.027	0.006	4.1968	0.000
DMERC	0.362	0.310	1.1706	0.242
INTSDY	-11.102	5.428	-2.0452	0.041
INTDISSIM	-0.189	0.226	-0.8365	0.403
INTTRADE	-4.666	8.300	-0.5622	0.574
INTSIZE	0.196	0.077	2.5408	0.011
C	-0.200	0.039	-5.1104	0.000

R-squared	0.487	Mean dependent var	0.156
Adjusted R-squared	0.477	S.D. dependent var	0.173
S.E. of regression	0.125	Akaike info criterion	-4.134
Sum squared resid	7.117	Schwarz criterion	-4.045
Log likelihood	310.756	F-statistic	47.883
Durbin-Watson stat	0.860	Prob(F-statistic)	0.000

MERCOSUR: 1990-96 (With dummy)

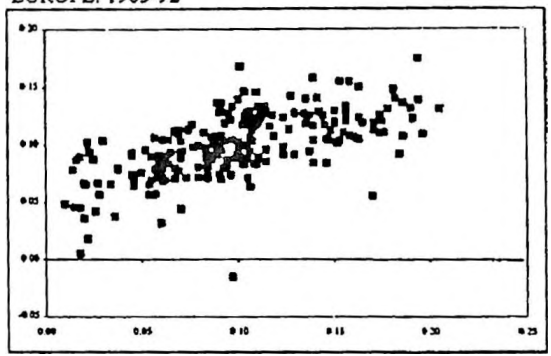
LS // Dependent Variable is SDR
Date: 07/07/98 Time: 15:07
Sample: 1 465
Included observations: 464
Excluded observations: 1

Variable	Coefficient	Std. Error	t-Statistic	Prob.
SDY	5.315	0.331	16.0643	0.000
DISSIM	0.056	0.019	2.9656	0.003
TRADE	-1.385	0.383	-3.6198	0.000
SIZE	0.028	0.006	4.3734	0.000
DMERC	0.288	0.053	5.3866	0.000
C	-0.205	0.039	-5.2275	0.000

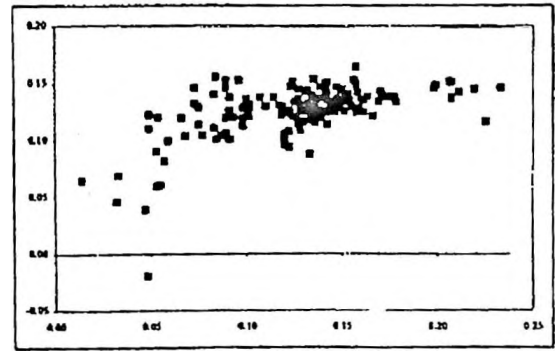
R-squared	0.473	Mean dependent var	0.156
Adjusted R-squared	0.467	S.D. dependent var	0.173
S.E. of regression	0.126	Akaike info criterion	-4.125
Sum squared resid	7.311	Schwarz criterion	-4.071
Log likelihood	304.537	F-statistic	82.225
Durbin-Watson stat	0.834	Prob(F-statistic)	0.000

FIGURE 3: Scatter Plot of Fitted Values Against Actual Values of Real Exchange Rate Variability

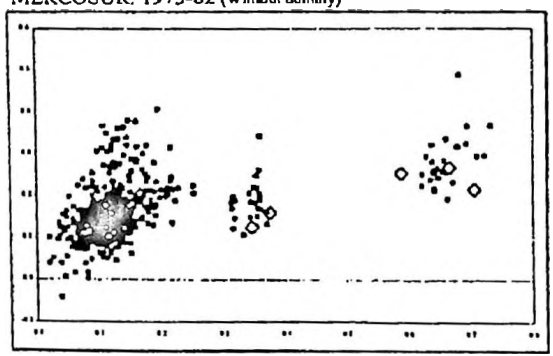
EUROPE: 1983-92



JAPAN: 1976-95



MERCOSUR: 1973-82 (Without dummy)



MERCOSUR: 1973-82 (With dummy)

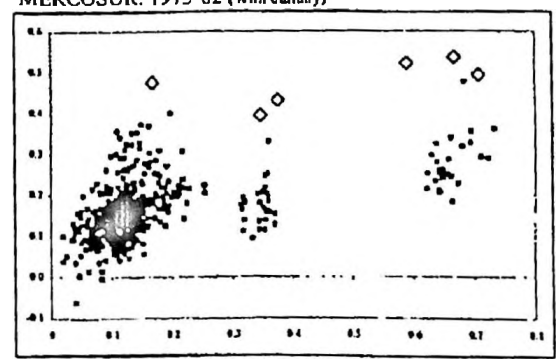
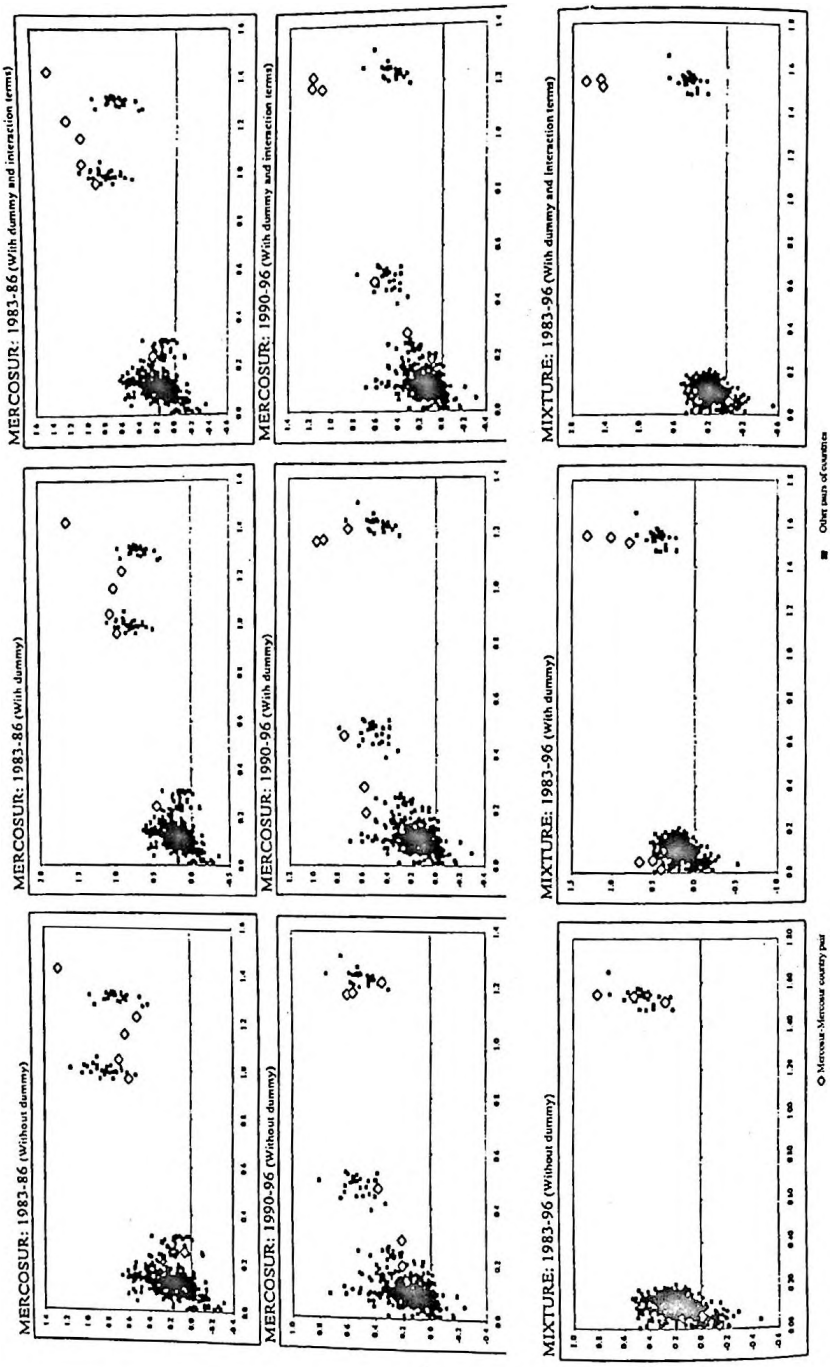


FIGURE 4: Scatter Plot of Fitted Values Against Actual Values of Real Exchange Rate Variability (contd.)



Thus, if the MERCOSUR countries are to reduce real exchange rate variability within the region to levels consistent with those displayed in the first half of the 1990s by other countries broadly sharing the same economic characteristics, this means cutting the variability of the real rate by something on the order of 60 per cent. According to the analysis of nominal exchange rates in the appendix, this means cutting the variability of nominal exchange rates by something on the order of two-thirds relative from 1990-96 levels. The political economy interpretation given in Section 2 suggests that this is necessary in the long run to maintain political support for the levels of openness and trade concentration characteristic of other advanced-industrial and industrializing countries.

5. Feasible and Unfeasible Solutions

How, then, might greater exchange-rate variability be achieved? Posing this question directs attention to the immense literature on alternative exchange rate regimes, exchange rate determination, and exchange rate management. Inevitably, discussion is complicated by the fact that there is no consensus on basic questions like how exchange rates are determined, what causes currency crises, and whether policies like sterilized intervention can influence the level of the exchange rates. Here, in any case, is one economist's attempt to cut through this analytical thicket.

Countries can and do continue to operate a variety of different exchange rate regimes, ranging from rigid currency-board pegs on the one hand, *a la* Argentina, to essentially free floats on the other, *a la* the United States. Traditionally, the majority have sought to operate some kind of intermediate arrangement combining elements of floating and fixing. The exchange rate is managed but allowed to fluctuate over some limited interval. Viewed from the other end, while the exchange rate is allowed to fluctuate, policy is used to influence its level.

Rising international capital mobility is, however, making these intermediate, or hybrid, arrangements more difficult to operate. The growth of private capital markets has exposed the small scale of official reserves relative to private liquidity. Meanwhile, the revolution of information and communications technologies has made it very much more difficult to stop capital inflows and outflows at the border. For both reasons, private markets immensely complicate the task of seeking to operate pegged but adjustable exchange rates, target zones, crawling bands, and similar compromise arrangements. In the presence of internationally mobile capital and liquid markets, a nascent overvaluation is quicker to give rise to a capital outflow. Periodic realignments become problematic, since currency traders will seek to anticipate the government's actions; the merest hint that the authorities are contemplating a realignment may therefore prompt a speculative attack. In the absence of capital controls, defending the currency against attack requires a more dramatic hike in interest rates, which domestic policy makers and

their constituents may not regard as worth the candle. And the knowledge that policy makers are weighing the reputational benefits of defending the currency against the costs of higher interest rates creates scope for self-fulfilling speculative attacks on what inevitably become increasingly fragile currency pegs.[20]

The implication is that countries are increasingly forced to choose between rigidly fixed currency pegs on the one hand a greater exchange rate flexibility on the other. This proposition, while controversial when first advanced, is now widely accepted.[21] It is buttressed by the steady growth in the share of IMF member countries operating some form of variable exchange rates, by the repeated widening of fluctuation bands by countries still operating some sort of band- or target-zone arrangement and, at the other end of the spectrum, by growth in the number of countries operating currency boards and by European monetary unification.

The implication for MERCOSUR is that it is not worthwhile to discuss some kind of common basket peg or internationally-harmonized exchange-rate band as a durable basis for exchange rate stabilization.[22] What was possible in Europe in the 1980s, a European Monetary System of multilateral exchange rate pegs with periodic realignments, was possible then only because of the widespread

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[20] In traditional first-generation currency-crisis models, speculative attacks occur in response to ongoing balance-of-payments deficits and merely anticipate the devaluation and exhaustion of reserves that would have in any case occurred in their absence. In second-generation models of self-fulfilling crises, the speculative can precipitate a devaluation that would not have occurred anyway. Consider a government which is tempted to indulge in a more accommodating, more inflationary monetary policy in the hope of stimulating economic growth, but which concludes in its wisdom that the costs of continued monetary austerity, in the form of gloomier prospects for the banking system and employment growth, are dominated by the benefits of the greater credibility of its reputation for pursuing policies of price stability, which hinges in turn on its continued defense of the currency peg. Absent any change in market conditions, the government will maintain its currency peg indefinitely. Imagine now a speculative attack in which investors sell the currency for foreign exchange, draining liquidity from the market and forcing the authorities to raise interest rates. Suddenly the costs of defending the peg, in the form of additional unemployment and even more damage to the banking system, have risen relative to the benefits. The balance having shifted, it may now make sense for the authorities to abandon their defense of the currency in favor of more accommodating policies where doing so made no sense before. In this setting, a speculative attack can precipitate the collapse of the currency peg (it can succeed, in other words even if that peg could have been maintained indefinitely in its absence). The attack is self-validating because it can induce a shift in policy in a more accommodating, inflationary direction.

[21] The early statements were Crockett (1994) and Eichengreen (1994).

[22] It is perhaps revealing that the kind of arrangement proposed by the Brazilian authorities in 1993, namely that when MERCOSUR came into existence it should be accompanied by a system of exchange rate bands surrounding central parity values, is no longer on the table.

maintenance of capital controls. What was possible in Europe in the 1990s, a European Monetary System of somewhat wider bands, was possible only because a credible commitment to move to monetary union in short order anchored expectations. No EMS-style arrangement will be viable elsewhere in today's world of high capital mobility.

Thus leaves three approaches to achieving greater exchange rate stability. One is the Voltairean regime: each country should tend its own financial garden. Some MERCOSUR members may prefer a currency-board arrangement under which they peg to a low-inflation country elsewhere in the world. Others may prefer policies of inflation targeting in which they target their own inflation rate. They should then cross their fingers and hold their breath that the intra-MERCOSUR exchange rates produced by this arrangement prove relatively stable.[23] There exist theoretical analyses of how the simultaneous pursuit of credible inflation-targeting regimes by a number of countries should in principle deliver relatively stable exchange rates between their respective currencies but as yet little actual historical experience against which these hypotheses can be tested.[24] Casual empiricism suggests that the exchange rates between countries operating inflation-targeting regimes can in fact vary quite widely. (Think, for example, of the recent experience of the UK and Sweden). Inevitably, it is uncertain whether the degree of exchange-rate stability that might be obtained in this way would be consistent with political support for regional integration. To repeat, that will depend on how deep that integration is designed to go.[25]

The second approach is the "Cavallo regime" – a generalized move to currency boards with all currencies pegged to the same external numeraire. Without meaning to cast aspersions on Argentina's successful experience with a currency board, I am on record as arguing that this option is likely to appeal to countries only under the most exceptional circumstances. Pegging each of the MERCOSUR currencies to a common external numeraire like the US dollar is an extremely indirect way of solving the problem of intra-MERCOSUR exchange-rate variability.

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[23] This is the approach favored, on grounds of realism, by Abreu and Bevilaqua (1995). Alternatively, the countries involved might wish to exchange information and adjust domestic policies more actively. To this end, Lavagna and Giambiagi (1998) suggest the creation of committees on fiscal affairs and on macroeconomic coordination (composed of finance and treasury ministers) to negotiate mutually acceptable macroeconomic goals and provide mutual surveillance of national policies.

[24] See Svensson (1994, 1998).

[25] Institutionalized consultations among the countries involved will facilitate the exchange of information and reduce the scope for misunderstanding and confusion, but they cannot support a durable exchange-rate stabilization agreement in today's world of high capital mobility.

It forecloses not just intra-MERCOSUR exchange-rate changes as an instrument of adjustment but also, in effect, changes in the exchange rate *vis-à-vis* the rest of the world. This is such a byzantine solution to MERCOSUR'S exchange-rate problem that we can safely ignore it.

6. The Monetary-Union Option

The operative alternative to more freely floating exchange rates is a single currency for the customs union, the "Delors regime." This is a logically consistent option, monetary union being at the other end of the spectrum connecting fixed and freely floating exchange rates. It is a more politically palatable alternative than a set of separate currency boards, since it preserves exchange-rate flexibility *vis-à-vis* the rest of the world and entails only a partial sacrifice of monetary autonomy.[26] Even the ardent proponents of this option do not envisage monetary union tomorrow; rather, they see this as something the MERCOSUR countries can achieve in 15 years.[27]

The empirical analysis above suggests that Brazil and Argentina, if not also Paraguay and Uruguay, fit more easily at the Voltairean than the Delorean end of the monetary spectrum. Their actual exchange-rate variability may be higher than predicted, but even predicted levels are higher than those for most European countries, given observed levels of bilateral trade, export composition, and business cycle synchronization. But while these characteristics of countries are reasonably taken as fixed in the short run, over a longer time span like 15 years, they are likely to change precisely in response to the choice of exchange rate regime.[28] This is a way of saying that the option of monetary union cannot be ruled out as infeasible a priori.

As noted above, some observers may being extolling monetary union for reasons having nothing to do with the customs union. Some in Argentina may view it as an elegant way of existing from the Convertibility Plan. A shift to a common currency which invoked the need to maintain solidarity within the customs union would not be seen as a simple abandonment of monetary propriety.

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[26] Since monetary autonomy is merely shared among the participants in the monetary union rather than sacrificed entirely. The desirability of appending a monetary-integration initiative to MERCOSUR is not a mere hypothetical: it was alluded to in Protocol nº 20 on Economic Studies associated with the Treaty of Asuncion, signed by Argentina and Brazil in 1987, which declared "the need to initiate steps for the creation of....[a] common monetary unit." See Lavagna and Giambiagi (1998).

[27] See for example Giambiagi (1997).

[28] Again, this is the point made so convincingly by Frankel and Rose (1996).

By substituting one external monetary constraint for another, it would not be viewed as a return to irresponsible monetary policies. Some in Brazil see a common currency as Brazil's only respite from a world in which pegged exchange rates will be devalued sooner or later and all devaluations are disorderly. With a regional currency in place, Brazil will feel more comfortable about floating *vis-à-vis* the rest of the world. With the multi-national composition of the central bank board posing a constraint on its monetary policy freedom, it will feel more comfortable about giving up the exchange rate as a nominal anchor. For all these reasons, the fear of disorderly devaluations will be recede. And as interest rates decline to Argentine levels, the budget-deficit problem will evaporate.[29]

As the European debate has underscored, however, the existence of a smoothly functioning monetary union cannot simply be assumed. It cannot be conjured out of thin air. The Maastricht Treaty's preconditions for monetary union – its so-called convergence criteria – have probably created more confusion than insight into this issue. That said, European economists are now in broad agreement about the prerequisites for a smoothly functioning monetary union. These are four.

- *An independent central bank insulated from the political business cycle.* Monetary policy that is not delegated to independent central bankers who attach priority to price stability may exhibit an inflationary bias, reflecting time-inconsistency problems, or instability, reflecting pressure to respond to the electoral cycle. Hence, the Maastricht Treaty not only entailed the creation of an independent European Central Bank at the inauguration of the monetary union but required countries to buttress the independence of their national central banks during the lead-up as a way of demonstrating that the polity was prepared to live with the consequences of an independent central bank.
- *Wage and price flexibility.* This, it is now acknowledged, was the major omission of the Maastricht Treaty, which is preoccupied by "nominal" as opposed to "real convergence".[30] Once the exchange rate is removed as a mechanism for internal relative price adjustment, other variables must take up the slack. The obvious candidates are greater domestic wage and price flexibility – wage flexibility in particular. Unfortunately, evaluating it is problematic. Probably the best way to measure it is indirectly, namely, via the unemployment rate. If a country's unemployment rate (properly measured) remains low in the face of disturbances, there is no reason why

[29] Thus, Edwards (1998) estimates that if Brazilian interest rates decline to Argentine levels, the public-sector deficit will fall from 7 per cent to 3.2 per cent of GDP.

[30] See for example DeGrauwe (1997).

inadequate wage and price flexibility in response to shocks should elicit irresistible populist lobbying for a more inflationary monetary policy.

- *A strengthened financial sector.* The Maastricht Treaty addressed this problem indirectly, constructing debt and deficit ceilings under which qualifying countries had to squeeze, and an Excessive Deficit Procedure (with allied provisions) to limit deficit spending after the inauguration of the monetary union.[31] The justification for such restraints is as protection for the central bank from pressure to extend an inflationary debt bailout. If a government experiences a debt run and its banking system and financial markets, or those of neighboring countries, experience negative repercussions, the central bank may feel compelled to buy up the bonds of the government in distress, with inflationary consequences monetary-union wide. Moreover, the knowledge that some of those inflationary consequences will be borne by the partner countries will create moral hazard for each set of national fiscal authorities. This problem is not properly solved, however, by making some arbitrary debt or deficit ceiling the entry condition for monetary union or by placing the participating countries in a fiscal strait jacket and immobilizing their automatic stabilizers. The appropriate response is (i) to reform the institutions and procedures by which fiscal policy is made so as to eliminate any bias toward excessive deficits; and (ii) to strengthen banks and other financial institutions so that they are better able to withstand problems and hence are less likely to come for help to the common central bank.[32]

- *Barriers to exit.* A monetary union is no guarantee of exchange rate stability if the participating countries can leave on a whim. Exit is the alternative to voice.[33] A country which is dissatisfied with the common monetary policy either because it is too inflationary or because it is not inflationary enough may be tempted to resurrect its own national currency and its own national monetary policy. This is easy technically; doing so requires only restarting the monetary printing press.[34] And if the markets begin to doubt

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[31] In addition, it included various loopholes and exceptions that greatly complicated interpretation and application of these criteria. This, clearly, is not something that the aspiring architects of any other monetary union would be advised to repeat.

[32] This is the critique of the Excessive Deficit Procedure and the Stability Pact in Eichengreen and Wyplosz (1998).

[33] Where voice in the present instance means lobbying for a different common monetary policy.

[34] And there are enough examples of monetary unions that have dissolved – that of the Austro-Hungarian Empire, that of the Soviet Union, that of the now former Czechoslovakia – that we can dismiss the technical obstacles with confidence.

governments' allegiance, they can force the issue, destabilizing the single currency.[35] In the European case, however, monetary union is one of an interlocking web of economic and political agreements, all of which could be jeopardized if a country abandoned the single currency. This is a significant barrier to exit, which in turn serves to reassure and stabilize the markets.

Note that I have not discussed a number of conditions that featured in the Maastricht Treaty or in the debate surrounding it, on the grounds that subsequent analysis has come to see these as largely irrelevant. Thus, I do not think that the aspiring architects of other monetary unions should make the convergence of interest rates to low levels a condition for entry. The level of interest rates is an endogenous variable that responds quickly to politicians' statements and intentions regarding the composition of the monetary union; witness the rapid decline of Italian and Iberian interest rates as it became clear that European officials had a political preference for a wide monetary union. I do not think that candidate countries should be required to peg their exchange rates for a certain number of years. Not only is the value of the exchange rate another notoriously endogenous variable, but attempting to peg it in a world of high capital mobility (short of adopting a currency board) is a recklessly dangerous strategy.[36] I do not think that bringing inflation down to specified levels is an essential criterion, because there is no necessary reason to believe that a temporary reduction in inflation will be permanent. The more appropriate way of addressing inflationary fears is by

[35] Imagine that Germany is contemplating leaving Stage IIIA of EMU out of dissatisfaction with inflationary policies followed by the ECB in response to problems in the French financial system. (Sticking with the EMU example helps for focusing thought.) Imagine further that investors expect all deutsche marks still circulating in the monetary union to become liabilities of a newly reconstituted Bundesbank and that the deutsche mark will appreciate against the EMU currencies once Germany exits. Investors then have an incentive to hold deutsche marks rather than, say, French francs. Normally, as investors sell francs for marks, the ECB will instruct the Bundesbank, its German operating arm, to sell marks for francs at par. The Bundesbank would then request settlement in euros, which the Banque de France would provide in the form of the corresponding number of francs. The Banque de France's balance sheet would shrink, while the Bundesbank's would expand. So long as both countries remain committed to participation in the monetary union, nothing can disrupt this process. But if Germany is contemplating whether to leave the monetary union, the Bundesbank might be reluctant to accept franc-denominated assets on which it stands to suffer a capital loss. If it hesitates to exchange francs for marks at par, a premium on the latter could arise. That premium could convince the markets that breakup is imminent, accelerating the movement into marks. This would increase the difficulties of the French financial system, heighten the pressure for the ECB to inflate, and reinforce Germany's incentive to exit.

[36] This was Europe's own experience: a series of speculative attacks in 1992-3 forced officials to widen the fluctuation bands for their currencies from 4 ½ per cent to 30 per cent, rendering the exchange-rate criterion largely irrelevant.

reforming the institutions by which monetary policy is made so as to remove any inflationary bias – that is, by making the central bank independent. I do not think that measures to promote immigration or fiscal transfers within the monetary union are essential for its smooth operation. It is unfortunate that the debate over Maastricht was diverted from the importance of wage and price flexibility and into discussions of the need for labor mobility among the participating countries and some form of intra-union fiscal transfers. Immigration and fiscal federalism are less direct, more politically-demanding substitutes for wage and price flexibility. Neither is needed if domestic labor and product market flexibility is enhanced. They key, everyone agrees, is wage flexibility, which is essential to a smoothly-functioning monetary union.[37]

How far are the MERCOSUR countries from satisfying the four key preconditions for a smoothly functioning monetary union? They have already gone a long way down the road to the creation of politically and economically independent central banks. The sticking points are to strengthen financial systems and enhance labor market flexibility. Both items are already on the reform agenda. Argentina has taken significant steps to strengthen its banking system, raising capital standards and tightening regulation, while Brazil has identified the need to impose hard budget constraints and modern management practices on its state banks. Much more clearly needs to be done, however, before the four MERCOSUR countries can declare themselves ready for prime time.

Reducing the strains on the financial system also requires eliminating existing biases toward bloated public sectors, excessive deficits, and heavy reliance on short-term debts. Again, some of the requisite reforms are in train, such as administrative reform in Brazil that would allow the government to reduce the size of the bureaucracy. But readiness for monetary union requires more far-reaching reforms to centralize the budgetary process, vesting more agenda-setting and expenditure-veto powers in the hands of the president or finance minister as a way of diminishing common-pool problems.[38]

Labor market flexibility is not a traditional South American strength, to put an understated gloss on the point.[39] Brazilian and Argentine unemployment together

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[37] Thus, the approach recommended here is rather different from that of Lavagna and Giambiagi (1998), whose suggest that governments should target inflation rates, budget deficits, and current account deficits.

[38] See Eichengreen, Hausmann and von Hagen (1996).

[39] Camargo (1997) emphasizes the Brazilian labour market's high turnover and wide wage dispersion as evidence of flexibility, but admits to other rigidities, and was in casing writing before the current period of high unemployment, which is suggestive of rising rigidity.

have scaled Western European levels, reaching the double digits.[40] A smoothly functioning monetary union will need a more flexible labor market, as manifested in a lower unemployment rate. Many of the relevant reforms have been proposed but are yet to be implemented. Brazil's August 1998 measures are a step forward, especially those relaxing obstacles to part-time employment, reducing the costs of temporary layoffs (and therefore hiring and firing costs), and giving employers more flexibility in compensating workers for overtime. But this is only a first modest step toward the creation of a more flexible labor market: abolishing compulsory contributions to unions, allowing workers to join the union of the choice, increasing the incentives for youth training, and rationalizing laws regarding retirement have all been proposed but not implemented. Efforts to rationalize civil service employment have been similarly watered down.

The labor-market situation in Argentina is similarly no better than mixed in terms of the preconditions for monetary union. Labor legislation has been changed as a condition of IMF support, but the efficacy of those reforms is disputed. Collective bargaining remains highly centralized, encouraging wage compression and limiting flexibility, although it is now possible for negotiations to proceed on a company by company basis if (and only if) agreed to by the union. Provisions in the old law automatically renewing the terms of an existing contract if a new one is not agreed to were not abolished as recommended by the Fund. While temporary contracts introduced in 1995 have reduced hiring and firing costs and reduced non-wage costs for some employers (resulting in an estimated decline of 10 per cent in average labor costs), these "trash contracts" are strongly opposed by Argentina's union federation, the CGT, and their future is uncertain.

Revealingly, while Argentine unemployment has been reduced from the more than 20 per cent it reached in the wake of the Tequila crisis, it remains well into the double digits (13 per cent at time of writing), which is hardly evidence of sufficient labor market flexibility. Some would say that if Argentina can successfully reconcile double-digit unemployment with a currency board, it can equally well reconcile double-digit unemployment with a monetary union. The problem is that there may be greater opportunity for unions concerned with high unemployment press for a more inflationary monetary policy once monetary autonomy is restored, in this scenario by being placed in the hands of a MERCOSUR central bank.

[40] Some would say that Europe's success in moving to monetary union in the face of double-digit unemployment rates indicates the irrelevance of this variable. But this would be to repeat European mistakes rather than to learn from European experience.

Finally, there is the creation of barriers to exit, which are essential for a smoothly-functioning monetary union. In Europe, these are provided by the three pillars of the integration process: a common economic policy, a common social policy, and a common security policy. The European Union has embarked on a wide variety of integration initiatives, which extend from the Single Market to the creation of a European army and a European foreign policy. Admittedly, these extensive commitments do not prevent European governments dissatisfied with various aspects of the European project from discussing exit as a hypothetical option from time to time, as readers of the English and Danish press will be aware. But the fact that this entire network of interlocking bargains could be jeopardized by a country's decision to abandon one of them, namely monetary union, is a formidable barrier to exit.

This is simply another way of arguing that monetary union makes sense as a solution to MERCOSUR'S exchange rate problem only if it is part of a significantly deeper integration project. If MERCOSUR ends with a customs union, then it will be hard to create the exit barriers necessary for that monetary union to operate smoothly. And, if integration stops at the border, there is no reason why some exchange rate variability should be a dire threat to political support for that customs union. If, on the other hand, there develops a readiness to transform MERCOSUR into a more far-reaching integration initiative, involving the creation of a true single, integrated South American market, then exchange rate swings will become more politically disruptive, and monetary unification becomes not only feasible but essential.

Appendix

Results for Nominal Exchange Rate Variability

TABLE A.1: Optimum Currency Area Regressions for Nominal Exchange Rate Variability

EUROPE :1983-92

LS // Dependent Variable is SDE
Date: 06/30/98 Time: 12:50
Sample: 1 210
Included observations: 210

Variable	Coefficient	Std. Error	t-Statistic	Prob.
SDY	0.611	0.164	3.716	0.0003
DISSIM	0.047	0.009	5.034	0.0000
TRADE	-1.177	0.179	-6.571	0.0000
SIZE	0.024	0.003	7.998	0.0000
C	-0.059	0.020	-3.008	0.0030

R-squared	0.381	Mean dependent var	0.098
Adjusted R-squared	0.369	S.D. dependent var	0.045
S.E. of regression	0.036	Akaike info criterion	-6.641
Sum squared resid	0.262	Schwarz criterion	-6.561
Log likelihood	404.278	F-statistic	31.540
Durbin-Watson stat	1.381	Prob(F-statistic)	0.000

JAPAN: 1976-95

LS // Dependent Variable is SDE
Date: 06/30/98 Time: 12:06
Sample: 1 153
Included observations: 152
Excluded observations: 1

Variable	Coefficient	Std. Error	t-Statistic	Prob.
SDY	0.906	0.203	4.462	0.0000
DISSIM	0.010	0.009	1.139	0.2567
TRADE	-0.896	0.114	-7.857	0.0000
SIZE	0.011	0.003	3.753	0.0003
C	0.032	0.022	1.436	0.1532

R-squared	0.392	Mean dependent var	0.122
Adjusted R-squared	0.376	S.D. dependent var	0.039
S.E. of regression	0.031	Akaike info criterion	-6.936
Sum squared resid	0.138	Schwarz criterion	-6.837
Log likelihood	316.476	F-statistic	23.706
Durbin-Watson stat	1.719	Prob(F-statistic)	0.000

MERCOSUR .1973-82 (Without dummy)

LS // Dependent Variable is SDE
Date: 06/30/98 Time: 13:48
Sample: 1 465
Included observations: 461
Excluded observations: 4

Variable	Coefficient	Std. Error	t-Statistic	Prob.
SDY	2.725	0.293	9.297	0.0000
DISSIM	0.092	0.021	4.461	0.0000
TRADE	-1.525	0.567	-2.690	0.0074
SIZE	0.037	0.008	4.861	0.0000
C	-0.177	0.042	-4.214	0.0000

R-squared	0.232	Mean dependent var	0.170
Adjusted R-squared	0.225	S.D. dependent var	0.179
S.E. of regression	0.157	Akaike info criterion	-3.690
Sum squared resid	11.266	Schwarz criterion	-3.645
Log likelihood	201.401	F-statistic	14.402
Durbin-Watson stat	0.565	Prob(F-statistic)	0.000

MERCOSUR: 1973-82 (With dummy)

LS // Dependent Variable is SDE
Date: 06/30/98 Time: 13:49
Sample: 1 465
Included observations: 461
Excluded observations: 4

Variable	Coefficient	Std. Error	t-Statistic	Prob.
SDY	2.544	0.285	8.935	0.0000
DISSIM	0.100	0.020	5.017	0.0000
TRADE	-1.639	0.548	-2.990	0.0029
SIZE	0.042	0.007	5.662	0.0000
DMERC	0.369	0.063	5.821	0.0000
C	-0.197	0.041	-4.837	0.0000

R-squared	0.285	Mean dependent var	0.170
Adjusted R-squared	0.277	S.D. dependent var	0.179
S.E. of regression	0.152	Akaike info criterion	-3.757
Sum squared resid	10.485	Schwarz criterion	-3.704
Log likelihood	217.957	F-statistic	36.283
Durbin-Watson stat	0.681	Prob(F-statistic)	0.000

TABLE A.2: Optimum Currency Area Regressions for Nominal Exchange Rate Variability (contd.)

MERCOSUR 1990-1996 (Without dummy)

LS // Dependent Variable is SDE
Date: 06/30/98 Time: 19:03
Sample: 1 465
Included observations: 464
Excluded observations: 1

Variable	Coefficient	Std. Error	t-Statistic	Prob.
SDY	9.132	0.600	15.227	0.0000
DISSIM	-0.018	0.035	-0.504	0.6145
TRADE	-2.006	0.702	-2.858	0.0045
SIZE	0.036	0.012	3.117	0.0019
C	-0.304	0.072	-4.248	0.0000

R-squared	0.369	Mean dependent var	0.194
Adjusted R-squared	0.363	S.D. dependent var	0.291
S.E. of regression	0.232	Akaike info criterion	-2.907
Sum squared resid	24.805	Schwarz criterion	-2.863
Log likelihood	21.099	F-statistic	67.058
Durbin-Watson stat	0.654	Prob(F-statistic)	0.000

MERCOSUR 1990-96 (With dummy)

LS // Dependent Variable is SDE
Date: 06/30/98 Time: 19:05
Sample: 1 465
Included observations: 464
Excluded observations: 1

Variable	Coefficient	Std. Error	t-Statistic	Prob.
SDY	8.711	0.599	14.549	0.0000
DISSIM	-0.013	0.034	-0.382	0.7028
TRADE	-2.232	0.693	-3.223	0.0014
SIZE	0.043	0.012	3.778	0.0002
DMERC	0.394	0.097	4.078	0.0001
C	-0.335	0.071	-4.731	0.0000

R-squared	0.391	Mean dependent var	0.194
Adjusted R-squared	0.384	S.D. dependent var	0.291
S.E. of regression	0.229	Akaike info criterion	-2.939
Sum squared resid	23.936	Schwarz criterion	-2.885
Log likelihood	29.372	F-statistic	58.798
Durbin-Watson stat	0.687	Prob(F-statistic)	0.000

MERCOSUR.1990-1996 (With dummy and interaction terms)

LS // Dependent Variable is SDE
Date: 06/30/98 Time: 19:07
Sample: 1 465
Included observations: 464
Excluded observations: 1

Variable	Coefficient	Std. Error	t-Statistic	Prob.
SDY	8.586	0.596	14.413	0.0000
DISSIM	-0.016	0.034	-0.476	0.6345
TRADE	-2.331	0.687	-3.392	0.0008
SIZE	0.041	0.011	3.547	0.0004
DMERC	-0.855	0.560	-1.525	0.1279
INTSDY	2.632	9.822	0.268	0.7888
INTDISSIM	0.393	0.409	0.960	0.3375
INTTRADE	34.846	15.017	2.320	0.0208
INTSIZE	0.107	0.140	0.769	0.4425
C	-0.313	0.071	-4.431	0.0000

R-squared	0.407	Mean dependent var	0.194
Adjusted R-squared	0.395	S.D. dependent var	0.291
S.E. of regression	0.227	Akaike info criterion	-2.948
Sum squared resid	23.301	Schwarz criterion	-2.859
Log likelihood	35.617	F-statistic	34.640
Durbin-Watson stat	0.747	Prob(F-statistic)	0.000

TABLE A.3: Optimum Currency Area Regressions for Nominal Exchange Rate Variability (contd.)

MERCOSUR: 1990-1996 (Without dummy)

LS // Dependent Variable is SDE
Date: 06/30/98 Time: 19:03
Sample: 1 465
Included observations: 464
Excluded observations: 1

Variable	Coefficient	Std. Error	t-Statistic	Prob
SDY	9.132	0.600	15.227	0.0000
DISSIM	-0.018	0.035	-0.504	0.6145
TRADE	-2.006	0.702	-2.858	0.0045
SIZE	0.036	0.012	3.117	0.0019
C	-0.304	0.072	-4.248	0.0000

R-squared	0.369	Mean dependent var	0.194
Adjusted R-squared	0.363	S.D. dependent var	0.291
S.E. of regression	0.232	Akaike info criterion	-2.907
Sum squared resid	24.805	Schwarz criterion	-2.863
Log likelihood	21.099	F-statistic	67.058
Durbin-Watson stat	0.654	Prob(F-statistic)	0.000

MERCOSUR: 1990-96 (With dummy)

LS // Dependent Variable is SDE
Date: 06/30/98 Time: 19:05
Sample: 1 465
Included observations: 464
Excluded observations: 1

Variable	Coefficient	Std. Error	t-Statistic	Prob
SDY	8.711	0.599	14.549	0.0000
DISSIM	-0.013	0.034	-0.382	0.7028
TRADE	-2.232	0.693	-3.223	0.0014
SIZE	0.043	0.012	3.778	0.0002
DMERC	0.394	0.097	4.078	0.0001
C	-0.335	0.071	-4.731	0.0000

R-squared	0.391	Mean dependent var	0.194
Adjusted R-squared	0.384	S.D. dependent var	0.291
S.E. of regression	0.229	Akaike info criterion	-2.939
Sum squared resid	23.936	Schwarz criterion	-2.885
Log likelihood	29.172	F-statistic	58.798
Durbin-Watson stat	0.687	Prob(F-statistic)	0.000

MERCOSUR. 1990-1996 (With dummy and interaction terms)

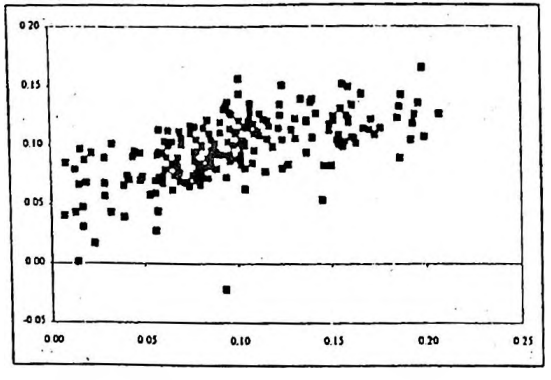
LS // Dependent Variable is SDE
Date: 06/30/98 Time: 19:07
Sample: 1 465
Included observations: 464
Excluded observations: 1

Variable	Coefficient	Std. Error	t-Statistic	Prob.
SDY	8.586	0.596	14.413	0.0000
DISSIM	-0.016	0.034	-0.476	0.6345
TRADE	-2.331	0.687	-3.392	0.0008
SIZE	0.041	0.011	3.547	0.0004
DMERC	-0.855	0.560	-1.525	0.1279
INTSDY	2.632	9.822	0.268	0.7888
INTDISSIM	0.393	0.409	0.960	0.3375
INTTRADE	34.846	15.017	2.320	0.0208
INTSIZE	0.107	0.140	0.769	0.4425
C	-0.313	0.071	-4.431	0.0000

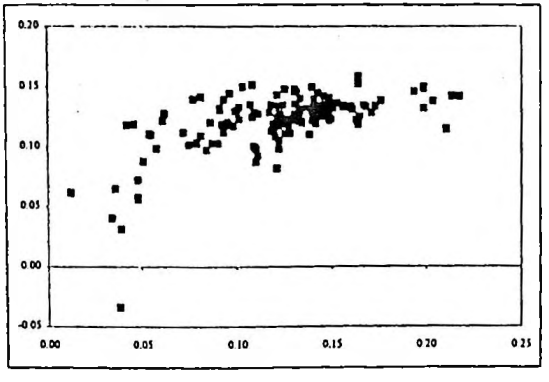
R-squared	0.407	Mean dependent var	0.194
Adjusted R-squared	0.395	S.D dependent var	0.291
S.E. of regression	0.227	Akaike info criterion	-2.948
Sum squared resid	23.301	Schwarz criterion	-2.859
Log likelihood	35.617	F-statistic	34.640
Durbin-Watson stat	0.747	Prob(F-statistic)	0.000

FIGURE A.1 Scatter Plot Fitted Values Against Actual Values of Nominal Exchange Rate Variability

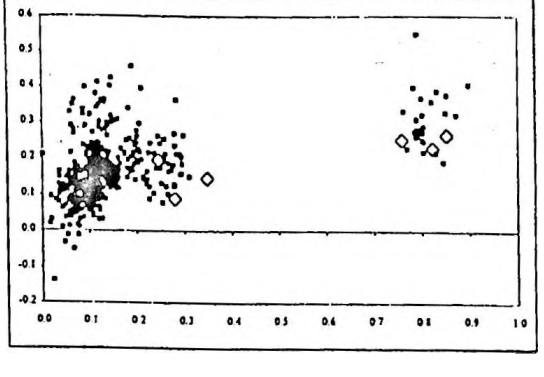
EUROPE: 1983-92



JAPAN: 1976-95



MERCOSUR: 1973-82 (Without dummy)



MERCOSUR: 1973-82 (With dummy)

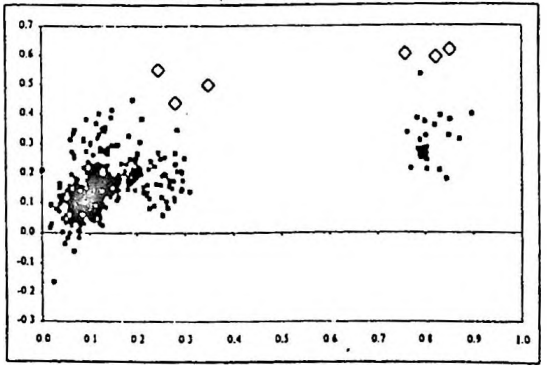
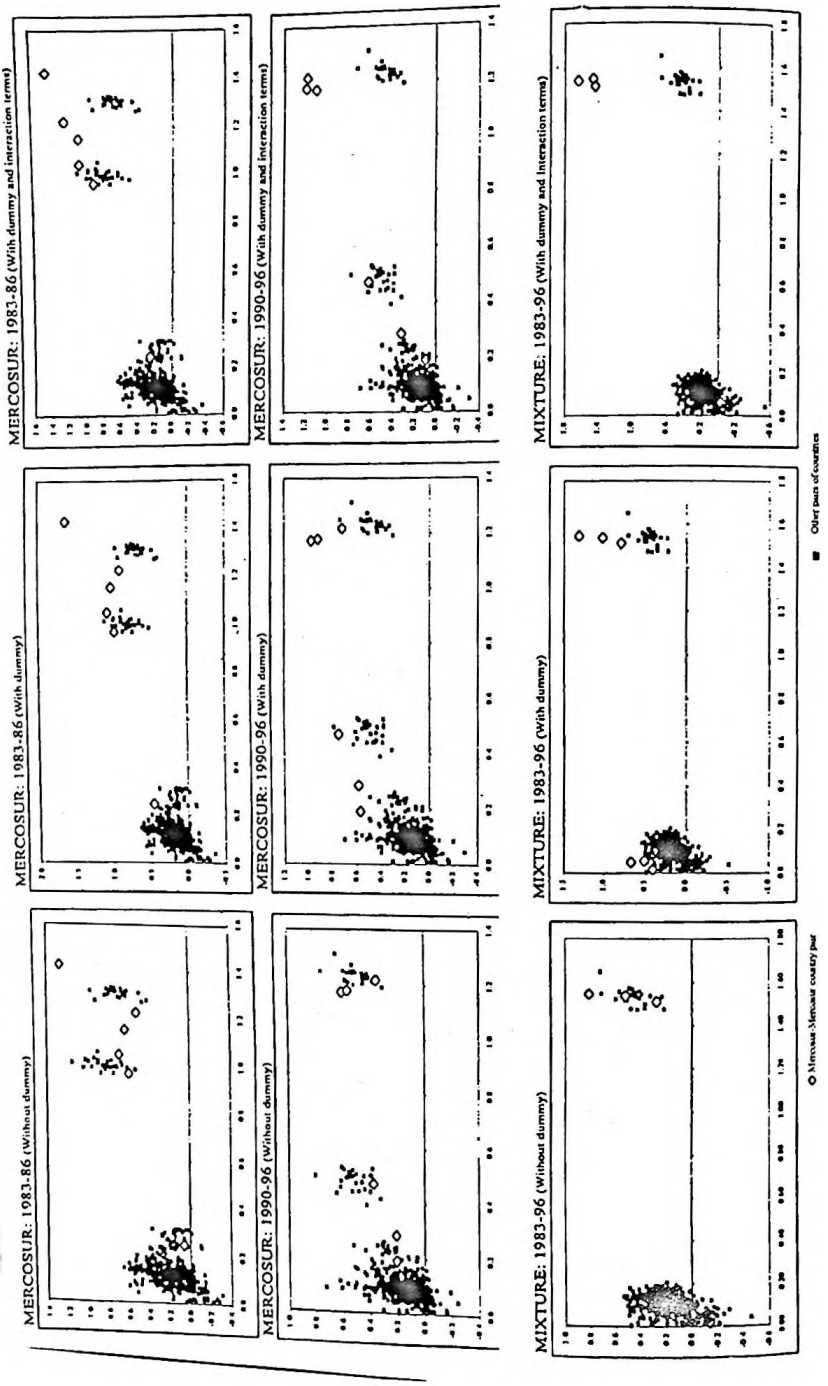


FIGURE A.2: Scatter Plot of Fitted Values Against Actual Values of Nominal Exchange Rate Variability (contd.)



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Comments by Afonso S. Bevilaqua

This is a very interesting paper and it is a pleasure to discuss it. As it is usually the case with papers by the author, it is extremely well written and sets a clear framework with a solid analytical basis for thinking about the subject.

I will concentrate my comments on a brief discussion of the major points of the paper:

i) the assessment of whether exchange rate variability in MERCOSUR has been a problem or not;

ii) the introduction of a single currency as a natural step at the end of the integration period.

Regarding the first point, I am not sure if I know how to interpret the econometric exercises implemented in the paper. The methodology, which builds on previous research by the author with Tamin Bayoumi, consists on regressing the variability of bilateral exchange rates on four characteristics that the optimum currency areas theory suggests are likely to influence the desirability of monetary unification. The variability of bilateral real exchange rates is influenced by the choice of the exchange rate regime but it is also affected by many other variables that are not directly related to that. I think it would be interesting to examine how the results would be affected if the sample is split into countries having formal pegged exchange arrangements and countries that do not have them.

With respect to the second point, I believe the paper does a superb job in showing why the establishment of a single currency is the natural final step in a deep integration process. However, I would have liked to see this discussion complemented by a topic which I believe is crucial for MERCOSUR, namely the transition period to the introduction of a single currency. MERCOSUR is a trade arrangement characterized by a large dominant trade partner with which the other three economies conduct a large proportion of their trade and which in the past has not been particularly stable in terms of macroeconomic conditions. The implication here is that arrangements that limit exchange rate variability will be sought in the short term much more by the smaller partners than by Brazil. And I think this fact could be an important source of tension in the region until we get to a point where a single currency is inevitable.

As we learn from other papers by Barry Eichengreen, the decision to adopt a single currency cannot be justified purely on economic grounds. It is a political decision that is taken only when all countries in the integration initiative are convinced of its net benefits. And I wonder what factors in the road to full integration will make that decision inevitable to Brazil. I will stop here but again I would like to say that the paper is extremely interesting and it was a pleasure to have the opportunity to discuss it.

II The FTAA: Its Impacts and Perspectives

THEME II: FTAA: ITS IMPACTS AND PERSPECTIVES

Chairman: *Renato Baumann Neves*

SUMMARY

BRAZIL AND THE UNITED STATES AT THE GATEWAY OF THE FTAA: A CGE MODELING APPROACH TO CHALLENGES AND OPTIONS

Raúl A. Hinojosa-Ojeda and Sherman Robinson

1. Introduction

AS IN PREVIOUS PERIODS of US-Latin-American history, the Brazil-US economic relation once again looms large as to the evolution and outcome of a number of pending hemispheric negotiations and outstanding areas of global economic reform. As the first and second largest economies in the Western Hemisphere and the first and eighth largest economies in the world, the relationship between the US and Brazil has repeatedly intrigued people of both countries and around the world for the scope of potential opportunities. With the launching of negotiations in September 1998 for an envisioned Free Trade Area of the Americas (FTAA), the future of the US-Brazil relation has emerged as the major question mark concerning the final form of a new hemispheric order. With the US's largest trading partners (Canada and Mexico) now all joined within the North American Free Trade Area (NAFTA) and Brazil having formed MERCOSUR with its most important trading partners in South America, the US-Brazil bilateral trading relationship is for both countries, as well as the hemisphere as a whole, the next largest trading relationship that is not yet subject to free trade rules.

At the same time that the Brazil-US relation sparks interest due to its potential opportunities, it also regularly generates a certain amount of apprehension in some quarters, in part precisely because of its potential for growth and impact. Within both the US and Brazil, questions are raised concerning the ability of each country to absorb the adjustments to a new trade agreement with a large partner of a very different income level, especially coming on the heals of major regional trade agreements like NAFTA and MERCOSUR. The specter of "many NAFTA's" is raised in the US to caution movement towards free trade with Brazil and an FTAA, while in Brazil some say that it may be better to liberalize with other regional partners as an alternative to free trade with the US. Throughout the hemisphere, questions are also raised as to what might be the relative impact of alternative sub-regional trading arrangements, both for the larger as well as smaller economies of the region. The essential questions that need clarification for all concerned is thus how would free trade between the US and Brazil compare with NAFTA and MERCOSUR experiences, on the one hand, and how would liberalization between the two largest economies affect the impact of the FTAA.

This paper presents a computable general equilibrium (CGE) modeling framework for evaluating the potential benefits and challenges involved in the US-Brazil trade liberalization, both in a comparative context with NAFTA and

MERCOSUR, as well as in a comparative context with a FTAA. The CGE modeling framework presented here includes the US and Brazil as well as all the other major Latin-American countries and sub-regional trading groups. Four major scenarios are generated which allow for the exploration of the relative impacts of different free trade arrangements:

(1) NAFTA only;

(2) MERCOSUR only;

(3) NAFTA and MERCOSUR and a US-Brazil free trade; and

(4) FTAA.

The results of this analysis indicate that while Brazil-US trade is indeed the next largest relationship that can be liberalized, its impact both immediately and over time, is likely to be less than half of the impact of NAFTA and MERCOSUR for both the US and Brazil, as well as for the hemisphere as a whole. Brazil-US trade liberalization is nevertheless the single largest next potential contributor to gains from trade within an FTAA. The results also indicate than the ultimate formation of full hemispheric FTAA is the superior option for both the US and Brazil, as well as the hemisphere as a whole.

The paper is organized as follows. The next section reviews the structure of economic relations and levels of protection for the US and Brazil as well as within and between NAFTA and MERCOSUR, describing the base data used in our US-Brazil-FTAA-CGE model. Section three discusses the US-Brazil-FTAA-CGE modeling approach. Section four presents the model results for alternative scenarios of US-Brazil trade liberalization, including NAFTA, MERCOSUR and the FTAA. Section five presents our conclusions.

2. Brazil-US and Hemispheric Structure of Trade, Production and Protection

Analysis of the potential impact and implications of US-Brazil and Western hemispheric free trade is shaped by the complex network of economic and political ties which already exist throughout the region. Each country is tied into others in the region to varying degrees, and the strength of this interdependence shapes the outlook and prospects for each.

Tables 1 and 2 present major economic indicators for countries and regional groupings in the hemisphere, including GDP and GDP per capita, Brazil-US and hemispheric trade, and financial flows as a percentage of GDP. All data is for 1995 as well as for 1990, the base year of the BRAZIL-US-FTAA-CGE model. The hemispheric asymmetry is evident in the wide disparities in GDP and GDP per capita figures. The US GDP, for example, is almost 11 times that of Brazil and 1,200 times that of Bolivia; US GDP per capita is seven times larger than Brazil and

Mexico, and over 20 times higher than the Central American Common Market (CACM) average.[1]

Turning to hemispheric trade data, the larger economies are actually much less dependent on trade than are smaller ones. The apprehension towards freer trade in the larger countries may seem somewhat paradoxical since the largest economies, Brazil and the US, are the least open less open, with export shares of only around 7 percent of GDP in 1990 and around 9 percent in 1995. In comparison, Chile, Costa Rica, and Ecuador (among the smallest countries in the region) have export shares greater than 25 percent of GDP.

The US and Brazil pose a particular set of "special cases" that set them apart from the rest of the hemisphere, and indeed, the world. Among the largest 30 economies in the world, the US is the least open among developed countries and Brazil is the least open among developing countries. While the US is 8th and Brazil is 31th in per capita terms, they are 27th and 63th in exports per capita. In comparing 1990 with 1995, both the us and Brazil have lagged considerably behind the hemisphere in a generalized growing share of trade to GDP. Yet while the US has been making more recent progress in successfully growing its export capacity, Brazil has not in comparison to other developing countries such as Mexico. While the US remains the world's largest exporter, Brazil is number 23 and falling.

The relative dependence on trade *within* the hemisphere also varies substantially, with the Latin-American countries much more dependent on trade with the US than vice versa. Traveling south in the hemisphere away from the US, this dependence declines, while trade among Latin-American countries and with the rest of the world increases. For Mexico, exports to the US in 1995 were much larger (22.4 percent of GDP) than exports to the entire Latin-American community (only 1.3 percent).

Since the formation of MERCOSUR, Brazil has shifted dramatically towards much more trade with LAC. While as recently as 1990, Brazilian exports to the US as a share of GDP were only 1.9 percent, this was more than double the level of trade with all of LAC combined. By 1995, Brazilian exports to LAC rose to over 2% of GDP while exports to the US fell to 1.7%. For Argentina, exports to the US as a share of GDP fell even more dramatically (from 1.8 to 8 percent), while exports to countries within Latin America community rose from 3.4 to 4.7 percent. While LAC economics are more dependent on US trade than the US is on

[1] These gaps are significantly more than those which confronted Western Europe during the enlargement of the EC, yet are in the range of current disparities across Eastern and Western Europe, as well as within East Asia. See Hinojosa (1993) for a comparative discussion of regional inequalities within Europe, Asia, and the Americas.

LAC markets, US trade with LAC countries as a share of GDP is greater than that in Mexico and has only recently been surpassed by Brazil.

The asymmetrical trade pattern in North and South America becomes more evident in Table 2, which list exports to different trading partners in 1990 and 1995 as a percentage of total exports. Latin-American economies have historically depended primarily on countries within the hemisphere as markets for their products, with the largest share going to the US (shown here as part of NAFTA). NAFTA has actually become even more important as a destination of LAC exports, up from 39% to 46% from 1990 to 1995. While the US exports are largely exported outside the hemisphere, the importance of exports to LAC has risen from 12% to 17% in five years. The asymmetry in trade dependence between North and South is also diminishing in the 1990s compared to the 1980s. Macro stability and sweeping economic reforms in Latin America have created rapid growth in import needs, and LAC is becoming the fastest growing market for US exports. In the early 1990s, exports to Latin America accounted for one-third of the total increase in US exports. However, this increase in US exports to Latin America has also produced a corresponding rise in troublesome bilateral trade deficits with the US.

There is also evidence that regional trading blocs have shifted trade towards greater intra-bloc trade on a global scale. Trade within existing trading blocs (NAFTA, MERCOSUR, and the European Community) all increased over the last decade. Latin-American exports to the US and to Latin America now represent a larger percentage than they did in 1990, while the share of exports to Europe and Japan have fallen back below 1990 levels. The levels of intra-MERCOSUR and intra-Andean Pact trade more than doubled from 1990 to 1995. As trade blocs and agreements become more important in the emerging world economic order, fear of exclusion becomes another motivating factor in the policy shift in Latin America in favor of trade alliances.

Table 4 presents the average import tariff rates for the economies in the BRAZIL-US-FTAA model. In general, Brazilian tariff barrier rates are significantly higher than US tariff barriers. The distribution of protection is somewhat different between the two countries. The US has relatively higher rates on agricultural products compared to manufactured products (expert for light manufacturing, which has the highest rate of any sector). In Brazil, on the other hand, manufactured goods are more protected, although tariff rates on agriculture products are still relatively higher than in the US. The dispersion between rates is also higher, with protection ranging from a low of 4 percent on other agricultural products to 33 percent on consumer durable to a high of 50 percent on oil.

The impact of different trade liberalization scenarios will be influenced by this structure of protection, along with the pattern of sectoral productivity (Table 3) and trade (Table 5). Larger increases in trade flows will occur where liberalization

is reducing tariffs the largest amount on the greatest volume of trade. The tariff structures shown in Table 4 suggest that the short-run export benefits of trade liberalization should accrue mostly to the US. Most Latin-American exports are agricultural products and natural resources which do not face significant tariffs in the US and where the US does not have a strong comparative advantage. Only 18 percent of LAC exports encounter tariff rates of five percent or higher and only eight percent encounter these rates plus non-tariff barriers. However, the limited LAC manufacturing exports that currently occur are in sectors with relatively high comparative advantage but which also face higher US tariff rates and non-tariff barriers.

3. Modeling Alternative Scenarios of US-Brazil and Hemispheric Trade

3.1 The BRAZIL-US-FTAA-CGE Model

In this paper, Western Hemispheric regional integration is analyzed using a computable general equilibrium (CGE) model. The BRAZIL-US-FTAA-CGE model is in the tradition of recent multi-country CGE models that analyze the impact of the Uruguay Round of GATT negotiations,[2] the impact of the North American Free Trade Agreement, and its potential expansion to include Central America and the Caribbean.[3]

The BRAZIL-US-FTAA-CGE model developed in this article consists of an eleven-sector, eleven-country model that builds on the multi-regional CGE framework developed by Hinojosa-Ojeda, Lewis and Robinson (1994, 1997). The model consists of ten sub-regional or "country" cge models (Argentina, Brazil, Chile, Bolivia, Peru, Ecuador, Colombia, Venezuela, Mexico, and the US) interconnected through trade flows. Each "country" model follows closely what has become a standard theoretical specification for trade-focused CGE models.[4] In addition to eleven sectors, the model has six factors of production in each country: land, capital, rural labor, urban unskilled labor, skilled labor, and white-collar workers. For each sector, the model specifies output-supply and input-demand

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[2] These models, in turn, have built on multi-country models developed to analyze the impact of the Tokyo Round of GATT negotiations in particular, the multi-country CGE model developed by Whalley (1985). Our model starts from the WALRAS model developed at the OECD to analyze the impact of the current GATT negotiations on the major OECD countries detailed in OECD (1990).

[3] See Hinojosa and Robinson (1992), Brown (1992), and Schoepfle (1993) for a review of NAFTA-CGE models. See Hinojosa, Lewis, and Robinson (1994, 1997) for the GNAFTA and NASAFTA-CGE models.

[4] Robinson (1989) surveys CGE models applied to developing countries. Shoven and Whalley (1984) survey models of developed countries. The theoretical properties of this family of trade-focused CGE models are discussed in Devarajan, Lewis, and Robinson (1990).

equations. As in our earlier models, there is a simple representation of the rest of the world (the eleventh region), which is modeled as a large supplier of imports to, and demander of exports from, each of the other economies at fixed world prices. The rest of the world is modeled as having an upward sloping export-supply curves and downward-sloping import-demand curves.

The BRAZIL-US-FTAA-CGE regional model incorporates several innovations relative to earlier multi-country CGE trade model. First, import demand is modelled using an Almost Ideal Demand System (AIDS) specification, which (in contrast to the standard constant elasticity of substitution – CES – function), allows expenditure elasticities to be different than one.

Second, to capture the potential dynamic externality effects of trade liberalization, the BRAZIL-US-FTAA-CGE model can simulate the impact of positive externalities generated by both export expansion and capital good imports that embody "new" technology. The model incorporates three different kinds of trade-productivity links. The first relates sectoral productivity to sectoral imports of intermediate and capital goods: the extent of productivity increase depends on the share of intermediates in production. Second is an externality linked to sectoral export performance: higher export growth translates into increased domestic productivity. Finally, there is an externality associated with aggregate exports: increased exports make physical capital more productive, an effect embodied in the capital stock input to the production process.

The externalities associated with imported intermediate input use (D^m) and sectoral export performance (D^e) affect productivity in the sectoral production functions [equation (1)], while the externality associated with aggregate exports (D^k) is embodied as an increase in the initial capital stock ($FS_{k,0}$) [equation (2)] and therefore enters the production function indirectly as an increase in the capital input. $F_{i,f}$ are the sectoral factor inputs into the production process (including capital); X_i is sectoral output, and FS_k is the economywide aggregate capital stock (so $FS_k = G_i F_{i,k}$).

$$X_i = \rho_i^m \bullet \rho_i^e \bullet \left[\sum_f \alpha^{i,f} \; F_{i,f}^{\gamma^{i,f}} \right]^{\frac{1}{\gamma^{i,f}}} \qquad (1)$$

$$FS_{k,t} = FS_{k,0} \bullet \rho^k \qquad (2)$$

The three externality relationships are shown in equations (3)-(5). *MTOT* and *ETOT* in equations (3) and (5) correspond to aggregate imports and exports for each region, E_i is sectoral exports, and n_i is the share of intermediate inputs in

production. The subscripts *0* and *t* refer to the base period and experiment, respectively:

$$\rho_i^m = \left(\frac{MTOT_t}{MTOT_0}\right)^{\eta_m} \bullet n_t + (1 n_t) \quad (3)$$

$$\rho_i^e = \left(\frac{E_{i,t}}{E_{i,0}}\right)^{\eta_e} \quad (4)$$

$$\rho^k = \left(\frac{ETOT_t}{ETOT_0}\right)^{\eta_k} \quad (5)$$

Each of the three effects operates through simple elasticity equation: for example, an export-productivity elasticity of 0.25 for industrial sector exports from developing regions means that a 10 percent rise in real exports would result in a 2.5 percent increase in total factor productivity in that sector. In general, the elasticities used for industrial regions (the US) are less than half the values used for the developing regions.

While there is fairly widespread agreement that these feedbacks exist, there is less consensus on the channels through which they operate, and how large they are. For our purpose, we are more interested in showing how such linkages might affect analysis of the integration alternatives; thus, we have included three different linkages that operate through different channels. With little empirical estimation to draw on, the choice of externality parameters to use in the model is based largely on guesswork. We have chosen fairly modest parameters, to avoid overstating the case; for example, our sectoral export-productivity linkage effects for the developing Latin-American regions are given an elasticity parameter around one-half that used by de Melo and Robinson (1992) in their analysis of the Korean growth performance.

Each "country" model traces the circular flow of income from producers, through factor payments, to households, government, and investors, and finally back to demand for goods in product markets. Producers are assumed to maximize profits and consumers have price-sensitive expenditure functions. The country models are highly non linear, and solve for equilibrium wages, land and capital rental rates, commodity prices, and the real exchange rate. These solution prices achieve market-clearing equilibrium in factor markets, product markets, and the balance of trade. The country models are linked primarily through trade flows. The model specifies sectoral export-supply and import-demand functions for each

country, and solves for a set of world prices that achieve equilibrium in world commodity markets.

In common with other CGE models, the model only determines relative prices and the absolute price level must be set exogenously. In the BRAZIL-US-FTAA-CGE model, the consumer price index in each country is set exogenously, thereby defining the numeraire in each economy. The advantage of this choice is that solution wages and incomes are in real terms. The solution exchange rates in the sub-regions are also in real terms, and can be seen as equilibrium price-level-deflated (PLD) exchange rates, using the country consumer price indices as deflators.[5]

The model data base consists of social accounting matrices (SAMs) for each country, including data on bilateral trade flows with the other countries.[6] The SAM starts from multi-sectoral input-output data, expanded to include information on the circular flow of income from producers to factors to institutions, which include households, enterprises, government, a capital account, and trade accounts for all the partner countries and the rest of the world. These institutions represent the economic actors whose behavior and interactions are described in the CGE model. The parameter estimates for the sectoral production functions, consumer expenditure functions, import aggregation functions, and export transformation functions are drawn from a variety of sources. The various parameters used in the model represent point estimates for the base year (1990) and the model was benchmarked so that its base equilibrium solution replicates the base data.

3.2 Description of Scenarios

The scenarios presented in this paper evaluate the impact of alternative paths of trade liberalization among countries in North and South America. The scenario results portray the static general equilibrium and dynamic externality effects of changing the structure of trade protection in the hemisphere. By systematically altering only the trade policy variables, we can analyze the effects of different liberalization outcomes on trade within the region, trade with the rest of the world, and the structure of production and income distribution for each country in the hemisphere. For each scenario, we obtain estimates of the impact on real GDP, output, trade, value added, real wages of each labor category, and the real rental rates of capital and land. Trade diversion and trade creation impacts will be evaluated through data on total, intra-regional, and extra-regional trade.

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5 De Melo and Robinson (1989) and Devarajan, Lewis, and Robinson (1991) discuss the role and interpretation of the exchange rate in this class of model.

6 Social Accounting Matrices are described in Pyatt and Round (1985).

These scenarios are not growth predictions; actual growth pattern will be affected by more factors than just trade policy, such as macroeconomic and incomes policies. Instead, the scenarios should be seen as controlled experiments within a simulation laboratory that isolates the impact of changes in specific policy variables, in this case, tariff and non-tariff barriers. Both the comparative static and dynamic externality experiments are meant to describe the impact of trade liberalization "in the medium to long run". The term "dynamics" is not used to describe the actual path of the transition, but rather the cumulative effect over time of productivity externalities that might arise as a result of trade induced by regional integration, and that have been identified as important in earlier cases of export-led development.

The results of each scenario are presented relative to a base run calibrated with the pre-liberalization (late 1980s) structure of protection throughout the region. Each scenario was run both as a comparative static experiment, and as a "dynamic" experiment incorporating the possible impact of trade externalities.

In Scenarios 1 and 2, we analyze the impact of NAFTA and MERCOSUR as individual sub-regional accords. Scenario 1 presents the impact of NAFTA on the US and Mexico, as well as on other countries in the region (without MERCOSUR). The experiment assumes the complete elimination of all tariff and non-tariff barriers between Mexico and the US, with protective barriers between other countries unchanged. Scenario 2 presents the impact of MERCOSUR on Brazil and the US, as well as on other countries in the hemisphere and the rest of the world, assuming NAFTA did not occur.

The two remaining scenarios portray alternative liberalization paths that build on top of NAFTA and MERCOSUR. Scenario 4 examines the impact of free trade between the US and Brazil in the presence of both NAFTA and MERCOSUR. Scenario 4 considers the potential of broader liberalization with the formation of a full Free Trade Area of the Americas (FTAA), involving elimination of all tariffs among hemispheric economies.

4. Scenario Results

The Impact of NAFTA

The NAFTA scenario (Scenario 1) replicates the results of virtually all previous studies by finding a small positive impact on participating countries' GDP.[7] While the static impact is quite small for all the NAFTA economies, GDP is larger for when the possibility of trade-related externalities is incorporated (Tables 6a and 6b). [1]

[7] See Hinojosa and Robinson (1992) and Hinojosa, et al. (1996) for a review of modeling of NAFTA.

Mexican GDP grows by 4.7% in the NAFTA externalities scenario. Our results also provide some corroboration to fears that sub-regional accords such as NAFTA could have a negative impact on Latin-American countries that are left out. The formation of NAFTA is shown to have a slight negative impact on Brazil GDP and trade, although even the externality impacts are clearly very small in terms of real GDP (Table 10b).

This negative impact on NAFTA outsiders is the result of the increased concentration of trade between the NAFTA partners, and the corresponding diversion of imports and exports by the NAFTA members away from other Latin-American countries. In the static case, NAFTA causes intra-regional (Western Hemisphere) exports for the US and Mexico to increase by 5.3 and 4.9 percent respectively, while they decline for all other countries, including a –0.25 percent drop for Brazil (Table 7a). In the dynamic results, US intra-regional exports increase by 10.23 percent although extra-regional exports grow hardly at all, suggesting a diversion in trade away from the rest of the world towards LAC markets (Table 7b). For Mexico, although the growth rate of total exports more than doubles when externalities are included, the marginal increase in intra-regional exports is small, implying that much of the additional expansion occurs to the rest of the world.

While the static results produce a decline in Brazilian and Argentine intra-regional exports, the externality results show a reversal to an increase in intra-regional exports as Mexico as well as the US GDP expands. For Brazil and Argentina, the largest trade diversion impact is a drop in exports to Mexico in the static NAFTA scenario 1 (Table 8a), while this is reversed in the externality scenario 1 (Table 8b). The smaller decrease in Brazilian exports to the US, however, remains even with the NAFTA externality scenario. Brazilian export declines due to NAFTA are concentrated in food and agricultural sectors in the model (Table 10), driven by declining non-manufactured exports to the US (Table 11). These small Brazilian GDP and export declines are also reflected in small falls in factor returns, particularly rural and urban unskilled labor.

Confirming findings from earlier studies, NAFTA can thus be shown to generally generate more trade creation than trade diversion. Total hemispheric exports grow by 0.34-0.71 percent, depending on whether externalities are incorporated (Table 6). While US extra-regional exports do decline slightly, Mexico actually increases its exports outside the hemisphere due to NAFTA, and overall there is much more hemispheric trade created (around U$ 2 billion in the static case) than there is trade diverted from the rest of the world (around U$ 0.5 billion) (Table 7). With externality effects, the gap between trade creation and diversion widens even further: trade creation within the hemisphere reaches US 3.3 billion, while the drop in exports outside the region is only around US 0.2

billion, with the change driven by higher exports by Mexico to markets both inside and outside the hemisphere[8] (Table 8).

The Impact of MERCOSUR

In Scenario 2 we assume that NAFTA has not occurred, and instead simulate the impact of eliminating tariff barriers between Brazil and Argentina (MERCOSUR) and the imposition of a common external tariff on January 1, 1995.[9] The results in Table 6 indicate that MERCOSUR generates modest gdp improvements for Brazil and Argentina (0.1 and 0.11 percent) in the static case, but much more significant gains with externalities (4.5 percent for Brazil and 2.9 percent for Argentina,). The static gains in GDP from MERCOSUR for Brazil and Argentina are less than they are for Mexico with NAFTA. Brazil in particular, however, does exceptionally well in the externality scenario 2, almost matching Mexico's externality gains due to NAFTA (Table 6b), indicating the potential for export led productivity growth of the Brazilian economy. This growth in Brazilian GDP with MERCOSUR is reflected in a generalized and relatively large growth in factor returns, particularly in returns to rural labor and land (Tables 9a and 9b).

MERCOSUR does have a slight negative static impact on Mexico, but almost no impact on other Latin-American countries not included in MERCOSUR (except for a gain for Bolivia). The impact on the us is also negligible. Overall hemispheric export expansion is positive (0.32-0.70 percent), about as great as that caused by NAFTA (Table 6). In the static case, Brazil experiences strong growth (2.93 percent), although not as high as Argentina (3.53 percent). With externalities, export growth in Brazil more than doubles, with most of the increment directed outside the region (Table 7b), while Argentina's export performance is not as great. In a sense, the MERCOSUR outcome parallels that of NAFTA, in that the one country (Argentina or the US) has a much greater expansion in intra-regional exports, while the second (Brazil or Mexico) has export growth directed more towards markets outside the hemisphere and benefits the most from the possible trade externalities.

As with NAFTA, MERCOSUR generally generates much more trade creation than trade diversion. In fact, there is no aggregate trade diversion under MERCOSUR; overall, total exports to destinations outside the region increase slightly in both the static and dynamic cases, although the increase is not large. The static impact of MERCOSUR does produce a slight decline in US exports to Brazil (-0.9% in Table

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[8] This result is evidence that can help confirm the theoretical proposition that the dynamics effects of regional integration may outweigh their trade diversion impacts. See Chichilnisky (1992) and Gunter (1993).

[9] The data for the MERCOSUR common external tariff is as follows:

8a), but this is more than reversed in the externality scenario (+3.0% in Table 8b). The US to Brazil trade diversion is concentrated in declining agricultural products (Table 11).

US-Brazil Free Trade

Scenario 3 assumes that both NAFTA and MERCOSUR are already established and then simulates the elimination of all tariff barriers between Brazil and the US. The incremental impact of US-Brazil free trade should be seen as the impact of scenario 3 net of the impacts of scenarios 1 and 2. Seen in this light, the additional GDP impact of US-Brazil free trade for the US is approximately .001 in the static scenario and .016 in the externality case (Table 6). The impact on Brazil is also small in the static case (.015), but significantly higher in the externalities scenario (1.17 percent). For the US, the GDP impact of a scenario of free trade with Brazil would represent half of the static and three quarters of the externalities impact of the NAFTA scenarios. For Brazil, free trade with US represents between one sixth (static) to one quarter (externalities) of the impact of MERCOSUR.

The relative impact of scenario 3 on us exports is about the same as the impact of NAFTA in the externality case, and is thus slightly higher relative to the US GDP impact of NAFTA (Table 6). The impact on Brazilian export growth of scenario 3 is almost half of the impact of MERCOSUR in the externality case, yet it is significantly higher than the relative GDP effect. Brazilian exports both to the US and to other countries are thus stimulated at a higher rate due to trade liberalization with the US proportionately to liberalization within MERCOSUR, both in the static and externality case. This seems to be driven by the ability of Brazil to significantly increase extra-regional exports, especially in the externality case, based in part through a rapid increase in intra-regional imports (Table 7b).

This export success can be traced to the sectoral composition of Brazilian imports from the US relative to MERCOSUR. In scenario 3, the largest relative growths in US exports to Brazil are in manufactured good, including growths of over 10% in capital and intermediate goods (Table 11). Accompanying this increase in US manufactured exports, US exports in non-manufactured agricultural products remain flat expect for corn. Meanwhile, Brazilian extra regional exports in scenario 3 for manufactured goods (capital and intermediate) grow by over 20% as resources are shifted away from non-manufactured exports. At the same time that worldwide Brazilian exports are expected to grow and become increasingly concentrated in manufactured goods (Table 10b), exports to the US should expand in both manufactured and non-manufactured goods (Table 11).

The increases in GDP and exports of US-Brazil trade liberalization are reflected in general increases in factor returns to both countries (Table 9). In Brazil, the growth in factor returns is both higher than in the US and proportionately

stronger than GDP growth, particularly for rural labor in the externality case. Benefits in the US are more concentrated in incasing returns to capital, professionals and urban skilled workers, particularly compared to NAFTA that proportionately benefited land and rural labor more.

Free Trade Area of the Americas

In the fourth and final scenario, we supersede the three previous partial liberalization scenarios with a full elimination of tariffs among all the economies in the Western Hemisphere. Viewing all four scenarios allows us to see the contribution of each partial liberalization relative to the sum total impact represented in scenario 4.

As noted previously, NAFTA and MERCOSUR have roughly similar impacts on aggregate Western Hemispheric GDP in the static scenarios (Table 6a). Together, the two sub-regional agreements already constitute about 84% of the overall static impact that full hemispheric free trade could have produced. Of the remaining 16%, in comparison, Brazil-US free trade would contribute 12% of the additional static gains that could potentially be generated by a FTAA. In the context of externalities, however, NAFTA and MERCOSUR only constitute 60% of the overall gains potentially generated by Hemispheric free trade. Of the remaining 40% in potential gains, Brazil-US free trade would contribute 20%, indicating the relative dynamic potential of US-Brazilian trade.

Not only is the Brazil-US trade relationship by far the single largest potential contributor to overall hemispheric gains from full trade liberalization, the liberalization of the bilateral relationship also represents the vast bulk of what each country can potentially expect from the FTAA. For the US, Brazil-US free trade constitutes half of the potential remaining GDP benefits in the static scenarios and 85% of the potential benefits in the dynamic scenarios. For Brazil, bilateral liberalization would represent about 85% of potential benefits in both the static and externality scenarios. These relative contributions of bilateral versus complete hemispheric liberalization hold for virtually all other measures of benefit, including total exports (Table 6), intra-regional exports (Table 7) and factor wages (Table 9). While scenario 4 further reduces extra-regional exports for both Brazil and the US in the static versions, the externality versions show Brazil excelling in extra-regional exports, again mostly due to the impact of bilateral liberalization. In terms of the sectoral composition of exports, a full FTAA would further accelerate the sectoral specialization originated in NAFTA and MERCOSUR and significantly enhanced by bilateral liberalization (Table 10).

The gains for Brazil to move beyond a strategy of expansion of MERCOSUR exclusive of the US towards an FTAA inclusive of the US thus appear quite large. Incremental GDP growth from moving to full hemispheric integration is also larger

for the whole region. Moreover, all countries benefit from this step, with gains ranging from only 0.01 percent in the US to more than 2 percent in Peru. Total hemispheric exports expand by 0.75 percent, led by growth of 4 percent or more in Brazil, Chile, Peru, and Bolivia (see Hinojosa, Lewis and Robinson, 1997). The FTAA scenario thus appears to be the most favorable outcome for regional growth and exports. Led by the US and Brazil, the final step of lowering barriers between the Northern and Southern Hemispheres would seem to have a substantial payoff, representing at least 40 percent of the total potential gains from hemispheric trade liberalization, only half of which is claimed by the US and Brazil.

5. Conclusion

The Brazil-US-FTAA-CGE modeling exercise was designed to establish an empirically rooted economic framework which could be used in the anticipated new round of FTAA analysis and discussions within a post-NAFTA and post MERCOSUR context. The modeling results of alternative scenarios provide insights and implications for the formulation of strategic trade policy by both the US and Brazil individually, as well as for a framework of collective action throughout the Western Hemisphere.

The results clearly indicate that the Brazil-US negotiation objectives will be central to a successful hemispheric round of trade liberalization. Without the participation of the US and Brazil leading the process of trade liberalization, the benefits on a hemispheric level would be meager. Not only are freer US and Brazilian markets crucial for other countries, but all Latin America as a whole benefits from the gains to the US and Brazilian economies of opening up to each other.

The results indicate that for both the US and Brazil, there is essentially no strategic substitute to a commitment to lead the effort of hemispheric liberalization. The relatively larger benefits of US-Brazil trade liberalization far outweigh any "hub and spoke" strategy whereby either and/or both Brazil and the US would attempt to establish a series of bilateral deals. This conclusion echoes previous work which showed that a full FTAA scenario would also be superior for both large and small countries in the hemisphere as well (See Hinojosa, Lewis and Robinson, 1997).

At first glance, our results would seem to indicate very small incentives to pursue any further regional integration from the point of view of the US, while other countries have relatively greater incentives to act. In common with most research on NAFTA, our simulation results show that any pattern of US-Latin-American integration can be expected to have relatively small positive implications for the US, but will have much more important positive or negative implications for all the other countries in the hemisphere. While the aggregate effects of every

alternative scenario are small for the US, there nevertheless are relatively important difference between scenarios, both for the US and for the rest of the region.

Our modeling results provide a basis for ranking alternatives that are under consideration by US policymakers: (1) full hemispheric free trade in an FTAA is preferential to new bilateral FTAs (including with Brazil); (2) the US is better off in an FTAA than an incomplete set of NAFTA accessions, either individually or with a number of multi-country regional groupings; and (3) trade diversion with respect to the rest of the world becomes a more important concern as one moves towards a FTAA, but it is likely to be dwarfed by the positive impact of trade-related increases in productivity that are likely to accompany regional liberalization.

Regardless of whether it confronts these issues directly or tries to avoid them, the US will influence and in turn be affected by future hemispheric integration initiatives. The current post-NAFTA environment provides an unique opportunity for the US and other countries in the hemisphere to exercise leadership in order to encourage a cooperative and mutually beneficial outcome. However, our results point to a complex set of collective action problems between countries, sectors, and socio-economic groups in the region. Failure to resolve these problems could result in lower incomes, trade, and welfare throughout the region. Success will depend on favorable progress in a number of strategic areas:

(1) the US must move beyond the current domestic political economy debate over the incidence of the costs and benefits from increased trade so that it can fill the needed strategic leadership role for the region (beginning with the Congressional granting of "fast-track" negotiating authority to the President); and

(2) countries throughout the region must resolve the "prisoners dilemma" collective action problem that discourages the cooperation needed to foster greater integration, and instead pushes countries towards competitive hub and spoke behavior that leaves the region worse off.

Of all the regional options, our results show that the FTAA generates the most favorable outcome for the most labor segments in the US. This is due to both a fall in the import prices of wage goods and a shifting of production to more productive export activities. But as the NAFTA debate revealed, crafting institutions that can convince the US Congress that the adjustment burdens of adversely affected workers, sectors, and regions will be compensated for, is a difficult political endeavor. However, this challenge is one that must be met: failure to move ahead would actually leave US labor worse off compared to the post-NAFTA *status quo*.

Our results also show that a full FTAA inclusive of the US provides particular important benefits to Brazil. Brazil not only has the most to gain in absolute terms

from free trade with the US, but the quality of that gains is significant as well. Brazil's strategic objective of becoming a "global trader" is shown to be actually enhanced by free trade with the US, exporting rapidly not only to the US market, but to extra-regional markets as well. While it can also be shown that free trade with the US produces the lion's share of the additional growth in factor wages for all labor market segments in Brazil, free trade with the US also accelerates the restructuring of sectoral trade specialization, including some absolute declines in exports and production. While the argument can be made that free trade with the US will produce the bulk of additional new national resources to more than adequately deal with related adjustment costs, the actual implementation of credible mechanisms for adjustment assistance will have to be made in the current context of an equally necessary general reform of the state assistance for economic development.

In addition to the need for the US and Brazil to resolve their domestic political economy problems so that they can provide regional leadership, our research also suggests some collective action challenges that the NAFTA and MERCOSUR economies will have to confront. Our analysis identifies a prisoner's dilemma situation where, in the absence of a credible multilateral negotiating mechanism, each country is left to fend for itself. While formation of an ftaa is the optimal scenario for the major members of NAFTA and MERCOSUR, the absence of a credible multilateral negotiation mechanism causes these countries to discount this option. As a result, strategic relations both within and between NAFTA and MERCOSUR could become volatile, with each country having a divergent set of second-best preferences as to how and with whom to proceed with trade liberalization.

If the US tries to become a hub, or pushes NAFTA like preferences aggressively, this will likely spur Brazil into a defensive strategy to continue to build up agreements around MERCOSUR. As such agreements result in relatively low adjustment costs to its members, MERCOSUR would probably continue to win a race against NAFTA to establish free trade with its neighbors, resulting in a low preference outcome for the US. To avoid these conflictive outcomes, the US and Brazil have to cooperate on a common strategy to forge a most-favored-nation framework for rapidly establishing a comprehensive Western Hemisphere free trade area, allowing them to abandon their strategy of individual NAFTA or MERCOSUR like preferences or bilateral hub and spoke agreements.

TABLE 1: Principal Western Hemisphere Countries and Trade Blocs (million US$, million people)

1990				Total Trade		Trade with US		Trade with LAC		
				Exports	Imports	Exports	Imports	Exports	Imports	DEBT
Country/Bloc	GDP	Population	GDP per Capita	As % of GDP	As % of GDP	As % of GDP	As % of GDP	AS % of GDP	As % of GDP	As % of GDP
US	5.392.200	250	21569	7,30%	9,60%	---	---	0,90%	1,20%	n.a.
Brazil	414.060	150	2753	7,60%	5,50%	1,90%	1,10%	0,80%	0,90%	28,10%
Mexico	237.750	86	2758	11,40%	13,40%	7,90%	8,60%	0,60%	0,60%	40,70%
Argentina	93.260	32	2887	13,20%	4,40%	1,80%	0,90%	3,40%	1,50%	65,60%
NAFTA	6.200.100	363	17094	8,80%	10,80%	14,10%	11,90%	0,90%	0,10%	n.a.
MERCOSUR	520.800	190	2740	8,90%	5,60%	1,90%	1,10%	1,50%	1,20%	35,20%
Caem	28.040	26	1074	15,40%	22,30%	6,30%	8,40%	2,90%	3,80%	80,60%
Caribbean	24.657	19	1318	20,40%	28,10%	9,00%	12,40%	3,30%	6,70%	82,00%
Andean	141.300	91	1549	22,40%	12,10%	10,30%	4,50%	2,90%	2,40%	62,30%
Total LAC	974.470	425	2292	12,40%	10,00%	5,00%	4,60%	1,60%	1,60%	43,70%
EUR-12	5.995.850	344	17430	22,80%	23,30%	1,50%	1,80%	0,30%	0,60%	n.a.
Japan	2.942.890	172	18820	14,80%	13,20%	3,10%	1,80%	0,20%	0,30%	n.a.

(cont...)

(continued)

1995				Total Trade		Trade with US		Trade with LAC		
				Exports	Imports	Exports	Imports	Exports	Imports	DEBT
Country/Bloc	GDP	Population	GDP per Capita	As % of GDP	As % of GDP	As % of GDP	As % of GDP	As % of GDP	As % of GDP	As % of GDP
US	5.950.000	253	23548	9,80%	12,50%	—	—	1,67%	1,71%	
Brazil	513.774	159	3133	9,05%	9,67%	1,71%	2,48%	2,05%	2,16%	27,40%
Mexico	296.076	91	3081	26,87%	24,47%	22,41%	20,26%	1,38%	0,54%	57,90%
Argentina	205.007	34	5896	10,23%	9,13%	0,88%	2,05%	4,79%	2,86%	29,80%
NAFTA	7 032.702	374	18800							
MERCOSUR	721.135	202	3570	10,07%	10,48%	11,03%	2,45%	3,06%	2,75%	24,70%
Cacm	29.800	29	1033	27,79%	38,65%	7,91%	17,46%	6,59%	12,63%	59,70%
Caribbean	15.848	5	2749	36,59%	46,68%	10,36%	17,23%	5,38%	5,55%	59,50%
Andean	203.415	100	2032	19,83%	18,69%	8,02%	6,29%	5,15%	5,15%	43,90%
Total lac	1.317.161	459	2866	17,65%	17,61%	7,73%	7,53%	3,39%	3,28%	35,10%
EUR-15	8.381.630	318	26358	23,84%	22,69%			0,49%	0,21%	
Japan	5.108 540	125	40870							

Source : World Bank; IMF; IDB/IRELA

Notes : Nicaragua data is for 1991

NAFTA trade with US as percent of GDP based on Mexico/Canada GDP

Foreign debt data for Caribbean is for 1991

NAFTA is comprised of Mexico, US, and Canada

CACM is comprised of Costa Rica, El Salvador, Guatemala, Honduras, and Nicaragua

Caribbean is comprised of Barbados, Dominican Republic, Guyana, Haiti, Jamaica, Suriname, and Trinidad & Tobago

Andean pact is comprised of Bolivia, Colombia, Ecuador, Peru, and Venezuela

MERCOSUR is comprised of Argentina, Brazil, Paraguay, and Uruguay

LAC is comprised of CACM, Caribbean, Andean pact, MERCOSUR, Mexico and Chile

EUR-12 is comprised of Belgium-Luxemburg, Denmark, France, Germany, Greece, Ireland, Italy, Netherlands, Portugal, Spain, and United Kingdom

TABLE 2a: 1990 Exports to Partners as Percentage of Total Exports (in US$ million)

Exporter	Total	Partners										
		US	Mexico	Brazil	Argentina	NAFTA	MERCOSUR	LAC	Western Hemisphere	EUR-12	Japan	Rest of World
US	393109	—	7,20%	1,30%	0,30%	28,30%	1,70%	12,80%	33,90%	22,30%	12,40%	31,50%
MEXICO	27167	69,30%	—	0,60%	0,40%	70,20%	1,50%	5,50%	75,70%	11,60%	5,50%	7,20%
BRAZIL	31414	24,60%	1,60%	—	2,10%	27,90%	4,20%	11,10%	37,30%	28,30%	7,50%	26,90%
ARGENTINA	12339	13,80%	2,60%	11,50%	—	17,00%	14,90%	25,90%	40,30%	28,00%	3,20%	28,50%
NAFTA	546720	20,90%	5,30%	1,00%	0,20%	41,40%	1,40%	9,80%	45,90%	18,20%	10,50%	25,40%
MERCOSUR	46442	20,80%	1,90%	4,80%	1,70%	24,00%	8,90%	16,70%	38,80%	28,10%	6,00%	27,10%
LAC	123279	39,30%	1,00%	2,90%	1,10%	41,80%	5,00%	12,70%	53,50%	21,10%	5,80%	19,60%
W.HEMISPHERE	642832	22,40%	4,70%	1,40%	0,40%	40,30%	2,10%	10,60%	46,10%	19,10%	9,80%	25,00%
EUR-12	11249871	7,30%	0,40%	0,40%	0,10%	8,60%	0,50%	1,50%	9,70%	52,10%	2,20%	36,00%
JAPAN	287678	31,70%	0,80%	0,40%	0,10%	34,80%	0,60%	2,10%	36,10%	17,40%	—	46,50%

SOURCE: IMF DIRECTION OF TRADE STATISTICS

TABLE 2b: 1995 Exports by Partner as Percentage of Total Exports

Exporter	Total (millions)	US	Mexico	Brazil	Argentina	NAFTA	MERCOSUR	LAC	Western Hem.	EUR-15	Japan
US	583.031	—	9,26%	2,19%	0,72%	—	3,02%	17,00%	—	—	—
Mexico	79.541	83,40%	—	1,01%	0,39%	85,90%	1,52%	5,15%	—	4,21%	0,02%
Brazil	46.505	18,92%	1,07%	—	8,69%	20,98%	13,23%	22,61%	—	27,76%	0,79%
Argentina	20.963	8,60%	0,69%	27,43%	—	9,68%	32,33%	46,83%	—	21,39%	0,80%
NAFTA	754.770	2,34%	7,33%	1,96%	0,64%	—	2,71%	14,06%	—	22,29%	—
MERCOSUR	70.493	15,28%	1,10%	10,33%	6,53%	17,01%	—	31,29%	—	25,55%	—
LAC	219.672	46,35%	0,72%	5,05%	2,67%	47,64%	9,12%	—	—	15,83%	—
Western Hem.	—	—	—	—	—	—	—	—	—	—	—
EUR-15	1.998.264	6,72%	0,34%	0,75%	0,30%	7,75%	1,10%	2,05%	—	—	2,10%
Japan	443.116	27,54%	0,04%	0,03%	0,02%	29,66%	0,76%	4,20%	—	15,88%	—

TABLE 2c: 1995 (in million US$)

Exporter	Total	US	Mexico	Brazil	Argentina	NAFTA	MERCOSUR	LAC	Western Hem.	EUR-15	Japan
US	583.031	—	53973	12752	4206	—	17635	99138	—	—	—
Mexico	79.541	66339	—	800	312	68324	1211	4099	—	3352	16
Brazil	46.505	8799	496	—	4041	9756	6153	10517	—	12912	366
Argentina	20.963	1803	144	5750	—	2029	6778	9818	—	4484	167
NAFTA	754.770	17635	55347	14812	4856	—	20444	106117	—	—	—
MERCOSUR	70.493	10773	776	7280	4602	11988	—	22056	—	18012	—
LAC	219.672	101810	1590	11083	5872	104651	20024	—	—	34774	—
Western Hem.	—	—	—	—	—	—	—	—	—	—	—
EUR 15	1.998.264	—	6731	14982	6025	—	21950	40933	—	—	—
Japan	443.116	—	167	127	69	—	—	—	—	—	—

TABLE 3: Sectoral Structure, Base Solution (percentage of Real GDP, employment)

	Real GDP				Employment			
Commodity	US	Mexico	Brazil	Argentina	US	Mexico	Brazil	Argentina
Food corn	0	0,7	1,8	2,4	0	10,4	5,6	5,3
Program crops	0,5	1,1	1,3	2,6	0,4	3,2	4,3	3,9
Fruits/vegetables	0,2	1,1	2,5	1,9	0,4	3,2	3,2	0,4
Other agriculture	0,8	5,1	4,5	4,5	1,4	10,9	9,7	2,3
Subtotal, ag	1,5	8	10,1	11,4	2,2	27,7	22,8	11,9
Food processing	1,7	6,2	3,5	4,7	1,5	1	2,3	5,9
Other light manufacturing	4,5	5,5	6,9	8,3	5,1	0,7	6,1	9,7
Oil and refining	2,2	2,9	4,4	7,7	0,5	0,6	0,4	1,2
Intermediates	5,6	8,2	9,9	3,5	4,5	6,6	2,4	2,6
Consumer durables	1,9	2,5	2,2	2,1	1,7	1	0,6	1,5
Capital goods	5,2	3,4	4,2	6,7	4,9	1,4	4,7	3,4
Subtotal, ind	21,1	28,7	31,1	33	25,3	11,3	16,5	24,3
Services	77,4	63,3	58,5	55,7	79,6	61	60,6	63,8
Total	100	100	100	100	100	100	100	100

SOURCE: AUTHORS 1990 SOCIAL ACCOUNTING MATRICES

TABLE 4: Brazil and US Bilateral Tariffs

Sector	Brazil	US
Corn	-	12,2
Program crops	11,8	3,6
Fruits & vegetables	13,9	3,4
Other agriculture	4,4	0,3
Food processing	20,9	4,1
Light manufacturing	18	8,6
Oil	49,5	1,2
Intermediate goods	11,3	1,7
Consumer durables	32,9	1,8
Capital goods	21,4	3,2
Services	-	0,1

Source: IDB-INTAL

TABLE 5: 1990 Exports to Country from Partner by Sector (in million US$)

From	Exports to US			
	Mexico	Brazil	Argentina	World
Food corn	0	0	4	199
Crops	2	556	56	7520
Vegetables	1231	104	24	1717
Other agriculture	1964	209	278	7117
Food processing	1140	1234	351	11338
Light manufacturing	3017	2263	213	75900
Oil and refining	6400	556	365	56828
Mediates	6364	1085	163	63598
Consumer durables	7051	404	31	142150
Capital	5169	2101	160	126356
Services	7690	-	-	11010

From	Exports to Brazil			
	US	Mexico	Argentina	World
Food corn	44	0	92	253
Crops	16	1	6	65
Vegetables	14	3	160	296
Other agriculture	79	2	189	1038
Food processing	104	1	426	931
Light manufacturing	467	18	147	1708
Oil and refining	41	3	13	4787
Mediates	1232	108	140	4586
Consumer durables	67	4	50	392
Capital	2325	50	170	6583
Services	-	-	-	-

From	Exports to World			
	US	Mexico	Brazil	Argentina
Food corn	108	0	0	1375
Crops	11474	75	2684	1029
Vegetables	1366	1988	193	406
Other agriculture	1301	2483	1887	2524
Food processing	10110	2372	4716	2149
Light manufacturing	24586	3949	5172	1359
Oil and refining	9347	6709	677	961
Mediates	49230	8057	7694	640
Consumer durables	35426	12236	1584	184
Capital	112076	7848	6426	1719
Services	97000	19887		2297

TABLE 6a: Real GDP and Total Trade in Static Efficiency Scenarios (base data in billion US$ and percent change from base)

	BASE DATA	1	2	3	4
		NAFTA	MERCOSUR	N+ M+ USBR	WHFTA
REAL GDP					
US	4491,930	0,002	0,000	0,003	0,004
Mexico	174,790	0,218	(0.00)	0,218	0,226
Brazil	479,260	0,000	0,102	0,117	0,119
Argentina	141,370	0,000	0,110	0,110	0,129
Total WH	5315,140	0,009	0,012	0,024	0,025
REAL EXCHANGE RATE					
US	1.00	0.04	0.00	0.09	0.09
Mexico	2.27	1.63	(0.00)	1.63	1.74
Brazil	1.00	(0.00)	2.25	2.25	2.78
Argentina	1.00	(0.00)	1.27	1.81	1.90
TOTAL EXPORTS					
US	351.08	0.13	(0.00)	0.25	0.26
Mexico	28.70	3.55	(0.00)	3.55	3.83
Brazil	30.39	-0.01	2.93	4.32	4.54
Argentina	14.21	(0.00)	3.53	3.53	4.43
Total WH	434.53	0.34	0.32	0.85	0.96
TOTAL IMPORTS					
US	507.09	0.09	(0.00)	0.17	0.18
Mexico	23.73	4.29	0.00	4.29	4.63
Brazil	20.55	-0.01	4.33	6.39	6.72
Argentina	6.50	(0.00)	7.72	7.72	9.67
Total WH	567.24	0.26	0.25	0.65	0.74

TABLE 6b: Real GDP and Total Trade in Dynamic Externality Scenarios (base data in billion US$ and percent change from base)

	BASE DATA	1	2	3	4
		NAFTA	MERCOSUR	N+ M+ USBR	WHFTA
REAL GDP					
US	4491.930	0.021	0.000	0.037	0,040
Mexico	174.790	4.672	(0.000)	4.669	5,052
Brazil	479.260	-0.006	4.512	6.685	7,042
Argentina	141.370	(0.000)	2.900	2.900	4,280
Totals	5315.140	0.171	0.484	0.865	0,971
REAL EXCHANGE RATE					
US	1.00	0.04	(0.00)	0.09	0.10
Mexico	2.27	0.42	(0.00)	0.42	0.39
Brazil	1.00	(0.00)	0.54	0.53	0.17
Argentina	1.00	(0.00)	-0.11	-0.25	-0.27
TOTAL EXPORTS					
US	351.08	0.17	0.00	0.30	0.32
Mexico	28.70	8.66	0.00	8.66	9.42
Brazil	30.39	-0.01	7.84	11.87	12.55
Argentina	14.21	(0.00)	4.74	4.74	6.27
Totals	434.53	0.71	0.70	1.80	2.15
TOTAL IMPORTS					
US	507.09	0.12	0.00	0.21	0.22
Mexico	23.73	10.47	0.00	10.47	11.39
Brazil	20.55	-0.02	11.59	17.56	18.56
Argentina	6.50	(0.00)	10.37	10.37	13.71
Totals	567.24	0.54	0.54	1.38	1.64

TABLE 7a: Regional Structure of Exports in Statistic Efficiency Scenarios (base data in billion US$ and percent change from base)

INTRA-REGIONAL EXPORTS					
US	23.44	5.34	-0.18	7.45	8.52
Mexico	18.07	4.90	-0.02	4.81	5.11
Brazil	10.92	-0.24	4.70	12.18	13.16
Argentina	3.60	-0.53	8.45	7.50	13.57
Total WH	57.99	3.60	1.32	7.24	8.48
INTRA-REGIONAL IMPORTS					
US	28.85	3.03	(0.00)	5.89	6.21
Mexico	17.89	6.82	0.00	6.81	7.33
Brazil	6.26	-0.03	4.04	12.29	13.59
Argentina	2.69	(0.00)	19.03	19.03	25.08
Total WH	57.99	3.60	1.32	7.24	8.48

(cont...)

(continued)

EXTRA-REGIONAL EXPORTS					
US	327.63	-0.24	0.01	-0.27	-0.33
Mexico	10.62	1.25	0 03	1 41	1.65
Brazil	19.46	0.12	1.93	-0.09	-0.29
Argentina	10.61	0 18	1.86	2.19	1.32
Total WH	**376.54**	-0.16	0.17	-0.13	**-0.19**

EXTRA-REGIONAL IMPORTS					
US	351.08	0.13	(0.00)	0.25	-0.18
Mexico	28.70	3.55	0.00	3.55	-3.63
Brazil	30.39	-0.01	2.93	4.32	3.71
Argentina	14.21	(0.00)	3.53	3.53	-1.22
Total WH	434.53	0.34	0.32	0.85	-0.14

TABLE 7b: Regional Structure of Exports in Dynamic Externality Scenarios (base data in billion US$ and percent change from base)

	1	2	3	4
	NAFTA	MERCOSUR	N+ M+ USBR	WHFTA
INTRA-REGIONAL EXPORTS				
US	10.23	0.67	13.74	15.72
Mexico	4.94	0.05	4.94	5.31
Brazil	0.03	4.94	12.70	14.09
Argentina	0.02	12.37	13.91	21.39
Totals	5.68	2.02	10.39	12.20

INTRA REGIONAL IMPORTS				
US	3.06	0.00	5.94	6.26
Mexico	13.50	0.00	13.49	14.64
Brazil	-0.05	9.59	21.23	23.13
Argentina	(0.00)	21.14	21.14	28.44
Totals	5.68	2.02	10.39	12.20

EXTRA-REGIONAL EXPORTS				
US	-0.55	-0.05	-0.66	-0.78
Mexico	14.99	-0.08	14.98	16.40
Brazil	-0.04	9.47	11.41	11.68
Argentina	-0.01	2,16	1.63	1.14
Totals	-0.06	0.50	0.48	0.60

EXTRA-REGIONAL IMPORTS				
US	0.17	0.00	0.30	-0.14
Mexico	8.66	0.00	8.66	1.42
Brazil	-0.01	7.84	11.87	16.55
Argentina	(0.00)	4.74	4.74	3.29
Totals	0.71	0.70	1.80	0.44

TABLE 8a: Bilateral Exports in Static Efficiency Scenarios (base in billion US$ and change from base)

	US	Mexico	Argentina	Brazil	Chile	Rest of World	Total
BASE DATA							
US	-	16.92	0.97	4.30	1.26	327.63	351.08
Mexico	17.69	-	0.12	0.18	0.09	10.62	28.70
Argentina	1.55	0.28	-	1.34	0.43	10.61	14.21
Brazil	8.28	0.64	1.50	-	0.51	19.46	30.39
Chile	1.34	0.05	0.11	0.44	-	8.22	10.16
Rest of World	478.24	5.84	3.81	14.29	7.07	-	509.25
Total	507.09	23.73	6.50	20.55	9.36	376.55	-

Scenario 1							
US	-	1.26	0.00	(0.00)	(0.00)	-0.79	0.47
Mexico	0.89	-	0.00	0.00	0.00	0.13	1.02
Argentina	(0.00)	-0.02	-	0.00	0.00	0.02	0.00
Brazil	-0.01	-0.02	0.00	-	0.00	0.02	(0.00)
Chile	(0.00)	(0.00)	0.00	0.00	-	0.00	(0.00)
Rest of World	-0.41	-0.20	0.00	0.00	0.00	-	-0.61
Total	0.47	1.02	0.00	(0.00)	(0.00)	-0.61	-

Scenario 2							
US	-	0.00	0.00	-0.04	0.00	0.04	0.00
Mexico	0.00	-	(0.00)	(0.00)	0.00	0.00	0.00
Argentina	0.00	0.00	-	0.30	0.00	0.20	0.50
Brazil	0.00	0.00	0.51	-	0.00	0.38	0.89
Chile	0.00	0.00	0.00	-0.01	-	0.01	0.00
Rest of World	0.00	0.00	-0.01	0.64	0.00	-	0.63
Total	0.00	0.00	0.50	0.89	0.00	0.63	-

Scenario 3							
US	-	1.26	0.00	0.49	(0.00)	-0.87	0.87
Mexico	0.87	-	(0.00)	(0.00)	0.00	0.15	1.02
Argentina	(0.00)	-0.02	-	0.29	0.00	0.23	0.50
Brazil	0.84	-0.02	0.51	-	0.00	-0.02	1.31
Chile	(0.00)	(0.00)	0.00	-0.01	-	0.01	(0.00)
Rest of World	-0.83	-0.20	-0.01	0.54	0.00	-	-0.50
Total	0.87	1.02	0.50	1.31	(0.00)	-0.50	-

Scenario 4							
US	-	1.21	0.15	0.49	0.15	-1.08	0.92
Mexico	0.87	0.00	0.02	0.02	0.02	0.18	1.10
Argentina	0.09	0.05	-	0.29	0.06	0.14	0.63
Brazil	0.83	0.05	0.49	-	0.06	-0.06	1.38
Chile	(0.00)	(0.00)	0.02	0.06	-	0.09	0.16
Rest of World	-0.87	-0.21	-0.05	0.53	-0.14	-	-0.73
Total	0.92	1.10	0.63	1.38	0.16	-0.73	-

TABLE 8b: Bilateral Exports in Dynamic Externality Scenarios (base in billion US$ and change from base)

	US	Mexico	Argentina	Brazil	Rest of World	Total WH
BASE DATA						
US	-	16.92	0.97	4.30	327.63	351.08
Mexico	17.69	-	0.12	0.18	10.62	28.70
Argentina	1.55	0.28	-	1.34	10.61	14.21
Brazil	8.28	0.64	1.50	-	19.46	30.39
Rest of World	478.24	5.84	3.81	14.29	-	509.25
Total WH	507.09	23.73	6.50	20.55	376.55	-
Scenario 1						
US	-	14,2%	0,0%	0,0%	-0,5%	0,2%
Mexico	5,0%	-	0,0%	0,0%	15,0%	8,7%
Argentina	0,0%	0,0%	-	0,0%	0,0%	0,0%
Brazil	-0,1%	1,6%	0,0%	-	-0,1%	0,0%
Rest of World	-0,1%	0,0%	0,0%	0,0%	-	0,0%
Total WH	0,1%	10,5%	0,0%	0,0%	-0,1%	-
Scenario 2						
US	-	0,0%	2,1%	3,0%	0,0%	0,0%
Mexico	0,0%	-	0,0%	5,6%	-0,1%	0,0%
Argentina	0,0%	0,0%	-	33,6%	2,2%	4,7%
Brazil	0,0%	0,0%	36,0%	-	9,5%	7,8%
Rest of World	0,0%	0,0%	2,9%	12,5%	-	0,4%
Total WH	0,0%	0,0%	10,3%	11,6%	0,5%	-
Scenario 3						
US	-	14,2%	2,1%	18,6%	-0,7%	0,3%
Mexico	5,0%	-	0,0%	5,6%	15,0%	8,6%
Argentina	0,0%	0,0%	-	37,3%	1,6%	4,7%
Brazil	10,1%	1,6%	36,0%	-	11,4%	11,9%
Rest of World	-0,1%	0,0%	2,9%	16,0%	-	0,4%
Total WH	0,2%	10,5%	10,3%	17,6%	0,5%	-
Scenario 4						
US	-	14,5%	19,6%	18,8%	-0,8%	0,3%
Mexico	5,0%	-	25,0%	16,7%	16,4%	9,4%
Argentina	5,8%	25,0%	-	38,1%	1,1%	6,3%
Brazil	10,1%	14,1%	34,7%	-	11,7%	12,5%
Rest of World	-0,1%	0,0%	3,4%	16,6%	-	0,4%
Total WH	0,2%	11,4%	13,7%	18,5%	0,6%	-

TABLE 9a: Factor Wages for Static Efficiency Scenarios (percent change from base)

	1	2	5	20
	NAFTA	MERCOSUR	N+ M+ USBR	WHFTA
US				
Rural labor	0.40	(0.00)	0.35	0.36
Urban unskilled	0.01	(0.00)	0.02	0.02
Urban skilled	0.01	(0.00)	0.03	0.03
Professional	0.01	(0.00)	0.03	0.03
Land	0.08	(0.00)	-0.05	-0.07
Capital	0.01	(0.00)	0.02	0.03
BRAZIL				
Rural labor	0.00	0.70	0.91	0.95
Urban unskilled	(0.00)	0.91	1.05	1.08
Urban skilled	(0.00)	0.47	0.62	0.64
Professional	(0.00)	0.70	0.84	0.86
Land	0.01	0.72	0.95	
Capital	(0.00)	0.43	0.58	0.60

TABLE 9b: Factor Wages for Dynamic Externality Scenarios (percent change from base)

	1	2	5	20
	NAFTA	MERCOSUR	N+ M+ USBR	WHFTA
US				
Rural labor	0.66	0.02	0.67	0.71
Urban unskilled	0.02	(0.00)	0.03	0.03
Urban skilled	0.02	(0.00)	0.04	0.04
Professional	0.02	(0.00)	0.04	0.04
Land	0.22	0.00	0.13	0.13
Capital	0.06	0.00	0.10	0.10
BRAZIL				
Rural labor	-0.01	9.36	13.79	14.54
Urban unskilled	(0.00)	3.07	4.20	4.38
Urban skilled	-0.01	3.63	5.28	5.56
Professional	(0.00)	3.59	5.08	5.32
Land	-0.01	9.37	13.80	14.54
Capital	-0.01	5.41	7.99	8.42

TABLE 10a: Sectoral Exports for Static Efficiency Scenarios (base data in billion US$ and percent change from base)

	BASE DATA	1	2	5	20
		NAFTA	MERCOSUR	N+ M+ USBR	WHFTA
US EXPORTS					
CORN	1.11	11.55	0.02	12.73	13.29
AGPROG	11.46	0.59	-0.01	0.75	0.75
FRTVEG	1.37	0.12	0.00	0.32	0.34
OTHAG	1.30	0.09	0.00	0.34	0.36
FOOD	10.08	0.07	0.00	0.12	0.11
LMFG	24.38	0.09	0.00	0.21	0.23
OIL	9.60	0.12	(0.00)	0.17	0.19
INT	48.81	0.11	0.00	0.26	0.28
CDUR	35.18	0.11	0.00	0.30	0.32
KGOOD	110.70	0.11	0.00	0.26	0.28
SVC	97.09	0.01	0.00	0.03	0.03
BRAZIL'S EXPORTS					
CORN	1.37	(0.00)	3.39	3.94	4.11
AGPROG	1.03	0.00	2.25	2.61	2.73
FRTVEG	0.41	(0.00)	1.71	1.96	2.03
OTHAG	2.46	(0.00)	2.87	3.36	3.51
FOOD	2.14	(0.00)	5.00	5.86	6.14
LMFG	1.27	0.00	3.47	4.16	4.35
OIL	0.89	0.00	3.96	4.89	5.17
INT	0.56	0.00	7.25	8.80	9.24
CDUR	0.18	0.00	3.20	4.64	5.05
KGOOD	1.61	0.00	5.86	7.34	7.69
SVC	2.30	0.00	1.22	1.38	1.43

TABLE 10b: Sectoral Exports for Dynamic Externality Scenarios (base data in billion US$ and percent change from base)

	BASE DATA	1	2	3	4
		NAFTA	MERCOSUR	N+ M+ USBR	WHFTA
US EXPORTS					
CORN	1.11	16 09	0.37	18.15	19.48
AGPROG	11.46	0.92	0.00	1.10	1 13
FRTVEG	1.37	0.09	(0.00)	0.29	0.30
OTHAG	1.30	0.11	(0.00)	0.37	0.40
FOOD	10.08	0.10	(0.00)	0.16	0.16
LMFG	24.38	0.13	(0 00)	0.27	0 29
OIL	9.60	-0.24	(0.00)	-0.28	-0.30
INT	48 81	0.13	(0.00)	0.31	0.33
CDUR	35.18	0.15	(0.00)	0.36	0.38
KGOOD	110.70	0.13	(0.00)	0.29	0.31
SVC	97.09	0 03	(0.00)	0.07	0.07
BRAZIL'S EXPORTS					
CORN	1.37	(0.00)	-2.35	-3.50	-3.78
AGPROG	1.03	0.00	-0.84	-1.17	-1.23
FRTVEG	0.41	0.00	-3.53	-5.71	-6.22
OTHAG	2.46	(0.00)	0.05	0.11	0.14
FOOD	2.14	(0.00)	3 98	4.56	4 78
LMFG	1 27	(0.00)	11 94	15.44	16.39
OIL	0.89	0.00	-13.67	-19.14	-20.48
INT	0 56	(0.00)	37.06	46.42	49.21
CDUR	0 18	0.00	14 22	22.19	24 28
KGOOD	1.61	0.00	19.75	26.21	27.75
SVC	2.30	(0.00)	2.66	3.40	3.60

TABLE 11: Sectoral Exports by Destination for Dynamic Externality Scenarios (in billion US$ and percent change from base)

	Scen 1		Scen 2		Scen 3		Scen 4	
	US	BRAZIL	US	BRAZIL	US	BRAZIL	US	BRAZIL
US								
CORN		0,0%		20,0%		50,0%		50,0%
AGPROG		0,0%		-100,0%		0,0%		0,0%
FRTVEG		0,0%		0,0%		0,0%		0,0%
OTHAG		0,0%		0,0%		11,1%		20,0%
FOOD		0,0%		9,1%		28,6%		28,6%
LMFG		0,0%		6,4%		26,7%		26,7%
OIL		0,0%		20,0%		42,9%		42,9%
INT		0,0%		1,9%		13,9%		13,9%
CDUR		0,0%		12,5%		41,7%		41,7%
KGOOD		0,0%		1,6%		10,6%		10,6%
TOTAL		-0,2%		2,9%		15,5%		15,7%
BRAZIL								
CORN								
AGPROG	0,0%		0,0%		11,9%		11,9%	
FRTVEG	0,0%		0,0%		9,1%		9,1%	
OTHAG	-5,0%		0,0%		0,0%		0,0%	
FOOD	-0,8%		0,0%		13,4%		13,4%	
LMFG	0,0%		0,0%		14,7%		14,7%	
OIL	0,0%		0,0%		1,8%		1,8%	
INT	100,0%		0,0%		1,8%		1,8%	
CDUR			0,0%		5,0%		5,0%	
KGOOD	0,0%		0,0%		6,0%		6,0%	
TOTAL	-0,1%		0,0%		9,2%		9,1%	

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Comments by Dominique van der Mensbrugghe

It is a rewarding and relatively straightforward task to be able to comment on the Hinojosa/Robinson paper prepared for this conference on regional integration in the Americas. I have known Sherman Robinson since I was a graduate student in the early 1980s and he was the principal advisor for my doctoral thesis. We have followed each other's career since we both left Berkeley and are very familiar with each other's work. In fact, the Hinojosa/Robinson paper is very similar to the van der Mensbrugghe/Guerrero paper presented at this same conference. The principal aim in each paper is to assess the impacts of various Western hemispheric free trade arrangements being proposed and debated.

Two earlier free trade areas – NAFTA linking the economies of Canada, Mexico and the United States and MERCOSUR creating a free trade area among Argentina, Brazil, Paraguay and Uruguay – are now *fait accompli*. There are other free trade areas and/or regional trade initiatives in the Americas, but none have provoked as much attention or major change as NAFTA and MERCOSUR, most likely due to a large extent to the presence of some of the largest hemispheric economies in these free trade areas.[10] There are diverse pressures to extend these two free trade areas to include new trading partners. Bolivia and Chile are already associate members of MERCOSUR, and Chile has expressed a desire to enter the NAFTA free trade area. Other countries are knocking on the door. In part, they feel left out from what have proven to be dynamic economic areas (despite the recurring macroeconomic instability). But also, some governments desire to lock in the hard fought structural reforms by joining a free trade zone. Both papers explore the impacts of creating a full hemispheric free trade area. The Hinojosa/Robinson paper decomposes these impacts into a sequence of reforms, starting with NAFTA, then the implementation of MERCOSUR, followed by a Brazil/USA free trade area, and finally the full America-wide free trade area. What they show is that a free trade area between Brazil and the USA provides only an incremental increase in GDP compared to the impact of MERCOSUR, and that hemispheric free trade would have roughly the same level of impact.

A further similarity between the two papers is the methodology used to assess the impacts of trade reform. Both papers rely on an applied general equilibrium (AGE) model. Each model is fully neo-classical, multi-regional, and with broadly similar specification. The Hinojosa/Robinson paper has a 1990 base year. This is perhaps somewhat dated, particularly given the existence of the more detailed and

[10] As an aside, the authors suggest that Brazil and the United States are relatively closed economies, using their respective export to GDP ratio as an openness index. Clearly, this index has many deficiencies, particularly when applied to continental economies such as Brazil and the United States.

recent GTAP data set.[11] Their data set has nonetheless two key advantages. First, they are able to assess the differential impacts of NAFTA and MERCOSUR. By and large this is not possible with a 1995 data set which largely reflects the new trade regimes. Second, their data set includes information related to various factors of production, notably a four-way decomposition of labor: rural, urban skilled and unskilled, and white collar. Regrettably, their paper makes little use of the additional labor data, even though impacts on labor markets have proven to be one of the most contentious issues in past trade accords.

Another key difference in model specification concerns implementation of the Armington specification for determining import demand. Most models use some form of CES functions for implementing the Armington specification. Robinson has argued that the CES functional form has several deficiencies.[12] Most notably, he and his co-authors state that the CES functional form is not able to capture the growth in world trade relative to the growth in world income. Empirically, world trade has been growing at a rate significantly greater than world income, i.e. the trade elasticity with respect to income is greater than 1. Since CES functional forms implicitly have an income elasticity of 1, this specification is unable to capture the observed trade elasticity. The only direct mechanism for trade to grow at a brisker pace than income is through price effects and they deem these terms-of-trade effects to be overstated. The second criticism is that in multi-regional models, the substitution elasticity across any pair of trading partners is uniform. For example, the substitution elasticity in the US between Swedish and German automobiles would be the same as the substitution elasticity between German and Japanese cars. While this example may not appear to be far-fetched, it would be easy to construe other examples where this assumption would undoubtedly be false.[13]

To remedy these two deficiencies with the ubiquitously employed CES specification, Hinojosa and Robinson implement a version of the so-called Almost Ideal Demand System (AIDS), first described in the context of household consumer demand by Deaton and Muellbauer.[14] The AIDS implementation of the

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[11] GTAP stands for the Global Trade Analysis Program. More information is available at the GTAP web site: http://www.agecon.purdue.edu/gtap/

[12] See Robinson, Sherman, Meredith Soule and Silvia Weyerbrock (1992), "Import Demand Functions, Trade Volumes, and Terms of Trade Effects in Multi-country Trade Models", Department of Agricultural and Resource Economics, University of California at Berkeley, *mimeo*, January.

[13] Note that the use of nested CES structures can easily fix the problem of uniform substitution elasticities. See for example Perroni, Carlo and Thomas Rutherford (1995), "Regular Flexibility of Nested CES Functions", *European Economic Review*, v. 39, n. 2, pp. 335-43.

[14] Deaton, Angus and John Muellbauer (1980), "Economics and Consumer Behavior", Cambridge University Press, New York, NY.

Armington assumption allows for both income effects and a wider range of cross-substitution effects.[15] However, the AIDS specification is in the class of flexible functional forms (similar for example to translog functions). One problem with flexible functional forms is that they tend to have poor global properties, i.e. they are only (approximately) good near the point of calibration (or estimation). Since trade reform simulations typically tend to imply large shocks, it is possible that the derived trade shares from the AIDS specification could lead to shares being either negative or greater than 1, even if their sum, by construction, sums to 1.

What remains unknown in the Hinojosa/Robinson paper is to what extent the AIDS specification of the Armington assumption makes a difference. One suspects that they calibrate the model using unitary income elasticities if not for the simple fact that there exists little if any empirical evidence regarding trade-related income elasticities at the regional and sectoral level. The same is true for cross-substitution elasticities. If this is true, i.e. if the model is calibrated using unitary income elasticities and uniform cross-substitution elasticities, does the AIDS specification make a difference?

On a more fundamental level, I question the use of the AIDS specification from a theoretical perspective. Although there is no doubt that a simple CES-based Armington structure is unlikely to capture the empirical regularity that the trade elasticity is greater than 1, there are other ways to capture this phenomenon without resorting to AIDS. First, I suspect that most of us AGE modelers are still using simple household consumer demand functions, which in and of themselves are unable to capture certain empirical regularities. Many modelers are still using Cobb-Douglas functions, and even the slightly more sophisticated linear expenditure system (LES) has many deficiencies. An improvement in the way household demand is modeled would most likely already alleviate some of the problems with the CES trade specification. I also doubt that income is the most important explanatory variable in the observed increase in trade. Lowering of tariff barriers and a dramatic drop in the cost of international transportation are important "price" related factors affecting trade. Another important factor, one which may be harder to capture in an analytical framework due to a lack of empirical observations, is that increasing trade probably generates a further push to increase trade, somewhat similar to a learning by doing argument. Over time, traders build up their networks, improve their knowledge of oversea markets, improve quality and advertising, consumers become more familiar with foreign products, etc. One way to handle this with a traditional CES specification is to

[15] Note, nonetheless, that the weighted income elasticities, using the trade shares as weights, must sum to 1 across trading partners, as part of the regularity conditions.

make the import penetration parameter a function of time, linking it perhaps to the growth of import penetration.

Apart from the AIDS specification for the Armington function, the other element which differentiates the Hinojosa/Robinson from traditional AGE exercises is the endogenization of productivity. They argue (justifiably in my judgement), that the dynamic gains from trade reforms are much greater than the static gains. Trade-related productivity increases are only one of the dynamic mechanisms which would augment the static gains from trade. Other factors could include greater foreign direct investment, a reduction in the cost of investment (from lower prices for imported capital goods), and an increase in domestic saving. I would surmise that the productivity increases might be the most important factor in the long run. Decomposing the specific sources of growth from trade reform would certainly constitute a rich research agenda.

The authors are careful to point out that the exact mechanism by which trade enhances productivity growth still requires more empirical investigation. Their model incorporates three explicit mechanisms, two at a sectoral level, and the third at an aggregate level. At the sectoral level they link sectoral productivity to two factors: the growth of sectoral exports and the level of import penetration of intermediate and capital goods. In the case of the latter factor, the import penetration of intermediate and capital goods is determined at the national level, and the sectoral productivity factor is adjusted by the degree of intermediate consumption in the respective sector.[16] The third factor, which operates at the aggregate level, links the growth of the aggregate capital stock to the growth in aggregate exports. All of these assumptions have some justification, however, they inevitably are self-reinforcing, particularly given the trade closure rule-with a fixed trade balance, growth in aggregate exports will more or less be matched by an equivalent growth in aggregate imports. In other words, there appears to be triple counting. Each of the factors is essentially linked to the same aggregate variable, the growth in aggregate exports. There will be differential impacts by sector, but the aggregate result, which they essentially focus on, will be more or less the same regardless of the growth mechanism.

Sherman has lectured many times on the search for large numbers in applied trade analysis.[17] Virtually no static neo-classical AGE model with perfectly

[16] If I understood their description of the specification, they actually link the level of the import-related productivity factor to the growth of total imports, not the growth of intermediate and capital goods.

[17] For his latest survey, see Robinson, Sherman and Karen Thierfelder (1998), "Trade Liberalization and Regional Integration: The Search for Large Numbers", paper presented at the *Annual Meeting of the International Agricultural Trade Research Consortium* (IATRC), Saint Petersburg, Florida, December.

competitive markets finds large welfare gains (or losses) from trade reform. The following table compares the results from the two AGE simulations of the Free Trade Area of the Americas (FTAA) proposal presented at the Brasília conference:

TABLE 1: Percentage Change in Real GDP

	Hinojosa/Robinson				van der Mensbrugghe/Guerrero
	Static		Dynamic		
	Full	Incremental	Full	Incremental	
Argentina	0.1	0.0	4.3	1.4	0.1
Brazil	0.1	0.0	7.0	2.5	0.2
Mexico	0.2	0.0	5.1	0.4	0.1
United States	0.0	0.0	0.0	0.0	0.0

Source: Hinojosa/Robinson Tables 6a and 6b, van der Mensbrugghe/Guerrero Table 9.

The Hinojosa/Robinson results are presented in four columns. There are two columns each for their static and dynamic results (the latter includes induced productivity changes). The "full" column represents the impact of total free trade in the Americas, starting from the initial situation, i.e. before implementation of NAFTA and MERCOSUR. The "incremental" column represents the results from subtracting the growth impacts of NAFTA and MERCOSUR from the "full" impact. The results of the two papers are not directly comparable because the van der Mensbrugghe/Guerrero impacts include some dynamic elements linked to the recursive dynamic nature of their model.[18] Nonetheless, the static results of Hinojosa/Robinson are on the same order of magnitude as the van der Mensbrugghe/Guerrero results. In both sets of results, the impact of the FTAA, at an aggregate level, is unimpressive. The gains vary from 0.0 to 0.2 percent of GDP. The incremental numbers reported in the table show that no country would have any measurable gain from the FTAA at the aggregate level. The dynamic gains are certainly more impressive. But measured in incremental terms, it is clear that the already consummated free trade areas have provided more of a boost than the proposed FTAA.

In the literature, beyond the trade-related productivity increases, other sources of "large" numbers have come from two additional dynamic elements, namely foreign direct investment, and higher domestic saving. The static gains have also proven to be much larger when models incorporate market imperfections, for example fixed prices, rigid factor markets, increasing returns to scale, and/or some

[18] There are other reasons why the results may not be directly comparable. Among these reasons include a different base year, different initial tariff levels, and (perhaps) a different definition of real GDP.

form of monopolistic pricing. All may certainly be considered factors which could influence the overall impact from regional integration.

While searching for large numbers is a worthy enough endeavor, there is more that can be deduced from the more traditional models than they are given credit for. After all, the key reason to use AGE models at all is for **structure**. And when the negotiators and politicians negotiate and debate the final agreements, it all boils down to who wins and who loses-at the sectoral and/or firm level, as well as at an institutional level (workers, farmers, the environment, etc.). Unfortunately, it is not always easy to disentangle the impacts at a more detailed level, and it is also easy to get lost in the forest of computer output.

The Hinojosa/Robinson paper is a commendable start to the debate concerning the implementation of broader free trade areas in the Americas. Similar to the NAFTA debate, this debate will require much more analysis, for example at the sectoral and institutional level. Further research will require a more up-to-date base year data set, a more comprehensive and recent set of trade policy measures (including the ongoing Uruguay Round-related reforms), and a broader range of sectors in order to focus on some of the sensitive areas (for example iron and steel, auto and auto parts, etc.). It may also require more country-focused and sector-focused work to assess the impacts on smaller sectors not typically incorporated in multi-region models (for example orange juice and flowers). Research will also need to focus on some of the other specification issues related to achieving "large" numbers, particularly market structure and foreign direct invesment.

Comments by Renato Galvão Flôres

I have three kinds of observations regarding the Hinojosa-Ojeda and Robinson's paper. Following good econometric practice, I shall present them from the general to the specific ones.

My first comment relates to the central question the paper tries to answer. Though the authors may have faithfully stuck to the agenda they received by the organizers of this meeting, I would like to point out that, in my opinion, the paper does not address the fundamental question posed to MERCOSUR by the FTAA initiative. MERCOSUR now faces two important challenges in its path: the deepening of the integration, to gradually evolve from the globally successful trade union to a common region in the spirit of the European Union's 1992 project, and to enlarge its membership, consolidating Chile and Bolivia as full partners and expanding towards strategic partnerships with the Andean pact, notably Peru, and Venezuela. The FTAA triggers another kind of movement, heavily northwards, and not only slows down the previous ones, but also diverts attention from other eastwards alliances, in particular the one outlined in the Framework Agreement signed between MERCOSUR and the EU in December 1995. Moreover, as any orthodox free-trader would remind us, all these options should always be contrasted with a neutral deepening of the multilateral stance.

Given that Brazil, as any other South American country, does not have the human resources to simultaneously negotiate in all the above fronts, this poses a serious problem of choice, in which AGE simulations can greatly contribute to identify the most rewarding fronts. It is the contrast of these different outcomes that I would like to see in a paper with the title as above; however, the authors investigate only two possibilities – free trade between Brazil and the US, and the FTAA – within a rather debatable regionalization of the world (see below). In this vein, statements like "the results indicate that for both the US and Brazil, there is essentially no strategic substitute to a commitment to lead the effort of hemispheric liberalization" or "countries throughout the region must resolve the prisoners dilemma... that leaves the region worse off" might have some logic in the limited context of their scenarios, but frame the answer to the questions raised by the FTAA in a fairly distorted perspective.

My second point refers to the building up of the model itself. I start with the regions. It strikes me somewhat that, in a model to analyse American integration, Ecuador is singled out while Central America, an area at least four times bigger in terms of population, and three in GDP, and of a different political and economic identity, does not appear. Also, why then confine Uruguay and Paraguay – the other MERCOSUR members which, together, have about the same weight as Ecuador - to the rest of the world (RoW)? This big attic includes the 15 members

of the European Union, a very important partner to Latin-American countries that, even in an US-Brazil analysis, should not be in the RoW.

The model is extremely similar to those used in a series of papers by Hinojosa-Ojeda, Lewis and Robinson, though curiously enough the work closest to the present one, Hinojosa-Ojeda et al. (1995), is not cited. This means that it is a static age, under perfect competition. It is well known that, in free trade areas of the size and disparity of the FTAA, the key factor changing trade flows is the scale economies effect, a phenomenon which needs to be modelled under imperfect competition. Moreover, a crucial area which lies behind the economic objectives of the main proponent of the FTAA is services, where in sectors like telecommunications it controls clear and considerable advantages. I claim that, in view of this, to analyse the FTAA using a static, perfect competition, one (pooled) services sector age model like the one in the paper, pulls down, in relative terms, the US gains while pushing up those of countries like Argentina, Brazil and Mexico.

The model has a "dynamic version" based on three trade-productivity linkages. They are elasticities linking: a) higher intermediate and capital goods imports to higher sectoral productivity; b) higher exports to higher sectoral productivity; c) higher exports to higher capital stock. Though being a device sometimes used in the profession, many authors like this discussant are methodologically against this practice. The main reason is that it is a too simplistic way of giving a "dynamic varnish" to an essentially static structure. It is something like the *proxy of a proxy* of the reduced form of a true dynamic model. Moreover, the values used for the elasticities are completely subjective, their calibration being usually arguable. It is easy to imagine that suitable arrangement of these three parameters can inflate the results in almost whatever desired direction. Indeed, taking advantage of the authors' technical integrity, a glance at Tables 6a and 6b – the former presenting results for the static version and the latter for the dynamic one - illustrates this point. The static version gives GDP gains with the formation of MERCOSUR (scenario 2) of 0.10 per cent and 0.11 per cent, respectively, for Brazil and Argentina. This is reasonable in a static framework and, for instance, compares consistently with the values of 1.1 per cent and 1.8 per cent obtained in Flôres (1997) under imperfect competition. Moving to the corresponding column in Table 6b, two things happen. The first is that GDP results jump 44 times for Brazil and 26 for Argentina, giving a good idea of the range of the "elasticities-push". Secondly, the relative direction of the gains is inverted, with Brazil faring now better than Argentina not only in terms of GDP increase, but also in those for exports and imports. We all know that dynamic calculations can lead to quite large effects, but given the information provided in the paper I have difficulties in accepting these figures. Moreover, even in a true dynamic context, duly allowing for shifts in the production possibilities frontier, it is not at all clear that, with the

creation of MERCOSUR, Brazil would – in GDP, exports and imports – accrue higher than Argentinean increases displayed. I am afraid these issues put in check all the results related to the dynamic scenarios.

In order to seriously consider all tables related to the "dynamic externalities" version, I would need that: a) the values used for the elasticities be clearly shown, by region and sector, in a separate table; b) an explanation on how these values were chosen be given; c) a sensitivity analysis of the effects of reasonable variations in the values adopted be reported. I shall consequently stick to the static results tables. In this case, gains are modest and, from the figures provided, the challenge does not look much competitive.

A final remark on the references. The papers by Chichilnisky (1992), Devarajan et al. (1990) and Gunter (1993) are cited but do not figure in the references. Typos and omissions like these are normal in a preliminary version and I would not mention them but from the fact that they are already four years old: they are also present in Hinojosa-Ojeda et al. (1995).

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TRADE IMPACT OF THE FREE TRADE AREA OF THE AMERICAS*

Alexandre Carvalho and Andréia Parente

1. Introduction

DESPITE SOME GOOD RESULTS obtained in the GATT negotiations towards the reduction of non-tariff barriers, the agreements for multilateral liberalization had a relatively modest scope. Since the second half of the eighties, most countries began to search for new ways to increase their trade in order to ensure growth in their economies.

Following regional economic integration trends, preferential trade agreements began to flourish throughout the world. In the American continent, after successful experiences with MERCOSUR and NAFTA, leaders of 34 American countries are, since 1994, pursuing the establishment of an FTAA (Free Trade Area of the Americas). Taking into account the achievements to date, the diverging negotiation priorities and different preferred timing on the part of member countries, it would seem that such an agreement is not likely to be established soon and that its consequences require a more careful analysis.

In such context of hemispheric integration, this study focuses on the likely trade impacts on Brazil arising from the FTAA implementation. For this purpose, some simulations based on a partial equilibrium model were undertaken to assess changes in Brazilian trade flows.

The paper is structured in five sections, including this introduction. The second section will succintly present theorical aspects of methodologies designed to gauge the impact of regional trade agreements. Section 3 presents the selected methodology and the model adopted. Section 4 presents a brief description of the FTAA's negotiation process as well as the relevant current trade flows. Section 5 presents simulations of results of hemispheric integration based on alternative scenarios.

2. Trade Integration Theory[19]

At the time of Uruguay Round negotiations in the early nineties, it was believed that the world's economy would reach a stage where the multilateral trade

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[19] This section was extracted from Carvalho, Lerda, Parente and Myata (1998).

system would move toward a global trade liberalization. However, in the following years, what happened was not exactly what was expected from such significant multilateral trade negotiations. Regional and sub-regional trade agreements spread. In addition to the consolidation of European Union, the largest integration undertaking ever attempted, the successful creation of other regional blocs, like the NAFTA and the MERCOSUR, clearly shows the trend of the international trade policy today.

However, this trend towards the formation of such regional blocs, instead of damaging multilateral trade agreements, has led to many discussions of the different benefits and negative effects of such agreements on worldwide welfare. Criticism is mainly concentrating on two points: the effects of trade diversion and the growing intrinsic market power of these regional blocs.

The first critical evaluation, explained in detail below, indicates that a large part of the increase in the trade among the countries of such regional associations comes from suppliers inside the FTA, substituting outside suppliers. This means that one can note some growth in trade, but most of it is, actually, caused by suppliers' substitution, implying a trade contraction for the former trade partners. Another point made by the defenders of multilateral trade agreements is that such regional blocs become stronger in terms of market power, leading them to implement quite agressive trade policies. To intensify even more trade among the member countries of those regional blocs, new custom tariffs are being established to be used against outsiders. If all the blocs employ such scheme, it could be the beginning of a trade war, leading to big losses on a global scale. The consolidation of the regional trade blocs, followed by a reduction in the tariff structure imposed to outside partners, would be, according to such observers, a way to reduce the negative consequences of those agreements.

Notwithstanding the negative aspects of such regional trade blocs, there is no clear evidence that their constitution results in harmful factors for the international economic scenario. According to Krugman (1991), although these agreements are responsible for the appearance of some trade diversion, the net results, in terms of global efficiency, will not be negative. Also according to him, the explanation lies exactly in the very configuration of a bloc. As such blocs are mostly formed by neighboring countries, the trade relationship was naturally stimulated beforehand. So, losses caused by trade diversion tend to be smaller, while gains derived from new trade networks tend to be quite significant.

The evaluation of the consequences of the establishment of a trade agreement requires a careful analysis of actual benefits and eventual problems arising from such decision. The need of such technical means to justify governmental decision-making has generated considerable effort to adequately measure the effects from such trade agreements on the economics involved.

To this end, several papers focusing on trade issues in international economy developed a modeling approach, aimed at indicating, *ex ante*, the effects resulting from various integration alternatives among the countries. The general equilibrium model seems to be the most adequate technical instrument for this kind of analysis, in spite of the many limitations and simplifications, mainly due to the excessive aggregation level, as also the adoption of unplausible hypotheses.[20] This kind of analysis allows the evaluation, in addition to the effects of trade liberalization on the trade flows (trade creation and diversion), of the expected effects on the productive structure, employment, as well as changes in welfare and of real income.

Nevertheless, another methodology, somewhat simplified, allows us to gauge the impact from a free trade agreement. Research in this line, using partial equilibrium models, is based in the theoretical assumption that, due to the free trade area, the elimination of tariffs shall increase trade and therefore improve welfare of the member to such an agreement. Using this kind of model, the analysis can be much more detailed in terms of sectors included.

According to the models' assumptions, once a bilateral trade agreement between countries A and B is implemented, eliminating existing custom tariffs, the price of a good produced in A and imported by B will become lower. This means that country B will lose the tariff revenue previously collected but this will be compensated by lower prices for consumers. Consumer gains are higher than tariff revenue losses and there is net gain. This gain corresponds to trade creation.

Analysis should not be restricted to the impact of the free trade area on imports of member countries. Since the tariff on imports from other sources will remain the same, there are distortions which will result in the loss of markets by other world exporters. A preferential trade agreement results in cheaper imports from member economies if contrasted to imports from non-member economies. Demand for goods from non-member economies contracts. Tariff revenue will fall due to this contraction in consumption of goods from outside the trade area. There is a loss resulting from the substitution of suppliers even if the intra-FTA supplier is less efficient than the supplier outside the FTA. This substitution of suppliers which will result in increased exports to other FTA members and is trade diversion.

So a trade integration process can have different real effects on trade, depending on how the trade is affected by processes of trade creation or diversion. The benefits will be bigger, bigger is the difference between trade creation and trade diversion.

[20] For further information, see references quoted by Pereira (1997).

The gains from trade creation are directly related to previously existing tariffs and the amount of trade between partners before the agreement. Similarly, trade diversion effects will be bigger depending on the size of tariffs for non-member countries. Consequently, the possibility of substitution between domestic and imported goods, as also among items imported from different sources will, respectively, determine the consequences for trade creation and diversion.

3. Methodological Aspects: The Partial Equilibrium Model [21]

The simulations undertaken in this paper are based on the partial equilibrium model presented by Laird and Yeats (1986). It is a static model that serves as a basis to calculate the first order effects of differentiated tariff reductions agreed upon under preferential trade agreements. These effects, as mentioned above, are trade creation, resulting from price reduction perceived by importers and higher prices perceived by exporters[22] and trade diversion, resulting from lower prices of goods supplied by partner countries in relation to similar products from third parties. The following notation was used:[23]

M - total imports

Mn - imports from non-associated countries

X - total exports

V - apparent consumption = domestic production + M – X

Y - country's income

P - price

R - export revenue

t - tariff and/or non-tariff barriers (*ad valorem* equivalent)

Em - import demand elasticity

Ex - export supply elasticity

Es - substitution elasticity

TC - trade creation

TD - trade diversion

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[21] This section was extracted from Carvalho *et alii* (1998).

[22] The difference between these two prices are due to taiffs, non-tariff barriers and tranportation costs and insurance.

[23] The flow variables (export, import) refer to quantities (weight or units).

i - refers to goods

j - refers to importing country

k - refers to exporting country

d - letter indicating variation

Obs:

Pijk - price of good i in country j bought from country k

Pikj - price of good i supplied by country k to country j

Mijk - import of good i by country j, from country k

Xijk - export of good i from country k to country j

The basic model uses the demand function in country j of good i, produced by country k, and also the supply function of country k, and the supply in country k of good i imported by country j:

$$Mijk = F(Yj, Pij, Pijk) \quad (1)$$

$$Xijk = F(Pikj) \quad (2)$$

and, obviously,

$$Mijk = Xikj \quad (3)$$

Recognizing that the price of good i in country j will correspond to the price received by the exporter in country k, plus duties, costs of transportation, insurance and other non-tariff costs (synthesized in an *ad valorem* tijk equivalent), we have:

$$Pijk = Pikj \cdot (1 + tijk) \quad (4)$$

So, exporter k revenue is given by:

$$Rikj = Xikj \cdot Pikj \quad (5)$$

After full differentiation and using the definitions of supply and demand elasticity, the following expressions are obtained for, respectively, price variation and trade creation:[24]

[24] The expressions for trade creation and trade diversion provide quantities. These must be multiplied by prices to obtain values. Obviously, if export elasticities are infinite, the formulae for creation and diversion of trade can be used including directly monetary values rather than quantities. It is intended in future papers to take into account estimates of export elasticities. This will require calculations in two steps: one to determine quantity impacts and the other to determine impact in monetary terms.

$$dPikj\ (\ Pikj = (dtijk\ (\ (1 + tijk)).\ (Em\ ((Ex - Em)) \quad (6)$$

$$TCijk = Mijk.\ Em.\ dtijk\ (\ ((1 + tijk).\ (1 - (Em\ (\ Ex))) \quad (7)$$

Usually, in the technical literature on quantitative evaluation of foreign trade policies, the hypothesis of infinite export elasticities is adopted. Such consideration becomes the more plausible the less important are the exports of specific partners in relation to a country's total production, an assumption which is accepable in big economies. Much empirical evidence, using estimations based in simultaneous equations, point out to the high values of export supply elasticities.[25] In view of such considerations, the right side of equation (6) becomes null and equation (7) can be simplified to formula (8). For Brazil, import elasticities which have been used are from Carvalho and Parente (see appendix), while, for the other countries, those presented in Cline (1978) were used.

$$TCijk = Mijk.\ Em.\ dtijk\ (1 + tijk) \quad (8)$$

In order to estimate the trade diversion effect, the technical literature usually employs two basic approaches. The first one was presented by Baldwin and Murray (1977) containing some simplifying hypothesis. They link trade diversion to trade creation, assuming: (a) trade creation ($-\Delta V$) is equivalent to the importing country's production fluctuation; (b) the variation, in percentage terms, of imports from countries outside the FTA, $\Delta Mn/Mn$ is equivalent to the variation in the output of the importing economy ($\Delta V/V$).

Considering that trade diversion TD is equal to $-\Delta Mn$:

$$TD = TC.(-(Mn/V) \quad (9)$$

The other approach implies the use of a substitution elasticity between goods origination in area members and goods supplied by economies outside the area. The elasticity of substitution is defined as:

$$Es = \frac{d(\Sigma Mijk/\Sigma MijK)\ /\ (\Sigma Mijk/\Sigma MijK)}{d(Pijk/PijK)\ /\ (Pijk/PijK)} \quad (10)$$

wherein k refers to price and imports from area members (countries favored by tariff reductions) and K refers to prices and imports for non-parmers.

Solving differential equation (10), the following solution emerges:

$$TDijk = \frac{(\Sigma Mijk)A.\ (\Sigma MijK)A.\ \{[(Pijk/PijK)P/(PijK/PijK)A]^{Es} - 1\}}{(\Sigma Mijk)A + (\Sigma MijK)A.\ [(Pijk/PijK)P\ /\ (Pijk/PijK)A]^{Es}} \quad (11)$$

[25] See Cline *et alii* (1978) for further details.

In the previous equation, P and A refer to the values of the variables after and before the trade liberalization, respectively.

Applying a first-order Taylor expansion to function $[(Pijk/PijK)P/(PijK/PijK)A]^{Es}$, around point (Pijk/PijK)A, and adding the assumption that the gains derived from trade diversion will be shared among the partners according to the market shares prevailing before the trade agreement, the usual formula provided by the literature for modeling trade deviation is found:

$$TDijk = \frac{MijK}{\Sigma Mijk} \cdot \frac{\Sigma Mijk.. \Sigma MijK.Es.\ \Delta(Pijk/PijK) / (Pijk/PijK)}{\Sigma MijK + \Sigma MijK + \Sigma MijK.\ Es.\Delta(Pijk/PijK) / (Pijk/PijK)} \qquad (12)$$

The use of equation (12) has the disadvantage of the need to produce an estimate for substitution elasticity Es,[26] which is not the case with equation (9). On the other hand, the latter requires figures for the M_n/V coefficient for each product (or group of products) considered in the simulations. Pomfret (1986) criticizes the use of the equation proposed by Baldwin and Murray, arguing that they implicitly assume the Es = Em=(1 + (M/V) ratio. For a low penetration coefficient (M/V), Es is a good approximation of Em, that is, the substitution elasticity is approximately the same as the import elasticity, regardless of the countries that are partners or non-partners. Moreover, the Baldwin and Murray formula usually provides much lower figures for TD in relation to TC, which can generate negatively biased estimates.

The simulations mentioned in this paper were carried out using equation (12) and considering a substitution elasticity of – 1.5. Additionally, a sensitivity analysis was carried out (see tables in the appendix) adopting ES = -1.10 and Es = -2.0, because data for coefficient M_n/V were not available, particularly for the United States. For Brazil, various papers (Moreira, 1996); (Haguenauer), provide estimates for the M/V coefficient that may be considered approximations[27] for M_n/V. However, preliminary estimates for TD, based on these figures and on equation (9), were much lower than those calculated through equation (12), as expected according to the criticism made by Pomfret.

Regarding the degree of disaggregation of the simulations, Cline (1978) advises us to work initially with highly disaggregated sectors, consolidating results in the final stages. He argues that a pre-aggregation of tariffs, before applying the formulas for the creation of trade opportunities and trade deviation, would give

[26] The required adjustments of econometric models to estimate substitution elasticities are not very reliable and are seldom attempted in the literature.

[27] The quality of these approximations will depend on the participation, for each product, of imports from the FTAA in the total imports of Brazil.

rise to a certain bias in the quantification, even in the case of linear tariff reductions.[28] In addition, the computer costs involved in working with disaggregated data are irrelevant.

For Brazilian imports, the simulations were carried out using a disaggregation of the Nomenclatura Brasileira de Mercadorias. The data for imports were extracted from the database of the Ministry of Finance. The tariffs by product for Brazil were provided by ECLA-Brasilia and correspond to an average from January till September 1996.[29] For the remaining FTAA member countries, the main source is the TRAINS CD-ROM issued in October 1997, which contains part of the UNCTAD database. In this case, the simulations were carried out with the six-digit disaggregation of the so-called harmonized system.[30] In general, all the information refers to the year of 1996.

In this paper, only tariff reductions were taken into account, that is, non-tariff barriers were disregarded. This can obviously lead to an oversimplification, considering the importance of non-tariff barriers, particularly in the trade relations between Brazil and the United States.[31] The removal of these obstacles can lead to a significant increase in trade values. However, defining *ad valorem* equivalents for non-tariff barriers is a difficult task that was not contemplated in this paper. In different exercises for simulating foreign trade policies, the authors use previously calculated *ad valorem* equivalents, even though they are somewhat outdated. The option for not including non-tariff barriers in the simulations was based on the fact that the available quantifications dated back to the early 1990s. Because of changes in the protectionist practices brought about by the Uruguay Round (see Low and Yeats, 1995), such *ad valorem* equivalents are probably biased.[32]

4. The Trade Integration of the Americas

4.1 Background and Development of the FTAA

From a trade perspective, favorable conditions prevailing after the Second World War constituted the starting point for globalization. Shortly afterwards, the idea of a world economy emerged for the first time. Concurrently, many

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[28] Same percentage reduction for all tariff lines.

[29] See Baumann (1997).

[30] The results for trade creation and trade diversion were then aggregated by section of the harmonized system (see appendix). Obviously, with the use of an appropriate translator, the results may be presented with alternative types of aggregation.

[31] See Carvalho *et alii* (1998a) and Fonseca and Carvalho (1997).

[32] In future papers, there are plans to include estimates for non-tariff barriers, following the methodologies proposed by Laird & Yeats (1990).

multilateral negotiations carried out under the GATT led to a reduction in tariff barriers and other obstacles, resulting in a significant increase in the trade, whose pace exceeded that of the population growth. Spurred by globalizing theories, these movements favouring economic internationalization preach, among other aspects, integration as a means to enhance the efficiency and welfare.

Within this context, the Montevideo Treaty was signed in America, creating the Latin-American Free Trade Association (ALALC). This agreement, which was signed by Brazil, Argentina, Chile, Uruguay, Mexico, Paraguay, Peru and, later on, by Bolivia, Colombia, Venezuela and Ecuador, provided for the gradual elimination of import tariffs, the unification of the tariff regime before third parties, and the coordination of national trade policies. The agreement also proposed the adoption of a concession system for less developed countries.

However, only limited objectives were achieved under the Montevideo Treaty, particularly due to the very scope of the purposes contemplated. For this reason, although attempts were made to adapt the rules, the final result was to weaken obligations for member countries. On that same occasion, the Cartagena agreement was signed, under which the Andean Group, made up of Peru, Colombia, Chile, Ecuador, Bolivia and Venezuela was established within the ALALC. Like the ALALC, the Andean Pact was not successful in reaching its expected results.

Still in the 1960s, many other economic integration agreements were signed in Latin America and the Caribbean. In December 1960, the Central American Common Market was established, and the Caribbean Free Trade Association (CARIFTA) and the East Caribbean Common Market (MCCO), which later on became the Caribbean Community (CARICOM), were created in 1968. This was, therefore, one of the most dynamic periods in terms of attempts to promote a regional integration system.

The new Montevideo Treaty, which was signed in 1980, replaced the ALALC with the Latin-American Integration Association (ALADI) and contemplated more realistic and flexible targets. The agreement focused on harmonizing previous initiatives with bilateral agreements using the existing administrative framework. Another favorable aspect was the idea to promote the integration based on concessions restricted to different sectors and then move on to more comprehensive agreements.

In March 1991, Brazil, Argentina, Uruguay and Paraguay signed the Asuncion Treaty and established the South Common Market, known as MERCOSUR. This agreement contained some innovative provisions, such as the automatic reduction of import tariffs within the bloc, a program to eliminate non-tariff barriers, the establishment of common external tariffs, and the definition of a common trade

policy for the partners. The development of this integration process was consolidated with the implementation of a Customs Union between the member countries on January 1st, 1995.

Meanwhile, in North America, the United States and Canada signed a trade liberalization agreement in 1989 that was expanded to incorporate Mexico in 1994. With the inclusion of the latter, the North American Free Trade Agreement (NAFTA) was created, which is the second largest trade bloc in the world after the European Union in terms of the volume of the trade involved.

This wide range of agreements only confirmed the trend towards a new international scenario consisting of economic blocs, where geographic proximity became a relevant factor in the integration process. The fierce competition prevailing in foreign markets in relation to free trade areas apparently contributed to the proposal to implement more comprehensive agreements, such as the Free Trade Area of the Americas.

The negotiations that led to the creation of the Free Trade Area of the Americas (FTAA) began in December 1994 in Miami, at the First Summit of the Americas. At this meeting, the leaders of 34 countries of the American continent, except Cuba, launched 23 initiatives, among which the FTAA, whose objective was to promote new prospects for a hemispheric integration. In this context, economic and trade-related aspects began to be contemplated in the light of political, social and environmental considerations with the purpose of promoting the prosperity of the countries involved. After that meeting, four other ministerial meetings were held in Denver (United States), Cartagena (Colombia), Belo Horizonte (Brazil) and San José (Costa Rica), in addition to multiple vice-ministerial meetings, many working group meetings, a new summit in Santiago (Chile), and the meeting of the Trade Negotiations Committee (CNC) in Buenos Aires (Argentina). The idea to set up the FTAA, which had been suggested by the president of the United States, George Bush, in 1990, is being consolidated and should be concluded, at least partially, by 2005.

However, since the First Summit in Miami, the negotiations to set up the FTAA have been marked by the diverging positions of Brazil and the United States. The US negotiators have been pressing for the implementation of a more comprehensive and faster trade liberalization timetable, according to which commitments agreed upon in previous sub-regional negotiations would tend to be covered by the FTAA. The Brazilian position and that of the remaining MERCOSUR countries is quite different from the one defended by the US, as they want a slower integration and access to markets to take place only in the final stage of the process. According to them, the first stage would comprise the consolidation of agreements aimed at facilitating business operations and, in the second stage, more complex topics would be dealt with, without implying the exchange of concessions

in terms of access to the respective markets, which would only be addressed in the third stage. According to Brazil, the negotiations should not be carried out in modules, but rather within a global context where countries would be free to act individually or in blocs.

The efforts made by the MERCOSUR seem to have produced at least partial effects. At the meeting of vice-ministers in Belo Horizonte, it was agreed that the ALCA could coexist with other existing integration arrangements. As a result, the interests and achievements of the MERCOSUR would be protected.

In parallel to these developments, the non-approval of the fast-track by the US government in November 1997 reduced the power of the US negotiators and suggested that the hemispheric integration process was cooling off. With the non-approval of the fast track, the US adopted a more flexible position in relation to strengthening regional blocs on the continent and at the same time, began to defend the so-called second generation of reforms.[33] Moreover, the establishment of the Free Trade Area of the Americas lost priority in the US agenda and only measures to facilitate the trade interchange[34] will be taken until 2005, which will not involve any tariff-related trade agreements. The lack of a practical mechanism that could contribute to further the integration of the American continent defined a new path for the negotiations, which began to focus more on issues related to democracy and human rights.

In general, the pace of the negotiations around the FTAA has been moderate since December 1994. Without the fast-track, this pace is assured, favoring countries like Brazil and its MERCOSUR partners, which need more time to adapt themselves to the impacts of a trade liberalization arrangement that includes the United States with the competitive advantage of the top world power in the production of many goods.

Actually, the main conflict between Brazil and the United States basically lies in the hard time the Brazilian negotiators are having to perceive the remarkable advantages afforded by this integration, which the United States government has been advocating with great enthusiasm. According to Abreu (1997), this fact is derived from the awareness that such an agreement, particularly because it involves the US, would expose the Brazilian economy to the foreign competition at a much higher degree. In addition, the main advantages that Brazil could enjoy under this

[33] At the Santiago summit, the leaders of the hemisphere agreed to adopt an Action Plan based on the second generation of reforms as part of their efforts to strengthen their democracies, fight the drug traffic, eradicate poverty, and improve education and health conditions.

[34] The nature of these measures has not been defined, but according to the Brazilian government interpretation, they will consist of initiatives aimed at reducing red tape in customs procedures and at standardizing the forms used in customs operations.

agreement would be related to access to certain US markets, such as the orange juice and textile markets, where the barriers are not likely to be satisfactorily reduced in the short term.

Opposition to the establishment of the Free Trade Area of the Americas, however, comes from both the south and the north portions of the continent. Latin-American countries have been emphasizing the high cost they would have to pay to adjust and open the doors of their markets to the United States economy. The United States, in turn, fear the loss of jobs and the risks involved in its relationship with countries marked by higher destabilization risks. Nevertheless, the governments of the countries of the hemisphere continue to carry out negotiations to establish the FTAA, partly because they believe they will enjoy the benefits of being able to have access to new markets in the future, furthering the growth of their economies.

As a matter of fact, a swift process to open the doors of the Latin-American markets to an economy such as that of the US could cause undesirable displacements and not only for Brazil. On the one hand, it must be recognized that Brazil experienced a trade liberalization process in recent years that made it possible for the country to advance in important ways in the liberalization of its markets. According to studies carried out by the IPEA, the Brazilian industry had productivity gains of approximately 5% a year after opening up its economy. In addition, the country is privatizing its infrastructure and internationalizing its industries, facts that contribute to improve its position with regard to the integration of the continent. Although much remains to be done before the FTAA begins to be implemented in 2005, with no deadline to be completed, one should not overlook the importance of analyzing the likely impacts of this integration.

4.2 Trade-Related Aspects

The international trade in goods and services has become more dynamic in the last decade. According to a report issued by the WTO in 1997, the volume of world exports grew by 9.5% in relation to the previous year. This growth rate, the highest in the last twenty years, becomes even more significant if one considers that the world product grew by 3%.

This substantial growth in the world trade can be attributed to a large extent to the dynamic performance of economies in the American continent both North and South. According to the above mentioned report, a record participation in the total volume of the world trade was registered in these two regions. Trade within North America and the exports of Latin-American countries grew by two-digit figures.

Table 1 below shows the trade growth rates registered by region during the 1990s. The positive performance of Latin-American economies is evinced by the export and import growth rates registered in the region, which were significantly higher than those registered for the rest of the world.

TABLE 1: Total Trade Growth Rate for Goods by Region (%) – 1990/1997

	Export				Import			
	90-97	95	96	97	90-95	95	96	97
The World	6.00	9.00	5.00	9.50	6.50	9.00	5.00	9.00
North America (*)	7.00	9.50	6.00	10.50	7.50	8.00	6.00	12.50
Latin America	8.00	12.00	11.00	12.50	11.50	3.00	11.50	21.50
West Europe	5.50	8.00	4.50	8.00	4.50	8.00	3.50	7.00
a) European Union	5.50	8.50	4.00	8.00	4.50	7.50	2.50	6.50
Transition economies	4.50	17.50	7.50	11.00	1.50	17.00	14.50	16.00
Asia	7.50	10.00	3.50	11.50	10.50	14.00	5.00	5.50
a) Japan	1.50	4.00	(0.50)	9.50	6.50	12.50	2.00	2.50
b) Southeast Asia	11.00	14.50	6.50	1.00	12.00	15.50	4.50	5.50

Source and preparation: WTO
(*) Canada and the United States

The importance of the American continent in the world scenario is clear. If we take a look at the 30 larger exporting economies in the world in 1997, we see that four American countries are included among them. The United States ranks first, followed by Canada (7th), Mexico (15th) and Brazil (26th). These four economies account for approximately 20% of all world exports.

Trade within the continent is also marked by the supremacy of the US economy, which accounts for over 60% of the trade in the region. Based on an analysis of the intra-FTAA trade, one can see that the NAFTA accounts for over 85% of its volume. The MERCOSUR accounts for about 7%, followed by the Andean Pact, whose share is 4.5%. The share of the Caribbean Common Market and the Central-American Common Market in this trade is less than 1%. Tables 2 and 3 show how the trade is divided within the FTAA.

TABLE 2: Composition of Intra-ALCA Imports (in US$ million)

	1990-1991	(%)	1992-1993	(%)	1994-1995	(%)	1996	(%)
NAFTA								
Canada	120,982.50	16.14	130,900.50	14.91	157,614.50	14.22	170,648.00	13.67
United States	512,675.00	68.38	578,680.50	65.89	730.033,50	65.88	817.795,00	65.52
Mexico	41,284.50	5.51	66,975.00	7.63	79,742.00	7.20	93,933.00	7.53
MERCOSUR								
Argentina	6,175.50	0.82	15,828.00	1 80	20,824.50	1.88	23,762.00	1 90
Brazil	22,737.00	3.03	24,404.00	2.89	44,890.00	4.5	56,947.00	4.56
Paraguay	1,234.00	0.16	1,357.50	0.15	2,468.50	0.22	2,797.00	0.22
Uruguay	1,490.00	0.20	2,185.50	0.25	2,826.50	0.26	3,323.00	0.27
Andean Pact								
Bolivia	828.50	0.11	1,148.00	0.13	1,316.00	0.12	1,635.00	0.13
Colombia	5,248.00	0.70	8,174.00	0.93	12,868.00	1 16	13,674.00	1.10
Ecuador	2,129.50	0.28	2,531.50	0.29	3,941 50	0.36	3,724.00	0.30
Peru	3,194.00	0.43	4,050.00	0.46	6,631.50	0.60%	7,894.00	0.63
Venezuela	8,325.00	1.11	11,971.50	1.36	9,529.50	0.86%	9,488.00	0.76
Caribbean Common Market								
Bahamas	1,121.00	0.15	996.00	0.11	1,149.50	0.10	1,243.00	0.10
Barbados	697.00	0.09	547.50	0.06	687.00	0.06	763.00	0.06
Belize	233.50	0.03	277 50	0.03	258.00	0.02	256.00	0.02
Guyana	309.00	0.04	463.50	0.05	484.00	0.04	484.00	0.04
French Guyana	758.00	0.10	643.50	0.07	729.50	0.07	1,137.00	0.09
Jamaica	1,675.00	0.22	1,882 50	0.21	2,460.50	0.22	2,757.00	0.22
S. Vincent and the Grenadines	138.00	0.02	133.00	0.02	133.00	0.01	132.00	0.01
Trinidad and Tobago	1,394.00	0.19	1,441.00	0.16	1,422.50	0.13	2,144.00	0.17
Central-American Common Market								
Costa Rica	1,933.50	0.26	2,663.50	0.30	3,139.00	0.28	3,433.00	0.28
El Salvador	1,334.50	0.18	1,805.50	0.21	2,713.50	0.24	2,671.00	0.21
Guatemala	1,750.00	0.23	2,565.50	0.29	2,948.50	0.27	3,146.00	0.25
Honduras	945.00	0 13	1,083.50	0.12	1,137 50	0.10	1,694.00	0.14
Nicaragua	694.50	0.09	799.50	0.09	918.50	0.08	1,120.00	0.09
Chile	7,886.00	1.05	10,627.00	1.21	13,869.50	1.25	17,828.00	1,43
Haiti	366.00	0.05	316.50	0.04	452.50	0.04	665.00	0.05
Panama	1,617.00	0.22	2,106.00	0.24	2,457.50	0.22	2,511.00	0.20
Others	611.00	0.08	664.00	0.08	555.00	0.05	555.00	0.04
Total	749,766.50	100.0	878,221.50	100.0	1,108,202.00	100.0	1,248,159.00	100.0

Source: Direction of Trade Statistics, IMF

TABLE 3: Composition of Intra-ALCA Exports (in US$ million)

	1990-1991	(%)	1992-1993	(%)	1994-1995	(%)	1996	(%)
NAFTA								
Canada	127,396.00	19.18	139,816.50	18.75	178,786.50	19.35	201,633.00	18.85
United States	407,661.00	61.36	459,468.50	61.22	548,685.00	59.39	624,528.00	58.38
Mexico	34,899.50	5.25	49,041.00	6.58	67,017.00	7.25	95,991.00	8.97
MERCOSUR								
Argentina	12,165.50	1.83	12,676.50	1.70	18,313.00	1.98	23,811.00	2.23
Brazil	31,517.00	4.74	37,195.00	4.99	45,032.00	4.87	47,762.00	4.46
Paraguay	848.00	0.13	691.00	0.09	868.00	0.09	919.00	0.09
Uruguay	1,649.00	0.25	1,674.00	0.22	2,009.50	0.22	2,397.00	0.22
Andean Pact								
Bolivia	887.50	0.13	719.00	0.10	1,066.50	0.12	1,137.00	0.11
Colombia	6,999.00	1.05	7,016.50	0.94	9,302.50	1.01	10,572.00	1.99
Ecuador	2,783.00	0.42	2,955.50	0.40	4,063.50	0.44	4,890.00	0.46
Peru	3,280.00	0.49	3,499.50	0.47	5,065.00	0.55	5,897.00	0.55
Venezuela	16,326.00	2.46	14,435.50	1.94	17,273.00	1.87	20,787.00	1.94
Caribbean Common Market								
Bahamas	229.50	0.03	177.00	0.02	179.50	0.02	192.00	0.02
Barbados	207.00	0.03	185.00	0.02	210.00	0.02	235.00	0.02
Belize	103.50	0.02	117.50	0.02	135.00	0.01	154.00	0.01
Guyana	249.50	0.04	362.50	0.05	453.00	0.05	546.00	0.05
French Guyana	74.50	0.01	97.00	0.01	153.50	0.02	101.00	0.01
Jamaica	1,094.00	0.16	1,085.50	0.15	1,303.00	0.14	1,360.00	0.13
S. Vicent and the Grenadines	75.00	0.01	68.00	0.01	46.50	0.01	46.00	0.00
Trinidad and Tobago	1,851.50	0.28	1,740.50	0.23	2,161.00	0.23	2,500.00	0.23
Central-American Common Market								
Costa Rica	1,523.00	0.23	1,918.00	0.26	2,543.50	0.28	2,946.00	0.28
El Salvador	585.00	0.09	665.00	0.09	921.00	0.10	1,024.00	0.10
Guatemala	1,182.50	0.18	1,317.50	0.18	1,839.00	0.20	2,031.00	0.19
Honduras	811.50	0.12	808.00	0.11	952.00	0.10	1,106.00	0.10
Nicaragua	301.50	0.05	245.00	0.03	439.00	0.05	635.00	0.06
Chile	8,627.50	1.30	9,603.00	1.29	13,870.50	1.50	15,353.00	1.44
Haiti	163.50	0.02	76.50	0.01	96.00	0.01	90.00	0.01
Panama	349.00	0.05	527.50	0.07	604.00	0.07	625.00	0.06
Others	500.50	0.08	476.00	0.06	476.00	0.05	476.00	0.04
Total	664,370.00	100.0	745,648.00	100.0	923,864.00	100.0	1,069,744.00	100.0

Source: Direction of trade statistics, IMF

5. Results of the Simulations

The formation of any free trade area requires much attention since its origins until the definition of the best way to implement it. Past experience shows that a full and unrestrained liberalization of all trade barriers within a region can only be consolidated after a certain maturing period. This period is necessary to enable more sensitive sectors in each country to develop mechanisms to deal with the

international competition. There is, therefore, a huge array of possibilities for implementing a trade liberalization agreement. Following this line of thought, this paper considers some alternative scenarios under which the FTAA could be established.[35] The simulations for each scenario were made based on an import substitution elasticity of – 1.5%. As mentioned before, however, a sensitivity analysis was carried out by applying a model based on assumptions of –1.0% and – 2.0% for the said elasticity. The results of this analysis are shown in the appendix.

5.1 Full Tariff Liberalization (Scenario I)

Assuming that the FTAA will indeed be implemented and considering that it would imply the direct, complete and immediate elimination of all tariffs applied to all products traded on the continent, the model that was adopted indicates that the Brazilian exports to the American continent would increase by about 7%, that is, by US$ 1.5 billion, while imports from the FTAA would grow approximately 18%, or US$ 4.3 billion. Table 4 shows the difference between what the country would export and import once the FTAA is in place.

TABLE 4: Impacts of Liberalization on Trade Flows Within the ALCA

	Increase in Brazilian exports		Increase in Brazilian imports	
	million US$	%	million US$	%
Trade creation	916.61	4.35	3,343.95	13.64
Trade diversion	556.65	2.64	1,000.19	4.08
Total effect	1,473.26	6.99	4,344.14	17.72

Table prepared by the authors

According to the data shown above, one can see that the impact caused by trade diversion is much more significant for exports, in terms of the percentage of the total effect. The results show that almost 40% of the total increase in Brazilian exports are derived from this effect, showing that the increase observed in exports is not, to a large extent, determined by the competitiveness of Brazilian products, but rather by the advantage of being able to trade within the continent without any tariffs.

Based on the data for the different sectors involved, which are shown in tables contained in the appendix, one can assess the impacts of an hemispheric liberalization on the different productive sectors of the country. In percentage terms, the pearl and precious stones and materials sectors (section XIV) would benefit most from integration, since its exports to the hemispheric markets would increase by approximately 33%. However, analysis based on values shows that the

[35] Obviously these scenarios are only attempts to show some alternatives that the authors consider more realistic based on the information available so far.

sectors whose exports would increase most are those of mechanical instruments and electric machines and equipment (section XVI) and shoes, hats, umbrellas, etc. (section XII). The exports of these two groups of products would increase by US$ 270.6 million and US$ 241.3 million, respectively, since they would be the ones that would benefit most from the effect caused by both trade creation and diversion. Other sectors that would also answer favorably to the integration are those of metal base and metal base items (section XV) and of vehicles, aircraft and other transportation equipment (section XVII), which would grow by US$ 198.6 million and US$ 156.0 million, respectively.

On the import side, about 60% of the total increase would be caused by the stepped-up purchase of mechanical instruments and electric machines and equipment sector (section XVI) and of vehicles, aircraft and other transportation equipment (section XVII). In these cases, imports would increase by US$ 1.99 billion and US$ 595 million, respectively.

The analysis of the decomposition of the trade diversion effect for Brazilian imports makes possible part of the impact that an hemispheric integration could cause on the trade of countries outside the bloc. Table 5 below shows how trade deviation effects would be divided among countries that would be unfavourably affected in their total exports to Brazil.

TABLE 5:Impact of Trade Diversion on Other Trade Partners (in US$ million)

	Exports to Brazil before the ALCA	Exports to Brazil after the ALCA	Total decrease in exports	
			Amount	(%)
European Union	13,075.0	12,597.13	477.87	3.65
Japan	2,756.2	2,635.05	121.15	4.40
Asian Tigers	2,577.3	2,464.82	112.48	4.36
China	1,128.81	1,090.81	37.89	3.36
Others	9,226.9	8,976.1	250.80	2.72
Total	28,764.2	27,764.01	1,000.19	3.48

Table prepared by the authors

The disaggregated data provided in the table contained in the statistical appendix show that for all the sets of countries indicated in the table above, the sector of mechanical instruments and electric machines and equipment, etc. (section XVI) is the one that will experience the highest decreases in the volume exported to Brazil. This sector accounts for almost 50% of the total decrease in the exports from the European Union and China and for about 70% of the decrease observed in the exports from Japan and the so-called Asian Tigers. It can also be noticed that, for the European Union, the exports of the chemical industry sector (section VI) dropped significantly, and that the sum involved represents a decrease

of 11% in the exports from the bloc to Brazil. For China, the drop in the export of textiles (section XI) corresponds to 12% of all losses registered for that country.

However, it is not only in countries not included in the FTA that total exports to the Brazilian market drops. Considering that the FTAA will be implemented in a territory that is already marked by the existence of sub-regional FTAs, the composition and magnitude of trade within these FTAs will also change.

Taking the MERCOSUR as an example, it can be seen that part of the trade between the partner countries that had already been stimulated by the relatively lower cost of goods as a result of the elimination of existing barriers will end, since tariff reduction will be applied to a larger group of countries. This rearrangement of the trade within the bloc may, to a certain extent, be considered as a correction of the trade deviation against the remaining countries of the continent that did not become members of the MERCOSUR when it was originally created. Table 6 below shows changes in the composition of the Brazilian trade with its MERCOSUR partners.

TABLE 6: Impacts of ALCA on the Brazilian Trade With MERCOSUR Countries

	Reduction of the Trade			
	Brazilian Exports		Brazilian Imports	
	million US$	(%)	million US$	(%)
Argentina	72.47	1.29	242.17	3.57
Uruguay	5.92	0.78	16.98	1.82
Paraguay	7.68	1.13	7.22	1.31

Table prepared by the authors

An analysis of the detailed data shows that, for Argentina, exports will drop mainly in the vehicles, aircraft and transportation equipment sector (section XVII), which accounts for over 37% of the total decrease in the exports of that country to Brazil. In the case of Uruguay, the plastic and rubber sector (section VII) accounts for approximately 21% of the total drop in the exports of that country, and for Paraguay, the most affected sector is that of vegetal products (section II), whose decrease in exports corresponds to 79% of all losses registered for the country.

For Brazil, it can be seen that exports to MERCOSUR countries drop by approximately US$ 86 million or by 1.2% of the present exports. The sectors where export losses were the highest were those of mechanical instruments and electric machines and equipment (section XVI) and of vehicles, aircraft and other transportation instruments (section XVII), whose sums correspond to about 24% and 21% of the total decrease in the Brazilian exports to MERCOSUR, respectively.

5.2 Partial Tariff Liberalization (Scenarios II and III)

This scenario was built based on the assumption that the countries involved in this integration process will impose restrictions on the immediate liberalization of some sensitive sectors, so that free access to the segments in question would only be possible after a period of adaptation. Based on this consideration, alternative scenarios were developed according to different criteria that may be adopted to select these so-called sensitive sectors.

For Brazilian imports, we will consider only one alternative scenario. In this case, a tariff reduction of 100% will be simulated for all sectors, except for those included in the basic TEC exception list. For these sectors, the tariffs will be maintained at their present levels.

This second scenario for Brazilian imports resulted in a 20.25% decrease in total trade creation. In addition, it was seen that most of the more sensitive sectors, in terms of the percentage increase in the imports resulting from trade creation, are included in the Brazilian common external tariff exception list. These findings were then extrapolated and two alternative scenarios built up for tariff reduction in the remaining FTAA member countries.

In the first case (scenario 2), the sensitive sectors selected for each partner of Brazil were those where a higher relative increase in exports was registered as a result of trade creation, until the rate of 20.25% of trade creation resulting from a full liberalization was completed. In this second scenario, the tariffs applied to these sensitive sectors were maintained, while those applied to the remaining products were fully liberalized.

The simulation carried out for this scenario shows, in relation to the previous one, that while Brazilian exports would grow by US$ 1.28 billion, that is, US$ 196 million less than in a fully liberalized scenario, imports drop by approximately US$ 870 million, totaling US$ 3.5 billion. Table 7 shows how the results of this scenario are divided.

TABLE 7: Impacts of a Partial Liberalization on Trade Flows

	Increase in Exports		Increase in Imports	
	Amount (million US$)	%	Amount (million US$)	%
Trade creation	752.89	3.57	2,666.73	10.87
Trade diversion	524.24	2.49	803.80	3.28
Total effect	1,277.13	6.05	3,470.53	14.15

Table prepared by the authors

Like in the previous scenario, the European Union would be the economy most affected by the implementation of a FTAA. Table 8 shows that its exports to the Brazilian market would decrease by more than US$ 420 million.

TABLE 8: Impacts of Trade Deviation for the Remaining Partners (in US$ million)

	Export to Brazil before the ALCA	Export to Brazil after the ALCA	Total Decrease in Exports	
			Amount	(%)
European Union	13,075.0	12,653.93	421.00	3.22
Japan	2,756.20	2,648.57	107.63	3.91
Asian Tigers	2,577.30	2,481.35	95.95	3.72
China	1,128.80	1,097.74	31.06	2.72
Others	9,226.90	9,078.81	148.09	1.60
Total	28,764.20	27,960.40	803.80	2.79

Table prepared by the authors

A more detailed analysis of these results shows that, like in the previous scenario, the sectors including mechanical instruments and machinery, electrical equipment, etc.(section XVI) are those with the more prominent cuts in exports to all countries.

The impact on this sector within the MERCOSUR will also be milder. In the previous scenario, the Brazilian imports from its partners decreased by about US$ 266 million. In this scenario, the decrease was about 50% lower, amounting to US$ 127 million. For Brazilian exports, the decrease amounts to US$ 79 million, that is, US$ 7 million less than the drop registered in the previous scenario.

TABLE 9: Impacts of ALCA on the Brazilian Trade in the MERCOSUR

	Reduction of the Trade			
	Brazilian Exports		Brazilian Imports	
	million US$	(%)	million US$	(%)
Argentina	66.27	1.18	109.75	1.62
Uruguay	5.54	0.73	10.40	1.12
Paraguay	7.31	1.08	6.51	1.18

Table prepared by the authors

For the second scenario, it was assumed that, within the context of a partial liberalization, all members of the MERCOSUR, except Paraguay,[36] would maintain their common external tariff exception lists and their (intrazone) adaptation lists,

[36] This procedure was not applied to Paraguay because the Paraguayan lists were not available. The results, however, are not affected by this fact, considering that the trade between these countries is low.

so that all sectors comprised therein would keep their tariff framework untouched.[37] For the United States, the sectors that were considered sensitive were selected according to two criteria: sectors to which the country applies any type of non-tariff barrier[38] and sectors suggested by Carvalho, Parente, Lerda and Miyata (1998) and Hufbauer and Schott (1992) as the most likely to be affected by a full liberalization. For the remaining countries, the same criterion used before was applied, that is, the sectors regarded as sensitive were those that, after a full liberalization, had the highest relative increments in imports as a result of trade creation.

With regard to Brazilian imports, the results in this scenario are the same as those shown in connection with the previous scenario, as the sensitive sectors selected continued to be those covered by the common external tariff exception list. Therefore, only the changes involving exports from Brazil to the FTAA member countries will be shown in the following tables.

TABLE 10: Impacts of Liberalization on Brazilian Exports

	Increase in Exports	
	Amount (million US$)	(%)
Trade creation	565.51	2.68
Trade diversion	317.53	1.51
Total effect	883.04	4.19

Table prepared by the authors

According to the data shown above, the increase in Brazil's exports to the American continent would be about US$ 400 million below the one registered in the previous scenario. This decrease is explained by the fact that the products defined as sensitive in other economies in the hemisphere affect mainly Brazilian exports. It could be said, therefore, that this scenario is extremely pessimist.

If it is considered that the MERCOSUR common external tariff applies to Brazilian exports, exports to these markets would decrease by US$ 64.9 million, that is, US$ 21.2 million less than in scenario I and US$ 14.2 million less than in scenario II.

[37] For Argentina and Uruguay, the sectors that were considered sensitive were those covered by the exception lists and adaptation lists with a decreasing convergence to the TEC.

[38] The data for these types of barriers were extracted from Fonseca and Carvalho Jr. (1997).

TABLE 11: Impacts of ALCA on the Brazilian Trade Within the MERCOSUR

	Decrease in Brazilian Exports	
	Amount (million US$)	(%)
Argentina	55.11	0.98
Uruguay	2.49	0.33
Paraguay	7.31	1.08

Table prepared by the authors

6. Final Comments

The building of the three scenarios based on different assumptions shows that, from the commercial standpoint, an integration agreement between the Americas would lead to a much greater increase in the Brazilian imports than in the volume exported by the country. These results can be easily explained if it is considered that from the point of view of Brazil much of the trade between the Americas that could be affected by tariff reduction is with MERCOSUR. Likewise, the participation of the United States in the preferential area leads to reduction in the gains of the remaining partners since it is a competitive supplier of many products and for this reason the country with the highest competitive gains.

Another important point to be taken into account in explaining how the Brazilian balance of trade would be negatively affected by a hemispheric integration is the tariff structure of the partner countries. Table 12 below shows simple arithmetic averages of tariffs for each member country considered in the simulations. The third column shows the amount exported by Brazil to each of these countries. The countries with a mean tariff above the Brazilian average absorb only 21.43% of our exports to the ALCA, excluding the MERCOSUR,[39] which means that while our imports would benefit from a decrease of about 8.81% in the average tariff, the mean tariff applied to almost 80% of our exports would drop by less than 5.7%. Moreover, the present trade flows, based on which trade opportunities would be created, also work against our balance of trade: Brazil exports US$ 14.03 billion to the FTAA (excluding MERCOSUR) while it imports amount US$ 16.26 billion.

[39] This analysis does not include the MERCOSUR member countries, as for them there is no trade creation due to either Brazilian exports or imports. In the simulations, it was considered that the tariffs applied among countries belonging to different existing blocs had been eliminated before formation of the FTAA.

TABLE 12: Tariff Frameworks of Brazil's Member Countries

Country	Average Tariff (%) (simple arithmetic average)	Brazilian Exports to Each Partner	
		(in million US$)	(%)
Brazil	8.81[40]	—	—
Argentina	5.41	5.607.1	26.61
Uruguay	6.30	755.0	3.58
Paraguay	5.76	677.9	3.22
Mexico	13.69	561.2	2.66
United States	5.70	9.967.2	47.29
Canada	2.70	901.7	4.28
Chile	10.45[41]	1.062.1	5.04
Venezuela	11.89	413.0	1.96
Colombia	11.63	434.5	2.06
Bolivia	9.15	176.5	0.84
Ecuador	4.85	158.3	0.75
Peru	12.91	360.4	1.71
Total		21,074.7	100.00

As mentioned in section 3, non-tariff barriers were not taken into account, which obviously leads to an underestimation of impacts on Brazilian exports, which are mainly affected by restrictions imposed by the United States. Tariff preferences, which prevail particularly within the ALADI, were not considered as well, and neither were the advantages provided by the Generalized System of Preferences in the United States. It is likely, therefore, that the simulations overestimated both the Brazilian exports to and imports from Latin-American countries. Considering that Brazil, as an important economy in Latin America, is responsible for the greatest concessions within the ALADI, the more prominent bias would be in the estimates concerning Brazilian imports.

[40] This figure differs from the simple average of 13.10% calculated in Baumann (1997). This is due to the fact that when tariffs were combined with imported amounts, products appeared that had no corresponding items in the tariff list, to which no tariff was attributed. On the other hand, products to which tariffs are applied but whose imported amount was null, were excluded from the simulations. As a result, the denominator was increased and the numerator was decreased, producing a figure of 8.81%, rather than 13.10%.

[41] Chile applies a single tariff of 11% to almost all of its products, while the Chilean tariff vector used in the simulations presented a simple average of 10.45%. This is due to the fact that the data were extracted from the TRAINS through automatic computer procedures according to which non-available tariffs are treated as null. This fact, however, does not jeopardize the results, since the deviation in the mean average is only 5%.

However, it should be stressed that, while on the one hand, these results may lead to the conclusion that the imbalance in the Brazilian balance of trade will be enhanced in coming years, it is important, on the other hand, to pay attention to the likely non-trade effects of such an integration for the country in such terms as a higher level of welfare or enhanced competitiveness.

Given the methodology described above, one cannot infer, based on the model that was adopted, the effects of a trade liberalization agreement on output, employment, technological development, and other aspects. Therefore, the results described here do not allow any precise statement about the long-term economic impact of a hemispheric trade area for Brazil.

The importance of the simulations presented here lies in the fact that they allow *ex-ante* indications of the sectors deserving more or less attention from the Brazilian government in the trade negotiations, given their market growth potential for the member countries of the FTA. Similarly, they point to the sectors that would be more attractive for Brazil, where the country could have a greater penetration given its competitiveness.

07. APPENDIX

TABLE 13: Simulations for Brazilian Imports (in US$ millions)
Scenario I:Tariff Reduction of 100 % For All Products

HS Sector	Sector Description	Imports From MERCOSUR Before Integration	Reduction in Imports From MERCOSUR Due to Trade Diversion						Imports From ALCA (Excluding MERCOSUR) Before Integration *	Increase in Imports From ALCA (Excluding MERCOSUR) Due to Trade Diversion						Increase in Imports From ALCA (Excluding MERCOSUR) Due to Trade Creation	
			Es = -1.0		Es = -1.5		Es = -2.0			Es = -1.0		Es = -1.5		Es = -2.0			
			* Value	(%)	Value	(%)	Value	(%)		* Value	(%)	Value	(%)	Value	(%)	Value	(%)
0	Without classification	18.5	0.0	0.0	0.0	0.0	0.0	0.0	63.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I	Animal products	729.0	-2.3	-0.3	-3.5	-0.5	-4.6	-0.6	95.4	3.5	3.6	5.1	5.4	6.7	7.1	10.5	11.0
II	Vegetable products	1,977.3	-35.1	-1.8	-51.8	-2.6	-68.1	-3.4	824.1	41.1	5.0	60.7	7.4	79.8	9.7	134.9	16.4
III	Fats, oils	180.1	-0.2	-0.1	-0.2	-0.1	-0.3	-0.2	17.7	0.4	2.3	0.6	3.4	0.8	4.6	1.9	10.5
IV	Food, beverages, tobacco	277.6	-4.3	-1.6	-6.4	-2.3	-8.4	-3.0	374.0	14.8	4.0	21.7	5.8	28.4	7.6	51.6	13.8
V	Mineral products	1,261.7	-21.2	-1.7	-31.5	-2.5	-41.5	-3.3	2,018.7	91.4	4.5	135.1	6.7	177.4	8.8	98.0	4.9
VI	Chemicals	361.4	-6.9	-1.9	-10.2	-2.8	-13.3	-3.7	2,517.8	64.9	2.6	95.3	3.8	124.5	4.9	338.0	13.4
VII	Plastics, rubber	317.8	-9.4	-2.9	-13.7	-4.3	-17.9	-5.6	954.8	46.7	4.9	68.4	7.2	89.3	9.3	201.5	21.1
VIII	Hides, leather goods	108.9	-0.3	-0.3	-0.4	-0.4	-0.6	-0.5	17.0	1.1	6.2	1.6	9.2	2.1	12.2	2.3	13.5
IX	Wood, cork articles	64.5	-0.3	-0.5	-0.5	-0.8	-0.7	-1.0	11.8	0.5	4.4	0.8	6.6	1.0	8.6	2.0	17.1
X	Paper products	133.3	-2.2	-1.6	-3.2	-2.4	-4.2	-3.1	759.7	10.8	1.4	15.9	2.1	20.7	2.7	87.0	11.5
XI	Textiles	687.6	-6.2	-0.9	-9.1	-1.3	-11.9	-1.7	427.4	23.6	5.5	34.6	8.1	45.3	10.6	84.3	19.7
XII	Footwear, headgear	51.2	-0.9	-1.8	-1.3	-2.6	-1.8	-3.4	14.1	2.3	16.6	3.5	24.7	4.6	32.6	4.5	32.3
XIII	Stone, ceramics, glass	32.0	-0.5	-1.5	-0.7	-2.2	-0.9	-2.9	127.3	5.0	3.9	7.3	5.7	9.6	7.5	22.8	17.9
XIV	Jewelry	0.8	0.0	-1.1	0.0	-1.5	0.0	-2.0	41.2	0.3	0.7	0.4	1.1	0.6	1.4	5.0	12.0
XV	Base metals	124.6	-3.5	-2.8	-5.2	-4.1	-6.7	-5.4	940.7	32.2	3.5	48.8	5.2	63.8	6.8	174.5	18.6
XVI	Machinery, electrical equipment	469.8	-15.4	-3.3	-22.6	-4.8	-29.4	-6.3	5,230.9	352.3	6.7	513.4	9.8	665.8	12.7	1,480.9	28.3
XVII	Transportation equipment	1,400.8	-59.1	-4.2	-85.6	-6.1	-110.4	-7.9	971.6	108.7	11.2	158.3	16.3	205.2	21.1	437.2	45.0
XVIII	Precision equipment	11.7	-0.5	-4.0	-0.7	-5.9	-0.9	-7.6	753.8	43.3	5.7	63.2	8.4	82.0	10.9	176.3	23.4
XIX	Arms	0.7	0.0	-0.8	0.0	-1.2	0.0	-1.6	1.6	0.1	5.2	0.1	7.6	0.2	9.9	0.6	38.7
XX	Miscellaneous manufactures	48.2	-1.2	-2.4	-1.7	-3.5	-2.2	-4.6	100.2	9.4	9.4	13.8	13.8	18.0	18.0	30.1	30.0
XXI	Art	0.2	0.0	0.0	0.0	0.0	0.0	0.00	0.5	0.0	1.1	0.0	1.6	0.0	2.1	0.0	6.1
XXII	Specific classifications	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL		8,257.7	-169.5	-2.1 %	-248.4	-3.0 %	-323.9	-3.9 %	16,264.3	853.3	5.2 %	1,248.6	7.7 %	1,625.7	10.0%	3.344.0	20.6

TABLE 14: Reduction in Brazilian Imports From Each Bloc, Due to Trade Deviation (in US$ millions)
Scenario I:Tariff Reduction of 100 % for All Products

HS Sector	Sector Description	NICs (Newly Industrialized Countries)				European Union				China				Japan			
		Initial Imports	T. D	T. D.	T. D.	Initial Imports	T. D.	T. D.	T. D.	Initial Imports	T. D	T. D.	T. D.	Initial Imports	T. D.	T. D	T. D.
			Es= -1.0	Es= -1.5	Es= -2.0		Es= -1.0	Es= -1.5	Es= -2.0		Es= -1.0	Es= -1.5	Es= -2.0		Es= -1.0	Es= -1.5	Es= -2.0
0	Without classification	4.9	0.0	0.0	0.0	84.2	0.0	0.0	0.0	2.6	0.0	0.0	0.0	7.5	0.0	0.0	0.0
I	Animal products	0.4	0.0	0.0	0.0	294.2	0.5	0.7	0.9	6.2	0.0	0.0	0.0	0.5	0.0	0.0	0.0
II	Vegetable products	1.5	0.0	0.0	0.0	153.7	3.2	4.7	6.2	36.4	0.5	0.7	0.9	4.4	0.0	0.0	0.1
III	Fats, oils	2.8	0.0	0.0	0.0	115.5	0.1	0.2	0.3	0.0	0.0	0.0	0.0	0.3	0.0	0 0	0.0
IV	Food, beverages, tobacco	6.4	0.3	0.4	0.6	284.7	4.4	6.5	8 5	3.4	0.1	0.1	0.2	2.1	0.1	0.1	0.2
V	Mineral products	0.1	0.0	0.0	0.0	314 9	14.7	21.4	27 8	40.8	0.0	0.0	0.0	55.2	0.0	0.0	0.0
VI	Chemicals	39.8	0.5	0 7	0.9	2,526.9	36.0	52.9	69 1	137.5	1.8	2.7	3.5	320.2	5.2	7.7	10.1
VII	Plastics, rubber	154.3	4.9	7.3	9.5	599.3	20.6	30.2	39.5	42.3	1.4	2.0	2.6	104.9	3.8	5.6	7.3
VIII	Hides, leather goods	12.3	0.2	0.3	0.3	15.2	0.2	0.2	0.3	25.1	0.3	0.5	0.6	0.7	0 0	0.0	0.0
IX	Wood, cork articles	1.1	0.0	0.0	0.0	11.8	0.1	0.1	0 2	2.0	0.0	0.1	0.1	0.2	0 0	0.0	0 0
X	Paper products	236 2	0.3	0.4	0.5	293 9	5.2	7.6	9.8	4.0	0.1	0.1	0.1	15.8	0.4	0.5	0.7
XI	Textiles	37.5	5.0	7.4	0.6	227.5	4.2	6.1	7.9	147.3	3.0	4.4	5 7	24.5	0.4	0.6	0.7
XII	Footwear, headgear	10.6	0.3	0.4	0.6	8.7	0.1	0.2	0 2	81.1	0.7	1.0	1.3	1.3	0.0	0.0	0.0
XIII	Stone, ceramics, glass	2.3	0.1	0.2	0.2	167.8	2.9	4.3	5.6	10.4	0.2	0.3	0.3	43.2	0.4	0.6	0.8
XIV	Jewelry	63.6	0.1	0.1	0.1	17.7	0.1	0.2	0.3	1.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0
XV	Base metals	1,521.3	1.6	2.3	3 0	801.4	20.1	29.6	38.7	51.5	0.9	1.3	1.7	90.0	2 3	3.4	4.4
XVI	Machinery, electrical equipment	236 1	54 1	78.6	101.8	5,037.7	156.4	228.3	296.6	322.4	11.9	17.4	22.5	1,564 4	55.5	80.9	105.0
XVII	Transportation equipment	162.4	4.8	6.9	8.8	1,407.6	35.3	51.9	67 9	24.4	0.2	0.2	0.3	190.3	4 4	6.4	8.3
XVIII	Precision equipment	0.0	3 4	5.0	6.5	606.5	19.4	28.3	36.8	66.2	2 8	4.1	5.3	295 5	9.7	14.1	18.3
XIX	Arms	71 7	0.0	0.0	0.0	0.8	0.0	0 1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XX	Miscellaneous manufactures	0.1	1.7	2 4	3.2	105.1	2.9	4.3	5.6	124.0	2.0	3.0	3 9	34.5	0.7	1.0	1 3
XXI	Art	0.0	0.0	0.0	0.0	2 1	0.0	0.0	0.0	0.1	0 0	0.0	0.0	0.0	0.0	0.0	0.0
XXII	Specific classifications		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL		2,577.3	77.2	112 5	145.8	13,075.0	326.5	477.9	622.2	1,128 8	25 9	37.9	49.3	2,756.2	83.0	121.2	157.3

TABLE 15: Simulations for Brazilian Imports (in US$ millions)

Scenario II:Tariff Reduction of 100 % for All Products, Except Those Contained in the Brazilian Exception List

HS Sector	Sector Description	Imports From MERCOSUR Before Integration	Reduction in Imports From MERCOSUR Due to Trade Diversion						Imports From ALCA (Excluding MERCOSUR) Before Integration *	Increase in Imports From ALCA (Excluding MERCOSUR) Due to Trade Diversion						Increase in Imports From ALCA (Excluding MERCOSUR Due to Trade Creation	
			Es = -1.0		Es = -1.5		Es = -2.0			Es = -1.0		Es = -1.5		Es = -2.0			
			* Value	(%)	Value	(%)	Value	(%)		* Value	(%)	Value	(%)	Value	(%)	Value	(%)
0	Without classification	18.5	0.0	0.0	0.0	0.0	0.0	0.0	63.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I	Animal products	729.0	-1.5	-0.2	-2.3	-0.3	-3.6	-0.4	95.4	2.2	2.3	3.3	3.4	4.3	4.5	8.6	9.0
II	Vegetable products	1,977.3	-35 1	-1.8	-51.8	-2.6	-68.1	-3.4	824.1	41.1	5.0	60.7	7.4	79.8	9.7	134.9	16.4
III	Fats, oils	180.1	-0.2	-0.1	-0.2	-0.1	-0.3	-0.2	17.7	0.4	2.3	0.6	3.4	0.8	4 6	1.9	10.5
IV	Food, beverages, tobacco	277'6	-4.2	-1.5	-6.1	-2.2	-8.0	-2.9	374.0	11.0	2.9	16.1	4 3	21.0	5.6	47.0	12.6
V	Mineral products	1.261.7	-4.2	0.0	-0.7	-0.1	-0 9	-0.1	2,018.7	2 7	0.1	4.0	0.2	5.3	0.3	16.0	0.8
VI	Chemicals	361.4	-6.9	-1.9	-10.1	-2 8	-13.1	-3.6	2,517.8	58.6	2.3	86.1	3.4	112.4	4 5	310.3	12.3
VII	Plastics, rubber	317.8	-7.5	-2.4	-11.1	-3.5	-14.5	-4.6	954.8	42.2	4.4	62.0	6.5	80.9	8.5	180.1	18.9
VIII	Hides, leather goods	108.9	-0.3	-0.3	-0.4	-0.4	-0.6	-0.5	17.0	1.0	6.0	1.5	9.0	2.0	11.9	2.2	12.8
IX	Wood, cork articles	64.5	-0.3	-0.5	-0.5	-0.8	-0.7	-1 0	11.8	0.5	4.4	0.8	6.6	1.0	8.6	2.0	17.1
X	Paper products	133.3	-2 2	-1.6	-3.2	-2.4	-4 2	-3.1	759.7	10.8	1.4	15.9	2.1	20.7	2.7	87.0	11.5
XI	Textiles	687.6	-4.2	-0.6	-6.1	-0.9	-8.0	-1 2	427.4	19.9	4.7	29.2	6.8	38 1	8.9	71.4	16.7
XII	Footwear, headgear	51 2	-0.0	0.0	0.0	-0.0	0.0	-0.1	14.1	0.7	5.3	1 1	7.9.	1.5	10.3	2.1	14.8
XIII	Stone, ceramics, glass	32.0	-0.5	-1.4	-0.7	-2.1	-0.9	-2.8	127.3	4.9	3.9	7.2	5 7	9.5	7.4	22.7	17.8
XIV	Jewelry	0.8	0.0	-1.1	0.0	-1 5	0.0	-2 0	41.2	0.3	0.7	0.4	1 1	0.6	1 4	4 9	12.0
XV	Base metals	124.6	-3.5	-2.8	-5.2	-4.1	-6.7	-5 4	940.7	33.2	3.5	48.8	5.2	63.8	6.8	174.5	18.6
XVI	Machinery, electrical equipment	469.8	-13.3	-2.8	-19 5	-4 1	-25.4	-5.4	5,230.9	325.2	6.2	474.3	9.1	615 8	11.8	1,312 0	25.1
XVII	Transportation equipment	1,400.8	-4.3	-0.3	-6.3	-0 5	-8.4	-0.6	971 6	28.1	2.9	41.5	4.3	54.6	5.6	82.7	8.5
XVIII	Precision equipment	11 7	-0.5	-4.0	-0 7	-5.9	-0.9	-7.6	753.8	43.32	5.7	63.0	8.4	81.8	10 8	175.7	23.3
XIX	Arms	0 7	0.0	-0.8	0.0	-1 2	0.0	-1.6	1 6	0.1	5.2	0.1	7.6	0.2	9 9	0.6	38 7
XX	Miscellaneous manufactures	48.2	-1.2	-2.4	-1.7	-3.5	-2 2	-4.6	100 2	9.4	9 4	13.8	13.8	18.0	18.0	30.1	30.0
XXI	Art	0.2	0.0	0.0	0.0	0.0	0.0	0.00	0.5	0.0	1.1	0.0	1 6	0.0	2.1	0.0	6.1
XXII	Specific classifications	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	TOTAL	8,257.7	-85.9	-1.0%	-126.7	-1.5%	-166.0	-2.0%	16,264.3	635.6	3.9%	930.5	5.7%	1,211.9	7.5%	2,666.7	16.4%

TABLE 16: Reduction in Brazilian Imports From Each Bloc, Due to Trade Deviation (in US$ millions)
Scenario II:Tariff Reduction of 100 % for All Products, Except Those Contained in the Brazilian Exception List

HS Sector	Sector Description	NICs (Newly Industrialized Countries)				European Union				China				Japan			
		Initial Imports	T. D.	T. D.	T. D.	Initial Imports	T. D.	T. D.	T. D.	Initial Imports	T. D.	T. D.	T. D.	Initial Imports	T. D.	T. D.	T. D.
			Es= -1.0	Es= -1.5	Es= -2.0		Es= -1.0	Es= -1.5	Es= -2.0		Es= -1.0	Es= -1.5	Es= -2.0		Es= -1.0	Es= -1.5	Es= -2.0
0	Without classification	4.9	0.0	0.0	0.0	84.2	0.0	0.0	0.0	2.6	0.0	0.0	0.0	7.5	0.0	0.0	0.0
I	Animal products	0.4	0.0	0.0	0.0	294.2	0.3	0.5	0.6	6.2	0.0	0.0	0.0	0.5	0.0	0.0	0.0
II	Vegetable products	1.5	0.0	0.0	0.0	153.7	3.2	7.7	6.2	36.4	0.5	0.7	0.9	4.4	0.0	0.0	0.1
III	Fats, oils	2.8	0.0	0.0	0.0	115.5	0.1	0.2	0.3	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0
IV	Food, beverages, tobacco	6.4	0.3	0.4	0.6	284.7	3.2	4.7	6.1	3.4	0.1	0.1	0.2	2.1	0.1	0.1	0.2
V	Mineral products	0.1	0.0	0.0	0.0	314.9	0.9	1.3	1.7	40.8	0.0	0.0	0.0	55.2	0.0	0.0	0.0
VI	Chemicals	39.8	0.5	0.7	0.9	2,526.9	33.0	48.5	63.3	137.5	1.6	2.3	3.0	320.2	4.9	7.2	9.5
VII	Plastics, rubber	154.3	3.9	5.7	7.5	599.3	20.3	29.7	38.7	42.3	1.0	1.5	2.0	104.9	3.5	5.1	6.6
VIII	Hides, leather goods	12.3	0.2	0.3	0.3	15.2	0.2	0.2	0.3	25.1	0.3	0.5	0.6	0.7	0.0	0.0	0.0
IX	Wood, cork articles	1.1	0.0	0.0	0.0	11.8	0.1	0.1	0.2	2.0	0.0	0.1	0.1	0.2	0.0	0.0	0.0
X	Paper products	12.3	0.3	0.4	0.5	293.9	5.2	7.6	9.8	4.0	0.1	0.1	0.1	15.8	0.4	0.5	0.7
XI	Textiles	236.2	4.7	6.9	9.0	227.5	4.0	5.8	7.5	147.3	3.0	4.4	5.7	24.5	0.4	0.5	0.7
XII	Footwear, headgear	37.5	0.2	0.2	0.3	8.7	0.1	0.2	0.2	81.1	0.3	0.5	0.7	1.3	0.0	0.0	0.0
XIII	Stone, ceramics, glass	10.6	0.1	0.2	0.2	167.8	2.9	4.3	5.6	10.4	0.2	0.3	0.3	43.2	0.4	0.6	0.8
XIV	Jewelry	2.3	0.1	0.1	0.1	17.7	0.1	0.2	0.3	1.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0
XV	Base metals	63.6	1.6	2.3	3.0	801.4	20.1	29.6	38.7	51.5	0.9	1.3	1.7	90.0	2.3	3.4	4.4
XVI	Machinery, electrical equipment	1,521.3	48.6	70.8	91.8	5,037.7	153.1	223.6	290.5	322.4	8.2	12.0	15.6	1,564.4	50.1	73.2	95.1
XVII	Transportation equipment	236.1	0.3	0.4	0.5	1,407.6	18.6	27.4	36.1	24.4	0.1	0.2	0.3	190.3	1.2	1.7	2.3
XVIII	Precision equipment	162.4	3.4	5.0	6.5	606.5	19.3	28.1	36.6	66.2	2.8	4.1	5.3	295.5	9.7	14.1	18.3
XIX	Arms	0.0	0.0	0.0	0.0	0.8	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XX	Miscellaneous manufactures	71.7	1.7	2.4	3.2	105.1	2.9	4.3	5.6	124.0	2.0	3.0	3.9	34.5	0.7	1.0	1.3
XXI	Art	0.1	0.0	0.0	0.0	2.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XXII	Specific classifications	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL		2,577.3	65.7	95.9	124.7	13,075.0	287.6	421.1	548.5	1,128.8	21.2	31.1	40.5	2,756.2	73.7	107.6	139.9

TABLE 17: Simulations for Brazilian Exports (in US$ millions)
Scenario I:Tariff Reduction of 100 % for All Products

HS Sector	Sector Description	Exports From MERCOSUR Before Integration	Reduction in Exports From MERCOSUR due to Trade Diversion						Exports to ALCA (Excluding MERCOSUR) Before Integration	Increase in Exports to ALCA (Excluding MERCOSUR) Due to trade Diversion						Increase in Exports to ALCA (Excluding MERCOSUR) Due to Trade Creation	
			Es = -1.0		Es = -1.5		Es = -2.0			Es = -1.0		Es = -1.5		Es = -2.0			
			* Value	(%)	Value	(%)	Value	(%)		* Value	(%)	Value	(%)	Value	(%)	Value	(%)
I	Animal products	162.0	-0.3	-0.2	-0.5	-0.3	-0.6	-0.4	85.3	0.4	0.4	0.5	0.6	0.7	0.8	0.4	0.5
II	Vegetable products	191.6	-0.8	-0.4	-1.3	-0.7	-1.7	-0.9	725.7	0.8	0.1	1.2	0.2	1.6	0.2	4.5	0.6
III	Fats, oils	17.7	0.0	-0.2	-0.1	-0.3	-0.1	-0.4	59.6	0.6	1.0	0.9	1.4	1.1	1.9	2.2	3.7
IV	Food, beverages, tobacco	365.6	-5.5	-1.5	-8.1	-2.2	-10.7	-2.9	1,284.6	35.6	2.8	51.5	4.0	66.3	5.2	17.3	1.3
V	Mineral products	297.8	-0.1	0.0	-0.2	-0.1	-0.2	-0.1	739.7	4.9	0.7	7.3	1.0	9.7	1.3	10.0	1.4
VI	Chemicals	779.5	-5.5	-0.7	-8.3	-1.1	-10.9	-1.4	807.1	20.4	2.5	30.4	3.8	40.1	5.0	41.3	5.1
VII	Plastics, rubber	577.3	-6.2	-1.1	-9.2	-1.6	-12.2	-2.1	500.1	16.9	3.4	25.1	5.0	33.2	6.6	57.3	11.5
VIII	Hides, leather goods	7.4	0.0	-0.3	0.0	-0.4	0.0	-0.5	93.5	2.5	2.7	3.8	4.0	5.0	5.3	9.1	9.7
IX	Wood, cork articles	52.2	-0.3	-0.6	-0.5	-0.9	-0.6	-1.2	550.0	12.4	2.3	18.5	3.4	24.5	4.4	16.6	3.0
X	Paper products	353.1	-3.2	-0.9	-4.8	-1.4	-6.3	-1.8	560.5	5.5	1.0	8.1	1.5	10.7	1.9	19.5	3.5
XI	Textiles	381.5	-2.9	-0.8	-4.4	-1.1	-5.8	-1.5	380.5	27.8	7.3	41.4	10.9	54.8	14.4	77.8	20.4
XII	Footwear, headgear	49.0	-0.1	-0.2	-0.1	-0.3	-0.2	-0.4	1,324.1	78.9	6.0	117.6	8.9	155.8	11.8	123.8	9.3
XIII	Stone, ceramics, glass	123.7	-0.5	-0.4	-0.7	-0.6	-1.0	-0.8	223.9	12.3	5.5	18.3	8.2	24.2	10.8	23.1	10.3
XIV	Jewelry	2.5	0.0	-0.7	0.0	-1.0	0.0	-1.4	301.6	15.5	5.1	23.1	7.6	30.5	10.1	77.2	25.6
XV	Base metals	720.2	-3.5	-0.5	-5.2	-0.7	-6.9	-1.0	2,586.8	47.0	1.8	69.9	2.7	92.4	3.6	133.9	5.2
XVI	Machinery, electrical equipment	1,368.4	-14.1	-1.0	-20.9	-1.5	-27.6	-2.0	2,484.0	97.7	3.9	145.6	5.9	192.9	7.8	145.5	5.9
XVII	Transportation equipment	1,434.5	-12.3	-0.9	-18.2	-1.3	-24.0	-1.7	1,043.7	40.7	3.9	60.2	5.8	79.2	7.6	114.8	11.0
XVIII	Precision equipment	56.3	-1.0	-1.7	-1.4	-2.5	-1.9	-3.3	111.7	5.7	5.1	8.4	7.5	11.2	10.0	12.4	11.1
XIX	Arms	8.1	-0.2	-2.6	-0.3	-3.8	-0.4	-5.0	37.4	1.0	2.6	1.5	4.0	2.0	5.2	3.4	9.0
XX	Miscellaneous manufactures	91.6	-1.2	-1.4	-1.8	-2.0	-2.4	-2.7	130.8	6.4	4.9	9.6	7.3	12.8	9.8	26.6	20.3
XXI	Art	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL		7,039.9	-58.0	-0.8%	-86.1	-1.2%	-113.6	-1.6%	14,034.7	433.0	3.1%	642.7	4.6%	848.5	6.0%	916.6	6.5%

TABLE 18: Simulations for Brazilian Exports (in US$ millions)

Scenario II:Tariff Reduction of 100 % for All Products, Except for Those Considered More Sensible, in Terms of Relative Increase of Imports

HS Sector	Sector Description	Exports to MERCOSUR Before Integration	Reduction in Exports to MERCOSUR Due to Trade Diversion						Exports to ALCA (Excluding MERCOSUR) Before Integration *	Increase in Exports to ALCA (Excluding MERCOSUR) Due to Trade Diversion						Increase in Exports to ALCA (Excluding MERCOSUR) Due to Trade Creation	
			Es = -1.0		Es = -1.5		Es = -2.0			Es = -1.0		Es = -1.5		Es = -2.0			
			* Value	(%)	Value	(%)	Value	(%)		* Value	(%)	Value	(%)	Value	(%)	Value	(%)
I	Animal products	162 0	-0.3	-0.2	-0.5	-0.3	-0.6	-0.4	85 3	0.4	0.4	0.5	0.6	0.7	0.8	0.4	0 5
II	Vegetable products	191 6	-0.8	-0.4	-1.3	-0.7	-1.7	-0.9	725.7	0.7	0.1	1 1	0.1	1 4	0.2	3.7	0.5
III	Fats, oils	17.7	0.0	-0.2	-0.1	-0.3	-0.1	-0.4	59,6	0.5	0.9	0.8	1.3	1.0	1.6	2 0	3 3
IV	Food, beverages, tobacco	365 6	-5.5	-1.5	-8.1	-2 2	-10.7	-2.9	1,284.6	35 6	2.8	51.5	4.0	66.3	5.2	17 3	1.3
V	Mineral products	297 8	-0.1	0.0	-0.2	-0.1	-0.2	-0.1	739.7	4.8	0.7	7.2	1.0	9.5	1.3	4.7	0.6
VI	Chemicals	779.5	-5.5	-0.7	-8.2	-1.1	-10 9	-1.4	807 1	20 4	2.5	30.2	3.7	39 9	4.9	38 4	4.8
VII	Plastics, rubber	577.3	-6.2	-1.1	-9.2	-1.6	-12.1	-2.1	500.1	16.5	3.3	24.6	4 9	33 5	6.5	52.7	10.5
VIII	Hides, leather goods	7 4	0.0	-0.2	0.0	-0.4	0.0	-0.5	93.5	2.3	2.4	3.4	3.6	4.5	4.8	7.9	8.5
IX	Wood, cork articles	52 2	-0.3	-0.5	-0.4	-0.8	-0.5	-1.0	550.0	12.4	2.3	18.5	3.4	24.5	4.4	16.4	3.0
X	Paper products	353.1	-2.6	-0.7	-3.9	-1.1	-5.1	-1.4	560.5	5.0	0.9	7 5	1 3	9.9	1.8	12.7	2.3
XI	Textiles	381.5	-2.3	-0.6	-3 4	-0.9	-4.5	-1.2	380.5	25.0	6.6	37.3	9.8	49.4	13.0	64.0	16.8
XII	Footwear, headgear	49 0	-0 1	-0.2	-0.1	-0.3	-0.2	-0.3	1,324.1	75.7	5.7	112.9	8.5	149.5	11.3	115.5	8.7
XIII	Stone, ceramics, glass	123.7	-0.5	-0.4	-0.7	-0.6	-1.0	-0.8	223.9	12.1	5.4	18.0	8.0	23.9	10.7	21.5	9.6
XIV	Jewelry	2.5	0.0	-0.7	0.0	-1.0	0.0	-1.4	301 6	2.4	0.8	3.6	1.2	4.8	1.6	9.6	3.2
XV	Base metals	720.2	-2.9	-0.4	-4.3	-0.6	-5.8	-0.8	2,586.8	44.9	1.7	66.8	2.6	88.5	3.4	113.9	4.4
XVI	Machinery, electrical equipment	1,368.4	-12.9	-0.9	-19.2	-1.4	-25.4	-1.9	2,484.0	96.0	3.9	143.2	5.8	189.8	7.6	134.7	5.4
XVII	Transportation equipment	1,434.5	-11 1	-0.8	-16.4	-1.1	-21.7	-1.5	1,043.7	39.1	3.7	57.8	5.5	76.1	7.3	99.5	9.5
XVIII	Precision equipment	56.3	-0.9	-1 5	-1.3	-2.3	-1.7	-3.0	111 7	5.6	5.09	8.3	7.4	11.0	9 9	11.2	10.0
XIX	Arms	8.1	-0.1	-1.4	-0.2	-2.1	-0.2	-2.7	37.4	1.0	2.6	1.4	3.9	1.9	5.1	3.1	8.4
XX	Miscellaneous manufactures	91.6	-1 1	-1 2	-1.8	-1.7	-2 1	-2 3	130.8	5.9	4.5	8 9	6.8	11.8	9.0	23.8	18.2
XXI	Art	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL		7.039.9	-53.2	-0.8%	-79.1	-1.1%	-104.5	-1.5%	14,034.7	406.3	2.9%	603.4	4.3%	796.8	5.7%	752.9	5.4%

TABLE 19: Simulations for Brazilian Exports (in US$ millions)
Scenario III:Tariff Reduction of 100 % for All Products, Except Those Cointained in the Exceptions List

HS Sector	Sector Description	Exports to MERCOSUR Before Integration	Reduction in Exports to MERCOSUR Due to Trade Diversion						Exports to ALCA (Excluding MERCOSUR) Before Integration	Increase in Exports to ALCA (Excluding MERCOSUR) Due to Trade Diversion						Increase in Exports to ALCA (Excluding MERCOSUR) Due to Trade Creation	
			Es = -1.0		Es = -1.5		Es = -2.0			Es = -1.0		Es = -1.5		Es = -2.0			
			Value	(%)	Value	(%)	Value	(%)		Value	(%)	Value	(%)	Value	(%)	Value	(%)
I	Animal products	162.0	-0.3	-0.2	-0.5	-0.3	-0.6	-0.4	85.3	0.4	0.4	0.5	0.6	0.7	0.8	0.5	0.5
II	Vegetable products	191.6	-0.8	-0.4	-1.3	-0.7	-1.7	-0.9	725.7	0.7	0.1	1.1	0.1	1.4	0.2	3.7	0.5
III	Fats, oils	17.7	0.0	-0.2	0.0	-0.2	-0.1	-0.3	59.6	0.5	0.9	0.8	1.3	1.0	1.6	2.0	3.3
IV	Food, beverages, tobacco	365.6	-5.2	-1.4	-7.7	-2.1	-10.2	-2.8	1,284.6	9.7	0.8	14.3	1.1	18.8	1.5	8.2	0.6
V	Mineral products	297.8	-0.2	-0.1	-0.2	-0.1	-0.2	-0.1	739.7	12.4	1.7	3.1	0.4	4.1	0.6	3.8	0.5
VI	Chemicals	779.5	-0.1	0.0	-8.0	-1.0	10.6	-1.4	807.1	2.1	0.3	30.2	3.7	39.9	4.9	38.4	4.8
VII	Plastics, rubber	577.3	-5.4	-0.9	-6.9	-1.2	-9.1	-1.6	500.1	20.4	4.1	24.8	5.0	32.8	6.6	53.5	10.7
VIII	Hides, leather goods	7.4	-4.6	-62.0	0.0	-0.4	0.0	-0.5	93.5	16.7	17.9	3.8	4.0	5.0	5.3	0.0	9.6
IX	Wood, cork articles	52.2	0.0	0.0	-0.2	-0.5	-0.3	-0.6	550.0	2.5	0.5	18.5	3.4	24.5	4.4	16.4	3.0
X	Paper products	353.1	-1.4	-0.4	-2.1	-0.6	-2.8	-0.8	560.5	5.0	0.9	7.5	1.3	9.9	1.8	12.7	2.3
XI	Textiles	381.5	-2.3	-0.6	-3.4	-0.9	-4.5	-1.2	380.5	5.7	1.5	8.4	2.2	11.0	2.9	13.9	3.6
XII	Footwear, headgear	49.0	0.0	-0.1	0.0	-0.1	-0.1	-0.1	1,324.1	15.3	1.2	22.8	1.7	30.2	2.3	22.8	1.7
XIII	Stone, ceramics, glass	123.7	-0.5	-0.4	-0.7	-0.6	-0.9	-0.7	223.9	12.1	5.4	18.0	8.1	23.9	10.7	21.6	9.6
XIV	Jewelry	2.5	0.0	-0.6	0.0	-0.9	0.0	-1.2	301.6	15.5	5.1	23.1	7.6	30.5	10.1	77.2	25.6
XV	Base metals	720.2	-0.1	0.0	-3.1	-0.4	-4.1	-0.6	2,586.8	1.0	0.0	29.2	1.1	38.5	1.5	50.8	2.0
XVI	Machinery, electrical equipment	1,368.4	-2.1	-0.2	-14.1	-1.0	-18.6	-1.4	2,484.0	19.7	0.8	109.9	4.4	145.5	5.9	112.1	4.5
XVII	Transportation equipment	1,434.5	-9.5	-0.7	-14.7	-0.1	-19.3	-1.3	1,043.7	73.8	7.1	48.4	4.6	63.5	6.1	82.6	7.9
XVIII	Precision equipment	56.3	-9.9	-17.6	-0.6	-0.1	-0.8	-1.4	111.7	32.8	29.4	8.3	7.4	11.0	9.9	11.2	10.0
XIX	Arms	8.1	-0.4	-4.8	-0.2	-2.5	-0.3	-3.3	37.4	5.6	14.9	1.4	3.9	1.9	5.1	3.1	8.4
XX	Miscellaneous manufactures	91.6	-0.8	-0.8	-1.1	-1.2	-1.5	-1.6	130.8	5.6	4.3	8.3	6.4	11.1	8.5	22.2	17.0
XXI	Art	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL		7,039.9	-43.7	-0.6%	-64.9%	-0.9%	-85.7	-1.2%	14,034.7	257.4	1.8 %	382.4	2.7%	505.2	3.6%	565.5	4.0%

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Comments by Honório Kume

This note is divided into two parts. In the first I will make some comments on the partial equilibrium method selected by Carvalho and Parente to estimate the trade impact of an FTAA and, in the second, I will make some specific comments on the work.

Since the work by Baldwin and Murray (1977) and Cline and others (1978), the static model of partial equilibrium has been used to assess the impact of multilateral and preferential tariff cuts on imports. Based on these results, the welfare impact is measured by the well known Harberger triangles. The method is attractive mainly because computations are easy and because it is possible to obtain results at a more disaggregated level than using general equilibrium models. In partial equilibrium models, the increase in imports due to trade integration can be divided into two parts. One, due to trade creation, is computed by multiplying price variations due to tariff reductions (or the tariff equivalent of non-tariff barriers) by the price elasticity of imports. The other is estimated using substitution elasticities between imports from non-members economies and imports from member economies and the change in relative prices.

What are the main difficulties related to this method? The first is the lack of price elasticity estimates at the sectoral level which forces the use of aggregate elasticities. The second is the absolute lack of estimates for the elasticity of substitution. There are very few econometric methods on such elasticities. This leads either to the standard use of 1.5, as adopted by Cline and others (1978) in their study on the Tokyo Round, or to sensivity analyses varying the elasticity between 1 and 2 and producing a range of import estimates.

Usually empirical studies show import increases due to trade creation which are bigger than those related to trade diversion, something which may raise doubts about the validity of the values of elaticities used. Estimates of increased imports normally are around 5-10%, which generates modest welfare gains and an additional reason to raise doubts about elasticity values.

As expected, the results obtained by Carvalho and Parente (1998) show a net welfare gain for Brazil as a result of joining the FTAA. In scenario I, of total liberalization, Brazilian exports to the FTAA increase by 7%, corresponding to US$ 1,5 billion, while imports would increase by 17.7%, corresponding to US$ 4.3 billion. These estimates can be criticized as they do not include non-tariff barriers which affect Brazilian exports, especially to the United States. If these were removed, Brazilian exports would increase more than the estimates indicate. The estimates also do not take into account tariff preferences under ALADI and thus overestimate both exports and imports from Latin America. As Brazil makes more concessions, relatively the impact on Brazilian imports would be more

significant. The estimates also do not take into account the Brazilian preferential access to the US market due to GSP preferences. The increase in exports is thus overestimated.

In spite of the lack of information at the disaggregated level adopted in the model, the study follows the traditional methodology and uses the available elasticities supplying quantitative indications which, although imprecise, constitute the best available information on the sectoral impact of the FTAA. It is surely superior to the "sensitive sector" criteria based on non-economic factors. More accurate estimates can only be obtained if there is more effort to estimate disaggregated substitution and price elasticities at the sectoral level.

Some specific points can be singled out for correction. Some basic information is missing as for instance a table with the price elasticities used. In Table 12 more information is required on sources and variables. Tariffs for MERCOSUR countries have different values while the common external tariff should prevail. A common external tariff has already been agreed upon, with or without the FTAA. The impact of the FTAA should have been estimated using cuts in the common tariff. The Brazilian average tariff is not 8.8% but 14.2%.

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Comments by Lia Valls Pereira

Proposals on the creation of an FTAA have been received with reserves both by the Brazilian government and by several productive sectors. There is the fear that a comprehensive liberalization in the Americas with the presence of the United States will adversely affect several branches of the Brazilian industry and agriculture, not only because of increased imports, but also because of competition in other Latin-American markets. Moreover, there are doubts on the effective possibility of the elimination of barriers to access the US market for sensitive products, such as orange juice, which are important for Brazilian exporters. There are also suspicions that transition in the direction of free trade can take too long.

The FTAA agenda, moreover, is not restricted to trade liberalization. Rules on public procurement, intellectual property, investment and services, are present in the initial agenda. In this context, it is feared that the implementation of NAFTA type rules would not favour Brazilian interests.

There are also arguments related to the debate on whether to negotiate a preferential agreement in the Americas will not create losses or tensions with important partners such as the European Union.

The paper seeks to evaluate the trade effects of the FTAA using a partial equilibrium model. This is an important initiative. When and if the FTAA negotiations gather momentum, they would be surrounded by intense debate. The generation of estimates of the possible effects of such an agreement will not only serve as an input in the negotiation process but also serve to improve the quality of the national debate of the subject. If we consider the vast literature generated around the NAFTA negotiations, the academic output concerning the effects of integration initiatives is limited in the case of estimates of effects on the Brazilian economy even for the effects of MERCOSUR.

I will draw attention to a few selected points. The first concerns the choice of the method of analysis: either models of general equilibrium or models of partial equilibrium. The authors mention that the first can be considered the best instrument available but does not allow much disaggregation and tend to be based on not realistic hypotheses. The second has the advantage of making possible the analysis of effects in an ample spectrum of sectors.

The development of programmes specifically designed for computational use of CGE models has reduced the restriction on the number of sectors which can be analyzed. There has been also progress in relation to the introduction of more realistic hypotheses such as increasing returns to scale for industrial sectors. Results obtained should not be understood as forecasts in the usual sense but rather as points of reference which can be of help in the debate on the possible impact of trade agreements. The great advantage of such models is that they make possible

to consider all effects arising from a change in relative prices given a scenario of tariff liberalization. Not only the first impact on prices is considered but also the secondary effects derived from the impact of trade liberalization on inputs used by the different sectors. The cost of implementation of such models is, however, relatively high and requires permanent updating of information and refinement of the model.

Partial equilibrium models estimate the effects on trade flows considering trade diversion and trade creation. As most CGE models, they ignore dynamic effects. Thus, in a dynamic context, a trade diversion may allow the creation of economies of scale in the region. Even in a static context, trade diversion, which is analyzed from the point of view of costs of production, may be allowing consumers to buy at prices below those ruling before the agreement. In spite of all these limitations, estimates of trade creation and diversion supply extremely useful information on the first impact of preferential trade agreements.

The paper considers three scenarios. The first scenario is complete tariff liberalization within the FTAA. In this case Brazilian exports would increase by 7% (US$ 1.5 billion) and import by 18% (US$4.3 billion). Exports to the rest of the world would be reduced by 3.5% and those to MERCOSUR by 1.2%. In general, both for exports and imports, the more significant effects in sectoral terms are for mechanical instruments and machinery (NBM section XVI) and vehicles, aircraft and other transport equipment (section XVII). The coincidence of the same sectors for exports and imports may indicate the importance of intra-industry trade. Thus, even if there is a negative trade balance from the point of view of Brazil, there may be gains related to product differentiation which thew model is unable to detect.

The second scenario considers the effects of the elimination of Brazilian import duties except in the case of products which are in the list of exceptions to the external common tariff of MERCOSUR. In relation to other countries, the imports which were considered sensitive where those corresponding to products presenting the highest rates of expansion in terms of trade creation after total liberalization. In this scenario, exports increase by 6.05% (US$ 1.28 billion in value) and imports by 14.15%. Reduction in extra-FTAA exports is of 2.8%. In relation to the first scenario, the main differences are related to imports as, for exports, the reduction in the growth rate is of only one percentage point. This is to be expected as, exceptions to the common external tariff, are capital goods, telecommunications equipment and electronic goods which are important items in Brazilian imports, especially from the United States. Although the scenario corresponds to a desirable negotiation position from a Brazilian point of view, it is unlikely that, exactly the products in relation to which there is clear US comparative advantage, will remain outside the FTAA liberalization process.

A last scenario differs from the second in relation to the assumption that the US will consider as sensitive all products which are subject to non-tariff barriers and also others which are considered sensitive in the specialized literature. And also that MERCOSUR countries, Paraguay excepted, will maintain their present MERCOSUR lists of exception outside the agreement. Brazilian imports will remain the same and exports would increase by only 4.2%. In such a scenario, which the authors consider pessimist, with the persistence of US non-tariff barriers, export increase would be of US$ 883 million, about US$ 590 million below the estimate for full liberalization.

The authors conclude that the relative small increase in exports as compared to imports is a consequence of the fact that most Brazilian gains with liberalization are related to MERCOSUR, a process already in motion, and that the reduction in the Brazilian average tariff exceeds the tariff faced by Brazilian exports today in the markets of the FTAA's future members. The reader can reach the conclusion that there would be no significant gains with a proposal restricted to tariff reduction.

The paper stresses the importance of taking into account non-tariff barriers in the estimates of the impact of a free trade area in the Americas. It is possible that the tariffication of such barriers would show not only higher export gains but also larger differences between results in different scenarios.

Other points usually raised in the analysis of such models are the need to improve elasticity estimates and also to take into account the whole range of preferences already existing within ALADI. To present results only about the impact at the NBM section level of aggregation is sometimes unsatisfactory as many of these sections are rather heterogeneous in terms of value added and use. At least for those sections for which results were more significant, a further disaggregation effort would be welcomed as this is one of the advantages of partial equilibrium models.

Finally, as recognized by the authors, this exercise does not allow conclusions on the general impact of hemispheric integration, and, even in a static model, to assess the total impact of liberalization on relative prices. In fact, no model will capture all effects of integration in a dynamic scenario. However, quantitative exercises allow the beginning of the debate on the FTAA with some of the required information to select really substantive issues. Information on non-tariff barriers do not seem to fulfill this pre-requisite.

THE COMING FTAA: A PRELIMINARY EVALUATION OF POTENTIAL IMPACTS*

Robert Devlin, Antoni Estevadeordal and Luis Jorge Garay

1. Introduction[42]

THE FREE TRADE AREA OF THE AMERICAS (FTAA) process was launched during the Miami Summit of Heads of State in December 1994. It was the centerpiece of a broader hemispheric initiative of political and socio-economic cooperation among 34 countries of the Americas with the objective to negotiate a hemispheric free trade agreement by the year 2005. The preparatory phase began in January 1995 and formal negotiations were launched in April 1998. The creation of an FTAA would clearly be the most important chapter in the history of regional cooperation in the Western Hemisphere and mark a fitting culmination to a fast maturing trade policy framework in Latin America and the Caribbean.

The FTAA process is the result of progressive globalization of the world economy and a profound transformation in the region based on: (i) structural economic reforms in almost all the countries directed at stimulating market activity and a better articulation with the world economy; (ii) the emergence, or strengthening, of democratic regimes almost everywhere and (iii) political commitments to foster peace and cooperation among neighbors with a history of rivalry and conflict. Regional integration has been a fundamental complementary tool for achieving these ambitious national objectives, which permeate the entire region. Latin America and the Caribbean has a long tradition of interest in regional integration. An intense amount of activity in this area emerged out of the Post-War period. However, the initiatives in the first three decades following the War inserted themselves in the prevailing state-led import substitution strategy of the time, itself to a large extent a product of "market skepticism" derived from the Great Depression. In the 1990s, however, a "new" regionalism emerged in Latin America and the Caribbean that conformed to the new national strategies for economic and political transformation and preparation for globalization.

Trade liberalization has been a centerpiece in the structural reform process. It has opened Latin-American and Caribbean markets to unprecedented competition from the rest of the world, providing access to new and better consumer goods, and cheaper inputs and technology for production, investment and enhanced

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42 The opinions expressed here are the authors and do not necessarily reflect those of the Inter-American Development Bank. We thank Eric Miller, François Dionne, Maria de la Paz Covarrubias and Victoria Abalo for their assistance in data and editing.

international competitiveness. The extent of the liberalization efforts in the last decade has varied from country to country, but overall trade in the region is more open today than it has been since the period before the 1930s. Although the credit for trade liberalization should go primarily to the unilateral policies of countries, which became widespread in the late 1980s and early 1990s, the GATT Uruguay Round negotiations and a wave of regional trade agreements have played, and continue to play, a crucial role. As will be argued later, regional integration has allowed countries to push forward in terms of trade liberalization further than they perhaps could achieve in either the unilateral or multilateral agenda and thereby maintain the momentum of trade reform. But since the objectives and practice of the new integration tend to go beyond the traditional limited focus on liberalized (often very partial) goods trade, to include an array of new market-based trade and trade-related disciplines, the regional agreements often constitute a positive political economy externality which serves to anchor even more the broader overall national reform process. In addition, there are the political externalities: countries have used regional integration to mutually cement their new democratic systems and to create interdependencies which reduce interest in pursuing historical rivalries and promote regional cooperation in areas other than trade.

For awhile many doubted the seriousness of the FTAA initiative. But the launching of negotiations in April 1998, coupled with clear signs of gathering momentum, the FTAA now is clearly a regional process closer to becoming a reality. It thus is worthwhile to review, if only in a limited way, some economic policy and strategic issues that will condition the effects of the FTAA on its member countries.

Our chapter will begin with an overview of the context for the emerging new regionalism and the FTAA. This will be followed by a generic checklist of some of the potential benefits and costs that might be anticipated from an FTAA as well as another checklist of collective and national policy issues that could help to maximize the potential for favorable effects and minimize the costs. The last section will preliminarily develop one particular aspect of the FTAA, which will be an important determining factor of the balance of costs and benefits: the way in which the FTAA articulates with existing regional arrangements in the hemisphere. We close with some brief conclusions.

Finally it is important to point out that for the purpose of analysis, the paper assumes that countries have assessed their alternatives and consequently are actively participating in the FTAA because they effectively share the objective of the Miami Summit, which the hemisphere's trade ministers have repeatedly reconfirmed in Denver, Cartagena, Belo Horizonte and San Jose. It also assumes that the FTAA will effectively emerge on or around 2005. Meanwhile, the chapter=s scope does not permit an analysis of the world financial crisis, even

though it is quite obvious that the FTAA, world trade and indeed any meaningful economic initiative, is threatened by systemic instability in international financial markets.[43]

2. The New Regionalism in the Americas

The FTAA effort is a good example of the new regionalism. Based on its ambitious formal agenda the FTAA initiative seems to fit well into the particular stylized facts of a type of regional integration which Ethier (1998) has recently argued is welfare enhancing:[44] (i) the integration agreement typically involves small countries linking up with large countries (ii) the smaller countries have made, or are making, significant unilateral reforms (iii) the degree of liberalization in the agreement is typically modest (iv) the liberalization achieved is primarily by the smaller countries (v) the agreements often involve "deep", or comprehensive, objectives (vi) the agreements are regional in a geographical sense. While not circumscribing ourselves to Ethier's framework, we share his basic point that it is a mistake to evaluate the prospects of the new regionalism – in this case the FTAA – on narrow Vinerian criterion because much more is at play.

To effectively evaluate its roots, dynamics and its long run implications, one must understand the context in which the FTAA process was initiated. Since the late 1980s there has been a growing interest in regional approaches to trade liberalization. One of the earliest manifestations appeared in the Southern Cone with new sectoral and regional cooperation agreements that marked the incipient development of what we know today as MERCOSUR.[45] It also manifested itself among some developed countries, in particular, the United States' move to bilateral trade negotiations and the deepening of the European internal market. During the same period, most of the developing world was moving toward substantial market-oriented economic reforms, including unilateral trade initiatives. In addition, all of this was happening in the context of multilateral efforts in Geneva to liberalize trade in goods and services around the world, which

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[43] The Brazilian crisis and devaluation occurred at the time of finalizing the paper for editorial submission. Hence its repercussions are not dealt with here. However, once the Brazilian and MERCOSUR situation stabilizes, the end result should be positive for the FTAA: Brazil's greater price competitiveness will signal many new market opportunities in the hemisphere. For a preliminary analysis of the effect of the Brazilian crisis on Latin-American integration and the effects of the Asian crisis on the region's international trade prospect see, Inter-American Development Bank, Integration and Trade in the Americas, Special Report: The International Financial Crisis: Implications for Latin-American and Caribbean Trade and Integration, *Periodic Note* (Washington, DC.: Integration, Trade and Hemispheric Issues Division and Statistics and Quantitative Analysis Unit, Department of Integration and Regional Programs, 1999).

[44] W. Ethier, "The New Regionalism", *The Economic Journal* (July 1998):1149-61.

[45] For more details see INTAL, *MERCOSUR Report*, nº 1 (Buenos Aires: July-December 1996).

culminated in the Uruguay Round Agreements in 1994 and the creation of the World Trade Organization in 1995.

By mid-1990s, the regional approaches to trade liberalization had spread throughout the world: in Europe, in Asia and in the Americas. The rest of this section is a detailed chronology of these events in Latin America and the Caribbean. It will illustrate how the new regionalism has made its mark in the way trade relations are conducted in the region. If one had to select a single benchmark period in recent times that best captures the features of this new regionalism in Latin America and the Caribbean, it would be around the time of launching of the FTAA at the Miami Summit.

The mid-1990s marks the tenth anniversary of the beginning of the wave of substantive unilateral trade reforms undertaken by the countries of the region.[46] The depth of these reforms is evident when evaluating a number of basic criteria. Average tariffs fell from 40% to 11% and, for most countries, those tariff cuts were of the order of 50% and they were implemented over relatively short periods of time (i.e., two to three years). Average maximum tariffs in the region fell from more than 80% to 40% with only two countries presently applying maximum tariffs of up to 100% on a small number of products. Tariff dispersion, on average, has declined from 30% in the mid-1980s to 9% today. Both the highest average rate and the highest dispersion rate, as measured by the standard deviation, are currently under 15%. There are still, however, some important peak tariffs, particularly in the Caribbean Community. On average, approximately 22% of tariff lines are subject to rates above 20%. Moreover, there are still some countries with maximum tariffs above 70%.

TABLE 1: Tariff Structure in Latin America 1985 – 1997

		1985	1988	1991	1994	1997
Average Tariff Rates (Unweighted Averages)	Argentina	39.3	30.8	14.2	15.4	14.1
	Bolivia	22.7	16.6	9.2	9.7	9.6
	Brazil	55.1	41.5	20.4	9.7	14.9
	Chile	20.2	15.1	10.8	10.9	10.8
	Colombia	46.5	46.3	16.4	11.3	11.4
	Ecuador	58.7	44.5	16.6	11.0	9.9
	Mexico	33.6	10.2	12.6	12.4	13.7
	Paraguay	18.7	18.6	13.6	7.3	10.0
	Peru	64.4	70.5	16.2	15.6	13.1
	Uruguay	35.9	26.9	21.3	13.6	10.1
	Venezuela	31.6	42.2	15.1	11.3	11.5

(cont...)

[46] Inter-American Development Bank, "Trade Liberalization", extract from *Economic and Social Progress in Latin America* (Washington, DC: Integration, Trade and Hemispheric Issues Division, 1996).

(continued)

		1985	1988	1991	1994	1997
Tariff Dispersion (Standard Deviation)	Argentina	9.4	10.3	6.0	8.8	6.4
	Bolivia	4.6	1.3	2.5	1.1	1.4
	Brazil	28.0	19.5	16.8	6.9	7.1
	Chile	1.6	.9	1.5	.9	1.2
	Colombia	16.9	17.4	8.0	5.8	5.8
	Ecuador	56.0	35.0	10.4	6.0	8.3
	Mexico	20.3	6.6	5.2	5.5	14.2
	Paraguay	13.8	13.7	11.8	6.8	6.3
	Peru	24.6	24.4	5.8	3.8	3.6
	Uruguay	14.9	11.3	6.5	5.9	6.4
	Venezuela	25.2	36.3	11.0	6.1	5.8
Tariff Peaks (Average tariff rates top 1 percent products with highest tariffs)	Argentina	51.5	57.6	25.0	30.0	27.2
	Bolivia	32.3	17.0	10.0	10.0	10.0
	Brazil	108.0	85.0	70.0	20.0	35.0
	Chile	27.4	20.0	11.0	11.0	11.0
	Colombia	85.0	. 88.0	51.4	20.0	20.0
	Ecuador	245.0	125.0	37.0	20.0	24.5
	Mexico	105.5	20.0	20.0	20.0	56.2
	Paraguay	50.0	50.0	52.0	32.0	23.7
	Peru	104.0	109.0	25.0	25.0	25.0
	Uruguay	60.0	45.0	30.0	20.0	22.0
	Venezuela	100.0	139.9	40.0	20.0	20.0

Source: A. Estevadeordal, Negotiating Trade Agreements in the Americas (forthcoming).

In April 1994, the Uruguay Round Final Act was signed at Marrakesh, ending almost a decade of multilateral trade negotiations. The agreements which made up the final package entered into force on January 1995, including the agreement establishing the World Trade Organization which is responsible for administering the most sophisticated and comprehensive world trade agreement ever signed. In the area of tariff liberalization, this latest round of GATT negotiations achieved an average tariff reduction of 38% in industrialized countries and, from the standpoint of the Latin-American and the Caribbean countries, implied substantial commitments to dismantle import barriers. The central obligation with respect to tariffs requires countries to limit their levels to a specified maximum or so-called GATT tariff commitment or "binding". The latest round resulted in a significant increase in the number of bound tariff lines. In the case of developed countries, the increase went from 22% to 72%; and in the case of countries in transition, it went from 78% to 98% percent. Latin America as a whole agreed to bind practically all tariff lines. This is especially significant when compared to the tariff bindings existing before the Uruguay Round began. In Latin America as a whole, only 38% of tariff lines for industrial products were bound, equivalent to 57% of imports. For agricultural products, the percentages were 36% and 74%, respectively.

The same year the multilateral talks ended (1994), there were dramatic advances in the new regionalism, with the Western Hemisphere being a major staging ground. Months before the signature of the Final Act of the Uruguay Round, the North American Free Trade Agreement (NAFTA) was implemented. In addition, important advances were made in the Southern Cone in preparation for the launching of MERCOSUR in January 1995. Moreover, during the same time period, two countries in the hemisphere were in the process of consolidating their positions as strategic trade hubs in the region. Mexico was able to secure in 1994 three important agreements which were based on the "NAFTA" model – with Costa Rica in April, with Colombia and Venezuela (known as the G-3 Agreement) in June and with Bolivia in September. All three agreements were implemented at the beginning of 1995. For Chile, 1994 marked an acceleration in a series of bilateral agreements in the hemisphere (Mexico, 1991; Venezuela, 1992; Colombia, 1993; and Ecuador, 1994). During the same year, Chile initiated free trade talks with MERCOSUR countries and Canada and began a second round of negotiations to deepen its agreement with Mexico. These strategic agreements would be signed in subsequent years (1996,1997 and 1998, respectively). In addition, around the same time, important institutional and policy reforms were carried out in existing agreements such as the Andean Pact (to become Andean Community in 1997), CARICOM and the Central American Common Market.

TABLE 2

REGIONAL TRADE AGREEMENTS IN THE AMERICAS IN THE 1990'S		
Agreement	Date of Signature	Entry into Force
Caribbean Community (CARICOM)[1]	1989	1990
Chile-Mexico[2]	1991	1992
Central American Common Market (CACM)[3]	1990	1993
CARICOM-Venezuela	1992	1993
Chile- Venezuela	1993	1993
North American Free Trade Agreement (NAFTA)	1992	1994
Boliva-Chile[4]	1993	1993
Colombia-Chile	1993	1994
Southern Cone Common Market (MERCOSUR)	1991	1995
Costa Rica-Mexico	1994	1995
Group of Three (G-3)	1994	1995
CARICOM-Colombia	1994	1995
Bolivia-Mexico	1994	1995
Chile-Ecuador	1994	1995
Andean Community[5]	1988	1996
Chile-MERCOSUR	1996	1996
Canada-Chile	1996	1997
Bolivia-MERCOSUR	1996	1997
Mexico-Nicaragua	1997	1998
CACM-Dominican Republic[7]	1998	1999
CARICOM-Dominican Republic[8]	1998	1999
SELECTED AGREEMENTS UNDER DISCUSSION		
Regional		
Free Trade Area of the Americas (FTAA); Andean Community-Brazil; Andean Community-Panama; CACM-Chile; CACM-Panama; Chile-Panama; Costa Rica-Trinidad & Tobago; Mexico-Belize; Mexico-Ecuador; Mexico-Northern Triangle (El Salvador, Guatemala, Honduras); Mexico-Panama; Mexico-Peru; Mexico-Trinidad & Tobago; Mexico-Uruguay.		
Extra-Regional		
MERCOSUR-European Union; Mexico-European Union; Chile-European Union; Chile-South Korea; Mexico-Japan; CARICOM-European Union (Lomé Convention renewal); APEC.		

Notes:
1. CARICOM began its reform process in 1989 (Declaration of Grand Anse) and agreed to launch a harmonized CET in 1990.
2. The two countries substantially revised and upgraded this accord in an agreement that was signed and entered into force in 1998.
3. The Presidents agreed to re-activate the CACM in 1990 (Montelimar Summit) and opted to definitively pursue a customs union in 1993 (Protocol of Guatemala).
4. Negotiations are currently underway to revise and upgrade the agreement.
5. In 1988, the Presidents agreed (in the Protocol of Quito) to amend the founding Charter of the Andean Group and alter the existing tariff reduction program. In 1996, the leaders officially agreed to change the Group's name to the Andean Community and reform certain existing institutional structures (Declaration of Trujillo).
6. The Agreement has yet to receive legislative approval in all countries and is only in effect in those countries that have ratified it.
7. The Agreement is expected to enter into force this year.

This dynamism was also present at the extraregional level, in particular, in the context of the APEC initiative. Mexico joined APEC as a full member in November 1993 and Chile entered one year later. Moreover, during the II Presidential Meeting of APEC in November 1994 in Indonesia, the leaders agreed to achieve the goal of free trade and investment in the region no later than 2010 for the industrialized economies and 2020 for developing countries.

This brief history of the integration efforts in the mid-1990s would be incomplete without reference to the European Union. The EU involvement with Latin America was also renewed in December 1995 with the signature of a trade and economic cooperation agreement with MERCOSUR. This was followed by a Framework Cooperation Agreement with Chile in June 1996 and talks with Mexico toward a new trade and economic agreement in the years to come.

The summary account is relevant not only for chronological purposes, but also for stressing some of the specific facts that have characterized most of the new regionalism in Latin America as well as the synergies and complementarities that exist among the different approaches to trade liberalization. First, a key factor in explaining the commitments undertaken by the Latin-American and Caribbean countries during the Uruguay Round negotiations were the successful policy reforms – in which unilateral trade liberalization is central – carried out at the national level. In turn, the countries' agreements at the multilateral level acted as a signal to investors of their commitment to external opening and contributed as a lock-in mechanism for the domestic reforms. At the same time, the Uruguay Round agreements set the stage for the pursuit of regional agreements under a common umbrella of global trade rules as well as imposed a clearer set of disciplines under which preferential agreements can be negotiated.[47]

Second, while the reciprocal nature of the multilateral round provides a national political underpinning to further liberalization, and the economic advantages of free trade achieved at the multilateral level are well understood, it is sometimes difficult to evaluate negotiating opportunities in the context of the traditional framework of request/offers, which take place in a forum of more than one hundred countries with very different strategic interests.[48] This can delimit the depth of new commitments. Moreover, Latin-American and Caribbean countries control over the initiation, agenda and pace of a multilateral round is limited.

Regional and bilateral agreements offer certain advantages in this respect. These agreements also offer reciprocity. However, they usually involve a smaller

[47] This is manifest in the new Understanding on the Interpretation of Article XXIV of the GATT 1994.

[48] A. Estevadeordal and C. Robert (eds.), *Market Access in the Americas: Negotiating and Strategic Issues* (INTAL-IDB, forthcoming).

group of geographically defined countries with a very clear profile of shared interests in commercial trade, geopolitics and regional cooperation. This can provide a better environment for reaching consensus on the complex range of issues in modern trade agendas; for measuring the potential gains from committing scarce resources to a protracted negotiation involving reciprocity and for private sector understanding and support of the liberalization process. Ethier finds that the incentives for exploiting the advantages of regional negotiations are higher the more successful are multilateral rounds.[49]

In effect, the wave of new regional trade agreements, the deepening of those already in existence, and the launching of FTAA negotiations at a hemispheric level should be seen, first, as a complement to the unilateral reforms and multilateral negotiations. Second, and most importantly, they are laboratories for the development of new paradigms for the design and implementation of trade policy around the world.

From an analytical point of view, traditional economic analysis has distinguished between different stages of economic integration. In this literature, liberalization under a free trade agreement, as proposed under the FTAA initiative, would constitute a relatively less advanced stage of integration than a common market scheme since it involves preferential trade liberalization among partners, but not the adoption of common protection policies towards third countries and free movement of factors of production. This type of analysis had some validity in a world of relatively closed economies where trade policy is mostly concerned with the management of border measures (i.e., tariffs and non-tariffs measures). However, in an increasingly globalized world economy, trade flows are affected not only by border type measures but by domestic policies as well. This shift to the so-called "deeper" integration emerged first at the national level where unilateral trade reforms have been accompanied by substantial macroeconomic, financial and regulatory reforms. The shift has also been very clear in recent multilateral negotiations where a new set of issues has emerged on the trade agenda. These include trade in services, intellectual property, trade related investment measures and dispute settlement mechanisms. A contentious agenda lies ahead in other areas of possible harmonization efforts such as competition policy and environmental standards. This increased coverage of areas for the harmonization and reconciliation of domestic policies is also increasingly present in the new regional integration agreements.

Based on these criteria, within the region, a distinction should be made between two existing types of free trade agreements. First, there are traditional or

[49] Ethier, "The New Regionalism".

"first generation" agreements mostly negotiated in the framework of the Latin-American Integration Association (LAIA, or ALADI in Spanish). These primarily focus on traditional market access issues under very simple normative frameworks. They are rightly called preferential agreements and can be subject to a traditional "Vinerian" analysis. These agreements in turn can be divided between "selective-and-partial" and "universal-and-automatic" preferential agreements according to the product coverage and the mechanisms used for implementing the preferential treatment for market access purposes. Second, there are the "new generation" of agreements characterized by their coverage of issues in the new global trade agenda, such as services, investment, government procurement and competition policy. Moreover, in these agreements, traditional market access liberalization is characterized by its broad coverage and implemented through automatic phase-out programs. Indeed, the regional integration agreements in Latin America have involved automatic schedules of elimination of tariffs on substantially all trade, with the bulk of liberalization taking place in 10 years and exceptions rarely exceeding 6% of all tariff lines.[50]

While one must await the outcome of negotiations, the terms of reference for discussions now underway in the FTAA are suggestive of an agreement containing at least most of the elements of the new regionalism.

3. Evaluating the FTAA in a Long Term Perspective

Regional integration is an initiative with a long run horizon. Many of the most important effects of successful regional integration schemes involve complex interrelationships that develop in a general equilibrium framework over a long period of time.[51] Typically at the beginning, and each time the agreement formally deepens its commitments, there are significant costs to be assumed up front with benefits playing out over a much more extended timeline.

Many economists focus their primary attention on whether regional integration induces what Viner (1950) first termed trade creation or trade diversion.[52] From a standard static Vinerian economic model of integration it is well known that to increase the chances of trade creation there should be an important overlap among potential members in sectors protected by high tariffs, as well as wide differences between member countries in the costs of producing the goods in the protected industries. To minimize the potential for trade diversion, there should be, first, a

[50] A. Estevadeordal, "Negotiating Trade Agreements in the Americas" (Washington, DC.: Integration, Trade and Hemispheric Issues Division, Inter-American Development Bank, forthcoming).

[51] R. Devlin, and R. Ffrench Davis, "Towards and Evaluation of Regional Integration in Latin America in the 1990s", *World Economy*, March 1999, pp. 261-290.

[52] J. Viner, *The Customs Union Issue* (New York: Carnegie Endowment for International Peace, 1950).

large number of potential members, so that there are few countries whose trade could be diverted; second, initially a low level of trade relative to production; and third, a significant proportion of pre-agreement trade conducted with future partners. In short, the agreement is going to be less likely trade diverting if formed among countries whose economies are currently competitive, but potentially complementary. Yet, these "static" Vinerian effects of a regional integration agreement are only a small part of a successful story.

Dynamic effects are potentially much more important since they are associated with linked to an increase in competitive pressures following the removal of trade barriers. In effect, regional integration is about the "dynamic" economic transformations brought about by intensified competition; reduction of economic rents; exploitation of economies of scale, scope and agglomeration; marketing and export experience; managerial efficiency, and so on. Today's integration also aims at so called non-traditional gains such signaling commitments to investors, lock-in of policy reform, strengthening institutions and rules-based procedures, political economy synergies among partners and geopolitical objectives.[53] These effects could raise risk – adjusted rates of return and induce investment local and foreign, technological change and growth. Indeed, even what may first appear as a cost through trade diversion could in the right circumstances be a platform for an economic transformation with benefits for the sub-region and the world economy as a whole. Unfortunately, economists have found the analysis of these latter dynamic effects of regional integration difficult to model and test empirically.[54] Indeed, strong conclusions about regional integration initiatives are all too often drawn exclusively on static analysis, which aside from providing a very incomplete story, also has its own methodological shortcomings (see for example the analysis of Yeats concerning MERCOSUR).[55]

When national economies integrate there is an important reallocation of resources within and between those economies. When the integrating economies are relatively homogeneous, involved in significant trade with each other and converging in terms of income levels and technological development, the forces of

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[53] R. Fernandez, "Returns to Regionalism: An Evaluation of Non-Traditional Gains from RTAs" (Washington, DC.: New York University and World Bank, 1997, mimeograph).

[54] R. Baldwin and A. J. "Venables, Regional Economic Integration", *Handbook of International Economics*, vol. III, ed. G. Grossman and K. Rogoff (The Hague: Elsevier Science B. V., 1995); A. Winters, "Assessing Regional Integration Arrangements" (Washington, DC. :World Bank, 1997).

[55] Yeats, "Does MERCOSUR's Trade Performance Raise Concerns about the Effects of Regional Trade Arrangements?", The World Bank Economic Review 12, nº 1 (1998): 1-28. For a concise critique of Yeats, "Does MERCOSUR Trade Performance Raise Concerns about the Effects of Regional Trade Arrangements? which first appeared in 1996, see R. Devlin, "In Defense of MERCOSUR" Gazeta Mercantil (São Paulo, November 19, 1996).

integration could be heavily represented by growing intra-industry trade. In this context, adjustments can be expected to be relatively fast and with moderate economic disruptions.[56] When integration is among very heterogeneous countries in terms of income and technological development, trading relationships are still underdeveloped and they share an overlapping product mix, the process of regional integration initially may be more heavily represented by development of inter-industry trade with more significant lags and displacements during the adjustment process.

The FTAA is clearly an integration scheme involving a heterogeneous mix of countries ranging from the world's richest and most competitive countries to some of the poorest and more economically backward. The heterogeneous nature of the FTAA means that, all being equal, both the costs and benefits of integration could be relatively magnified and their distribution uneven among and within countries. Outlined below are some collective and national policy initiatives which could help Latin America and the Caribbean maximize the benefits of an FTAA and help dampen its costs. But first a generic check list is presented on some of the longer term potential benefits and costs, based on the prevailing situation in the hemisphere, which Latin America and the Caribbean could possibly anticipate from a new generation FTAA agreement.

A. Some Potential Positives

Free Access to a Hemispheric Market

During the 1990s, growth of exports to partners within sub-regional integration schemes has generally outperformed other markets (see Table 3). One of the major potential benefits of an FTAA is a more secure and preferential access to that part of the hemispheric market that is outside of the respective formal sub-regional integration schemes. This "extra sub-regional hemispheric market" is quite important for almost all the countries of the region (see Tables 4 and 5) and some models suggest that there would be conditions for considerable creation of trade if an FTAA were to emerge.[57]

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[56] The original membership of the European Union approximated these conditions.

[57] R. Hinojosa, S. Robinson, and J. Lewis, "Convergence and Divergence Between NAFTA, Chile and MERCOSUR: Overcoming Dilemmas of North and South American Economic Integration", *Working Paper* 219 (Washington, DC: Integration and Regional Programs Department, Inter-American Development Bank, May, 1997). Note that the models do not account for the effect of rules of origin, which if very restrictive, would seriously dampen potential trade creation. L. J. Garay and A. Estevadeordal, "Protection, Preferential Tariff Elimination and Rules of Origin in the Americas" (Washington, DC: Integration, Trade and Hemispheric Issues Division, Inter-American Development Bank, 1995).

Within this hemispheric market, the US is preponderant. Moreover, for countries in the Caribbean Basin, the US market weighs heavily not only in the hemisphere but also in total world trade (see Table 6). South of the Caribbean Basin exports to the United States are generally significant, but their share in total trade is a more modest one-third or less. The US market is significant in another important way for many countries: its share as a market for more knowledge-intensive manufactured exports is second only to most country's sub-regional market. Hence the US market, along with sub-regional integration, has been contributing to Latin America and Caribbean's long sought after goal of diversifying away from commodity exports to manufactured goods.[58]

[58] For an analysis of the region's export performance, including diversification and potential effects of the Asian crisis, see Integration, Trade and Hemispheric Issues Division and Statistics and Quantitative Analysis Unit, Department of Integration and Regional Programs, "Integration and Trade in the Americas", *Periodic Note* (Washington, DC: Inter-American Development Bank, 1998).

TABLE 3: Western Hemisphere: Total and Intra-regional Exports (in US$ millions and percentages)

		1990	1991	1992	1993	1994	1995	1996	1997	1998(e)	Average 1990-1998
Western Hemisphere[1]	Global Exports	658,234	684,995	727,241	765,511	859,185	996,045	1,065,343	1,157,573	1,144,532	
	% growth	7.9	4.1	6.2	5.3	12.2	15.9	7	8.7	-1.1	7.2
	Extra-hemispheric Exp	341,515	357,391	364,017	365,905	394,303	472,187	490,588	514,397	476,479	
	% growth	5.4	4.6	1.9	0.5	7.8	19.8	3.9	4.9	-7.4	4.3
	Intra-hemispheric Exp	316,719	327,605	363,224	399,606	464,881	523,858	574,755	643,176	668,054	
	% growth	10.7	3.4	10.9	10	16.3	12.7	9.7	11.9	3.9	9.8
	Intra/Total	48.1	47.8	49.9	52.2	54.1	52.6	53.9	55.6	58.4	
Latin America[1]	Global Exports	137,781	136,242	145,504	155,644	181,573	218,989	240,879	268,548	266,068	
	% growth	10.5	1.1	6.8	7	16.7	20.6	10	11.5	-0.9	8.6
	Extra-LA Exports	121,412	116,249	120,662	126,011	146,574	177,194	197,204	215,457	211,949	
	% growth	10.9	4.3	3.8	4.4	16.3	20.9	11.3	9.3	-1.6	7.2
	Intra-LA Exports	16,369	19,993	24,943	29,633	34,998	41,793	43,675	53,090	54,119	
	% growth	7.3	22.1	24.8	19.3	18.1	19.4	4.5	21.6	1.9	16.1
	Intra/Total	11.9	14.7	17.1	19	19.3	19.1	18.1	19.8	20.3	
Andean Community	Global Exports	31,605	28,630	28,390	29,654	34,256	38,843	45,480	47,656	38,787	
	% growth	26.1	-9.4	-0.9	4.5	13.5	13.4	17.1	4.8	-18.6	2.6
	Extra-Andean Exports	30,310	26,912	26,224	26,858	30,952	34,268	40,817	42,029	33,233	
	% growth	26.2	11.2	2.6	2.4	14.9	11.1	19.1	3.0	-20.9	1.2
	Intra-Andean Exports	1,295	1,719	2,156	2,796	3,404	4,575	4,663	5,627	5,554	
	% growth	23.5	32.7	25.4	29.7	21.7	34.4	1.9	20.7	-1.3	20.0
	Intra/Total	4.1	6	7.6	9.4	9.9	11.8	10.3	11.8	14.3	

(cont...)

(continued)

		1990	1991	1992	1993	1994	1995	1996	1997	1998(e)	Average 1990-1998
Caricom	Global Exports	4,762	4,771	4,875	4,837	5,933	6,211	-	-	-	
	% growth	6.3	0.2	2.2	0.8	22.7	4.7	-	-	-	
	Extra-Caricom Exports	4,224	4,308	4,408	4,286	5,346	5,407	-	-	-	
	% growth	4.9	2	2.3	- 2.8	24.7	1.1	-	-	-	
	Intra-Caricom Exports	555	463	467	551	587	815	-	-	-	
	% growth	23.3	- 13.9	0.8	19.1	6.5	38.9	-	-	-	
	Intra/Total	11.7	9.7	9.6	11.4	9.9	13.1	-		-	
CACM	Global Exports	4,058	4,138	4,697	5,065	5,509	6,864	9,018	9,597	10,573	
	% growth	12.7	2	13.5	7.9	9.9	24.6	31.4	6.4	10.2	12.7
	Extra-CACM Exports	3,402	3,356	3,697	3,961	4,290	5,408	7,442	7,730	8,500	
	% growth	12.4	-1.3	10.1	7.1	8.1	26.4	37.6	3.9	10.0	12.1
	Intra-CACM Exports	656	782	1,000	1.105	1,229	1,456	1,576	1,866	2,073	
	% growth	14.6	19.1	27.9	10.4	11.3	18.4	8.2	18.4	11.1	15.5
	Intra/Total	16.2	18.9	21.3	21.8	22.3	21.2	17.5	19.4	19.6	
MERCOSUR	Global Exports	46,425	45,911	50,561	54,162	62,112	70,401	74,997	83,210	82,931	
	% growth	-0.3	-1.1	10.1	7.1	14.7	13.3	6.5	11.0	-0.3	7.5
	Extra-MERCOSUR Exports	42,302	40,808	43,341	44,132	50,157	56,018	57,959	62,560	61,537	
	% growth	-1.2	-3.5	6.2	1.9	13.7	11.7	3.5	7.9	-1.6	4.8
	Intra-MERCOSUR Exports	4,123	5,102	7,220	10,031	11,955	14,394	17,038	20,650	21,394	
	% growth	10.8	23.8	41.5	38.9	19.2	20.3	18.4	21.2	3.6	22.9
	Intra/Total	8.9	11.1	14.3	18.5	19.2	20.4	22.7	24.8	25.8	

(cont...)

(continued)

		1990	1991	1992	1993	1994	1995	1996	1997	1998(e)	Average 1990-1998
Group of Three	Global Exports	65,162	65,117	67,451	74,367	86,020	107,625	128,914	144,807	146,333	
	% growth	22.2	0.9	36.1	10.3	17.1	23.8	19.8	12.3	1.1	10.6
	Extra-G-3 Exports	64,127	63,937	65,675	72,023	83,456	104,319	125,749	140,786	142,102	
	% growth	15.5	-0.3	2.7	9.7	15.9	25	20.5	12.0	0.9	10.5
	Intra-G-3 Exports	1,035	1,180	1,776	2,344	2,565	3,306	3,165	4,021	4,231	
	% growth	47	14	50.4	32	9.4	29.9	-4.3	27.0	5.2	19.2
	Intra/Total	1.6	1.8	2.6	3.2	3	3.1	2.5	2.8	2.9	
NAFTA	Global Exports	561,164	591,440	627,933	661,752	738,494	856,598	919,918	999,456	996,926	
	% growth	7.8	5.4	6.2	5.4	11.6	16	7.4	8.6	-0.3	7.4
	Extra-NAFTA Exports	320,667	341,997	354,468	360,444	396,434	461,079	482,396	514,955	486,147	
	% growth	5.2	6.7	3.6	1.7	7.2	19.3	4.6	6.7	-5.6	5.3
	Intra-NAFTA Exports	240,497	249,443	273,465	301,308	352,060	395,520	437,522	484,501	510,779	
	% growth	11.5	3.7	9.6	10.2	16.9	12.3	10.6	10.7	5.4	9.9
	Intra/Total	42.9	42.2	43.6	45.5	47.7	46.2	47.6	48.5	51.2	

Source: IDB, Statistics and Quantitative Analysis of the Integration and Regional Programs Department, based on DATAINTAL.
e=Annual estimates are based on date through November 15, 1998.
1 Western Hemisphere includes Latin America (see following definition), United States and Canada
2 Latin America here is Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Uruguay, and Venezuela.

TABLE 4: Exports of Latin America by Countries and Sub-regions, 1996 (% of total)

	Intrasub-regional	Extrasub-regional	Total Hemispheric	Rest of the World
Argentina	33.3	23.4	56.7	43.3
Brazil	15.3	29.8	45.1	54.9
Paraguay	63.3	11.1	74.4	25.6
Uruguay	48.0	14.1	62.1	37.9
MERCOSUR	22.7	27.0	49.7	50.3
Bolivia	20.3	46.5	66.8	33.2
Colombia	17.4	52.7	70.1	29.9
Ecuador	8.8	55.8	64.6	35.4
Peru	7.2	32.5	39.7	60.3
Venezuela	7.5	81.0	88.5	11.5
Andean Community	10.3	64.5	74.8	25.2
Costa Rica	12.2	53.9	66.1	33.9
El Salvador	43.8	25.8	69.6	30.4
Guatemala	28.5	51.2	79.6	20.4
Honduras	4.1	63.5	67.6	32.4
Nicaragua	15.3	50.5	65.9	34.1
CACM	20.4	49.9	70.3	29.7
Mexico	0.9	91.9	92.8	7.2
Colombia	8.2	61.8	70.1	29.9
Venezuela	6.0	82.5	88.5	11.5
G-3	2.4	87.7	90.1	9.9
Chile	0.0	36.2	36.2	63.8
Panama	0.0	72.9	72.9	27.1

Source: IDB, Division of Integration, Trade and Hemispheric Issues, based on DATAINTAL.

TABLE 5: Imports of Latin America by Countries and Sub-regions, 1996 (% of total)

	Intrasub-regional	Extrasub-regional	Total Hemispheric	Rest of the World
Argentina	24.5	27.9	52.3	47.7
Brazil	15.5	31.2	46.7	53.3
Paraguay	54.3	14.8	69.2	30.8
Uruguay	44.0	19.9	63.9	36.1
MERCOSUR	20.5	29.2	49.8	50.2
Bolivia	8.6	58.9	67.5	32.5
Colombia	13.0	50.6	63.5	36.5
Ecuador	16.0	51.7	67.7	32.3
Peru	18.4	45.8	64.2	35.8
Venezuela	8.9	64.4	73.3	26.7
Andean Community	13.2	53.6	66.8	33.2
Costa Rica	7.2	71.5	78.6	21.4
El Salvador	19.1	61.7	80.8	19.2
Guatemala	7.7	73.1	80.8	19.2
Honduras	15.4	66.3	81.7	18.3
Nicaragua	24.2	52.9	77.0	23.0
CACM	12.7	67.3	80.0	20.0
Mexico	0.4	79.6	79.9	20.1
Colombia	12.9	50.6	63.5	36.5
Venezuela	11.5	61.8	73.3	26.7
G-3	2.9	74.4	77.3	22.7
Chile	0.0	55.5	55.5	44.5
Panama	0.0	80.1	80.1	19.9

Source: IDB, Division of Integration, Trade and Hemispheric Issues, based on DATAINTAL.

TABLE 6: Percentage of Latin America's Trade with the USA by Countries, 1996

	% of Exports to USA	% of Imports from USA
Argentina	8.2	19.9
Brazil	19.2	21.9
Paraguay	3.5	10.8
Uruguay	6.7	12.0
MERCOSUR	15.1	20.6
Bolivia	25.3	27.7
Colombia	38.7	36.0
Ecuador	34.9	31.4
Peru	19.8	26.0
Venezuela	58.8	45.0
Andean Community	45.6	35.3
Costa Rica	41.0	44.8
El Salvador	18.1	39.3
Guatemala	36.6	43.9
Honduras	58.1	50.3
Nicaragua	44.1	33.6
CACM	38.7	43.2
Mexico	84.2	75.5
G-3	76.0	67.9
Chile	15.4	24.4
Panama	51.8	37.3

Source: IDB, Division of Integration, Trade and Hemispheric Issues, based on DATAINTAL.

In terms of market access, for Latin America and the Caribbean, the US market, and North America more generally, is clearly a strategic target of the FTAA negotiations. However, trade with the US and Canada is already relatively free due to the low average tariffs in those countries and the fact that the majority of Latin-American and Caribbean countries already enjoy duty free access for an extensive range of products on account of an array of non-reciprocal preferential arrangements. Thus the market access benefits of an FTAA will likely focus on three issues. First, negotiating free access for specific products and sectors in North America that face relatively onerous tariffs or non- tariff measures (e.g., agriculture, food products, textiles, and so forth). Second, disciplining, beyond what is available under WTO rules, the use in North America of trade distorting

measures and trade remedies (particularly anti-dumping).[59] And third, more generally establishing a predictable rules-based framework through a hemispheric dispute settlement mechanism to ensure enforcement of stable, free access to this market. Without a major advance in these areas, the incentive for Latin America and the Caribbean to make concessions on tariff reduction for North American goods as well as in other areas of the negotiation of special interest to North America (e.g., intellectual property rights, services, government procurement, etc.) could be low. The prospects for a successful FTAA could suffer as a consequence.

Another advantage of an FTAA organized around strict and effectively binding disciplines for openness is that it could provide an escape valve for export to a large market, should problems in the world economy begin to undermine open markets elsewhere. However, to afford this opportunity one must emphasize the paramount importance of commitments to openness. Only in this way could the experience of Latin America and the Caribbean during the crisis of the 1980s, in which regional markets suffered disproportionately, be ameliorated.

Preparation for World Class Competition and Globalization

Through unilateral, multilateral and sub-regional liberalization, Latin-American and Caribbean governments have been using increasing import competition as a tool for inducing economic transformation.[60] The FTAA promises to open markets much further and induce more head to head competition from world class firms in North America. Indeed, opening to North America, given its size and competitive strength, has effects, which parallel in some ways a market opening to the world economy. Preparation for this competition, and the gradual intensification thereof, during a FTAA phase-in period will be a challenge for many national firms in Latin America and the Caribbean. But it also should serve as a major catalyst for microeconomic modernization of the economies. The difference between an opening through an FTAA and one that is unilateral with the rest of the world is that the FTAA offers the benefits of reciprocal liberalization in a legal framework of mutually agreed trade and trade-related rights and obligations. Moreover, the resulting source of high grade competition is more geographically focused (on identifiable North American firms), which conceivably could provide advantages in the formulation of effective strategic responses by nationals.[61] There is some

[59] Chile and Canada are suppressing antidumping measures in their new FTA.

[60] Inter-American Development Bank, "Trade Liberalization".

[61] Puga and Venables demonstrate that due to geography and externalities from agglomeration, liberalization in a preferential arrangement can provide greater gains in terms of industrialization than a unilateral liberalization. D. Puga, and A. J. Venables, "Trading Arrangements and Industrial Development" (Washington, DC: World Bank, 1996).

evidence that NAFTA has served as a catalyst of microeconomic modernization and enhanced competitiveness in Mexico.[62]

Attraction of Foreign Direct Investment

Foreign direct investment (FDI) can be a source of technological transfer, modern corporate practice and access to international export markets.[63] The presence of FDI also can serve to lock- in policy reform.[64] There is great competition among developing countries for this type of investment. The inflows of FDI to Latin America have grown substantially in the 1990s from US$ 8 billion in 1990 to US$ 46 billion in 1997. Indeed, prior to the Asian crisis, Latin America captured more than one third of the fast growing total FDI flows to developing countries.[65]

As Ethier (1998) points out, developing country competition for FDI is sufficiently intense that significant distinguishing features in a country or subregion can be decisive in attracting investors, which tend to cluster, or locate together.[66] The economic literature recognizes that integration schemes can create an impact that attracts FDI. According to Blomstrom and Kokko (1997), the bigger the change in economic environment associated with the agreement and the greater the locational advantages of the country, sector, or sub-region, the more likely the initiative will stimulate foreign investment from countries in the agreement and from third parties.[67] An FTAA could be a magnet for foreign direct investment: it would create a preferential market of nearly 800 million people and 10 trillion dollars of GDP. This, coupled with possible lower risk premia due to the Latin America and Caribbean's locking into (see below) a rules-based agreement anchored by a sub-region (North America) which investors traditionally consider highly credible, could be a basis for attracting considerable foreign direct

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[62] See M. Sutler, "Material Gains", *Business Mexico* (September 1997). The FTAA process and initiation of negotiations in 1998 is already raising awareness in Latin America of shortcomings in public and private preparedness regarding international trade.

[63] However, as Winters in "Assessing Regional Integration Arrangements", and Garay and Bailliu point out, not all FDI carries net benefits. See L. J. Garay, and J. Bailliu, "A Background Note on Foreign Direct Investment in Latin America and the Caribbean" (Washington, DC: Integration, Trade and Hemispheric Issues Division, Inter-American Development Bank, 1996).

[64] Ethier, "The New Regionalism".

[65] A. Calderon, "La inversión extranjera en América Latina y el Caribe: un panorama", in *Inversión extranjera directa en América Latina*, ed. Inter-American Development Bank and Instituto de Relaciones Europeo-Latinoamericanas (Madrid: IRELA 1998).

[66] Ethier, "The New Regionalism".

[67] M. Blomstrom and A. Kokko, "Regional Integration and Foreign Direct Investment" (Washington, DC: World Bank, 1997).

investment. The pattern, however, is not unidirectional. Foreign direct investment that originates in the sub-regions which originate in the Western Hemisphere and is motivated primarily by the existence of margins of preferences may be withdrawn and be substituted by direct exports from the home country.[68] On the other hand, foreign direct investment which is motivated primarily by locational advantages could expand in the hemispheric market. The FTAA could be a strong magnet for foreign direct investment from outside the hemisphere as well, because of preferences of a large market and access, which is secured by a rules-based system. However, some existing extra-hemispheric foreign investment could also relocate to exploit the redefined locational advantages of the bigger FTAA market.

As far as intrasub-regional investment is concerned, it is difficult to know exactly what is happening due to severe data constraints. However, there are indications that this phenomenon is gradually becoming significant in an environment of open regionalism.[69] In an FTAA, this budding intra-regional experience could be useful in the formation of alliances and investments that exploit geographical advantages for competing in the hemispheric and world markets.

Widening and Deepening of Regional Integration

The FTAA will probably eliminate some regional agreements and contribute to others deepening and widening. The exact outcome will depend on the objectives and the political commitment of the member countries to their respective agreements. As we will see later, this is probably one of the more complex issues surrounding an FTAA. While not all developments in this area will be welcomed by all participants, there are scenarios, which would be largely positive for sub-regional integration, for the hemisphere and the world economy more generally.

An FTAA promises to enhance transparency and reduce transaction costs of hemispheric trade. Since the 1990s there has been a proliferation of new free trade areas in Latin America and the Caribbean. These new agreements have served to strengthen political ties, push the trade liberalization process forward, and contributed to growth of trade and investment and diversification of exports. However, the new agreements have created a complex web of tariff preferences, rules of origin and other disciplines which have reduced transparency in trade,

[68] L.J. Garay, "Breve resumen de algunas cosideraciones no tradicionales sobre los impactos de la integración regional" (Washington, DC: Integration, Trade and Hemispheric Issues Division, Inter-American Development Bank, mimeograph, 1997).

[69] L.J. Garay and A. Vera, "Naturaleza y evolución reciente de la inversión intraregional", in *Inversión extranjera directa en América Latina*, ed. Inter-American Development Bank and Instituto de relaciones Europeo-Latinoamericanas (Madrid: IRELA 1998).

altered investment flows and introduced their own transaction costs. An FTAA would probably supersede at least the simpler free trade areas, and – assuming it fulfills its promise of improving on the existing state of the art regarding the normative architecture of free trade areas – could thereby raise transparency and lower transaction costs in the hemisphere. However, as will be discussed in the following Section, the dynamics of this convergence process is complicated and will be aided or abetted by the direction of sub-regional and regional integration policy between now and 2005.

Since trade ministers in the hemisphere have agreed that only integration schemes with commitments deeper than the FTAA will continue to exist after 2005, there is every incentive for countries with political and economic objectives of deep sub-regional integration to fortify their community commitments as soon as it is politically feasible. Aside from the short term benefits of allowing the sub-regions to better coordinate and project joint positions in the FTAA negotiations, the longer term advantages of strengthened commitments are structural change, enhanced investment and competitiveness in the hemispheric and world markets as well as a more effective vehicle to promote a sub-regional agenda, which has a logic and legitimacy of all its own. Finally, since the FTAA will most likely be a strictly enforced rules-based system, in the longer term it could have positive demonstration effects on Latin America and the Caribbean regional integration which still must rely to a significant degree on diplomatic Ainformality≅.

On the down side, the negotiations and prospects of a hemispheric agreement could also have the effect in some case of distracting attention from sub-regional integration and stimulating conflictive opportunistic behavior among sub-regional partners attempting to negotiate collectively the FTAA. This would be highly unfortunate. We now know that successful sub-regional integration is never lineal. Hence the collective FTAA process must not unnecessarily aggravate problems in viable sub-regional agreements and it must find ways to flexibly accommodate conjunctural swings in the evolution of deep sub-regional integration schemes. However, in those cases where fissures reflect inherently weak political commitment and systematic unfulfilled promises of sub-regional integration, the chances of deepening would not be good anyway and absorption by an FTAA may be in everyone's interest.

Strengthening the Multilateral System

For Latin America and the Caribbean, a healthy and developing multilateral system is strategically essential; after all, as was seen earlier, the extra hemispheric market is still primary, or very important, for all but a few countries. However, some trade specialists argue that regional integration is a threat for the multilateral

system. The FTAA is especially alarming from their perspective because of its overall size and the participation of North America.[70]

One cannot dismiss risks in this area. Large regional integration schemes can improve the terms of trade of member countries at the expense of non-member countries and give rise to incentives for maintaining or increasing preferences and protection. An FTAA can also create defensive reactions on the part of third parties. This would be benevolent if it emerged in the form of a push for a consensus on a new ambitious multilateral round that would in effect erode FTAA preferences. But another possibility is that a defensive reaction emerges in the form of others seeking to widen and deepen their own bloc at the expense of the multilateral system.

In any event, it can be argued that in the current policy environment the risks are overstated. Indeed, in today's context of open regionalism, regional integration can serve as a catalyst for development of the multilateral system.

The FTAA process already has had some positive benefits for the multilateral system, e.g. the FTAA preparatory work has greatly increased transparency regarding the rules and norms of trade in the countries and sub-regions of the hemisphere.[71] Meanwhile, since the WTO is the agreed baseline for the FTAA, the same process is intensively exposing countries to the rights, obligations and procedures of the WTO and the Uruguay Round. The FTAA process has even exposed the WTO to better ways to facilitate country notification to that body.[72]

Will a serious FTAA negotiation facilitate or impede another multilateral agreement? This is a highly speculative question full of political uncertainties. The current FTAA negotiations parallel a more narrowly defined WTO built-in agenda (agriculture, services, IPR, etc),[73] which could very well be expanded into a new multilateral round if there were a broad enough consensus to do so as increasingly seems the case. In the meantime, the FTAA has helped countries prepare and

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[70] J. Bhagwati and A. Panagariya, "Preferential Trading Areas and Multilateralism: Strangers, Friends or Foes?" (Washington, DC: World Bank mimeograph, 1996).

[71] By the development and publication of systematic inventories and data bases on trade and trade-related issues that heretofore were unavailable or difficult to secure. The FTAA process has also inspired new research in areas where knowledge is very limited.

[72] The Inter-American Development Bank, in its FTAA technical support role, provided the FTAA Market Access Preparatory Group with a simplified system and software for notifying trade and tariff information. The relative success of this exercise contributed to the WTO overhauling its complex and unsuccessful Integrated Data Base, borrowing on some of the innovations that the IDB developed for the FTAA process.

[73] IDB 1998.

exchange ideas and information that could be helpful in their WTO agenda.[74] In any event, since the Uruguay Round is still being digested and the political parameters for launching a new round are complex in the best of circumstances, it was not clear until recently that a new comprehensive round might emerge. Also, without the FTAA, North America might have returned to its original objective of bilaterally pursuing its trade agenda, which would ultimately aggravate the distortion of the hemisphere's hub and spoke matrix. Indeed, the fact is that for Latin America and the Caribbean the FTAA has been up to now the only available "big market" trade negotiation that can accommodate the trade-offs needed to advance in a broad spectrum of trade issues. Moreover, the voice of the regions, countries and sub-regions in the FTAA negotiation is larger than it would be in a much bigger WTO forum.[75]

Moreover, it is not implausible that there will be synergies between the WTO built-in agenda and the FTAA negotiations and that FTAA negotiations will serve one way or another as the handmaiden of a new multilateral agreement. Since the FTAA is a single undertaking and interests among the different negotiating topics are far from symmetric between North America and Latin America and the Caribbean, realization of any agreement will likely be better than the WTO in nature.[76] That is to say, in addition to the traditional tariff liberalization on "substantially all trade", to realize itself, the FTAA may have to effectively address North American/Latin-American and Caribbean trade-offs on a broader spectrum of their respective priority/sensitive issues agenda, leading to agreements in some areas that make the FTAA better and more balanced than what is available in the WTO. The specter of a better agreement, on or around 2005, could in turn help induce a world consensus for a multilateral agreement, the evolution of which would be influenced by the innovations generated in the FTAA itself. Indeed, some past multilateral rounds have had their origin and evolution impacted by the developments in regional integration as outsiders see a round as a vehicle for reducing the preferences they face, or will face, and insiders see it as an opportunity to politically restate their commitment to multilateralism, and perhaps promote their new trade agenda reciprocally at the world level.[77] On the other hand, if a critical mass of sensitive/priority issues are not effectively put on the

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[74] S. Otteman, "The FTAA: Its Dilemmas Today and its Prospects in the Future" (Washington, DC: Inter-American Dialogue, 1998).

[75] It is interesting that in the FTAA negotiations a number of smaller countries can be quite influential in the direction of discussions.

[76] Even a simple free-trade area is by definition WTO "plus" since tariffs are eliminated on substantially all trade.

[77] K. Bagwell and R. Staiger, *The Economic Journal* (July 1998): 1162-82; World Trade Organization, *Regionalism and the World Trading System* (Geneva WTO, 1995).

FTAA table, because countries prefer to negotiate them in multilateral fora, the FTAA could falter; hence, furthering interests in trade liberalization would be dependent on individual unilateral policy and sub-regional integration until a world consensus emerged on yet another new WTO round.

Lock-in of Policy Reform

While economic policy change in Latin America and the Caribbean has been substantial, a successful and balanced FTAA could serve to make reversals more difficult. The importance of this policy instrument would vary greatly among the countries of the region. In any event, lock-in effects were a factor in Spain and Eastern Europe's link up with the EU and Mexico's participation in NAFTA.

B. Some Potential Negatives

While there are a number of potential benefits from an FTAA, there are potential costs too. Again, although these will be country specific, a generic check list – not necessarily exhaustive – can be developed from what is known in the literature and practice of new regionalism.

Adjustments

Liberalization of trade in the hemisphere is expected to create trade and generate efficiency gains. However, in the process of arriving at the full potential benefits of an FTAA, there are firm, sectoral, and social adjustments on account of the reallocation of resources induced by liberalized trade flows. The more heterogeneous the membership of a new FTA, and the more important trade is as a percentage of GDP, the greater the potential gains from creation of a regional market – but also the more pronounced the adjustment process will likely be. Hence, in an FTAA with very heterogeneous countries and many very open economies, important adjustments of considerable economic and social magnitude are likely. The costs of these adjustments will depend on many factors such as initial country conditions, the nature of domestic economic policy, and progress in structural reforms, exceptions (if any) and phase in periods for liberalization, the availability of adjustment assistance, etc. Some of these issues will be discussed below.

Asymmetric Distribution of Gains

The FTAA membership will combine very heterogeneous countries in terms of their levels of development. Economic theory suggests that in principle liberalization of trade can promote convergence among richer and poorer

economies. Moreover, there is some empirical evidence that this occurs.[78] However, the process has been observed to be extremely slow and uneven, even in relatively ideal conditions like the US economy where free trade among states combines with the free movement of all factors of production and a degree of uniformity in regulatory frameworks and political institutions.[79] Thus, all being equal, in an FTAA there is the risk of skewed benefits, with some countries and regions gaining much more than others in the short to medium term.[80] There are ways and means to effectively counteract this problem if the member countries wish to do so. However, if it becomes exaggerated, an uneven distribution of benefits could lead to political tension and stagnation of a trade agreement.[81]

A specific phenomenon identified in the debate over the FTAA is that the asymmetric structure of tariffs in the hemisphere can lead to serious redistributive effects between the North and South.[82] As mentioned earlier, on average, tariffs in Latin America and the Caribbean (Table 1) are considerably higher than in North America (in 1997, the average tariff in the United States was 5% and in Canada was 7.5%). Consequently, in the process of preferential tariff liberalization, revenue from duties on imports from North America prior to the FTAA is effectively transferred to producers there as they capture margins of preference. This cost must be weighed against the benefits of entering an agreement.

Trade and Investment Diversion

Creation of preferences goes beyond technical issues and obviously has a political component. In principle this is not necessarily bad: a free trade area represents a compromise among parties with different interests and by definition is part of a second best world. To the extent preferences emerge endogenously as part of a collective process of trade offs, they can be the sign of a sustainable free trade agreement. An agreement among countries that exhibit significantly high tariffs on third parties, coupled with restrictive rules of origin, inevitably has some effect of diverting trade away from possibly more efficient firms that are located in

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[78] D. Ben-David, "Trade and Convergence Among Countries" *Journal of International Economics*, 40 (1996): 279-98.

[79] R. Barro and X. Sala-I-Martin, "Convergence across States and Regions", *Brookings Papers on Economics Activity* 1 (1991): 107-79.

[80] The more extensive the rules and their enforcement in an FTAA the more likely investment will spread and be based on a criterion that goes beyond the home country's local market size.

[81] Salgado attributes this problem to the stagnation of regional integration in Latin America in the late 1970s. See G. Salgado, "El Mercado Regional Latinoamericano: el proyecto y la realidad" *Revista de la CEPAL* 7 (April 1979).

[82] A. Panagariya, "The Free Trade Area of the Americas: Good for Latin America?" *The World Economy* 19, nº 5 (September 1996).

non-member countries.[83] This has real costs and is part of the price of an agreement which presumably has its compensations for members; and if the agreement promotes sustainable growth, for the world economy as well. But awareness of the problem is important in order to minimize these effects. Meanwhile, to the extent that exploitation of FTAA preferences (including incentives provided by rules of origin) – rather than the transparency and comprehensiveness of disciplines of a large regional market – are the primary motive for foreign investment decisions, there are the risks that some direct investment activity will be diverted from more efficient third markets.[84] Even if diversion of trade and investment flows is more than compensated later by the dynamic effects of integration, there are immediate up front costs for consumers and producers.

Macroeconomic Vulnerabilities

The FTAA disciplines will emerge in countries at very different stages of structural reform. Hence there is always the risk that in some instances the introduction of a new trade discipline(s) may involve less than optimal sequencing *vis-à-vis* the progress of other reforms. An example might be where the liberalization of financial services preceeds strengthening of domestic financial regulatory structures and/or where that liberalization and creation of the hemispheric market stimulates surges of capital inflows, which in turn generate pressures for a premature appreciation of the exchange rate and weakened trade and balance of payments performance in the new FTAA.[85]

More Interdependence

While integration schemes provide benefits for participating countries, they also create new interdependencies that may erode autonomy to some degree. With an FTAA new interdependencies will be created; some will be appreciated and others may not. Since the North American market will naturally be an anchor for an FTAA agreement, one can expect that Latin America and the Caribbean will to a greater extent be under the commercial influence of their Northern neighbors. The interdependency could provide benefits – e.g., policy lock-in and investment effects, more formal capacity to influence North American trade policy, capacity to organize balance of payments assistance, and so on –, but also be accompanied by

[83] Bhagwati and Panagariya, "Preferential Trading Areas and Multilateralism: Strangers, Friends or Foes?".

[84] Winters, "Assessing Regional Integration Arrangements".

[85] R. Devlin, R. Ffrench Davis, and S. Griffith-Jones, "Surges in Capital Flows and Development: An Overview of Policy Issues", in *Coping with Capital Surges: The Return of Finance to Latin America*, ed. R. Ffrench Davis and S. Griffith-Jones (Boulder: Lynne Reinner Publishers, 1995).

more North American commercial vigilance and perhaps indirectly intensify exposure to particular unilateral non-commercial policies emerging out of this geographic area in subjects such as drugs, labor and the environment, etc.

C. The FTAA Membership Matrix: Potential Impacts and their Distribution

Although the various positive and negative aspects arising from the FTAA will in some way touch virtually all of the countries in the region, the relative magnitude and distribution of impacts will weigh differently in different regions and at different times during the phase-in process (lasting from 2005 to perhaps 2020) and the subsequent process of operational consolidation. This is especially true given the relatively heterogeneous nature of the FTAA participants, as noted above.

Some of the main structural factors at the country level that will determine the nature and time frame of the impact of the FTAA are:

- level of development and capital accumulation;
- access to social instruments which facilitate market opportunities: distribution of income, education and training, access to credit and its cost, protection of property rights, democratic institutions, etc.;
- intra and extra-regional patterns of specialization, complementarity, and sectoral productivity/competitiveness;
- locational advantages and degree of natural integration with major market hubs in the hemisphere;
- degree of openness to the world economy, export diversification, level of real exchange rate, and tariff and non-tariff protection *vis-à-vis* third parties;
- completeness of infrastructure networks;
- degree of advancement in the process of structural reform at the macro, micro, and meso levels which will influence *inter alia*, productivity and risk premia;
- dynamism and depth of the sub-regional integration scheme to which the country belongs (where applicable);
- availability of commercially attractive reciprocal and non-reciprocal extra-regional trade agreements;
- degree to which national strategies converge with the new FTAA normative architecture;
- macroeconomic stability.

In addition, specific conditions existing in the world economy will impact on all countries. These include:

- global growth rates;
- systemic stability relating to capital flows to developing countries;
- evolution of world commodity prices;
- openness of the multilateral trading system.

The size and distribution of benefits of the FTAA will also depend on the architecture of the Agreements:

- the scope and depth of the disciplines in the Agreement;
- the degree of speed and sequencing for the incorporation of new disciplines;
- the degree of reciprocity and/or (a-)symmetric treatment between countries: distributional policies, regional cooperation, and effective creation of opportunities.

In order to illustrate some of the possible differential impacts among member countries, some indicative examples follow:

1. Level of development and capital accumulation in conjunction with access to social instruments which facilitate market opportunities: distribution of income, education and training, access to credit and its cost, protection of property rights, democratic institutions.

The more developed and diversified an economy, the relatively better positioned it is likely to be in order to realize the maximum possible degree of benefit arising from the FTAA while having less difficulty in successfully sustaining the adjustment costs that will arise. Relatively less developed economies may face greater challenges in achieving this desirable outcome. This, in turn, may be aggravated by both the serious income inequality that exists in certain parts of the hemisphere and the narrow economic base of a number of member countries.

2. Degree of openness to the world economy, export diversification, protection *vis-à-vis* third parties, intra/extra FTAA patterns of specialization, natural integration with major market hubs in the hemisphere.

The more open to the world economy, the more diversified in terms of exports of goods and services, and the greater the proximity to the largest hub markets in the hemisphere, the better positioned an economy is likely to be to benefit from the expanded trade, potential diversification, specialization, and competitiveness arising from the FTAA.

3. The more advanced the structural reform and economic stabilization process, the lower the degree of trade protection, and the higher the degree of competitiveness, *ceteris paribus*, the better placed an economy is to benefit from the FTAA.

4. The more effective the creation of "opportunities", particularly in less developed countries, the lower the degree of inequality among countries in terms of the distribution of benefits and costs arising from the FTAA is likely to be.

Given the variety and complexity of factors and conditions that will affect the impact of the FTAA at a country level, the specific distribution of net benefits cannot be easily predicted.

D. Policy Issues

While the above checklist of the potential cost and benefits of an FTAA is *a priori*, generic and far from exhaustive, it highlights some of the strong economic and political trade offs that countries could confront as they enter an FTAA. These and other costsand benefits would play out over an extended period of time with the costs weighing in heavily at the initiation of the process. To the extent that the FTAA is successful, these costs should be more than compensated by benefits in the longer term that generate growth and realize other objectives.

How costs and benefits play out in practice will depend on, *inter alia*, the negotiated architecture of the FTAA disciplines and institutions and the time path of their implementation; the interface between national and sub-regional economic policy and the FTAA as well as the play of exogenous factors in the world economy. This subsection highlights a generic checklist of collective hemispheric and national policies which in principle could tend to maximize benefits and minimize costs of an FTAA. Again, the relevance of the checklist and its components will vary for each country according to its individual circumstances and the final outcome of an FTAA agreement.

Collective Network

While avoiding cumbersome bureaucracy and costly infrastructure, it is nevertheless imperative that the FTAA develops a coherent and functionally comprehensive institutional network that allows all countries to exploit fully their rights and opportunities as well as monitor and enforce (in a constructive way) the obligations of the FTAA. Not knowing the precise scope and normative architecture of the FTAA inhibits precise comments about this issue. However, among the direct and indirect mechanisms, which should emerge in or around the FTAA are: (1) a fully transparent and participatory dispute settlement mechanism which builds on innovations found in the WTO; (2) collection and dissemination

of information which facilitates the countries monitoring of their rights and obligations; (3) monitoring of the distribution of benefits of the FTAA, with special attention to the poorer economies; (4) interchange of information and perhaps degrees of coordination concerning certain aspects of national economic policies (e.g., macroeconomics, financial regulation, vigilance of capital flows), which have externalities *vis-à-vis* countries' performance in the FTAA and affect the ability to deal with systemic problems in an ever more interdependent hemisphere; (5) adjustment and balance of payments assistance;[86] (6) technical assistance; and (7) public outreach to enhance civil society's understanding of the FTAA processes and trade issues more generally.

National Macroeconomic Policy

A sustainable macroeconomic environment is fundamental in order for a country to compete and capture the full potential benefits of any economic reform or a trade initiative such as the FTAA. Latin America and the Caribbean have made much progress in reforming macroeconomic policy.[87] However, in Latin America and the Caribbean the sustainability of macroeconomic balances has been adversely affected by international capital flows which are increasingly volatile, unpredictable, and prone to contagion. The volatility is indeed quite impressive. In this environment, a strong influx of capital cannot be necessarily interpreted as a signal of the Market's commitment to a given macroeconomic policy stance or can an outflow be necessarily interpreted as confirmation of poor fundamentals.[88] Since capital flows affect the level of aggregate expenditure, trade balances and the real exchange rate, the volatility that is being observed in international capital markets is of fundamental concern for the stability of an FTAA and the ability of countries to maximize their commercial opportunities. More specifically, the volatility of capital flows greatly aggravates macroeconomic management and is conducive to cycles of excess expenditure, crisis and over adjustment, which in turn is unhealthy for growth, stability, free trade and integration.

While there is increasing public awareness of the problem of volatile capital flows, international initiatives are usually slow in coming. In the meantime, a defensive national macroeconomic stance that avoids leveraging an economy on

[86] This function perhaps could be carried out by regional organizations.

[87] Inter-American Development Bank, *Economic and Social Progress in Latin America*, 1996 (Washington, DC: Inter-American Development Bank, 1997).

[88] R. Devlin, *Debt and Crisis in Latin America: The Supply Side of the Story* (Princeton: Princeton University Press, 1989); United Nations, Economic Commission for Latin America and the Caribbean (ECLAC), *Policies to Improve Linkages with the Global Economy* (Santiago, Chile, United Nations, 1995); and Devlin, Ffrench Davis, and Griffith-Jones, "Surges in Capital Flows and Development".

volatile short term external capital may be the best defense to ward off the destabilizing effects of unpredictable reversals in the psychology of capital markets. Such an approach would aim at establishing a cautious macroeconomic policy stance that, coupled with international reserves, would allow a country to make non-traumatic adjustments should capital flows abruptly slow down or dramatically reverse themselves. This would involve a policy mix of strong fiscal and monetary discipline; cautious external debt management, intervention in the foreign exchange market (reserve accumulation/sterilization and, when necessary, mechanisms to directly control, or better regulate, the flows of short term speculative capital) and very disciplined financial market regulation.[89] Such an approach could reduce the risk of abrupt macroeconomic adjustments and also could contribute to moderating appreciation of the real exchange rate, which protects incentives for domestic production of exports and import substitutes. Indeed, as countries enter into the FTAA, attention to the issue of competitive exchange rates (and even possible overshooting) will be important for facilitating adjustments and effective participation in the hemispheric market.

Deepen and Widening Reforms

Latin America and the Caribbean have made much progress in advancing in its structural reforms. But effective participation in the FTAA will demand deepening and widening of this effort.

Trade liberalization. In recent years, Latin America has made marked progress in opening up its economies. Yet, MFN tariffs are still relatively high, especially *vis-à-vis* North America (Table 1). A program of further gradual reduction of third party tariffs would grant exporters cheaper inputs to compete head-to-head with the North. It also reduces risks of trade diversion and minimizes the redistribution of tariff revenue as FTAA preferences enter into force. Competitive pressures within the FTAA should contribute anyway to lower and converging tariff structures in the hemisphere. The effects of the Asian crisis, however, would probably demand more caution in pursuing MFN tariff liberalization. Indeed in the short term the real challenge may be to avoid or minimize reversals in the market opening up process in the region.[90]

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[89] Gavin and Hausmann argue that financial regulation should be even more disciplined than the Basle Accord. See M. Gavin and R. Hausmann, "The Roots of Banking Crises: The Macroeconomic Context", *OCE Working Paper Series* 318 (Washington, DC: Office of the Chief Economist, Inter-American Development Bank, 1996).

[90] Yet some countries like Chile have scheduled a second stage of MFN tariff reduction, from 11 to 6 percent over five years.

Effective incentives for industrial reconversion and export. The FTAA will raise pressures for firms to reconvert in order to face intensified competition from their hemispheric partners. Macroeconomic stability will contribute to this process, but there will also be a need for programs to ensure access to credit and technology (especially for small and medium sized enterprises), labor retraining and placement, competitive benchmarking studies, identification of market opportunities, export promotion, and so on.[91]

Infrastructure. Competing within the FTAA will require more coordinated policy and focus on developing modern infrastructure, not only at the national level but also between and among FTAA partner countries. Improving links among sub-regional partners is especially important since geography may award opportunities for combining factors of production and creating synergies that enhance competitiveness in the hemispheric market.

Social reform Latin America is the most inequitable developing region in the world.[92] There is a growing consensus that severe inequality can be an obstacle to improvements in international competitiveness and growth. Progress in this area is essential to ensure development of the human capital needed to compete and ensure an equitable distribution of benefits from the FTAA within society. There also is a need for development of transparent and effective regulatory and judicial systems that create a national counterpart to a rules-based hemispheric trading system.

Modernization and coordination of trade related ministries. The ministerial architecture for trade issues in many countries still reflects the function of another era when Latin-American economies were more closed, trade was less dynamic and multilateral and regional trading rules were less complex. Strengthening is now required in many areas including: implementing trade legislation; training to develop professional depth in the nations corps of negotiators, trade technicians and lawyers; developing more capacity to analyze and evaluate options for trade liberalization and negotiation, understanding and implementing complex obligations and exploiting the full rights granted under trade agreements,[93]

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[91] Colombia has recently initiated an ambitious study program in this regard. See L. J. Garay et al., *Colombia: Estructura Industrial e Internacionalización* (Bogotá: DNP-Calciencias, 1998).

[92] Inter-American Development Bank, "América Latina frente a la desigualdad", *Progreso económico y social en América Latina: Informe 1998-1999* (Washington, DC: Inter-American Development Bank, 1998).

[93] One of the major areas of adjustment in Canada when it entered into and agreement with the United States was to mobilize a critical mass of trade lawyers accustomed to the aggressive, document-driven litigation techniques of US lawyers in dispute settlement. R. Dearden, "Conflictos comerciales y mecanismos de resolución de controversias bajo el Acuerdo de Libre Comercio entre Estados Unidos y Canadá", in *NAFTA y MERCOSUR*, ed. R. Lipsey and P. Meller (Santiago, Chile: CIEPLAN, 1996).

reinforcing inter and intra-ministerial coordination; improving data collection and distribution; enhancing coordination, as well as strengthening rules and procedures for managing destabilizing trade imbalances is desirable for schemes with deep objectives, with the private sector and civil society more generally and promoting new exports, investment and market opportunities.

Deepen and widen sub-regional integration agreements. Realization of objectives for deep integration in sub-regional schemes can, among other things, exploit geographic niches for hemispheric investment and export; enhance member countries competitiveness in the hemispheric market; and provide learning experience and negotiating leverage now and in the future evolution of the FTAA. Given substantial interdependencies in some sub-regional schemes, and the importance of macroeconomic stability for trade performance, some systematic form of interchanging macroeconomic information, with an eye to eventual degrees of coordination, as well as strengthening rules and procedures for managing destabilizing trade imbalances, is desirable for schemes with deep objectives. It also is helpful to pursue extra-regional Anew≅ integration agreements, because, apart from their inherent commercial and political merits, they may enhance bargaining power in the FTAA process, and contribute to developing a new multilateral round.

Participation in the multilateral system. A successful FTAA depends on its members complying with WTO obligations and pursuing deeping of the multilateral system. Of particular interest would be promoting another multilateral round and further defining and operationalizing Article XXIV rules guiding the relationship between the multilateral system and regional agreements. This latter consensual framework may help to minimize arbitrary evaluations of regional integration agreements and promote more homogeneous normative structures among them.

International solutions are urgently needed to tackle the destabilizing effects of volatile capital flows. Clearly Latin-American and Caribbean countries must individually and together promote a dialogue with the G-7 to reform the international monetary system so that there is a better framework for a stable world economy in which countries and their integration partners can grow and prosper. There are already some interesting proposals on the table. However, it may be important for trade ministers to effectively participate in this dialogue directly, or through their finance ministers, because solutions in the area of finance are vital for open markets and trade.

4. Building the FTAA: Transition, Negotiation and Implementation Issues

One of the policy areas for minimizing costs and maximizing benefits of an FTAA is its effective articulation of the FTAA with current and future regional

agreements. The final Section will elaborate more on this topic since it will be one of the central issues for a successful FTAA.

A. Some Initial Considerations

Given the multiplicity of trade agreements in the hemisphere and the bold decision of the heads of state in the Summit of the Americas to create an FTAA, it is essential that countries carefully design their negotiating strategies so as to take into account both sub-regional and hemispheric dynamics. In addition, special attention should be given to those countries, or sub-regions with greater political and economic influence in the hemispheric integration process. Unfortunately, the design of any integration strategy raises both theoretical and empirical problems that cannot be solved easily in practice. This is especially true given the coexistence of several basic strategies in the contemporary world trading system; namely, unilateralism, regionalism and multilateralism.

During the period leading up to the Summit of the Americas, several alternative approaches for hemispheric integration were under serious discussion. The first of these was to look for a convergence path among existing agreements already implemented or under negotiation. The second approach was the accession of all countries to a major sub-regional agreement. At the time, NAFTA was often promoted as a candidate for this type of expansion. The third option was the initiation of formal negotiations among the various countries, or sub-regions, in the hemisphere.

Although the last alternative was the option adopted at the time of launching the FTAA process, the other alternatives have played an important role in shaping the nature of the debate throughout the process. First, the concept of an FTAA, which will be constructed from existing agreements, has been part of the official ministerial language throughout the process (the Abuilding bloc≅ approach). Moreover, efforts to widen and deepen existing bilateral or sub-regional agreements have run parallel to FTAA talks and, as such, have been explicitly acknowledged in the FTAA Ministerial Declarations as evidence of progress towards liberalization in the region. In the meantime, the option of NAFTA expansion has lost credibility on account of the failure of accession negotiations with Chile and failed fast track initiatives in the US Congress. In contrast, as mentioned earlier, MERCOSUR has secured two important associate members by signing agreements with Chile and Bolivia and is moving to negotiate a free trade pact with the Andean Community. Moreover, Mexico, and Chile, are trying to consolidate their hub positions in the hemisphere with continuous efforts to secure new bilateral agreements.

All strategic options have to be evaluated in light of the long-term net social costs and benefits that the particular agreement brings to the member countries

compared to those derived from other available alternatives. The net impact of any integration agreement will depend on the type and structure of the trade agreement: namely, the coverage, speed, depth and timing of liberalization; the selectivity and nature of rules and provisions; the treatment of Asensitive≅ topics; the application of mechanisms for the distribution of benefits among member countries, and so forth. All of these issues are typical problems encountered when designing a Asecond best≅ policy.

The design of any integration strategy raises a "second-best optimization" problem. Moreover, in sub-regional strategies reaching for hemispheric scope, which is increasingly the case today in the Americas, there are several alternative paths. If there is no "credible" multilateral cooperation mechanism among all the players, uncertainty will be further magnified and create a more difficult environment for an intertemporal valuation of alternative scenarios. As a result, it is even more difficult to make an "educated choice" among strategic options.

The fact that this situation resembles a "prisoners' dilemma" for the FTAA participants and is conducive to a series of collective decision-making problems, may also lead countries to "overvalue" certainty and the benefits from a short-term perspective in decision making. Intimately linked to the foregoing is the fact that any empirical assessment of the relative benefits and sacrifices of each strategic option becomes much less certain.[94] The following factors can contribute to reduce this uncertain environment:

Definition of a Clear Road Map for the FTAA Negotiations

One of the major achievements of the FTAA initiative to date has been the collective efforts to design a framework and the road map for the process. This has been done by generating clear mandates from the highest national political levels (heads of state and trade ministers); developing a clear definition of the institutional structure (intergovernmental with technical support of the OAS/IDB/ECLAC Tripartite Committee); consensual principles of negotiation; comprehensive coverage of disciplines as part of a single undertaking, a precise set of terms of reference, preprogrammed performance benchmarks and time frames for different stages of the preparatory/negotiating processes; substantial built-in mechanisms for coordination, and the implementation and consultation with other

[94] This situation has been illustrated by various authors, such as Hinojosa, Robinson, and Lewis, by means of a computable general equilibrium model. In this case, different scenarios in the process of forming an FTAA were analyzed, in the wake of alternative agreements among "regional Blocs," in particular, NAFTA, MERCOSUR, and the Andean Community. See Hinojosa, Robinson, and Lewis, "Convergence and Divergence Between NAFTA, Chile and MERCOSUR: Overcoming Dilemmas of North and South American Economic Integration".

economic participants.[95] As progress is made in developing these basic points of reference, the climate of uncertainty is reduced, which will greatly facilitate the process of preparing countries and sub-regions for negotiations and development of strategies in anticipation of the FTAA.

Consistency Among Bilateral and Sub-Regional Initiatives

Given the complexity of preferential agreements currently in place in the hemisphere, a high priority should be given to progressively encouraging the greatest degree of consistency and coherence among them via ex-post refinements. The same holds for new agreements. Otherwise, there is a risk of reproducing conditions conducive to less transparency in the liberalization process, high distortions in competition among member countries, and the insufficient use of the advantages of specialization. If this happened, it would constitute a move away from the observance of the basic principle of "open regionalism" which has characterized regional developments in the hemisphere.

The current situation has seen an increase in the number, variety and types of agreements, as described earlier. The evolution towards a *de facto* hub and spoke system – all things being equal – implies:[96]

- the intensification of the search for rents by economic agents in member countries – for example, national or multinational enterprises that plan to consolidate a mono or oligopolistic position in the regional market, restricting the entry of new competitors;
- the progressive loss of resources because of efforts involved in negotiating, administering, and verifying compliance in each and every agreement – especially where there are overlapping provisions contained in agreements;
- more onerous conditions for liberalization, thanks to the relatively higher leverage of a Alarge hub country≅ in a bilateral context as opposed to one that is strictly plurilateral – that is, to negotiate with each "spoke country" individually rather than with all the countries together – which can also lead to granting greater protection relative to the predominant interests of the "hub country".
- the restriction of the potential investment in all countries together – at least in comparison to an "ideal" situation of multilateral free trade – and, as a

[95] Devlin and Garay, "From Miami to Cartagena: Nine Lessons and Nine Challenges of the FTAA"

[96] For more detail on the analytical framework of hub and spokes, see R. J. Wonnacott and P. Wonnacott, "EL TLCAN y los acuerdos comerciales en las Américas", in *Las Américas: Integración económica en perspectiva* (Bogotá: National Planning Department of Colombia and Inter-American Development Bank, 1996).

result, regional income, savings and growth because trade barriers remain among some countries namely – the Aspoke countries≡ of the hub and spoke system – without being able to determine *a priori* the distribution among countries.

In this respect, as we mentioned earlier, the establishment of a free trade area in the Americas with "subsidiarity" for shallower FTAs agreements, and including a range of some disciplines that go beyond trade in goods, could contribute to the "rationalization" of all the FTAs and integration arrangements in force in the region and also to some degree of adaptation among those with which the FTAA will coexist.

Further Consolidation of Existing Initiatives

Finally, the relative weight that each existing or future sub-regional agreement will have in the final design of the FTAA and the Arationalization≡ of the set of integration arrangements in the hemisphere will depend on several determining factors. These include:

- the degree of development of each sub-regional market, as well as the widening and deepening of the disciplines in the integration process that goes beyond trade in goods and reflect the spirit of the new regionalism which the FTAA represents;
- the consolidation of the integration process and its projection as a geopolitical and economic arrangement with a sense of identity and with the decision-making capacity to engage in broad agendas of economic and political cooperation at hemispheric and international level;
- the conclusion, in the next few years, of new generation FTAs among groups and/or countries in the hemisphere which anticipate, as best as possible, expected characteristics of the future hemispheric agreement;
- the strengthening of bilateral relations with decisive hub countries or sub-regions in the areas of trade, investment, financing, and technological cooperation.

On the basis of such considerations, the next paragraphs outline some scenarios for the transition strategies that are available in moving toward the construction of the FTAA.

B. The Transition Stage in the Negotiation of the FTAA

It is important to start with a brief description of the existing pattern of evolution of the hemispheric architecture regarding regional integration agreements, which, if it continues unaltered, would be the stage on which the

FTAA enters into force.[97] With this assumption, the picture that emerges just before the year 2005, may be the following:

- Consolidation of the most advanced Anew generation≅ FTA (NAFTA) in the Americas. This FTA would cover a broad range of disciplines such as trade in goods and services, investment, government procurement, intellectual property, subsidies, antidumping; and
- countervailing duties, comparable to or better than those of the WTO. In addition, it would contain partial preferential regimes in favor of the Caribbean countries and GSP clauses applicable to the rest of the Americas. However, this agreement would not have been expanded because of domestic politics in the United States and because of the strategic preparations for the negotiations of the FTAA;
- one of the two "hub-groups in the hemisphere" (MERCOSUR) would have achieved trade liberalization with the rest of South America under "first generation" type agreements, focused basically on trade in goods and with rules in market access similar to their own (for example, rules of origin similar to those in the MERCOSUR-Chile agreement). That would constitute a sort of South American FTA although less deep than the prevailing sub-regional arrangements in the area (the Andean Community and MERCOSUR are customs unions in the process of consolidation and deepening, but so far with disciplines narrower than the ones contained in the "new generation" FTAs). In this context, at least in principle, MERCOSUR as a hub sub-region, would be expected to strengthen its bargaining power in the design and structure of the FTAA;
- at the same time in both North and South America some "subordinate" hub-countries or groups, because of their status as spoke countries or groups in the hemispheric context, would have consolidated their position within their existing integration processes with other Latin-American countries. Such will be the case of:

  (a) Mexico with its "new generation" type FTA system with Central America, Chile, and some Andean countries;

  (b) Chile with Canada, Mexico and Central America under "new generation" FTAs, and with several Andean FTAs similar to "first generation" schemes;

[97] This scenario does not take into account extra-hemispheric dynamics, which can potentially be very important and make the picture more complex. Division, Inter-American Development Bank, 1995).

(c) the Andean Community with FTAs with Chile and several Central American countries by means of "first generation" type FTAs, as well as with MERCOSUR although with significant differences in certain rules and disciplines such as rules of origin, and with CARICOM in "asymmetrical" agreements; and

(d) the CACM with "new generation" agreements with Mexico, Chile, the Dominican Republic and Panama and a "first generation" agreement with CARICOM.

In the area of traditional market access, the status of trade liberalization for a selected number of FTAs is illustrated in (Table 7). Under this hypothetical situation it is useful to specify some basic guiding principles for the process of transition and coordination among the countries and "blocs" for the formation of the FTAA.

TABLE 7: Selected Trade Liberalization Programs in the Americas

Agreement		Bilateral Trade	Bilateral Trade Liberalization		
		% bilateral imports of total imports	% items liberalized		% bilateral imports liberalized
		1995	1996	2006	1995
Chile-Mexico	Chile-Mexico	14.9	95.5	98.4	98.8
(1992)	Mexico-Chile	28.3	95.0	98.2	97.8
Chile-Venezuela	Chile-Venezuela	5.6	0.7	96.6	41.4
(1993)	Venezuela-Chile	5.2	0.7	95.7	99.5
Chile-Colombia	Chile-Colombia	3.7	4.1	91.3	88.6
(1994)	Colombia-Chile	6.1	5.3	91.3	93.0
Chile-Ecuador	Chile-Ecuador	5.2	3.9	96.4	35.0
(1995)	Ecuador-Chile	8.9	5.1	96.1	98.4
G-3	Mexico-Colombia	5.5	7.6	90.9	95.5
(1995)	Colombia-Mexico	15.4	4.1	90.8	98.5
	Mexico-Venezuela	12.2	2.4	76.4	99.4
	Venezuela-Mexico	15.3	0.4	76.8	98.6
Mexico-Costa Rica	Mexico-Costa Rica	0.0	86.4	99.3	100.0
(1995)	Costa Rica-Mexico	4.0	73.2	97.8	98.8
Mexico-Bolivia	Mexico-Bolivia	0.3	61.8	96.5	99.9
(1995)	Bolivia-Mexico	3.6	59.2	96.4	98.9
MERCOSUR	Argentina-MERCOSUR	10.3	96.6	99.9	91.2
(1995)	Brazil-Argentina	21.5	99.4	99.9	99.7
	Paraguay-MERCOSUR	91.4	92.8	99.9	
	Uruguay-MERCOSUR	89.9	86.3	99.9	73.6

(cont...)

(continued)

Agreement		Bilateral Trade	Bilateral Trade Liberalization		
		% bilateral imports of total imports	% items liberalized		% bilateral imports liberalized
		1995	1996	2006	1995
MERCOSUR-Chile	Argentina-Chile	8.8	4.4	94.7	63.5
(1996)	Chile-Argentina	34.3	4.4	95.0	32.3
	Brazil-MERCOSUR	11.2	4.4	94.7	58.1
	Chile-Brazil	29.6	4.4	97.6	32.5
	Uruguay-Chile	3.4	4.4	94.8	16.3
	Chile-Uruguay	1.0	4.4	95.4	47.6
	Paraguay-Chile	6.3	4.4	95.0	10.7
	Chile-Paraguay	1.4	4.4	93.5	82.3
MERCOSUR-Bolivia	Argentina-Bolivia	2.3	5.4	97.1	93.9
(1997)	Bolivia-Argentina	23.0	7.3	92.2	72.6
	Brasil-Bolivia	0.2	5.6	97.1	46.9
	Bolivia-Brasil	31.8	7.3	92.2	66.7
	Uruguay-Bolivia	0.1	4.8	97.1	79.0
	Bolivia-Uruguay	0.9	7.3	92.2	20.8
	Paraguay-Bolivia	0.2	5.0	97.1	
	Bolivia-Paraguay	0.2	8.7	92.3	26.7

Source: Estevadeordal (forthcoming)

First, after heated debate in Belo Horizonte trade ministerial, it was agreed that the FTAA would coexist with deeper sub-regional agreements. As a result, shallow FTAs could be superseded by the basic regulations of the FTAA. In this respect, a decision must be taken on how shallow agreements will be phased out. The decision must take into account the burden of additional administrative costs (e.g., firms and customs authorities will be under two overlapping rules of origin regimes).

Second, in those cases where sub-regional integration is more profound in terms of objectives, scope and coverage than the FTAA, the problem arises as to the definition of those requirements that will ensure compatibility and coherence in conditions of competition among different regional arrangements and between them and the FTAA (for example, between the levels of preference among the sub-regional regimes and between them and those of the FTAA). Otherwise, distortions and inequities would be created in the conditions of competition in the hemispheric market unless the decision was made to opt for the formal harmonization of competition, promotion and development policies among the member countries of the FTAA.

One of the problems rests in the difficulties of empirical evaluation of those effects; in particular, distortions due to measures and regulations such as rules of origin as well as their distributive and resource allocation impact among

countries.[98] Therefore, following a "second best" policy type recommendation, it would be useful to undertake some adaptation of the regimes and conditions governing competition among countries and prevailing regional integration arrangements in the Americas.

Given the uncertainty associated with the transitional process, the differences among existing regimes and the diversity of participants in this process, the issue of timing with respect to the adaptation of remaining regimes in the hemisphere becomes central. This is even more important if one takes into account the negative effects resulting from inadequate investment decisions or reallocation of production and the loss of efficiency from not anticipating locational and scale economies in the new hemispheric integration matrix.

In principle, it is expected that the longer this situation of uncertainty lasts, the greater will be the probability of not seizing the full advantages of future integration in the hemisphere and sub-region.

Finally, certain powerful Aregional groups≅ may seize the opportunity to consolidate their integration processes taking into account the disciplines negotiated under WTO agreements or some of the most advanced FTAs in the region, or the scope of the FTAA initiative defined throughout the ministerial declarations. Those groups will then be better positioned to face the critical stage of negotiations of the FTAA with greater bargaining power and also to improve the situation for the transition to the new conditions of competition.[99]

Furthermore, regional groups or Afirst generation≅ FTAs based mostly on the liberalization of trade in goods or that do not deal with a large number of the disciplines included in Anew generation≅ agreements, could widen and deepen their FTAs with other countries or regional groups. MERCOSUR, the Andean Community, and the CACM are cases that illustrate this type of situation.

As a consequence, through a process of adaptation and coordination of regimes among groups of countries as they effectively move forward with the

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[98] L.J. Garay and A. Estevadeordal, "Protection, Preferential Tariff Elimination and Rules of Origin in the Americas" (Washington, DC: Integration, Trade and Hemispheric Issues Division, Inter-American Development Bank, 1995).

[99] One of the characteristics of a hub and spoke network is the advantage awarded to the hub *vis-à-vis* the spokes and third parties in regard to preferences and conditions of competition. These advantages increase for the hub with the widening and deepening of its network. Likewise, there is a corresponding increase in the influence of its model of integration with third parties and presumably the collective FTAA process. In this regard it is interesting to point out the role Mexico is acquiring as a member of NAFTA, which is rapidly constructing a hub and spoke network of new-generation FTAs with Central and South American countries while at the same time actively participating in an FTAA process, which has a "new-generation" agenda.

"rationalization" of their respective FTAs or customs unions prior to the definition of the FTAA, not only can they reduce inefficiencies and administrative costs, but they can also create more favorable conditions so that such countries will exert greater influence on the negotiations of the FTAA.

Moreover, such rationalization will facilitate the environment for the adaptation and harmonization of different integration arrangements in force while the negotiations of the FTAA are held and can create the conditions for a more efficient negotiating process, where special attention will be focused on the definition of the FTAA in central fields as, for instance, market access.

Under this scenario, two factors must be taken into account. First, which regimes will be adopted as the reference benchmark for this process of adaptation. Second, how compatible will be the chosen regimes with the ones being negotiated in the FTAA. However, the FTAA regimes under negotiation will be, in turn, greatly affected as a critical mass of countries and groups move forward into this adaptation process.

One of the difficulties for convergence is the choice of reference regimes which contain clear criteria for comparing and selecting alternatives and are also sufficiently precise, transparent and predictable that their application will not obstruct the process of liberalization.

The existing WTO trading regimes must necessarily serve as one of the key reference points for the analysis of the FTAA architecture. Obviously, this does not imply that the FTAA will deepen those obligations subscribed to under the WTO in each and every one of the disciplines considered. This will probably happen in some cases but not in others. The final outcome will depend on the negotiations and the degree of progress and harmonization achieved by the most advanced "regional groups" in the hemisphere.

The problem in selecting the reference regime may be illustrated with the rules of origin. In the Americas, at least four basic origin regimes are being applied: (1) that of NAFTA and the "new generation" FTAs concluded by Mexico and Canada with other countries in the hemisphere; (2) that of ALADI – as the "first generation" reference regime – for all the partial scope agreements between the signatory countries of the Treaty of Montevideo, for the Andean Community, and the FTAs of Chile with Colombia and Venezuela; (3) that of MERCOSUR for the FTAs with Chile and Bolivia, and eventually the FTA to be concluded with the Andean Community; and (4) that of the CACM as the intermediate regime between "first and new generation" regimes. Moreover, the non-preferential regime being negotiated in the framework of the WTO seems to be tending toward an intermediate framework, based largely on the criterion of change of tariff classification, but with a different degree of stringency between types of goods and

using other criteria in those cases where it is necessary to specify origin requirements. Given these circumstances, there arises the issue of which would be the most suitable reference regime to be used in the adaptation process prior to the design of the FTAA.

In this particular example, a necessary though not a sufficient condition in order to achieve the greatest efficiency and the lowest transition costs is the adoption of some basic principles , such as: transparency and predictability, low administrative costs in the application of origin; small number of criteria for classifying origin; a definition of the degree of stringency that will not be higher than that those in effect among the countries previous to the FTA's formation and the non-application of rules of origin in those cases where national tariffs to third countries are sufficiently low (for instance, say below 3% to 5%) or where they are similar.[100]

5. Conclusions

The FTAA has been fathered by a convergence of interests in the hemisphere; on the one hand, North America's acceptance of regional integration as a policy tool which is complementary to the multilateral system; on the other, Latin America and the Caribbean's combining their long held interest in regional integration with a new market-based open economic strategy that has fostered a new regionalism and been an important contributor to a stronger multilateral system. The new regionalism has been a positive influence on Latin America and the Caribbean in the 1990s, helping to promote consolidation of economic reforms, creation of new markets and trade, preparation for globalization, strengthening of democratic regimes and fostering of regional cooperation.

The FTAA process is a complex venture that undoubtedly bears costs. However, an FTAA could also establish an important new framework of opportunities for regional integration, hemispheric cooperation and growth. Among other things, it could offer the possibilities of (a) more secure hemispheric market access; (b) a challenging incentive for productive transformation and preparation for globalization; (c) a potential magnet for new FDI; (d) a rationalization of existing strategies of regional integration; (e) synergies that contribute to a stronger multilateral system and (f) externalities which help to lock-in policy reform.

[100] L. J. Garay and R. Cornejo, "Reglas de origen en acuerdos de libre comercio en las Américas" (Washington, DC.: Integration, Trade and Hemispheric Issues Division and Statistics and Quantitative Analysis Unit, Inter-American Development Bank, 1998); L. J.Garay and L.F. Quintero, "Caracterización, estructura y racionalidad de las normas de origen del G-3 y ALADI" (Washington, DC: Integration, Trade and Hemispheric Issues Division, Inter-American Development Bank, 1997); and Garay and Estevadeordal, "Protection, Preferential Tariff Elimination and Rules of Origin in the Americas".

However, there is a whole spectrum of policy and strategic issues "around" and "outside" of the FTAA process as such that will condition the outcome and effects of the agreement, the ability of participants to maximize potential opportunities and minimize costs, and ensure a reasonable balance in the distribution of benefits among partner countries. In this regard, this chapter has presented a short, and far form all inclusive, check list of some longer term collective hemispheric and multilateral issues as well as macro, micro and mesoeconomic national ones that might merit special parallel attention as the formal FTAA negotiations progress.

The national issues are many and diverse. Macroeconomic stability is a *sine qua non* for effective participation in the FTAA. The volatility of short term capital flows has, however, become a major threat to macroeconomic stability in the developing world. In view of the fact that international solutions may be slow in forthcoming, countries may have no other choice but to establish an especially defensive policy stance – pragmatically deploying direct policy instruments when necessary – in the face of surges of short term capital flows. The goal would be to ensure sustainable macroeconomic balances that can support participation in the FTAA's opportunities and accommodate, without trauma, the changes in the psychology of capital markets. However, sustainable macroeconomic balances are not enough; one must address sectoral issues, such as the future strategy of trade policy *vis-à-vis* the rest of the world and areas involving micro and mesoeconomics – at the level of financing, domestic and foreign investment, human capital development, science, technology and productive resources, physical and institutional infrastructure, public and private coordination, and so on. The future direction of sub-regional integration is another strategic policy tool for exploiting the opportunities of an FTAA. Only with the creation and exploitation of dynamic competitive advantages, using the possibilities of complementarity and specialization (including opportunities for deep sub-regional integration) with innovation and technical progress, and with the improvement of competition, can the potential of an integration process such as the FTAA be fully realized.

Also on the checklist are collective issues such as development of a functional, pragmatic hemispheric institutional >>network≤ that directly or indirectly supports an FTAA; there also is a need for national promotion of strategic agenda in multilateral fora: the WTO and any international dialogue that may emerge with the G-7 over the years on solutions to the problems of greater volatility of international financial flows. In the absence of national and international approaches to effectively deal with turbulent international financial markets, ambitious trade initiatives, whether at the national, the sub-regional, hemispheric or multilateral level, could be in jeopardy.

In the chapter, particular emphasis was placed on the fact that the successful creation of a transparent and more effective hemispheric market will depend on

the progress achieved in the adaptation and "rationalization" of the existing integration arrangements in force in the Americas, as well as the final outcome of an FTAA agreement characterized by a set of rules and disciplines that are broadly consistent with "regional groups", member countries of the groups, and the remaining countries in the Americas and extra-hemispheric arrangements. This would permit, *inter alia*, more efficient adaptation between a new FTAA and prevailing integration arrangements, deepening of "open regionalism" in the hemisphere, and generate more favorable conditions for facing future progress in the liberalization of competition at the multilateral level.

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Comments by Ambassador José Alfredo Graça Lima

The paper provides, always with theoretical quality, a systematic view, at times a schematic view, of what could be an FTAA. I say it in this way because the project is far from its final form and some considerations are required about this specific feature. When the project was launched in Miami in 1994, one could say that an hemispheric free trade area had many different meanings for many different players. But, from the beginning, some of its characteristics are unusual if compared to those of a classical free trade area as defined in the GATT or in textbooks, at the same time that there is an important market access emphasis and the suggestion of a more profound integration, including issues such as investment and intellectual property, and others, which were included in the agenda of the Uruguay Round and can be a part of the Millenium Round agenda.

Obligations entered by Brazil in the context of the Uruguay Round will require an economic and political effort to adjust that is far from completed. In this scenario, one can say that the integration project takes some sectors by surprise. Even with its conclusion in 2005, one cannot say that the process of adjustment to liberalization will then be completed and that competitiveness will be such as to justify such an initiative including some of Brazil's most important partners. The Brazilian situation is different from that of Mexico and even that of some of its MERCOSUR partners, to say nothing of the Caribbean and Central America. This specificity suggests that, for Brazil, this project is still not a priority. Brazilian interest in an extra-regional free trade area is different from the US interest in an hemispheric free trade area.

I would not say that it is a defect of the paper, since an attempt was made to take into account the case of different partners in the initiative, but I felt that, when mention is made to Latin America, North America or the Caribbean, it ignores some specific national realities which are clear and I have already mentioned for the case of Brazil. The Brazilian preference would have been, and I believe that this could still be reflected in the negotiations, a type of project which would underline a programme of trade liberalization rather than the establishment of a free trade area.

The possibility of reaching a zero tariff for all products seems to have receded. What seems more likely and feasible in the long-term is the adoption tariff reduction timetables defined on a product-by-product basis taking into account the different sensitivity of different sectors in different economies. The US would have difficulties concerning the Sugar Act, tariff quotas on tobacco, a host of other non-tariff barriers, as well as tariffs and tariff peaks affecting orange juice, footwear, textiles and clothing. These difficulties provide a basis for questioning the viability from the US point of view.

Running the risk of being heretical, I would say that Brazil may have more difficulty in negotiating access for industrial products within an hemispheric free trade area than in negotiating WTO plus disciplines in such issues as intellectual property, competition policy and others which have been satisfactorily dealt with in the multilateral framework. Particular issues may be difficult because of self-interest but not as much as market access, especially for industrial products as difficulties related to agriculture seem to be concentrated in the big economies rather than in smaller economies. If we exclude perhaps export subsidies, a common theme for all countries in the hemisphere, agriculture is also a source of difficulties and it is also difficult to think of a completely liberalized scheme.

The paper is careful in relation to the fast track issue, an important question which is far from being clarified. The fast track authority ends up being a negotiation mandate for the US. It is very clear what is wanted by the US government from these negotiations. The fast track is not essential as there is the possibility of using the residual Uruguay Round mandate. What the fast track approval will show is to the extent to which the US would be prepared to go in terms of concessions not only involving agriculture but also the two points mentioned by Marcelo Abreu: labour rights and environment. These two themes are in principle excluded from the negotiation but they can always be brought in consequence of their inclusion in a fast track authority. Such a development will have to be analyzed very carefully to consider whether based on the balance of benefits and costs it would be worthwhile to engage further in the negotiation process. If the fast track includes conditionalities in relation to labour rights and, to a lesser extent, environmental matters, this can be a fundamental obstacle to the progress of negotiations. In any case it will require political will, and even political courage, by different partners to analyze and eventually denounce a process which may be unfavourable to their interests.

While Brazil is not opposed to an FTAA, I believe the process is valid essentially because it makes explicit what are the objectives of the main economies and especially the US in the region. The interest is that perhaps Brazil will have no other forum to discuss market access with the United States. It has been said more or less clearly that one should expect for sure an engagement by the US concerning the Millenium Round, even if the US has offered to host the next WTO ministerial meeting. We know that progress since the last visit to Washington by President Fernando Henrique Cardoso has been limited if any and in fact there was little evidence that both North-South and North-South trade flows could expand significantly. Non-tariff barriers coupled with antidumping actions in the US are to a great measure responsible for the present Brazilian trade deficit with the United States. I am not speaking only in mercantilist terms, we are facing a timetable and, if the unfavourable position trade determines a low growth next year, we will not

have the required conditions for success of the hemispheric trade integration process.

Although the idea of a free trade area with its related costs does not lack interest from a Brazilian point of view, given the lack of alternatives to negotiate with its main partner, it is for me unclear how these negotiations will develop. This is also due not only to doubts in Brazil, in the MERCOSUR, and in other Latin-American countries but also to doubts within the US society, given the divided public opinion in spite of the alleged benefits generated by NAFTA. Thank you.

Comments by Marcelo de Paiva Abreu

I fear my comments will be rather piecemeal. The paper presents a comprehensive treatment of the issue and attempts to take stock of the situation as of today. It is, however, to be lamented that both the US and Canada are excluded from explicit treatment in the data basis. Perhaps this indicates some unbalance that requires being redressed.

The difficulties raised by the present financial crisis could perhaps have been addressed. It is difficult to see a contemporary sharp reduction of protection in hemispheric markets and a substantial rise in the demand for waivers under article XVIII: B of the GATT 1994 with many countries seeking authorization to raise protection due to balance of payments difficulties.

The analysis tends to play down the initial US emphasis on a format which would essentially be of a hub and spoke type, having NAFTA or the US as a hub. It has been an important result of the negotiations to date that this initial idea has been adjusted to take into account other existing subregional integration initiatives. The presentation by Estevadeordal partly covered this ground. The paper also plays down the importance of the perception of heterogeneously distributed gains with integration due the varying importance of hemispheric trade for different economies in the hemisphere. These differences may be an important explanation for the possible complementarity between the FTAA and multilateral negotiations. For countries, such as Brazil, with a less marked interest in the FTAA it would make sense to conduct parallel negotiations at the multilateral level or at least with the most important partners as the European Union. A parelllel negotiation with the US in the FTAA context and with the European Union as part of MERCOSUR would roughly mimick multilateral negotiations.

It could perhaps have been stressed that US interests are concentrated in the MERCOSUR since so much of the other Latin-American markets of prospective FTAA members are already open to US exports on a preferential basis. And since Brazil's share of the region's GDP is much bigger than its share of the region's trade in all issues related to size of the domestic market, its relative importance is enhanced.

An important issue raised by the paper is the link between investment flows and integration. Experience in the MERCOSUR points out to the difficulties related to generalization in this matter. In the past, foreign investment has been typically attracted in many countries by the stimulus provided by a very high tariff wall. This resulted in a tradition of rent extraction which, for instance, explains the successful bid for special treatment in Brazil and Argentina by multinationals in the automotive sector in the form of notorious automotive regimes. The rent-seeking stance of such multinationals has been further strengthened by the

rampant fiscal war between countries within subregional initiatives and between states in different countries trying to make sure that they are able to atract coveted investment by big automakers.

Mention is made to the dynamic effects of integration related to the FTAA. A note of warning should perhaps be entered as shown by the case of the extremely optimistic estimates of the impact of Europe 1992, among others by Baldwin.

The paper possibly also exaggerates the possible impact of a successful development of negotiations in the FTAA context on its stance in the WTO next round of multilateral trade negotiations.

Perhaps most important of all, I believe, mention should have been made to the main obstacle to the final completion of an FTAA: there is no indication whatsoever that the gulf between the US and other hemispheric economies on the question of labour standards and environmental policies is likely to be bridged.

III Selected Issues: Rules of Origin and Competition

THEME III: SELECTED ISSUES: RULES OF ORIGIN AND COMPETITION

Chairman: *Sandra Polonia Rios*

SUMMARY

RULES OF ORIGIN IN FREE TRADE AGREEMENTS IN THE AMERICAS[1]

Luis Jorge Garay S. and Rafael Cornejo

1. Introduction

THIS CHAPTER AIMS TO EXAMINE the role of rules of origin in free trade areas (FTAs) and the criteria applied to determine origin; to analyze the basic features of the origin regimes in force in the Americas and how qualification criteria are applied within them; to illustrate the importance of current trade within Latin America by generic origin regime; and, finally, to offer some guidelines for increasing the compatibility and harmonization of the different origin regimes.

2. The Role of Rules of Origin

Trade agreements are the way in which the signatory countries grant each other different forms of preferential treatment for exchanges of goods. To ensure that these preferences are applied correctly and that they function properly, there must be guidelines to enable the origin of goods to be defined and to guarantee that the negotiated preferences benefit only those products originating in the countries involved. Trade agreement terms therefore include origin regimes that stipulate the provisions and procedures for determining countries of origin.

Commercial exchanges involve goods wholly obtained or produced in the exporting member nation, together with another range of goods containing components from third countries outside the FTA. For this latter type of merchandise, it is necessary to define the conditions, types, and/or amounts of imported components that these goods can contain and still be considered as originating inside the FTA region. In accordance with this, origin regimes are essentially based on the idea of *substantial transformation*, which determines the minimum level of processing and modification that components from third countries must undergo for the merchandise to be considered as originating in the exporting FTA member nation.

The existence of rules of origin aims at preventing what is technically known as *trade deflection* – a phenomenon under which goods from third countries take advantage of the benefits granted by the trade agreement. *Trade deflection* occurs in FTAs when the member countries apply different tariff levels to third countries and this difference is exploited in order to bring merchandise into the FTA through the member country with the lowest tariffs. Requiring a minimum level of *substantial*

[1] This article has been published in: M. Rodríguez M., P. Lou, and B. Kotschwar (eds.) Trade Rules in the Making. OAS, Brookings Institution Press, Washington, DC. 1999, Chapter 10.

transformation attempts to prevent such distortions by strictly limiting the applicability of the tariff advantages to those goods that meet the stipulations of the FTA's rules of origin.

If the aim of rules of origin is to prevent *trade deflection*, their stringency should be correlated to the difference between the national tariffs applicable to third countries: thus, the greater the differential, the more demanding the requirements goods must meet in order to qualify. Similarly, when national third-country tariff rates are similar – or, alternatively, when they are relatively low – the need for rules of origin should be reassessed, particularly since the costs of administrating and overseeing them can actually exceed the difference in individual tariffs.

Now, if the goal sought with the application of rules of origin is strategic – related to industrial development or trade policy, for example – origin requirements independent of third-country tariff differentials should be set. A series of factors affect the restrictiveness of an origin regime; and, in addition to other effects, they in practice hinder its predictability. These include: (1) component substitution within domestic production depending on the components' geographical origin; (2) technological change; (3) the supply from domestic industries that produce intermediate goods; (4) the structure of the market for intermediate goods in the integrated zone; and (5) the protection or promotion of output *vis-à-vis* third countries.

In turn, an origin regime can have a number of effects, including: (1) inefficiencies, if components are imperfect substitutes or if oligopolistic competition prevails; (2) discrimination between productive sectors and types of producers, favoring those companies better able to adapt to and satisfy the requirements imposed by the origin regime; (3) greater restrictions on regional trade in downstream activities or later stages in productive processes; and (4) unequal distribution of benefits among factors of production, activities, and countries.[2]

One of the clearest discriminatory effects occurs in the field of investments, particularly when the requirements for qualifying as originating are higher. Since multinational foreign investments frequently use inputs from outside the region and/or from their home countries, the existence of demanding rules of origin dealing with regional content or technical requirements can severely restrict the implementation of their normal productive processes within the FTA. Such a situation would, at least in principle, favor investors from the region's member countries and could even lead to a "true diversion" of investment. Moreover, the modifications required of extra-regional companies' productive processes for them

[2] For a more detailed treatment of these issues, see: Garay and Estevadeordal (1996).

to operate in the region in compliance with the origin demands would negatively affect their efficiency and competitiveness.[3]

Notwithstanding the above, it should be noted that in sub-regional economies that are sufficiently large and dynamic and offer potential for economies of scale, the existence of relatively demanding rules of origin can act as an incentive for the location there of extra-regional investments with the capacity to benefit from the FTA's preferential access.

In recent years, the importance of rules of origin within integration processes has risen as a result of the growing internationalization of production (and, consequently, of the increased number of countries supplying components for productive processes), the notable increase in trade agreements established during the 1990s, and the strategic nature of the preferential lifting of tariffs contained in some of the FTAs negotiated by American nations in recent years.[4]

In addition, it is important to mention the potential magnitude of the operational and administrative costs of certifying and verifying at least some specific rules of origin and regimes for both domestic customs and the manufacturing firms themselves, which would heighten the losses in efficiency that the system as a whole could suffer. In theory, net operating costs can be expected to rise with increased administrative complexity, lack of transparency, multiple qualification criteria, and the proliferation of "rules of origin families", becoming more critical. This is all the more so given the growing international integration of production. As an example, it should be noted that in Europe the costs of collecting, managing, and storing the information needed for origin verification and administration have been calculated at around 3 percent of product prices.[5]

Thus, in light of these multiple impacts and given the potentially restrictive effect of rules of origin on intra-regional trade, regimes that can be applied transparently, objectively, and predictably and administrated easily should be designed, and rules that are so complex or so costly to implement that they prevent economic agents from enjoying the commercial advantages introduced by the free trade agreement should be avoided.

Given the dimensions and the diversity of the problems with applying rules of origin, the question arises whether it would be better to opt for a common external tariff (CET) within the framework of a customs union (CU), instead of a FTA wherein member nations have different national tariffs. However, as pointed out by Garay and Quintero: "if one of the reasons for establishing a FTA rather than a CU is the

[3] Winters (1997) and Barfield (1996).

[4] Garay and Quintero (1997).

[5] Garay and Quintero (1997), ibid., p.4-5.

existence of substantial differences in third-country tariff policies between member nations, rules of origin will clearly be used to enable those tariff differentials to coexist alongside a preferential liberalization of intra-regional trade. In such a case were it decided to reconcile those different policies in order to fix a CET, a compromise policy from among the policies deemed "desirable" by each of the members would have to be reached. It is not possible to offer an a priori opinion on the general superiority of one such option in terms of social *well being*".[6]

3. Criteria for Origin Qualification

Origin regimes define a good as originating inside a FTA when it is produced or obtained entirely within the member nations.[7] If it uses imported components from third countries, compliance with the required levels of *substantial transformation* is determined by applying criteria from among the following:

(1) Change or shift in tariff classification. This involves meeting a minimum requirement for changes in the tariff classification between the finished good and the foreign components or materials (from third countries outside the integrated area) used in the production process. For example, a change in the tariff heading – i.e., in the first four digits of the Harmonized System's tariff classification – is the basis for the preferential rules of origin system used by such mechanisms as ALADI.

Among the main problems with the application of this criterion is the absence of sufficient elements for determining those specific changes in tariff classification that guarantee equivalent *substantial transformation* in the production of all goods covered by tariffs. This is basically because the Harmonized System was not designed to serve as the sole instrument for determining the origin of goods, but rather for classifying merchandise in terms of other criteria.

(2) Value of the national or regional content incorporated within the agreement's member countries. This is defined as the maximum level of components and raw materials from third countries a good can have and still be considered as originating inside the integrated area or, alternatively, as the minimum value that must be added during in-region processing for the good to qualify as originating.

This criterion suffers from several shortcomings, including the following: (1) it tends to penalize the use of more efficient, cost-saving techniques; (2) it is highly sensitive to changes in the factors that determine countries' production costs, such as relative exchange rates, exchange rates, interest rates, wages, and workers' fringe benefits; (3) it can increase the cost of administrating compliance, in light of the

[6] Garay and Quintero (1997), ibid., p. 5

[7] See,inter alia: Garay and Estevadeordal (1996), ibid., and Garay and Quintero (1997), ibid.

need for laborious and demanding accounting, operational, and financial procedures both at domestic customs stations and within manufacturing companies themselves; (4) it tends to sustain imbalances in the distribution of benefits among countries, not only by favoring those with more vertically integrated and complex productive apparatus (such as those of industrialized nations) but also by penalizing, in relative terms, those with low wages and salaries, such as is the case in countries with lower relative levels of development.[8]

There is also a problem with reliably classifying, by specific origin, the intermediate materials and components used in the production process and with exactly calculating their corresponding values within the finished good's regional content value, in order to prevent the incorrect classification of all components as either of regional or extra-regional origin – concepts known as *roll-up* and *roll-down*. *Roll-down* applies when manufacturing of a good uses imports from third countries that do not satisfy the origin requirements, thus preventing the end product as being classified as originating in the exporting country. In such circumstances, the problem is identifying the ultimate country of origin of the good, and this issue assumes even greater importance if it is later used as a component in the manufacture of other merchandise. Only with the application of a strict classification of the origins of the various raw materials and processed components used at the different stages of the production process can the generation of differing impacts on producers with different levels of vertical integration be avoided.

(3) Use of given technical processes or certain components in manufacturing. Under this criterion, specific technical operations must be carried out or specific components or raw materials must be used in production for the good to be classified as originating inside the region.

In addition to the technical difficulties of keeping an updated, comprehensive inventory of the productive processes available at any given time – arising, *inter alia*, from the fact that they are constantly changing – specifications are still discretionary because of the absence of classification elements that objectively guarantee the equivalence of different degrees of *transformation* in the production of different goods.

4. Types of Regimes in Force in the Americas

Origin regimes in the integration agreements in force in the Americas are found not only in regional framework schemes such as the Latin-American Integration Association (ALADI), the Central American Common Market (MCCA), the Andean Community, the Southern Common Market (MERCOSUR), the

[8] Garay and Estevadeordal (1996), ibid.

Caribbean Community, and the North-American Free Trade Agreement (NAFTA), but also in other trade agreements signed over recent years. Some among this latter group contain origin clauses that are markedly different from those in force in the framework agreements to which the same signatory nations adhered; this is the case with Mexico's agreements with Bolivia and with Colombia and Venezuela (the agreement known as the Group of Three).

These many regimes can be classified into two large groups by their content, scope, and salient features. On the one side is the ALADI regime, which has served as a model for MERCOSUR, the Andean Community, and CARICOM, while on the other is the NAFTA regime, which has been used as a model for Mexico's agreements with Bolivia, Costa Rica, and Colombia and Venezuela, and for Chile's agreements with Canada and Mexico. Finally, the recently established MCCA regime stands at an intermediate point between these two extremes.

This division agrees with the specialized literature's classification of trade agreements into those of the "first generation" (ALADI and similar pacts) and those of the "new generation" (NAFTA, G3, and Mexico's bilateral treaties). "New generation" agreements are generally more comprehensive than those of the "first generation", in that they cover issues such as investments, public procurement, and services and they contain more specific and detailed origin regimes.

It should be noted that this classification has nothing to do with the dates on which the agreements came into force. In fact, the oldest pacts among those listed are those of ALADI and CARICOM, both from the 1980s, followed by 1994's NAFTA; the others – MERCOSUR, mcca, G3, Mexico's bilateral agreements, and MERCOSUR'S pacts with Chile and Bolivia – all came into existence after 1994. This needs to be stated to avoid falling into the false dichotomy that assumes that "first generation" origin rules are "anachronistic or outdated" and those of the "new generation" are "modern and up-to-date."

Each generic regime is characterized by different features that can be amended and adapted in accordance with the basic trade policy goals pursued, with different degrees of selectivity or uniformity, strictness, transparency, predictability, etc. The fact that some traditional integration schemes in Latin America have in recent years modified their regimes indicates those countries' resolve to apply rules that are more selective and less uniform than those of ALADI'S Resolution 78, while preserving the tariff shift as the basic qualification criterion and rejecting a multiplicity of "rule families" at the tariff item level, as occurs under "new generation" regimes. Of particular interest is the MCCA regime, which combines greater selectivity (non-uniformity) among types of goods, similar to "new generation" regimes, while preserving tariff classification change as the basic criterion for origin qualification (and including the option of exceptions for tariff classification shifts).

One way of analyzing the different regimes in force is by comparing the principal features of three regimes used as reference frameworks: ALADI, NAFTA and MCCA.

a) The ALADI Regime

Resolution 78 establishes the general origin regime for the ALADI member nations, which applies to regional and partial agreements signed by those countries before 1994. Although some of the latter pacts have individual rules, they are not substantially different from the general regime. These rules govern partial agreements for renegotiations of historical treasures, for economic complementation, and those signed by ALADI members with other countries or regions under Article 25 of the Montevideo Treaty.

Resolution 78 establishes the basic criterion for origin qualification as a change in the tariff classification in terms of HS item (four digits) or, alternatively, as a regional content value equal to or greater than 50% of the FOB cost of the merchandise. This applies to practically all tariff classifications, with the exception of a group of goods, specially negotiated by the member nations, for which certain specific origin requirements are demanded. The specific requirements take precedence over the general criteria and can be less stringent that the general rules or not, except for goods originating from relatively less developed countries. Resolution 78 allows differential treatment for relatively less developed countries (Bolivia, Ecuador and Paraguay), for whose exports a lower national or regional content is admissible. One requirement of Resolution 78 involves an obligatory certificate of origin, using a special form and issued by a public or private agency authorized for the purpose by the member states. Unfortunately, the ALADI regime's lack of precision for compliance with qualification criteria and for certifying and administrating rules of origin has, in practice, hindered its strict observance.[9]

Although the main elements of the origin regimes of MERCOSUR and the Andean Community are similar to those of Resolution 78, there are also some noteworthy differences. For some goods, the MERCOSUR regime demands a 60% level of added value and, in addition, a change in tariff heading. When *substantial transformation* cannot be measured by a shift in tariff classification, it states that the CIF price of the third-country inputs shall not exceed 40% of the FOB cost of the merchandise. Furthermore, MERCOSUR Decision 16/97 sets specific origin requirements for a list of goods from the chemical, iron and steel, data processing, and communications sectors. These requirements are applied as exceptional rules and take precedence over the general criteria. The MERCOSUR regime contains no

[9] Devlin, Estevadeordal, and Garay (1997).

provisions for differential treatment. However, MERCOSUR's agreements with Bolivia and Chile do provide for differential treatment, in that they set less stringent requirements for goods from Paraguay and Bolivia.

The Andean Community, in turn, has an origin regime similar to that of Resolution 78, which admits special requirements in exceptional cases. In addition, it grants Bolivia and Ecuador preferential treatment. The Andean Community used some special requirements in the 1970s as part of its import substitution and industrial sector planning strategies.

It should be noted that the Andean Community's origin regime, established by Decisions 416 and 417 of July 1997, introduced important provisions regarding origin administration. Some of these were novel even in comparison to "new generation" regimes, particularly those dealing with the dispute solving system which stipulated in detail the functions and obligations of the member countries' competent government authorities in this area and specified procedures for requesting the General Secretariat's intervention and guidelines for its decisions. They also detailed the sanctions applicable to certification agencies and officers for issuing irregular origin certificates and specified the requirements to be met by non-governmental agencies empowered to certify the origin of merchandise. Finally, they regulated the criteria and procedures for setting specific origin requirements (SORs).

b) The NAFTA Regime

With the launch of NAFTA in January 1994, a new type of regime for origin rules came into force. It is characterized, *inter alia*, by the following elements:

1. It is a system of specific rules at the tariff-item level, arrived at by combining some or even all of the three qualification criteria described above; frequently, more than one rule exists for determining a good's origin.

2. It applies changes of tariff classifications in a much more versatile fashion than the other regimes. Classification shifts are not unique for all tariff classifications, but are rather defined according to the merchandise type broken down by chapter, heading, subheading, and, in some cases, even by the tariff item (eight digits of the HS). The different levels of tariff liberalization are used both to define the required changes of classification and to limit their scope by providing for the option of excluding certain tariff levels from the main requirements. Somewhat, more than 40% of the existing tariff items use a movable classification shift for determining their origin, with the additional feature that a good number of these goods also have more than one alternate qualification rule.

3. It uses the regional content criterion for around a third of all items, either on its own or, more frequently, in combination with one of the other criteria. It

establishes a minimum regional content value of 50% or 60%, depending on the method and calculations use the net cost or transaction value methods.

4. It includes concepts not used in earlier regimes, such as the "de minimis" clause, accumulation, and the introduction of self-certification by exporting companies.[10]

5. One of the NAFTA basic method's major differences is its greater selectivity, specificity and detail compared to the general regimes of ALADI and the Generalized System of Preferences (GSP). This regime's level of detail can be seen in the official Mexican Bulletin called "General Rules for the Application of the Customs Provisions of the North American Free Trade Agreement." where Chapter IV, dealing with rules of origin, runs to almost 100 pages.

c) The Central American Common Market Regime (MCCA)

This represents a combination of the above regimes: the main criterion is tariff classification change, albeit applied more flexibly than under Resolution 78, in that it is measured in terms of changes in chapter, heading and subheadings, and, in a number of cases, it allows exceptions to be made to the main change. Only with regard to some specific goods does it set additional specific criteria, such as regional content and technical requirements, which to date have practically not been applied. It uses concepts found in "new generation" agreements, such as the "de minimis" clause. In addition, it does not provide for differential treatment for countries with lower relative levels of development.

The MCCA regime is without a doubt a novelty in Latin America, since it also introduces a series of rules and procedures to ensure correct administration of and due compliance with the rules of origin. The use of tariff shifts as the basic criterion, but applied differently across the full range of tariff classifications, appears to be an attempt to combine administrative simplicity with greater detail and selectivity in the rules of origin applied to different types of goods.

[10] "De minimis" is a clause under which a good can be classified as being of regional origin provided that the value of the raw materials that fail to meet the tariff classification change requirement does not exceed a given percentage of the good's value.

DIFFERENCES BETWEEN ALTERNATIVE SYSTEMS

The origin regimes in force in the Americas use some or all of the criteria described above. Some of the differences between them arise from whether they follow uniform or differentiated application of the rules, from their having multiple criteria, and from the methods they use to calculate the value of regional or national content.

Diversity

The three criteria used to determine origin can be used uniformly or selectively. Thus, the chief difference lies in the application of the criterion or criteria among goods: uniformity for all merchandise, or selectivity between types of merchandise. This is the case, for example, with how the tariff classification change criterion is applied: the ALADI regime defines it uniformly as a change in classification at the heading level, regardless of the type of merchandise. In contrast, under regimes like NAFTA and G3, the required tariff change varies according to the good in question, and, in different cases, a change in chapter, heading, subheading, or even tariff item can be required.

Multiplicity

Although the regimes in force in the Americas include more than one criterion for classifying origin, they differ in the relative weights they assign to each. The origin regimes in MERCOSUR, the MCCA, the Andean Community and ALADI are basically defined in terms of the tariff classification change criterion or, alternatively, by a given level of regional content; in some exceptional cases, however, a combination of criteria is used for specific lists of goods. In contrast, the NAFTA and G3 regimes and those of some of Mexico's bilateral agreements are based on a multiplicity of criteria, which prevents one in particular from being singled out as the guiding principle for determining origin. In part, this multiplicity is required to specific origin rules with the high degree of detail and selectivity contained by "new generation" agreements.

Alternation

The regimes also differ in their application of the qualification criteria at the level of individual goods. Alternation is to be understood as the application of more than one rule to classify the origin of a given good. In ALADI, MERCOSUR, the MCCA, and the Andean Community, alternation is uniform across all tariff classifications, with the additional feature that each alternate rule is exclusively based on a single qualification criterion: the first criterion is based on a change in tariff heading and the alternate one, on a specific regional content value. In contrast, NAFTA, G3, and the Mexican and Chilean bilateral agreements frequently

offer a variety of alternate rules for determining a good's origin, without each rule necessarily being based on a single qualification criterion.

The set of alternate rules applicable at the individual item level is defined as a "rules of origin family", which, at least in principle, should stipulate equivalent demands in terms of *substantial transformation*. In practice, however, their levels of stringency differ as a result of the different requirements of each of the criteria used to determine origin. If there are goods for which the implied degree of *transformation* varies between the alternate applicable rules, *de facto* inconsistencies and inequalities can arise among different types of companies in the FTA and its member countries.

Similar consequences tend to arise when different "rules of origin families" are applied to goods that, in terms of their production techniques or economic nature, are strictly similar, or when a single "rules of origin family" is used to qualify goods produced by means of different productive processes.

Calculation Method

The method used for calculating regional content value varies between the different regimes. ALADI, MERCOSUR, and the Andean Community require the FOB or CIF transaction value of the merchandise to be used in calculating its regional or national content. These values are well known, clear, and published, and they require neither the exporter nor the customs authorities to keep special records or additional controls. NAFTA and some of Mexico's bilateral agreements use two alternate methods for calculating regional content: net cost, and transaction value. Estimating the value of regional content with the net cost method requires detailed records of and information on merchandise promotion and sale costs. The MCCA regime stands midway between these two groups, in that it uses two methods to determine regional content: transaction value, defined in accordance with the WTO's Customs Valuation Code, and normal price, calculated from the FOB price of the exported goods and the CIF price of third-country components.

The "new generation" agreements contain novel concepts aimed at, *inter alia*: increasing the flexibility of the tariff classification change criterion by introducing their "de minimis" clauses; facilitating the regional integration of production processes by allowing the accumulation of regional components in calculating regional content values; and streamlining the origin certification process by enabling exporting companies to issue their own certificates. They also specify verification, control and sanction procedures and activities with greater detail and precision – aspects that an origin regime must address and which were not dealt with adequately in some "first generation" agreements. It should be noted, however, that some of these stipulations or innovations can increase the cost of

administrating the rules of origin for both the public and private sectors, but they do in turn guarantee adequate rigor in the application of the regime.

5. The FTAA and Origin Regimes

During the Summit of the Americas held in Miami in December 1994, it was agreed to begin working toward the creation of the Free Trade Area of the Americas (FTAA), with negotiations due to conclude in the year 2005. The FTAA essentially resembles a "new generation" agreement, covering issues beyond the strictly commercial and investment arenas. To this end, twelve working groups were set up to analyze different common problems associated with an integration project of this size. One of these groups was charged with studying customs procedures and rules of origin.

The country representatives in this working group identified a series of issues to be borne in mind *vis-à-vis* an origin regime for the FTAA. Two of these are worthy of particular note: the development of an efficient origin regime that facilitates the exchange of goods without placing unnecessary obstacles on trade, for which both the drafting and the administration of the rules must be objective, transparent, consistent and predictable. They also decided that the regime to be negotiated must be consistent with the commitments acquired within the framework of the World Trade Organization (WTO), and that in drawing up the regime, the Harmonized Commodity Description and Coding System (HS) would be followed.[11] One of the main guidelines adopted, at least in principle, was the acceptance of changes in tariff classification – with the inclusion of exceptions to tariff classification shifts – as a basic criterion for determining origin, supplemented, as appropriate, by regional content value.

In this regard, it should be noted that one of the ways to improve a qualification system based on tariff classification changes is to define a relatively consistent regime for levels of tariff classification change across all tariff items that allows exceptions to be made to the main change according to the level of *transformation* demanded from the good's production process; in other words, the establishment of consistent equivalencies between levels of change in tariff classification (e.g., change in tariff chapter, heading or subheading) and demands for degrees of *productive transformation*.

Specifying a consistent regime would substantially facilitate the administration of rules of origin, would go a long way toward ensuring that compliance with

[11] The agreements reached to date on this matter by the WTO are contained in Annex I of the Final Report, including the Results of the Uruguay Round of Multilateral Trade Negotiations (Marrakesh,15/04/94); the member nations are currently negotiating a non-preferential origin regime to be applied to antidumping and countervailing duties safeguard clauses, most favored nation status, and quantitative restrictions or discriminatory tariff contingencies.

origin requirements was less sensitive to evolution in variables external to production processes themselves and it would, in addition, favor transparency and simplicity within the origin regime. It would also allow the selection and application of non-uniform origin requirements for different types of goods, such as is appropriate within the context of a strategic trade policy. It is for reasons like this that similar proposals for defining origin classification methods for non-preferential trade are being so warmly welcomed.

The analysis of the advantages and disadvantages of the methods for defining origin has been going on for some time. Thus, for example, in 1987 a seminal document submitted by the US International Trade Commission to the House of Representatives was published. It identified some of the failings of the criteria used to determine origin and offered four basic principles for rules of origin: (1) uniformity, (2) simplicity, (3) predictability, and (4) ease of administration.[12] It also recommended adopting the approach based on requiring a specific productive process to be executed for a good to qualify as originating but unfortunately, as stated above, this has the disadvantage of requiring a detailed and updated inventory of all the processes available for manufacturing all possible goods.

The chief negotiator for rules of origin in the FTA between Canada and the USA and in the North American Free Trade Agreement (NAFTA) recently made the following recommendations: (1) eliminating the regional content value requirement because it is the main reason for the Agreement's exaggerated demands for information storage, processing and auditing, which makes it "Byzantine in its complexity"; (2) using simple rules of origin based on tariff classification changes as a transition toward CU, avoiding changes at a level of detail beyond 6 digits; (3) creating sectoral customs unions to bring about the elimination of rules of origin in the corresponding sectors and to allow progress toward a "true" customs union.[13]

In any event, as pointed out by Garay and Estevadeordal, emphasis should be placed on choosing principles aimed at: (1) specifying the goal sought with the origin regime; (2) keeping the number of criteria for determining origin as low as possible; (3) ensuring adequate consistency between alternate rules of origin and the levels of *productive transformation* demanded; (4) maximizing the simplicity and transparency of procedures for overseeing compliance with them; (5) duly assessing the advantages of adopting alternate transparent policy measures, other than restrictive rules of origin, such as prolonging the period over which the market is extended or reducing differentials between the national tariffs imposed

12 US International Trade Commission (1987).

13 Presentation by J.P. Simpson (from the US Department of the Treasury), partially reproduced in: Inside NAFTA, v. 4, nº 6, march 1997.

on third countries; (6) ensuring, to the extent that is possible, adequate consistency with the origin regime to be adopted by the WTO.[14]

Now, the adoption of basic principles notwithstanding, given the uncertainty associated with a transition between origin regimes in a process of integration involving such diverse countries and regional arrangements (in terms of size, levels of development, geographic proximity, patterns of productive complementation and specialization, etc.), questions arise regarding the appropriate moment and timing for harmonizing the regimes prevailing in the hemisphere and bringing them together.

In this regard, it would not be wrong to argue that for certain countries and regions (particularly those not located on the central axes of the hemisphere's integration dynamics), it would be appropriate to begin the task of increasing the harmonization between the different regimes in force in their established FTAs with other countries and regions, in advance of FTAA negotiations. This could not only reduce current costs in efficiency, resource location and administering the existing regimes; it could also better prepare them for new competitive conditions. The benefits of this would obviously depend on several determining factors, such as the actual origin regime adopted as the reference framework for the harmonization process and the level of consistency between that regime and the one ultimately chosen for the FTAA.

One of the problems in selecting a reference regime is that there are currently at least four basic origin regimes in operation in the hemisphere: (1) that of NAFTA and the "new generation" FTAs entered into by Mexico and Canada with other countries of the continent; (2) the ALADI regime, which serves as a "first generation" reference regime for all the partial agreements between the signatories of the Montevideo Treaty, for Chile's FTAs with Colombia and Venezuela, and, even considering the major adaptations and amendments made in the field of origin regime administration, for the Andean Community; (3) MERCOSUR, providing the frame of reference for its FTAs with Chile and Bolivia and, possibly, for the FTA to be signed with the Andean Community; and (4) the MCCA regime, which stands midway between the first and new generation agreements, and the Central American nations FTAs with Panama and the Dominican Republic.

The question, therefore, arises as to which would be the most appropriate origin regime(s) to follow in order to make preliminary progress with harmonization prior to designing the FTAA, considering transition costs and the costs of changing a regime that plays such an important role within preferential trade.

[14] Garay and Estevadeordal (1996), ibid.

6. Conclusions

The creation of trade areas is a characteristic trend within the current phase of the economic globalization process. Economic integration is taking place within a framework of "open regionalism" following liberalization and economic reforms in the developing world and the expansion of the international market through the progressive freeing of flows of goods, services and capital. The prevailing model for economic integration in the American hemisphere continues to be, at least to date, the creation of free trade areas, but with a tendency toward the progressive incorporation of issues other than trade in goods, such as investments, government procurement, etc.

In this context, the question of rules of origin is of particular relevance in both theoretical and planning terms for the design of trade and integration policies. In light of the many economic impacts and the problems in predicting the restrictiveness of rules of origin, it is essential that clear-cut principles and criteria for determining the origin of goods be adopted in order to ensure that they are applied as transparently and objectively as possible and that they do not pose barriers to extending preferences under the FTAA. As some degree of selectivity in trade liberalization policy is decided on, there is a need to specify rules of origin that, in addition to working to preserve the advantages of transparency and simplicity that distinguish uniform regimes, can make good use of the effectiveness and detail of selective origin regimes.

To date, the hemisphere has not tended to use rules of origin to compensate for the differences in member countries' national tariffs *vis-à-vis* third countries, in order to prevent *trade deflection*; instead, their design appears to have been more in response to different strategic goals.[15] It is therefore to be expected that rules of origin will tend to vary between FTAs in accordance with their degrees of "sensitivity" to intra-regional competition and with the member countries' strategic goals.

Thus, the construction of the FTAA faces the problem of the multiple regimes and specific rules of origin that exist in the hemisphere's current FTAs and of their impact on the costs of origin administration – for both governments and for individual manufacturing and exporting companies – and in terms of inefficiencies in resource location, specialization patterns and falls in well-being caused by the simultaneous application of rules of origin that differ according to the orientation of trade and that are not necessarily mutually consistent. It is therefore obviously appropriate to establish basic principles for adequate harmonization between the rules of the hemisphere's existing sub-regional ftas and those to be agreed on for

[15] For further details related to ALADI, NAFTA, and g3, see: Garay and Quintero (1997).

the FTAA and by the WTO. Difficulties in this harmonization process can be expected, at least initially, to arise with the involvement of a wider variety of countries with varying levels of economic development, national tariff policies, degrees of economic complementation, geographical proximity, as well as other factors.

In any event, while not ignoring the complexity of this task, it is worth mentioning the possible usefulness of some basic, transparent principles for the harmonization process. For example, the stringency of preferential rules of origin should use the corresponding level for non-preferential rules as a reference point and be as consistent as possible with regard to the classification criterion used; as far as possible, rules of origin should not be used when the differences between members' third-country tariffs are minimal or when their tariff levels are low; and emphasis should be placed on reaching a partial CU in those sectors or industries in which the nature of production processes and the internationalization of production make administrating rules of origin sufficiently complex.

It is clear, therefore, that defining the regime for the Free Trade Area of the Americas (FTAA) is a particularly important challenge, in light of the wide range of rules for determining origin in use in the hemisphere and the different characteristics of intra-continental trade as seen today in "first generation" and "new generation" regimes.[16] There can be little doubt that the question of rules of origin will be one of the most delicate issues in constructing a hemispheric market based on criteria of productive efficiency and equality among the region's countries.

[16] This will be analyzed by the authors in a forthcoming article.

TABLE 1: Intra-Latin-American Trade under "New Generation" Free Trade Areas

Origin of Exports	Destination of Exports	Value (US$ 1000)	Total Exports to Latin America	Share of Exports to Latin America	Number of Items	Number of Items Exported with a Value Exceeding (US$ 1 Million)	Number of Items with a Share Higher than 50%
		A	B	A/B (in %)			
Colombia	México	88,527	2,475,724	3,6	400	23	12
Venezuela	México	143,622	2,323,887	6,2	276	19	4
Nicarágua	México	11,274	117,71	9,6	28	1	1
Costa Rica	México	51,777	519,99	10,0	181	7	1
Bolivia	México	11,830	509,72	2,3	31	1	2
Chile	Canada	138,811	3,123,223	4,4	278	10	2
México	All Five	1,808,758	4,292,027	42,1	-	-	-

Exports of Chile to Latin America includes those to Canada
*Includes exports to Colombia,Venezuela, Nicaragua, Costa Rica and Bolivia

TABLE 2: 1996 Exports: Composition of Exports by Country of Destination and Type of Product (In percentage)

Type of Product and Destination	Exporting Countries											
	ARG	BOL	BRA	COL	CHI	ECU	MEX	PAR	PER	URU	VEN	ALADI
ALL FOOD												
Argentina	-	4,7	6,3	17,8	18,9	86,1	4,8	17,3	8,4	18,2	1,4	10,4
Brazil	32,3	27,2	-	3,9	24,4	51,2	4,3	58,8	6,2	61,4	2,1	30,0
Colombia	51,0	97,3	1,6	-	42,5	43,2	3,7	73,7	27,4	0,9	17,3	22,7
Mexico	49,1	0,6	6,9	16,4	39,9	33,0	-	1,4	24,8	74,4	2,3	20,4
Venezuela	70,8		8,3	14,9	47,6	4,3	3,5	38,1	7,5	83,0	-	31,5
ALADI	32,8	47,5	10,0	9,8	27,8	39,6	3,5	51,7	13,4	52,0	8,6	20,8
Latin America and Caribbean	33,7	47,6	10,3	9,8	28,2	31,0	5,5	52,2	13,6	52,1	5,9	19,2
Total Section	**51,9**	**24,0**	**29,9**	**26,6**	**26,8**	**49,8**	**6,4**	**57,6**	**28,4**	**46,8**	**2,3**	**20,0**
AGRICULTURAL RAW PRODUCTS												
Argentina	-	16,1	0,9	5,7	4,2	1,1	3,8	37,2	9,8	1,5	1,5	2,4
Brazil	3,2	40,4	-	5,4	3,3	0,9	2,3	29,7	1,1	1,0	1,5	4,2
Colombia	9,2	-	3,3	-	12,6	0,6	1,6	5,9	7,3	19,4	0,8	2,8
Mexico	4,3	13,8	0,7	0,1	3,0	0,3	-	94,2	0,4	2,2	0,1	2,0
Venezuela	0,2	3,5	4,8	2,2	18,2	9,7	1,9	69,5	2,2	-	-	3,9
ALADI	2,0	13,0	1,2	1,8	4,7	1,4	2,6	30,1	4,4	1,4	0,8	2,9
Latin America and Caribbean	2,9	12,9	1,2	1,8	4,6	1,1	1,9	29,6	4,2	1,4	0,4	2,5
Total Section	3,6	8,2	3,7	5,4	10,2	3,2	1,1	24,5	2,4	5,1	0,2	2,9
ORES AND METALS												
Argentina	-	1,6	10,1	0,3	13,8	-	6,4	7,9	29,0	3,4	1,1	9,6
Brazil	0,9	4,8	-	-	45,5	-	3,6	0,6	85,4	2,2	2,2	7,0
Colombia	9,4	0,5	10,6	-	10,9	3,2	5,9	-	29,5	0,1	17,3	12,2
Mexico	18,5	48,9	29,4	0,3	30,3	-	-	-	59,6	0,1	65,4	29,6
Venezuela	13,9	55,7	21,0	3,0	4,5	0,7	17,2	-	71,7	0,1	-	14,2
ALADI	3,2	7,4	10,6	1,7	23,6	1,5	6,5	1,6	52,2	2,2	14,4	9,1
Latin America and Caribbean	3,2	7,3	10,8	1,4	23,6	1,0	5,7	1,5	50,3	2,2	8,4	8,3
Total Section	**4,5**	**27,2**	**18,9**	**2,5**	**45,6**	**0,3**	**4,5**	**1,1**	**38,1**	**1,3**	**7,6**	**11,3**

(cont...)

(continued)

Type of Product and Destination	Exporting Countries											
	ARG	BOL	BRA	COL	CHI	ECU	MEX	PAR	PER	URU	VEN	ALADI
FUELS												
Argentina	-	67,4	0,7	-	1,1	8,2	-	1,9	17,8	2,8	77,5	3,0
Brazil	19,5	2,4	-	27,8	0,1	33,8	4,1	0,9	-	1,8	83,5	18,3
Colombia	0,2	1,2	1,9	-	-	-	0,1	-	1,4	0,1	11,1	4,9
Mexico	-	-	0,3	2,3	-	62,0	-	-	4,4	-	13,5	4,2
Venezuela	-	-	-	1,6	0,4	47,7	0,1	-	-	0,9	-	2,0
ALADI	21,9	20,0	1,0	18,6	0,7	27,5	1,2	0,9	3,0	1,8	40,9	**12,2**
Latin America and Caribbean	21,5	19,7	1,6	26,1	0,7	44,5	12,1	0,9	5,0	1,7	65,4	19,3
Total Section	13,0	19,8	0,8	35,6	0,2	36,3	11,9	0,6	6,6	1,0	81,4	17,1
MANUFACTURED GOODS												
Argentina	-	8,1	79,9	74,3	83,3	4,6	84,7	35,6	35,0	74,2	18,5	73,7
Brazil	44,1	24,9	-	62,4	26,8	14,1	85,5	10,1	7,3	33,6	10,7	40,5
Colombia	30,2	0,9	82,2	-	33,4	52,4	88,6	20,4	34,4	79,5	53,4	57,1
Mexico	28,0	36,4	62,7	80,2	25,8	4,7	-	4,4	10,7	23,2	18,7	43,5
Venezuela	15,1	39,1	65,9	77,5	29,6	37,4	77,1	2,4	18,6	15,5	-	57,9
Aladi	39,2	12,0	77,1	67,2	40,6	29,7	86,0	15,6	26,5	42,6	35,2	54,7
Latin America and Caribbean	38,7	12,1	75,9	59,9	40,3	22,1	74,4	15,5	26,3	42,6	19,8	50,3
Total Section	27,0	20,3	44,1	27,5	12,6	7,8	75,7	16,2	14,0	45,4	8,2	**47,2**

Note:Total do not add up to 100% because section VI ("Others", UNCTAD Classification) is not included.

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Comments by Simão Davi Silber

Rules of origin are of fundamental importance in free trade areas since they define those products which enjoy preferential access to the market. In their work, the authors discuss rules of origin in the various preferential agreements in the Americas and what is to be done to adjust the different regimes in the context of a future FTAA.

It is stressed that since the mid-1980's, there has been a substantial growth in hemispheric trade. They believe such trend is a result of the unilateral trade liberalization adopted by several countries in the hemisphere and to the proliferation of sub-regional agreements. During the last decade, there was a substantial increase in trade interdependence within the region. But important differences persist in relation to tariff and non-tariff barriers between countries and sub-regional initiatives and this is a crucial aspect in the future negotiations on the FTAA. The important non-tariff restrictions in North America and the high tariffs on sensitive sectors in South America come to mind as especially relevant. These differences related to the use of different commercial policy will be necessarily reflected in the complexity of rules of regime as this will be the only way to make protectionist policies compatible with a preferential trade agreement.

The different methodologies used to determine origin are discussed and the main conclusion is that none is totally satisfactory. The discussion presented in the papers indicates that there is no available methodology which is able to avoid the imposition of significant costs on producers, exporters, importers and the government or to avoid trade or investment diversion. Rules of origin are essential to avoid triangular trade and to restrict preferences to countries in the region. Discrimination against non-members can introduce important trade and investment diversion as pointed out by Anne Krueger in her works on the issue.

The authors propose a typology of rules of origin regimes in the region. On the one hand, NAFTA type regimes, also adopted by the G-3 (Mexico, Colombia and Venezuela) and the free trade agreement between Mexico, Costa Rica and Bolivia, and, on the other hand, ALADI type, adopted in the other preferential agreements in the region.

NAFTA Type Rules of Origin (New Generation)

This type of rule of origin is the most complex amongst all regimes in the hemisphere. The basic criterion to determine origin is the modification in the tariff classification, but in many cases it is supplemented by the value added test or the basic productive process test. In the case of NAFTA in sectors which are sensitive to external competition such as textiles, clothing and automobiles the value added test. In the case of electronic products and automobiles the basic productive

process is used. As commented previously complex rules of origin impose additional costs for the private sector and for customs administration inhibiting preferential trade and creating trade diversion. Although there are no adequate estimates of costs entailed by such procedures, several analysts have pointed out that they are likely to be high. The great advantage of such a regime is that it is very efficient in preventing illegal triangular trade.

ALADI Type Rules of Origin (First Generation)

ALADI type rules are much simpler than NAFTA type rules and almost without selectivity along the whole tariff schedule. They have been adopted with some modifications by the Andean Pact, the Central American Common Market, the MERCOSUR and bilateral agreements between Chile and Colombia and Mexico and Venezuela.

The essential criterion is that of a jump in the tariff schedule or a required regional value added of 50%. These rules are applied universally with few exceptions. They are simple, transparent and low-cost but have the drawback of being so generic that it is difficult to identify which product qualifies for preferential treatment.

Divergences between commercial regimes in the hemisphere and with third countries will be necessarily reflected in the complexity of rules of origin since this is the only way to absorb different protectionist regimes within the scope of a single free trade area. Here we have the main dilemma concerning rules of origin: the most restrictive they are, the more effective they are in identifying the products which qualify for preferential treatment. But the more restrictive they are also the higher the costs involved in the determination of origin and the more likely are trade and investment diversions. Simple and generic rules are vulnerable to triangular circumvention. These are not very encouraging conclusions but if tariff and non-tariff restrictions are important in regional trade, rules of origin will reflect such restrictions and will have a negative effect on the expansion of regional and world trade.

Comments by Clemente Mourão

I am happy that so many people are here to hear a debate on rules of origin. It is a special pleasure to discuss the paper by Garay and Cornejo. Some points deserve to be singled out as especially interesting. The paper includes a very good synthetic description of all systems adopted by ALADI, CACM, Andean Pact, MERCOSUR, NAFTA, G-3, with the authors establishing a taxonomy based on the analysis on the origins of NAFTA and the use of categories such as substitution, multiplicity, alternance.

My further observations refer to both the paper and my personal experience in discussing the subject. The complexity of the coexistence of new generation regimes with older regimes such as those adopted here suggests the successive application of criteria to determine origin. The authors propose that instead of designing rules for simultaneous implementation it would perhaps make more sense to delay the timing of the tariff reduction schedule or implement other trade measures which are unrelated to rules of origin.

Another possible way which is suggested is the reform of the existing harmonized system in such a way as to make easier the task of writing effective rules of origin. I would disagree with the authors in this aspect. Without being excessively skeptical I would say that there are limitations to the use of a system of classification of products and characterize change of origin when there is a classification jump. One example may illustrate this: if a piece of cloth is died blue it may be difficult to convince your trade partner that there was a change of origin but if this dying process involves some sophistication related for instance to fashion, it is more likely that this is recognized. In other cases, the standard automatic criteria would, of course, work perfectly all right and it is this that justifies the authors' emphasis on the importance of the reform of the Brussels harmonized classification system so that it would always be possible to use criteria based on classification changes.

As the authors point out in their conclusion, the design of a non-preferential system of rules of origin is being negotiated in Geneva, implementing a decision reached in Marrakesh. I believe that it would be difficult to design such a revision of the harmonized system as the two exercises would be more or less equivalent.

The authors mention that the empirical findings based on the Colombian case do not suggest an obvious intention to use the design of rules of origin as an instrument of protection and also that there is a certain coincidence between detailed and stringent rules of origin and high tariff. A point the authors could perhaps have extended is that rules of origin are distinctive if compared with other trade issues in discussion. There is a double objective involved in negotiations on rules of origin. The first is that a product will always have an origin, the second is

that rules of origin are stable, in the sense that, in contrast with, say, tariffs, negotiations are once and for all, with the exception of adjustments, to cope with technological innovation.

An additional problem which seems relevant relates to residual rules of origin as parts of goods are produced in several different countries in a preferential trade area. The trend is to adopt administrative rules. If we take this into account, a doubt seems legitimate: in the FTAA context are we more interested in residual or administrative rules or, in a more orthodox way, in rules of origin designed for the world at large?

The article by Garay and Cornejo should be read by a great number of people and I hope the authors continue to have success in the arduous empirical task they are now involved. Thank you.

TRADE, TRANSPARENCY AND COMPETITION: FTAA AND CER[17]

José Tavares de Araújo Jr.

"The leaves of a tree delight us more than the roots"
Leon Tolstoy

1. Introduction

A MAJOR CHALLENGE TO BE faced by the Free Trade Area of the Americas (FTAA) initiative will be the promotion of similar conditions of competition in the domestic markets of the member countries. Besides the disparities in terms of size and level of economic development, one additional contrast is that 22 countries in the region do not have competition policy institutions. According to a widespread view, the lack of these institutions is not a real problem since trade liberalization is powerful enough to impose market discipline in small economies. Furthermore, authors like Rodriguez and Coate (1996) have been questioning the relevance of an active antitrust policy in situations of unfinished reforms, which has been the case of most Latin-American and Caribbean economies during the last 15 years. Instead of supporting market transparency, efficiency and welfare, new born antitrust agencies can easily be captured by special interests and become just another device for rent-seeking and monopoly practices.

This paper argues that the above opinions do not provide sustainable solutions for the FTAA because both of them are only partially true. There is no doubt that free trade is a key instrument to foster competition, but the evidence presented in section 2 shows that the sources of anticompetitive behavior are not associated with market size, but result from distortions that exist in any open economy. Moreover, as section 3 explains, international cartels, mergers and acquisitions through foreign direct investment and the growth strategies of transnational corporations may generate significant transfers of rents among countries and antitrust law is an effective mechanism for extinguishing these welfare losses. On the other hand, as section 4 indicates, capture is likely to be pervasive in every society that does not possess mechanisms for controlling special interests, but this problem affects all public policies, not just antitrust. To illustrate the first point, I will take selected aspects from the history of antitrust enforcement in the United States over the last quarter century, which is also useful to highlight the subtle

[17] I am grateful to the research assistance provided by Cristina Gamboa, who has reviewed the US antitrust cases compiled in the annex and has organized the data presented in table 3, to César Parga, who gathered the bibliography on Australia and New Zealand, and to Allan Fels, Gesner Oliveira, Mario Possas and Jane Thery for helpful comments. The views presented here are the author's own and should not be attributed to the OAS General Secretariat or any of its member countries.

relationship between antitrust and antidumping. To discuss transnational antitrust cases, I will use a simple analytical framework based on the concept of overlapping games, and to identify possible solutions for the FTAA challenge, I will briefly review the experiences of Australia and New Zealand, which are particularly relevant for Latin America, due to the economic reforms implemented by those countries in the recent past. Finally, section 5 summarizes the main conclusions.

2. The Sources of Anticompetitive Behavior

Table 1 shows some figures on antitrust enforcement in the Western Hemisphere. The disparities in the number of cases by country are due to multiple factors. In some countries, like Costa Rica and Panama, the figures refer to the starting moments of the competition policy agency.[18] In others, like Brazil during 1996-97 and Jamaica during 1994-96, the authorities were busy in curbing certain traditional practices in their countries, and had opened simultaneous investigations against several industries, or the same industry in different parts of the country, on similar grounds. In Colombia, the merger review provisions are very stringent and compel the agency to carry out a large number of cases (see Jatar and Tineo, 1998), while in Argentina, Jamaica and Peru the laws do not regulate mergers and acquisitions (see OAS, 1997a).

TABLE 1: Antitrust Cases in the Western Hemisphere

Country	Mergers and Acquisitions	Anticompetitive Practices
Argentina (1996/97)	-	32
Brazil (1996/97)	65	543
Canada (1996)	228	83
Chile (1995/97)	6	87
Colombia (1992/97)	212	142
Costa Rica (1995/96)	1	37
Jamaica (1994/96)	-	133
Mexico (1995/96)	209	58
Panama (1997)	2	1
Peru (1994/96)	-	57
United States (1996)	222	347
Venezuela (1993/97)	27	54

Source: OAS (1997b)

However, even if these peculiarities did not exist, the number of cases should not be expected to be proportional to the country's size. Table 2 includes 15 famous US cases, covering a period from the mid seventies to the early nineties.

[18] In Costa Rica, the competition policy law was enacted on December 20, 1994, and in Panama on February 1, 1996.

These cases were analyzed by prominent experts on antitrust and compiled in a book edited by Kwoka and White (1994). Only in three cases – Mobil's attempt to acquire Marathon Oil in 1981, the 1983 joint venture of General Motors and Toyota, and DuPont's growth strategy in the US titanium dioxide industry in the seventies – were the size and other features of the American market relevant issues. All the others could have happened in any small open economy. Some were local events, such as the joint venture of daily newspapers in Detroit, the merger of two hospitals in Virginia and the services rendered by another hospital in New Orleans. Other cases were related to the characteristics of the industry under investigation, and could have been even more serious in smaller economies, like the Coca Cola-Dr. Pepper merger, the computerized reservation systems owned by large airlines, or a price-fixing among manufacturers of gasoline additives (the ethyl case).

TABLE 2: Asymmetric Information, Entry Barriers and Market Power in Selected US Antitrust Cases

Type	Case	Year	AI	EB	MP
Mergers	Mobil – Marathon	1981		x	x
	General Motors – Toyota	1983	x	x	x
	Coca Cola - Dr. Pepper	1986		x	x
	Detroit Newspapers	1988		x	x
	Roanoke Hospitals	1989	x	x	x
Horizontal Restraints	Dupont	1980	x	x	x
	Ethyl	1984	x	x	x
	NCAA	1984		x	
	Matsushita v. Zenith	1986		x	x
	Ligget	1993		x	x
Vertical Restraints	GTE Sylvania	1977			x
	AT&T	1982	x	x	x
	Jefferson Parish Hospital v. Hyde	1984		x	
	Monsanto v. Spray-Rite	1984		x	x
	Airline Reservation Systems	1992	x	x	x

Source: Kwoka and White (1994)

The most interesting lesson to be drawn from the cases selected by Kwoka and White is the role played by asymmetric information, entry barriers and market power as sources of anticompetitive behavior. Jointly, entry barriers and market power were relevant issues in 12 cases, and asymmetric information was also present in half of those cases. Only in one case – a private litigation between GTE Sylvania and a small distributor of television sets in northern California – did neither asymmetric information nor entry barriers have any significant influence. Entry barrier was the single issue in two cases, the control of the National Collegiate Athletic Association (NCAA) over the broadcast rights to its members'

football games and the dispute about the procedures used by the Jefferson Parish Hospital in the supply of anesthesia services.

In textbook descriptions of perfect competition, free entry, constant returns to scale and market transparency are key features. In this stylized world there is no room for antitrust. Every attempt to breach competition rules will be immediately noticed by the economic agents and duly punished by market forces. Conversely, any departure from those three assumptions will engender uneven competition conditions, either among the firms already established in the industry or between incumbents and entrants, although such "imperfections" do not necessarily imply welfare losses. Technical progress, for instance, reshapes periodically the profile of those variables across the economic system by creating entry barriers in some industries while destroying them in others; and by introducing new opportunities for economies of scale and scope which stimulate industrial concentration and, consequently, may strengthen the market power of the innovating firms. Indeed, every technological innovation implies a new form of asymmetric information since the innovating firms have better knowledge of the production frontier than their competitors. But technology also promotes transparency through the reduction of information costs and the diffusion of managerial standards.

This interplay between technical progress and competition poses an intricate challenge to the antitrust agency. As Baumol and Ordover explained: "... while monopoly is rightly recognized as an enemy of static efficiency, there are a number of reasons why it is suspected that its effects on intertemporal efficiency are not so clearly one-sided. Because both large firm size and the possession of market power can, in this view, be helpful to innovation and productivity growth, it is sometimes suggested that antitrust activity, as the enemy of market power and even of large firm size, can serve as an impediment to growth and, by enhancing its costs, as a source of intertemporal inefficiency. Furthermore, when antitrust rules create barriers to efficient interfirm cooperation in research and development and in the exploitation of the fruits of such activity, the adverse consequences from intertemporal efficiency are further exacerbated (1992, p. 83)."

The three sources of anticompetitive behavior can also be strengthened by government actions. Either when protecting the public interest through the regulation of natural monopolies, basic services, and other policies in the areas of environment and national security, or when promoting special interests through trade policies, procurement rules, subsidies and other forms of industrial assistance, the government may create asymmetric information, entry barriers and market power. For this reason, the scope of competition policy is not restricted to the control of business practices, but includes the assumption that the government is implementing policies that are consistently focused on the support of productive efficiency and consumer welfare.

In many situations, market power is engendered by a combination of imperfect information, entry barriers and increasing returns. As Stiglitz observed, "when imperfect information results in the demand curve becoming less than infinitely elastic, it implies that imperfect information confers a degree of monopoly power on the stores (1989, p.775)." However, if the demand remains elastic, no market power can be exercised, even in highly concentrated industries. In fact, one important advancement in antitrust enforcement in recent years has been precisely the adoption of this principle by the merger review procedures of a growing number of countries.

TABLE 3: US Anticompetitive Cases by Sector, 1994-98

Sector	Cases	AI	EB	MP
Consumer goods	43	39	10	6
Intermediate goods	86	82	7	10
Capital goods	12	12	8	3
Telecommunications	21	15	14	17
Health services	16	14	7	9
Other services	55	43	23	27
Total	233	205	69	72

Source: DOJ, Antitrust Division website (August, 1998)

Table 3 shows the incidence of asymmetric information, entry barriers and market power in 233 cases of anticompetitive behavior filed by the Antitrust Division of the US Department of Justice between December 1994 and August 1998 (see list in the annex). This table is not as accurate as the previous one because here we do not have detailed studies of each case, like those edited by Kwoka and White, but just the summaries that were available at the Division's website as of the first week of August 1998. Thus, the figures on entry barriers and market power are probably underestimated since many summaries do not include enough data on the characteristics of the sector under investigation. Besides, most cases refer either to private litigations or to bid rigging, price fixing and other forms of collusion, wherein undisclosed facts are normally the central issue. For this reason, and in contrast with table 2, asymmetric information appears to be so pervasive. However, the basic message is the same: anticompetitive behavior can happen in any sector of the economy and is not related to market size, but to its distortions.

If we compare the list of goods involved in those 223 cases with the 348 antidumping (AD) and countervailing duty measures (CVD) that were active in the United States as of December 1997 (see USITC, 1998, pp.183/192) a curious result emerges. Both lists have just one item in common, ferrosilicon, which is an alloying agent that improves the finished properties of steel products. There were

five AD actions against exporters from Brazil (since March 1994), China (March 1993), Kazakstan (April 1993), Russia (June 1993) and Ukraine (April 1993), and three cases of price fixing among manufacturers of that good.[19] For many years the steel industry has been the major focus of AD & CVD actions taken by the United States, but, apparently, such protection has not stimulated anticompetitive practices in the domestic market. Besides ferrosilicon, two products linked to that industry have been involved in antitrust investigations in the recent past, laminated tube-making equipment[20] and steel drums,[21] but these products are not in the relevant market of any AD or CVD measure enacted by the United States.[22]

This evidence illustrates the subtle relationship between antidumping and antitrust. The conflicting goals of these policies are well recognized, but, at least in the United States, they do not affect the same industries. On the one hand, antidumping measures provide a relief to domestic producers from import competition, but do not seem to engender business strategies that would go beyond the limits allowed by the tariff surcharge. On the other hand, those firms that are able to venture into anticompetitive practices do not seem interested in spending resources in rent-seeking activities. Therefore, when the members of a free trade agreement decide to abolish AD & CVD actions among themselves, while harmonizing their competition policies, they are not indeed switching instruments, except for the rare events of predatory pricing. As section 4 shows, they are just making commitments that are natural outcomes of their trade agreement's stated objectives.

In sum, the three sources of anticompetitive behavior can be reinforced both by governmental decisions and the random action of technology, and may lead either to concerted or single-firm practices, but in all cases their ultimate consequence is to promote income redistribution inside the economy. Like most protective mechanisms, anticompetitive practices usually produce immediate and significant results. For instance, Higgins *et alii* (1996) have estimated that the international aluminum cartel created in 1994 was able to extract over US$ 1 billion from US consumers in less than one year of transactions under that arrangement. Indeed, since 1914 the US antitrust law has provided that any person injured by anticompetitive practices is entitled to recover threefold the damages provoked by such practices (see Section 4 of the Clayton Act), but this rule is restricted, evidently, to domestic cases.

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19 US v. American Alloys Inc. (1996), US v. Elkem Metals Co. (1995), and US v. SKW Metals & Alloys Inc. and Charles Zak (1996).

20 US v. American National Can and KMK Maschinen AG (1996).

21 US v. Lima (1994); US v. Milikowsky (1994).

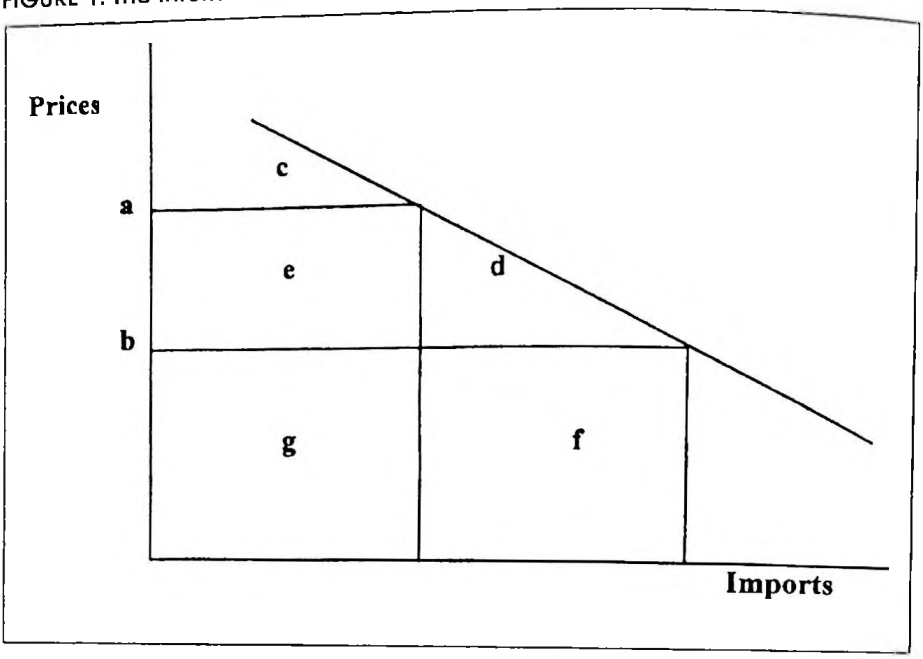
22 For the definition of relevant market, see next section's discussion on merger review in Australia and New Zealand.

International cartels, mergers and acquisitions through foreign direct investment and the growth strategies of transnational corporations are the most frequent types of antitrust cases in which the process of income redistribution goes beyond the national borders. From the viewpoint of the national interests involved, these cases engender disputes among governments that are similar to those originated from trade policy measures. For this reason, competition policy has been included on the negotiating agenda of the World Trade Organization (WTO), although governments are still far from reaching consensus on how to deal with this subject, as several authors have already pointed out [see, *inter alia*, Hoekman, 1997; McChesney, 1996; Tavares and Tineo, 1998]. In contrast with trade policy instruments like tariffs, quotas and subsidies, competition policy issues cannot be settled through mercantilist negotiations, but depend upon the cooperation among national antitrust agencies in the enforcement of their respective domestic laws. As argued in the next section, the most important part of this process is accomplished unilaterally, when the competition policy authority is prepared to act as the regulator of last resort in the economy.

3. Antitrust and the International Transfer of Monopoly Rents

Imagine that figure 1 describes the demand for imports of a sophisticated good x in country H (home country) and that x's producers are members of an international oligopoly which has manufacturing facilities in many parts of the world, including country H. Initially, consumers in that country are importing f units of good x and the price level is b. Any arrangement that provokes a price shift from b to a would be interesting for the exporters from country F (foreign country) if the demand elasticity were less than 1, as in this case the growth of receipts measured by the rectangle *abec* is larger than the sale losses measured by the rectangle *edfq*. The inverse of the demand elasticity is the so called Lerner index of market power, and the more powerful the x's producers are, the greater will be the transfer of monopoly rents from country H to country F. In country H's domestic market, local manufacturers will be benefited by a similar process, since the demand elasticity for goods produced at home will follow the behavior observed for imports.

FIGURE 1: The International Transfer of Monopoly Rents



Depending upon the effective market power of *x*'s producers, the price shift can be obtained through several arrangements. One possibility would be, for instance, an export restraint made by firms from country *F*, followed by a price increase in the domestic market of country *H*, which could be described as an informal counterpart of a VER (voluntary export restraint) agreement. Another way would be through transfer pricing among subsidiaries of transnational corporations established in both countries. A third arrangement would be through mergers and acquisitions among firms in either country which could lead to new conditions of competition in the supply of *x*. Each alternative will demand a particular form of cooperation between the antitrust agencies of each country. In the first case, the antitrust agency in country *H* will ask its counterpart in country *F* to initiate an investigation against the exporters of *x*. In the second case, both agencies will probably carry out a joint investigation, while in the third case they could act independently, yet using similar criteria for reviewing the merger effects on their respective markets. These cooperative efforts can be described as an *overlapping game*, wherein the actions executed by the antitrust agencies are simultaneously limited by the enforcement power of their domestic instruments and the scope of their international agreements. The concept of overlapping or "two-level" games has been widely used in the research about international relations (see Putnam,

1988; Alt and Eichengreen, 1990; Grossman and Helpman, 1995; Tavares de Araujo, 1995). It refers to a situation in which a particular player is engaged at the same time in games against distinct opponents, but the options available in one game are restricted by the commitments made in the other.

When dealing with transnational cases, the scope for cooperation among antitrust agencies is initially fixed by the enforcement capabilities allowed by their domestic laws. MERCOSUR and NAFTA are good illustrations of this point. In December 1996, MERCOSUR countries signed an ambitious protocol setting out guidelines for a common competition policy in the region. The document addresses anticompetitive practices, the procedures for reviewing mergers and acquisitions and the efforts for harmonizing antitrust with other domestic policies. However, at least temporarily, the attainment of these goals will be limited by the current degree of heterogeneity in domestic legislation within MERCOSUR. Paraguay and Uruguay do not have any laws on this issue, while in Argentina and Brazil, although such legal instruments do exist, their design, their compliance to rules and their general purposes, differ substantially (see Tavares and Tineo, 1998). Among NAFTA countries, there is an interim pattern of cooperation that distinguishes the relations between Canada and the United States from the collective efforts for strengthening Mexican competition policy institutions. In fact, chapter 15 of that agreement is a clear statement that there will be no regional competition policy while the Mexican Federal Competition Commission has not reached the enforcement capabilities of its American and Canadian counterparts

But, the commitment to cooperate establishes new standards for the domestic enforcement of competition principles. For instance, in the hypothetical situation described in figure 1, country *F*'s authorities would hardly have initiated an investigation against their exporting industry in the absence of an international antitrust agreement. Although the main reason for opening the investigation is the expected reciprocity from country *H* in symmetrical situations, country *F* may get additional benefits if the investigation finds domestic market distortions that, otherwise, would have remained unnoticed. Similarly, cooperation efforts may drive governments toward a more comprehensive approach on competition policy, allowing them to overcome difficult obstacles like the contradiction between antitrust and antidumping. An illuminating example of this process has been the experience of Australia and New Zealand during the recent past, as the next sections shows.

4. Economic Reform and Transparency: Australia and New Zealand

"Policy intervention was seen as a way of augmenting growth in diverse occupations. An import substitution strategy was a way to mobilize rents from the traditional exportable sector [...] which otherwise would have been capitalized into

rural land values. Urban income earners were seen as the beneficiaries. After the Great Depression (1929-32), economic goals became more focused on full employment and the diversification of industry under the direction of government. A wide range of policies, including trade policy, were subordinated to meeting these ends [Lattimore and Wooding, 1996, p.316]."

Anyone familiar with Latin-American economic history would bet that the above quotation refers either to Brazil, Mexico, Argentina or one of their neighbors. This is a classical description of the initial steps of the industrialization strategies followed by those countries throughout the twentieth century, from the collapse of the world trading system in the thirties to the debt crisis in the eighties. However, the country under analysis here is New Zealand, which, like Australia, also had opted for the same type of policy during that period, with similar results. Commenting on the Australian case, Bell (1993) noted that: "By the 1960s, the tariff structure lacked any overall logic or economic rationale. Many tariffs were anomalous or fortuitous, and little effort was made to avoid over-protection or to promote efficient or economic production (p.28)."

Before the Uruguay Round (1986-93), Australia and New Zealand shared with Latin-American countries a common attitude toward multilateral trade negotiations. Their goal was to improve export performance while keeping domestic markets closed. In November 1979, for instance, the Australian Trade Minister, made the following assessment of the Tokyo Round (1973-79): "With the exception of three items – namely tobacco, certain fancy cheese and an item relating to frozen poultry – the tariff rates are at or above current applied rates. This means that Australia has achieved a meaningful and advantageous settlement with the United States, EEC and Japan without reducing the current level of tariff protection on a single tariff item applicable to any manufacturing industry [...] This was, I believe – I am sure industry agrees with me – a commendable result" [Rattigan *et alii*, 1989, p.19]. A few weeks later, New Zealand's Prime Minister said: "It has been suggested that New Zealand should dismantle the system of import licensing which has operated for 40 years. I do not subscribe to that view. I have no intention of letting industries go to the wall for the sake of a theory" [Lattimore and Wooding, 1996, p.326].

One peculiarity of the Australian experience of import substitution industrialization was the creation of the Tariff Board in 1921. Its role was to advise the government on the costs and benefits of protection. Besides reviewing individual cases, that institution was supposed to conduct periodic studies on the macroeconomic consequences of the existing trade barriers. The first of these studies was the Brigden Report, which presented a comprehensive analysis of the Australian tariff structure in 1929 and stimulated several academic works during

the following decades, including the 1957 classic article by Max Corden on "*The Calculation of the Cost of Protection*".

However, until the late sixties, the Board's activities engendered no public reaction against protectionism in the country. On the contrary, the general mood was that the welfare gains from industrial diversification would be greater than the protection costs. The tariff was perceived as a social investment whose present value could be weighed against the future benefits produced by economic development (see Corden, 1957). Moreover, in "*Protection and Real Wages*", one of the most celebrated papers in the history of economic thought, Stolper and Samuelson (1941) concluded that "... in Australia, where land may perhaps be said to be abundant relative to labour, protection might possibly raise the real income of labour" (p. 73). Despite their caveat that "... our argument provides no political ammunition for the protectionist", it really did, and import substitution policies remained popular for many decades, reinforcing the natural barriers already provided by geography and transportation costs.

In the seventies, this conventional wisdom started to change. The Tariff Board was transformed into the Industries Assistance Commission (IAC), with a broader mandate to promote transparency in the economy and empowered with adequate instruments to assess the different impacts of public policies, including the creation of domestic entry barriers, uneven conditions of competition among firms in the same industry, and other market distortions. In its first annual report, for 1973/74, the IAC functions were defined as follows: "In summary, the Commission's role is to advise the Government on how individual industries, and industry in general, should be encouraged to develop in Australia. In providing this advice, it is required to have regard to the interests of the community as a whole, and relate its advice to the generally accepted economic and social objectives of the community. The Commission is concerned primarily with the long term development of industries, rather than with the fluctuations which may occur in their rate of development from one year to another, due to temporary changes in their business environment. The principles and objectives in the Industries Assistance Commission Act provide the general policy basis for the long term development of Australian industries" (quoted in Rattigan *et alii*, 1989, pp.98/99).

To foster transparency, the IAC was supposed to keep Australian society informed on three basic topics: [a] the competition conditions in the different sectors of the economy; [b] the effectiveness of current public policies; and [c] the eventual conflicts between the use of public resources to support specific economic activities and the promotion of the community's welfare. Indeed, IAC's ultimate goal was to preserve the debate over what constitutes Australia's "national interest". Although IAC had no enforcement power, the government was required

to be aware of the Commission's opinion when changing the level of protection to any industry, with the exception of antidumping and countervailing duties actions.

IAC's only task was to produce accurate information about economic policy on a timely basis, but this was enough to spur bitter animosity both inside the bureaucracy and the private sector. In certain moments, the Commission's roster of powerful enemies included not only leading politicians like J. D. Anthony and Ian Sinclair, trade ministers like James Cairns, but also the Metal Trades Industry Association (MTIA), which had about 6000 members responsible for more than 50% of the labor force in secondary industry (see Rattigan, 1986). According to the national director of MTIA in 1976, the real aim of IAC was to destroy the Australian industry: "We do not need the IAC, which is an excessively elaborate and expensive body of economic theorists, to tell us that most goods we make in Australia can be more cheaply imported by Australia ... What we need is to call a halt to the activities of the IAC in recommending the dismantling of sections of Australian industry. It is a folly of the greatest magnitude if we allow ourselves to be persuaded by a pure economic theory to close our factories because of our high cost structure" (*Canberra Times*, 24 July 1976; quoted in Rattigan, 1986, p.264).

The process of trade liberalization started in 1973 with an across-the-board tariff cut of 25%. The measure was not enacted for industrial policy reasons, but resulted from a large surplus on the country's balance of payments. Like in most Latin-American economies, the process was long and marked by temporary reversals in some industries, specially textiles, clothing, footwear and motor vehicles. As table 4 shows, while the average rate of effective protection of the manufacturing industry suffered a steady decline during 1977-97, those four industries were able to remain away from the general trend. Between 1979 and 1985, the protection rates of textiles jumped from 47% to 74%, and from 140% to 243% in clothing. During 1977-85, footwear producers were bestowed with rates that varied from 121% to 250%, and car manufacturers got the range 67%-137%. These rates began to decrease after 1985, but even in 1997, when the Australian manufacturing industry had an average rate of 6%, those four sectors were still securing two-digit rates. Tables 5 and 6 tell similar stories for New Zealand and Brazil.[23]

[23] The figures in the three tables are not strictly comparable, due to disparities both in the methodologies used for measuring the protection rates and the existing market distortions in each country, such as those engendered by exchange rate appreciation, domestic entry barriers and the structure of the taxation system. However, the tables provide a reliable picture of the distribution of protection rents across industries.

TABLE 4. Rates of Effective Protection in Australian Industries, 1977-97

Industry	1977	1979	1981	1983	1985	1987	1994	1996	1997
Food, beverages, tobacco	16	14	10	7	6	6	3	3	2
Textiles	51	47	55	68	74	68	37	27	25
Clothing	148	140	135	189	243	167	59	50	47
Footwear	121	153	161	232	250	182	60	50	46
Wood and products	18	17	15	18	17	18	9	6	4
Paper and products	30	26	25	16	16	16	6	4	2
Chemicals	21	19	15	12	12	12	6	4	3
Non-metallic	7	5	4	4	3	3	3	2	2
Basic metal	14	10	10	9	10	6	6	5	4
Motor vehicles & parts	67	81	96	123	137	87	38	31	28
Other transport equipment	21	9	11	14	15	16	5	4	2
Other capital goods	22	20	20	21	23	23	11	8	5
Total manufacturing	27	24	23	21	22	19	10	8	6

Sources: Dyster and Meredith (1990); Industry Commission (1997).

TABLE 5. Rates of Effective Protection in New Zealand Industries, 1982-90

Industry	1982	1986	1988	1990
Food	20	14	9	7
Textiles, clothing, footwear	90	160	69	59
Wood and products	51	28	21	16
Paper and products	24	17	13	9
Chemicals, rubber, plastics	37	38	34	23
Non-metallic minerals	19	19	17	13
Basic metal industries	12	12	11	5
Machinery and equipment	69	58	51	34
Other manufacturing	56	53	41	27
Total manufacturing	39	37	26	19

Source: Massey (1995).

TABLE 6: Rates of Effective Protection in Brazilian Industries, 1993-95

Industry	1993	1994	1995
Food and beverages	30	22	24
Textiles	21	20	24
Clothing	24	25	21
Footwear	15	16	21
Wood and products	10	9	12
Paper and products	9	8	11
Chemicals	9	5	6
Steel	11	10	13
Basic metal	13	11	14
Motor vehicles	130	45	271
Other transport equipment	21	22	21
Eletronic equipments	23	22	25
Total manufacturing	15	12	13

Source: Kume (1996)

In 1975, the New Zealand government established the Industries Development Commission (IDC), which had similar functions to those of IAC, i.e., to provide independent advice on current economic policies and facilitate public scrutiny of those policies. During the following 10 years, the IDC research activities included 13 studies on the country's most important industries, using a standard methodology. Besides identifying the complete set of protection mechanisms affecting each industry – such as tariffs, quantitative restrictions, subsidies, procurement rules and other government generated entry barriers – the inquiry would highlight the long term impact of such mechanisms. Although less prominent than its Australian counterpart, the IDC, later renamed as Economic Development Commission (EDC),[24] provided the basic knowledge for the gradual trade liberalization process that took place in New Zealand during 1984-95 [Mascarenhas, 1996; Evans *et alii*, 1996].

Promoting transparency had significant consequences on the processes of economic reform in Australia and New Zealand, specially in the areas of regional integration and competition policy. Following the international fashion of the eighties, those countries signed the Closer Economic Relations Agreement (CER) in 1983. But in just seven years, the CER achieved a degree of trade liberalization matched by no other regional arrangement launched in that decade (see Corden, 1997; Vautier and Lloyd, 1997). By 1990, all tariffs, antidumping actions and domestic subsidies affecting trans-Tasman trade had been abolished. In the area of services, besides deregulation, total mobility of the labor force and mutual recognition agreements, significant progress was attained in key activities like shipping and air travel. Afterwards, the process of economic integration has been sustained by convergent fiscal and monetary policies at the macroeconomic level, and by similar competition policies at the microeconomic level.

Australia had a national competition law since 1906, and New Zealand since 1908, but these were useless instruments during the times of import substitution industrialization. Some Latin-American countries, such as Argentina (1919), Brazil (1962), Chile (1959), Colombia (1959) and Mexico (1934), also have had ineffective antitrust legislation for many decades.[25] In 1974, the Australian Trade Practices Act established a new framework for curbing anticompetitive practices in the country and paved the way for a series of institutional improvements in subsequent years. The process of policy reform culminated in 1993 with the Hilmer Committee Report, which introduced the notion of "Comprehensive

[24] IAC was also renamed as Industry Commission, and, since 1996, as Productivity Commission.

[25] For a comparative description of the recent legislation in these countries, see OAS (1997a), which also contains an inventory of the current antitrust agreements signed by FTAA member countries. For a collection of official reports on the enforcement of competition policy in the Western Hemisphere, see OAS (1997b).

Competition Policy"(CCP), one of the most powerful, yet flexible, systems among OECD countries. CCP goes beyond the conventional antitrust instruments and includes all relevant government actions that affect the competition process, such as trade barriers, subsidies, monopoly regulation, intellectual property, consumer protection and technical standards.[26] In New Zealand a similar process started in 1986, when the Commerce Commission was empowered with the same set of policy instruments managed by its counterpart, the Australian Competition and Consumer Commission (ACCC). This convergence has led to a fruitful cooperation program between these agencies that not only harmonized the competition conditions in the trans-Tasman market but also reinforced the domestic role of the antitrust authorities.

TABLE 7: Merger Review in Australia and New Zealand, 1991-96

Country	Cases Examined	Cases Declined	%
Australia	612	26	4.7
New Zealand	211	10	4.2

Sources: ACCC (1997); Allport (1997)

It should be noted that the competition policy laws of Australia and New Zealand are not identical. For instance, when assessing the likely effects of a merger, the ACCC uses the concept of market power while the Commerce Commission adopts the dominance approach. Albeit similar, these methods do not always lead to the same results. The definition of market power is straightforward: it happens when the firm is able to impose a *snip*, a small but significant and non-transitory increase in price. The notion of dominant position is broader: it happens when the firm is able to choose its conduct without taking into account the eventual reactions of its competitors, suppliers and consumers. A firm may have market power without being in a dominant position, but, in practice, this distinction is not so important, because the two agencies apply the same methodologies in regard to other critical aspects of the investigation, such as the

[26] Coincidentally, in November 1992, the Peruvian government enacted the INDECOPI (Instituto Nacional de Defensa de la Competencia y de la Protección de la Propiedad Intelectual) along the same principles. Indeed, the only difference between INDECOPI and the CCP model is that the former does not review mergers and acquisitions. More recently, in 1996, the government of Panama created a similar institution, the CLICAC (Comisión de Libre Comperencia y Asuntos del Consumidor), with a more restricted scope, covering just three areas: antitrust (mergers included), consumer protection and trade remedies (antidumping and countervailing duties).

delimitation of the relevant market,[27] the analysis of entry barriers and the role of import competition. As table 7 shows, over the period 1991-96 the two agencies had virtually the same attitude when reviewing mergers: the ACCC examined 612 cases and objected to 4.7%, while the Commerce Commission has received 211 cases and opposed 4.2%.

Thus, the role played by competition policy in the CER agreement contains at least three useful lessons for the FTAA process. The first is the coherence between antitrust and other policies, which has avoided the traditional situation whereby the government fosters competition through one channel and creates market distortions through another. The second is the provision of predictable rules for dealing with one intricate problem engendered by trade agreements, which is the trend toward market concentration that follows the process of economic integration. The convergence of the merger review procedures reduced the uncertainty of investment decisions by keeping the private sector informed about the criteria used by the ACCC and the Commerce Commission for surveying the competition process in the trans-Tasman market. The third lesson results from the mechanisms that ensure market transparency, like the reports produced by the IAC and EDC. The CER experience illustrates convincingly that the ultimate goals of competition policy – consumer welfare and productive efficiency – do not depend so much on the punitive provisions of the antitrust law, but on these mechanisms.

5. Conclusion

The main conclusion to be drawn from the evidence discussed in this paper is that the FTAA is a long run project. Free trade is not a strong enough instrument to impose convergent competition rules in the hemisphere, and the enactment of antitrust laws without the support of complementary mechanisms to curb special interests is not a solution either. The recent results attained by Australia and New Zealand on these issues suggest that the promotion of market transparency can be a feasible alternative, although not immune to reactionary pressures, as the IAC experience has revealed. The periodical publication of studies like those of IAC and EDC, and the maintenance of data bases on entry barriers, profitability rates and other conditions of competition in the different sectors of the economy do not

[27] The concept of relevant market is crucial not only for merger analysis but also for investigating anticompetitive practices. The approach adopted by Australia and New Zealand can be formally stated as follows: The relevant market is the space *R4* in which the firm is able to practice a *ssnip*. The four dimensions of that space are: [1] the characteristics of the good, including the production technologies and cross-elasticities of demand; [2] the geographic extent of the transactions under analysis; [3] the functional levels of the market, i.e, the degree of vertical integration of incumbent firms and the existing forms of distribution and sale; and [4] the time dimension of the competition process, specially in regard to the readiness of substitution possibilities and the effective entry of potential competitors.

require major institutional changes and could be carried out in any country. This type of initiative could be a starting point that would turn the other CER lessons discussed in section 4 into realistic options for the FTAA countries.

Annex:

Selected US Antitrust Cases, 1994-98

	Case	EB	AI	MP
1	US v. Thomas J. Abraham (1997)	0	1	0
2	US v. Ace Schiffli Emboidery Co. (1995)	1	1	0
3	US v. Action Embroidery Corp. (1995)	1	1	0
4	Advo v. Philadelphia Newspapers (1994)	1	0	1
5	US v. AIG Trading Corp. (1997)	0	1	0
6	US v. Ajinomoto Co.; and others (1996)	0	1	1
7	US v. Akzo Nobel Chemicals BV and Glucona BV (1997)	0	1	1
8	US v. Alex Brown&Sons, et.al (US v. Nasdaq Market Makers) (1996)	0	1	1
9	US v. Alliance Metals and Bradley B. Evans (1995)	0	1	0
10	US v. Alliant Techsystems and Acrojet-General Corp. (1994)	1	1	1
11	US v. A&L Mayer Associates, and others (1996)	0	1	0
12	US v. Aluminum Co. of America and Alumax (1998)	1	1	1
13	US v. Amarillo Winnelson Co. (1995)	0	1	0
14	US v. Amcel Corp., Dispoz-O Plastics, and others (1996)	0	1	0
15	US v. American Alloys, Inc. (1996)	0	1	0
16	US v. American Bar Association (1995)	1	1	0
17	US v. American National Can and KMK Maschinen AG (1996)	1	1	1
18	American Radio Sys. Corp. Acquisition of the Lincoln Group (1996)	1	0	1
19	US v. American Skiing Co. & S-K-I (1996)	1	0	1
20	US v. Anchorshade, Inc. (1996)	0	1	0
21	US v. Michael Andreas (Appeal of New York Times, *et alii*) (1998)	0	1	1
22	US v. Appleton Papers, Inc.; and others (1995)	0	1	0
23	US v. Archer Daniels Midland Co. (1996)	0	1	0
24	US v. Association of Family Practice (1996)	0	1	0
25	US v. ARTA (1994)	0	1	0
26	US v. Atlas Iron Processors, Inc., *et al.* (1997)	0	1	0
27	US v. Austin Powder Co. (1996)	0	1	0
28	US v. Batra, Romer (1997)	0	1	0
29	In Re: Bell Atlantic Corp., No.96-5001 (D.C. Circuit.) (1996)	1	1	1
30	US v. Ben's Truck Parts & Equipment, Inc. (1995)	1	1	0
31	Blue Cross and Blue Shield of Wisconsin v. Marshfield Clinic (1994)	1	1	1
32	Blue Cross & Blue Shield of Ohio v. US (1994)	1	1	1
33	US v. Joseph E. Burford (1997)	0	1	0

34	US and State of Connecticut v. Richard Blumenthal (1995)	1	1	1
35	Anthony Brown v. Pro Football, Inc. (1995)	0	1	0
36	US v. Gerald Brandt (1994)	0	1	0
37	US v. Browning Ferris Industries, Inc. (1994)	1	0	1
38	US v. Cajun Chemical, Inc. (1998)	0	1	0
39	US v. CA/Legent (1995)	1	0	1
40	US v. Canstar Sports USA, Inc. (1993)	0	1	0
41	US v. John P. Cassel (1995)	0	1	0
42	US v. Cerco, Inc. (1997)	0	1	0
43	US v. Charles E. Green & Son, Inc. (1997)	0	1	0
44	US v. Cheil Jedang, Ltd. (1996)	0	1	0
45	US v. Paul B. Clark (1993)	0	1	0
46	US v. Clark Truck Parts, Inc. (1996)	1	1	0
47	US v. Classic Care Network (1994)	0	1	0
48	Columbia Steel Casting Co. v. Portland General Elec. Co. (1995)	1	1	1
49	Community Publishers Inc. v. DR Partners (1995)	0	0	1
50	US v. Dani Siegel; and others (1996)	0	1	0
51	US v. Darrell Hawkins (1994)	0	1	0
52	US v. D.C. Guelich Explosive Co.(1997)	0	1	0
53	US v. Delta Dental of Rhode Island (1996)	0	1	0
54	US v. D.M.E. Industries, Inc. (1995)	1	1	0
55	US v. Amos L. Dolby Co. (1996)	0	1	0
56	US v. Douglas Explosives, Inc. (1996)	0	1	0
57	US v. DynoNobel Inc. (1995)	0	1	0
58	US v. Electronic Payment Services (1994)	0	0	1
59	US v. Elkem Metals Co. (1995)	0	1	0
60	US v. Engelhard, Corp. et al. (1995)	0	0	1
61	US v. Enova Corp. (1998)	1	0	1
62	Ertag v. Naples Community Hosp.(1995)	0	1	0
63	US v. Everbrite, Inc. (1997)	0	1	0
64	US v. ETI Explosives Technologies Int., Inc. (1996)	0	1	0
65	US v. Exolon-Esk Co.and Nehill (1995)	0	1	0
66	US v. F. Hoffmann-LaRoche, Ltd. and Udo Haas (1997)	0	1	0
67	US v. Fields & Co. of Amarillo, Inc. (1995)	0	1	0
68	In re Flat Glass Antitrust Litigation (1998)	0	1	0
69	Florida Municipal Power Agency v. Florida Power &Light Co. (1994)	0	0	1

70	US v. Roquette Freres and Bertrand Dufour (1997)	0	1	0
71	US v. Fujisawa Pharmaceutical Co. and Akira Nakao (1998)	0	1	0
72	US v. Fulton-Denver Co. (1995)	1	1	0
73	US v. Charles J. Friedman and Pamela A. Friedman (1994)	0	1	0
74	US v. General Electric Co. (1996)	1	1	1
75	US v. Geo. Benz & Sons, Inc. (1997)	0	1	0
76	US v. Georgia-Pacific Corp. (1996)	0	0	1
77	US v. Gillette Dairy of the Black Hills, Inc. (1996)	0	1	0
78	US v. Glazier Foods Co. (1994)	0	1	0
79	US v. Greyhound Lines, Inc. (1996)	1	1	1
80	US v. Grinnell Lithographic Co., Inc. (1997)	0	1	0
81	US v. GTE Corp. (1995)	1	1	1
82	US v. Leo E. Gulley (1995)	0	1	0
83	US v. Guthrie (1996)	0	1	0
84	US v. Haarmann & Reimer Corp. and Hans Hartmann (1997)	0	1	0
85	US v. Ron E. Harrison (1996)	0	1	0
86	US v. Harvey Shayew (1995)	0	1	0
87	US v. Haversat (1995)	0	1	0
88	US v. Hayter Oil Co. (1993)	0	1	0
89	US v. Health Care Partners (1995)	1	1	1
90	US v. Health Choice of Northwest Missouri, Heartland (1995)	1	1	1
91	US v. Hilltop Energy, Inc. (1997)	0	1	0
92	US v. Hiplax Int. Corp. (1996)	0	1	0
93	US v. Honshu Paper Co., Ltd. (1996)	0	1	0
94	Houston Industries Inc. v. Daniel C. Kaufman, *et alii* (1995)	1	1	1
95	US v. IBM (1995)	1	0	1
96	US v. IBM Corp. and Storage Technology Corp. (1997)	1	1	1
97	US v. Inmobiliaria Samisu, S.A. (1996)	0	1	0
98	US v. Interstate Bakeries Corp. and Continental Baking (1995)	1	0	1
99	US v. Ira Green Inc. (1996)	1	1	0
100	US v. Irwin Englander a/k/a Buzz (1997)	0	1	0
101	US v. Ixtlera de Santa Catarina S.A. de C.v. and MFC (1996)	0	1	0
102	US v. Jerrold Warren Killingsworth	0	1	0
103	US v. Charles W. Johnson (1995)	0	1	0
104	US v. John J. Johnson (1992)	0	1	0
105	US v. Jungbunzlauer Int. AG and Rainer Bichlbauer (1997)	0	1	0

106	US v. Kesco, Inc. (1996)	0	1	0
107	US and State of Texas v. Kimberly-Clark Corp.and Scott Paper (1995)	1	0	1
108	US v. Kodak (1994)	1	0	1
109	US v. Koichi Tano (1996)	0	1	0
110	Koram Electronics v. JBL Consumer Products (1996)	0	1	0
111	US v. Donald M. Kotowicz (1995)	0	1	0
112	US v. Lake Country Optometric Society	0	1	0
113	Lake Region Electric v. Tahlequah Public Works (1995)	1	1	1
114	US v. LaRoche Industries Inc. (1997)	0	1	0
115	US v. Larry Angel (1997)	0	1	0
116	US v. Lima (1994)	0	1	0
117	US v. Lockheed Martin Corp.& Northrop Grumman Corp.(1998)	1	1	1
118	US v. Long Island Jewish Medical Center and North Shore (1997)	0	0	1
119	US v. Joseph Y. Longmire (1997)	0	1	0
120	US v. LSL Biotechnologies, Inc. (1998)	1	1	1
121	US v. Lykes Bros. Steamship Co.	0	1	0
122	US v. Manufacturers Corrugated Box Co., Inc. (1996)	0	1	0
123	US v. Mark Albert Maloof (1997)	0	1	0
124	Matthew Bender & Co. v. West Publishing Corp. (1996)	1	1	1
125	US v. Brian X. McCormack (1998)	0	1	0
126	US v. MCI (1994)	1	1	1
127	US v. MCI and BT (1997)	1	1	1
128	US v. Thomas F. Mechtenberg (1996)	0	1	0
129	US v. Mercy Health Services: Dubuque (1993)	1	0	1
130	US v. Michigan Birch Door Manufacturers, Inc. (1996)	0	1	0
131	US v. Microsoft (1994) (Licensing)	1	1	1
132	US v. Microsoft (1995) (Intuit)	1	0	1
133	US v. Microsoft (1998) (Web Browsers)	1	1	1
134	US v. Milikowsky (1994)	0	1	0
135	US v. Mine Equipment & Mill Supply, Inc. (1995)	0	1	0
136	US v. Mitsubishi Paper Mills, Ltd. (1995)	0	1	0
137	US v. Agostino J. Monastra (1997)	0	1	0
138	Moore Corp., Ltd. v. Wallace Computer Services, Inc. (1997)	0	0	1
139	US v. Morrison Supply Co. (1995)	0	1	0
140	US v. Mrs. Baird's Bakeries Inc. and Floyd C. Baird (1995)	0	1	0
141	US v. Municipal Government Investment Associates (1995)	0	1	0

142	US v. Thomas W. Murray (1995)	1	1	0
143	US v. N.S. Meyer, Inc. (1997)	1	1	0
144	US v. National Automobile Dealers Association (1995)	0	1	0
145	National Basketball Association v. Charles L. Williams (1994)	1	1	1
146	US v. National Broadcasting Co. (1993)	0	1	1
147	US v. National Turtle Farmers & Shippers Association (1995)	0	1	0
148	US v. Nat, L.C. and D.R. Partners d/b/a Donrey (1995)	0	0	1
149	US v. Cornelis R. Nederveen (1997)	0	1	0
150	US v. New Oji Paper Co., Ltd. (1995)	0	1	0
151	US v. Nippon Paper Industries Co., Ltd., *et alii* (1996)	0	1	0
152	US v. Noburu Kurushima and Yoshihiro Kurachi (1996)	0	1	0
153	US v. Nutrite Corp. (1997)	0	1	0
154	NYNEX Corp v. Discon, Inc. (1993)	0	1	0
155	US v. Nynex Corp. (1993)	0	1	0
156	Oasis Publishing Co., Inc. v. West Pubishing Co. (1996)	1	1	1
157	US v. Oberkampf Supply of Lubbock, Inc., and others (1995)	0	1	0
158	US v. Oregon Dental Service (1995)	0	1	0
159	US v. Pacific Scientific (1996)	1	0	1
160	US v. PHSG Holdings, Inc. (1996)	0	1	0
161	US v. Pilkington (1994)	1	1	1
162	US v. Pioneer Aluminum, Inc. (1995)	0	1	0
163	US v. Pittsburgh Rigging Co., Inc. (1997)	0	1	0
164	US v. Playmobil (1995)	0	1	0
165	US v. Ponterio & Associates, Inc. (1996)	0	1	0
166	Portland General Electric Co. v. Columbia Steel Casting (1998)	0	1	1
167	US v. Prairie Farms Dairy, Inc. (1996)	0	1	0
168	US v. Primestar, Inc., et al (1998)	1	1	1
169	US v. R.P. Myers, Inc. et al. (1997)	0	1	0
170	US v. Patricia A. Remele (1997)	0	1	0
171	US v. Ren-Loi, Inc. (1997)	0	1	0
172	US v. Reuter Recycling of Florida, Inc. (1995)	1	0	1
173	US v. Rochester Gas & Electric (1997)	0	1	0
174	US v. Lawrence L. Rosen (1997)	0	1	0
175	US v. Huber Wally Rhodes, Jr. (1996)	0	1	0
176	US v. Richard Rituno and Consumer Displays, Inc. (1995)	0	1	0
177	US v. Sabreliner (1995)	1	0	1

178	US v. Sam Winer Motors, Inc. (1997)	1	1	0
179	US v. Sarafan Auto Supply, Inc. (1996)	1	1	0
180	US v. Schutz Int., Inc. and Richard F. Machas (1997)	0	1	0
181	US v. Scuba Retailers Association (1996)	0	1	0
182	US v. Seafood Incorporated of Henderson, Louisiana (1994)	0	1	0
183	US v. Seminole Fertilizer Co. (1998)	0	1	0
184	US v. Service Deli, Inc. (1996)	1	1	0
185	US v. Showa Denko Carbon, Inc. (1998)	0	1	0
186	US v. Ronal G. Skelton (1995)	0	1	0
187	US v. SKW Metals & Alloys Inc. and Charles Zak (1996)	0	1	0
188	US and New York v. Sony and LTM Holdings (1998)	1	1	1
189	US v. Southern Container Corp. (1996)	0	1	0
190	US v. Sprint Corp. (1995)	1	1	1
191	US v. Sprint Corp. and Joint Venture Co. (1995)	1	1	1
192	US v. Mel Steinberg, Inc. (1995)	0	1	0
193	US v. Steinhardt Management Co. and Caxton Corp. (1994)	0	1	0
194	US v. City of Stilwell, Oklahoma, *et alii* (1996)	1	1	1
195	US v. G. Frank Stinnett (1996)	0	1	0
196	US v. Sunrise Carpet Industries, Inc. (1995)	0	1	0
197	US v. Leslie S. Sutorius (1997)	0	1	0
198	US v. Swiss Valley Farms Co. and Joseph Gau (1995)	0	1	0
199	SystemCare, Inc. v. Wang Laboratories, Inc. (1995)	0	1	0
200	US v. TD Materials, Inc. (1995)	0	1	0
201	US v. Tele-Communications Inc. and Liberty Media (1994)	0	0	1
202	US v. Texas Television, Inc., Gulf Coast (1996)	0	1	0
203	US v. Thomson Corp. (1998)	1	1	1
204	US et al v. The Thomson Corp. and West Publishing (1996)	1	1	1
205	US v. Tiernay Metals (1995)	0	1	0
206	US v. Time Warner (1994)	1	1	1
207	US v. Time Warner, Sony, and others (1995)	1	1	1
208	US v. Tom Paige Catering Co. and Valley Foods (1997)	0	1	0
209	US v. Ward L. Torrans (1997)	1	1	0
210	US v. David P. True (1997)	0	1	0
211	US v. UCAR Int. Inc. (1998)	0	1	0
212	US v. USA Waste Services, Inc. (1994)	1	1	1
213	US v. US West, Inc. and Continental (1996)	1	0	1

214	US and Colorado v. Vail Resorts, and others (1997)	1	0	1
215	US v. Marcel L. Van Eekhout (1997)	0	1	0
216	US v. Andrew J. Vena (1997)	0	1	0
217	US v. Vision Service Plan (1995)	0	1	0
218	US v. Jon S. Wamser (1997)	0	1	0
219	US v. Washington Mills Co., Inc. (1997)	0	1	0
220	US v. Waste Management Inc. & Subsidiaries (1996)	1	1	1
221	US v. Wells Dairy, Inc. (1997)	0	1	0
222	US v. Western Electric (1993)	1	0	1
223	US v. Westinghouse Corp. and Infinity (1996)	0	0	1
224	US v. Johnny A. West (1995)	0	1	0
225	US v. Donald J. Westmaas (1997)	0	1	0
226	US v. William Barrett Numismatic Limited (1995)	0	1	0
227	Willis-Kinghton Medical Center v. City of Bossier (1998)	0	1	1
228	US v. Casey Wilmot (1997)	0	1	0
229	US v. Amy Winikoff; and others (1996)	0	1	0
230	US v. James F. Woods; and others (1992)	0	1	0
231	US v. Wrisco Industries, Inc. and Agostino Monastra (1996)	0	1	0
232	US v. Yun Lung Yueh a/k/a Peter Yueh (1996)	0	1	0
233	US v. Henry C. Zeni (1997)	0	1	0

Source: DOJ, Antitrust Division website (August, 1998)

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Comments by Gesner Oliveira

The paper underlines the importance of international cooperation between agencies. I have a concrete question: to what extent can CADE cooperate with other agencies now active such as those in Canada, the US, Mexico, Venezuela, Peru and Colombia? What are the pre-conditions for a fruitful collaboration especially with the more mature agencies, for instance in the United States?

In the recent cases of Metal Leve and Kolynos Colgate, the international experience was of fundamental importance. In the Metal Leve it ocurred simultaneously in Brazil and in the US and in the Kolynos Colgate what is important is that two big US firms were involved, one contesting the acquisition and the other directly involved, both trying to influence both the Brazilian and the US government.

The number of cases involving several markets within the FTAA has been increasing and I would say that, in at least a quarter of the new cases, there is a strong link between several markets. The opportunity for cooperation between different national agencies is bound to increase. What is required for such a cooperation so that Brazil can participate in the process? Of course Brazil can always leave the matter to be decided by the US Trade Comission. This is an option which I hope will not be adopted but it exists in theory.

To participate actively and to have a positive agenda, the competition policy system needs to decide, in an expedite way, with technical excellence and best practice standards in such issues as confidentiality. These are a few of the requirements of institutional investment without which it would be impossible to cooperate internationally and the decisions will be taken by the Canadian, US and European agencies. This is why so much emphasis is being placed on the regimental reform of CADE and on assuring the convergence in the direction of internationally recognized practices. This is the best way to stimulate inter-agency cooperation.

In relation to the transformation of antidumping into a part of competition policy, I agree that this is a most complex matter. We could think perhaps of a long term convergence of analytical frameworks rather than in terms of a full integration of policies.

What we can create in Brazil, and here the role of Itamaraty is crucial, is the institutional cooperation between competition policy agencies and commercial policy agents.

A convergence between competition and commercial policies would be interesting as the institutional fragmentation which characterizes other systems, as for instance the United States. Multilaterally I do not realistically believe in a

substitution between commercial and competition policies, given the strong opposition of the United States. Perhaps in the sub-regional context, the Australia-New Zealand model is a good guide for MERCOSUR in a time frame of five or ten years to gradually substitute antidumping cases by competition policy cases.

I would emphasize the importance of a recent national experience concerning the links between CADE and ANATEL, the telecommunications regulatory agency, on the coordination of efforts to assure adequate sectoral competition. Such efforts are important to consolidate good competition policies practices and are an essential requirement in the process to reach maturity in the field of competition policy in which the Brazilian government is involved. Without this, Brazil will be of marginal importance in decisions related to a theme of major international importance.

Comments by Mário Possas

It is a pleasure to be able to discuss a paper by my friend José Tavares, not only because of the evident importance of the harmonization of competition policies in the context of trade integration but also because of the originality of his approach taking into account the experiences of Australia and New Zealand which may be useful for Latin-American countries which had similar industrialization experiences and also similar experiences concerning industrial and trade policies.

I will make a single general comment divided into two parts and two quite topical comments of a more technical content. The first part of the general content refers to the analytical scheme which was developed in the beginning of section 3 of the paper including figure 1 on the international transfer of monopoly rents which ended up by not being developed in the rest of the paper. It remains to be seen whether the bulk of the harmonization difficulties have not to do much more with the harmonization of competition and commercial policies within each country rather than between competion policies or commercial policies adopted by different economies wishing to enter into an integration agreement.

This issue, which has been addressed by Gesner Oliveira as a transformation of trade policies into competition policies, involves a highly complex process which faces obstacles of a conceptual, institutional and political nature. The author draws attention to the fact that the transfer of monopolist rents between countries can take place in different ways and only one of these is related to the antitrust issue concerning merger and acquisition. The other two possibilities raised, concerning voluntary export restriction agreements and transfer prices between multinationals and their subsidiaries have important commercial policy aspects. Some degree of policy harmonization within such countries would be clearly required to implement such policies. The idea can be perhaps translated in terms of a subordination of commercial policy to competition, a way faced by many obstacles.

The second part of the general comment refers to the harmonization of competion and commercial policies in Australia and New Zealand. It seems clear that this problem remains unsolved either through agreements or political decision. Perhaps this could have been more developed in the paper. How is the demand for protection dealt with in the wider context of a competition policy. I raise a specific point in this context concerning transparency, which is a part of the paper's title. I believe transparency is a vital element in the formulation and implementation of this type of policy and should apply not only to rules but also to jurisprudence, that is the concrete result of the implementation of such norms. But there is another aspect which seems at least as important which is consistency in the legislation, that is in the initial formulation of rules and their application. You may have a nice legislation, which applied in a chaotic way under political

pressure, will end up by not providing the reduction in uncertainty sought by the relevant economic agents. Transparency does not solve this problem. It is only one aspect, although very important, among others which includes equal treatment, internal rule consistency and consistency between rules and their implementation.

Two technical points. The first refers to the distinction which is pointed out between competition rules in Australia and New Zealand in relation to market power and dominant position. There is a controversy which is of a legal rather than economic nature whether a dominant position diverges from a situation where a firm is considered to have market power. In the European tradition, the concept of dominant position is used while in the United States, perhaps under the influence of economists, the concept of market power is used. Economists know what market power is; they do not know what is a dominant position; lawyers claim that there exists a difference. Dominant position perhaps even intuitively, refers to a substantial market share. Yes, but market power also requires this, even if in a very localized market. This controversy, if it can be called so, can be solved in a relatively simple way by recognizing that the market power, which is of interest in antitrust legislation, is market power in a relevant market where there is capacity to raise prices much above the level which would have been possible in a segment of the market. I think that, technically, such difficulties can be solved and for purposes of economic and legal analysis, the two concepts can be considered as identical.

The second specific comment is a doubt about table 2 which is extracted from a 1994 research and lists three anticompetitive elements which would be present in antitrust cases in the US including mergers, horizontal restraints and vertical restraints: asymmetric information, barriers to entry and market power. What leaves me curious about this type of approach is that the three elements which are considered to be, let us say, causes of anticompetitive problems are in fact characteristic of any market situation which qualifies to be dealt with under antitrust legislation. It is surprising that, for a couple of cases, market power has not been identified as a relevant element. The same applies to market barriers: if there were not such barriers, the market would be contested or nearly so. And finally, since asymmetrical information is an universal feature of the competitive process, the author should recognize that it is absolutely normal, from a competition point of view, that competitive advantages are protected by secrecy, patents or any other institutional instrument. It is difficult to see how an antitrust situation can be classified according to a criterion based on asymmetrical information.

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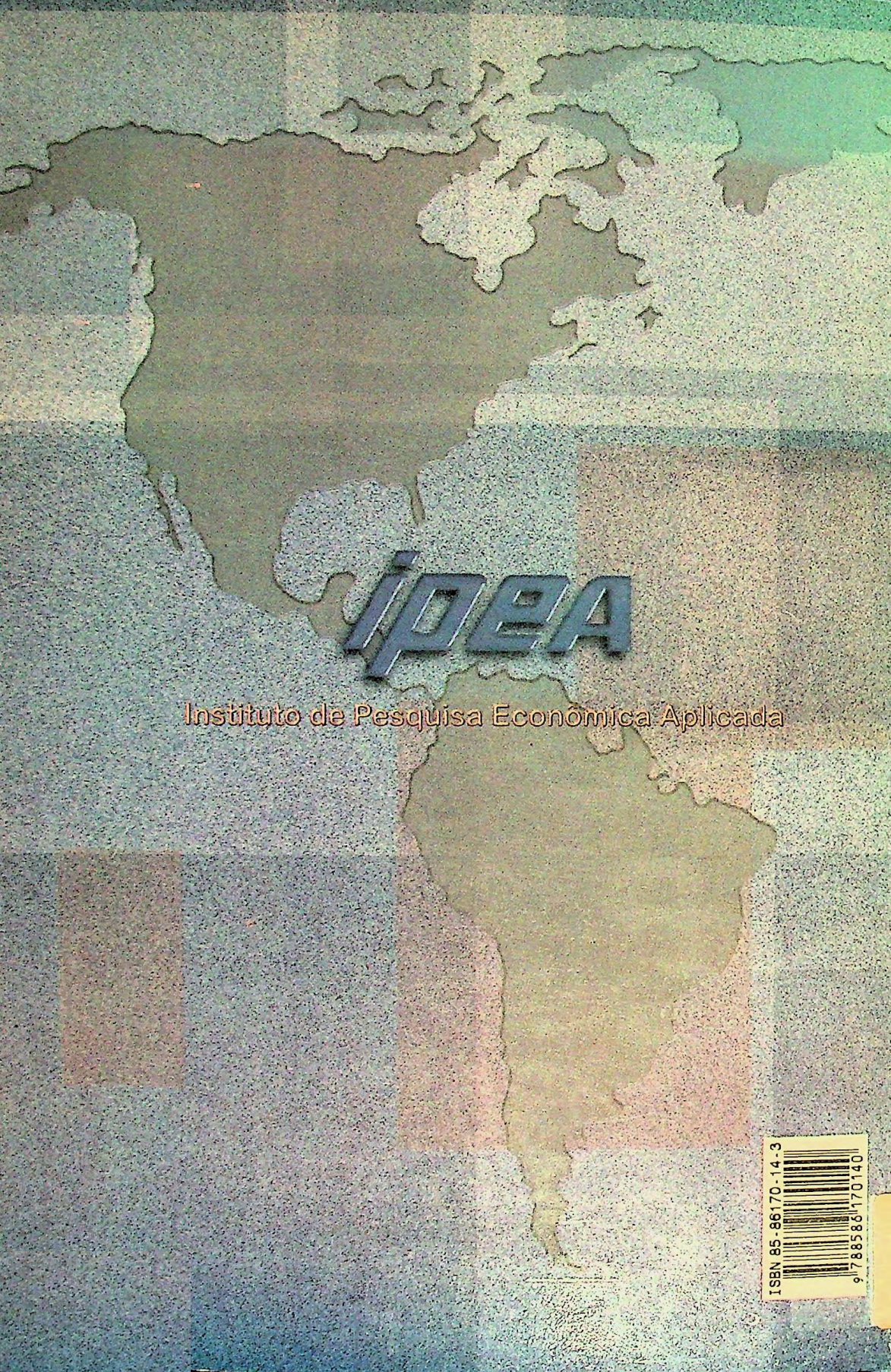

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