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Trade liberalization through regional integration initiatives occupies a prominent chapter in any economic history of Latin America and the Caribbean in the 20th century, when external events played a key role in determining the development path for most countries in the region. When future economic historians look back at the region's turning point during the century, they will likely pay special attention to the role of the external trade policies of most countries in the region (and their most important partners) during the 1990s.

Among all the structural reforms implemented in the region in recent times, trade liberalization, particularly regarding market access, stands out as the most consistent policy. Although the extent of liberalization has varied from country to country and sector to sector, the period has clearly been the most open in the region since the period before the Great Depression of the 1930s.

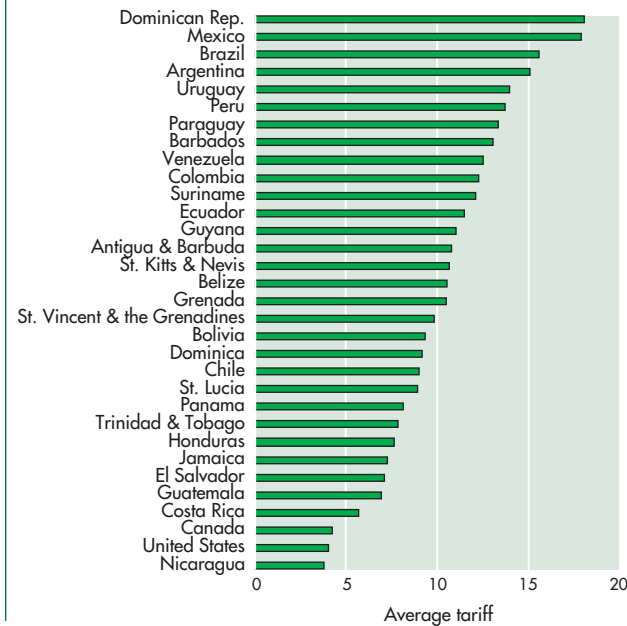
Despite these historic changes, however, the agenda on hemispheric trade integration is far from completed. This chapter examines the region's complex web of unilateral, multilateral and preferential (bilateral or regional) trade liberalization efforts. These simultaneous policy endeavors have defined a new paradigm in the way that trade and integration policies have been designed and implemented throughout the region. This new paradigm was first labeled "open regionalism" by the Economic Commission on Latin America and the Caribbean, and most recently, in similar but more theoretical fashion, analyzed by Ethier (1998) and Devlin and Estevadeordal (2001) under the name of "new regionalism."

This chapter first provides an overview of Latin America's recent trade policy paradigm, quantifying the importance and the degree of trade liberalization and trade integration achieved on several fronts and with respect to various measures affecting trade. Next, the chapter focuses on agricultural trade integration, emphasizing the importance of looking beyond the region to understand the major market access constraints for agriculture. The final section evaluates the complexity of the regional trading system in the face of the challenge to negotiate further trade liberalization under the most ambitious trade negotiation effort ever in the hemisphere, the Free Trade Area of the Americas (FTAA).

UNDERSTANDING THE COMPLEX WEB OF TRADE LIBERALIZATION

Starting in the mid- to late-1980s, most of the developing world began moving toward substantial market-oriented economic reforms, which included, almost without exception, unilateral trade liberalization policies (IDB, 1996). This happened in the context of multilateral efforts in Geneva to liberalize trade in goods and services around the world, which culminated in the Uruguay Round Agreements of 1994 and the creation of the World Trade Organization in 1995. Moreover, a growing interest in regionalism was taking hold around the world, especially in Latin America, by way of traditional regional initiatives or newly crafted preferential trade agreements.

Figure 3.1 Most Favored Nation Average Tariff for All Products, 2000



Source: IDB calculations based on 2001 Hemispheric Database in the Americas, using only ad valorem tariffs.

The depth of the unilateral trade reforms by most countries in the region is obvious when looking at the average regional tariff rates, which fell from 40 percent in the mid-1980s to 10 percent in 2000. Average maximum tariffs in the region fell from more than 80 to 40 percent, with only very few countries currently applying maximum tariffs of up to 100 percent on a small number of products. Tariff dispersion, on average, has declined from 30 percent in the mid-1980s to an average of 9 percent today. The highest average rate and the highest dispersion rate, as measured by the standard deviation, are currently under 18 and 25 percent, respectively. There are still, however, some important tariff peaks, and approximately 20 percent of tariff lines are subject to rates above 20 percent. Figure 3.1 shows average applied tariffs for every country in the region.

This process of opening up unilaterally was accompanied by liberalization efforts under the multilateral trade negotiations of the Uruguay Round. The agreement that entered into force in January 1995, ending almost a decade of negotiations, included the establishment of the WTO, which is responsible for

administering the most sophisticated and comprehensive world trade agreement ever signed. A new round of negotiations was launched in Doha (Qatar) in November 2001, with further commitments to liberalize world trade, particularly regarding areas of importance for developing countries (see Chapter 2).

The Uruguay Round negotiations (1986-94) were primarily concerned with two basic issues regarding trade liberalization: first, ensuring greater access to markets by reducing or eliminating obstacles to trade in goods and services; and second, making the new levels of market access legally binding under more stringent WTO regulations and procedures. In the area of tariff liberalization, this latest round of GATT negotiations achieved an average tariff reduction of 38 percent in industrialized countries and, from the standpoint of the Latin American 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 what is called a "binding" GATT tariff commitment. 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 percent, and for countries in transition 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 existing levels of tariff bindings before the Uruguay Round began. In Latin America, only 38 percent of tariff lines for industrial products were bound, equivalent to 57 percent of imports. For agricultural products, the percentages were 36 and 74 percent, respectively. The simple average bound tariff for Latin American countries is currently around 35 percent.

These unilateral and multilateral efforts were happening just as a flurry of free trade agreements (FTAs) were being signed throughout the Americas. As was noted in Chapter 2, FTAs have a long history in the region, but the 1990s witnessed a revival of trade integration initiatives under the "new regionalism" approach. Several subregional agreements were enacted around the time of the final act of the Uruguay Round. Of particular note were the North American Free Trade Agreement (NAFTA) and the Southern Cone Common Market (Mercosur). In addition, important institutional and policy reforms were carried out in existing agreements such as the Andean Pact (renamed

Andean Community in 1997), the Caribbean Community (CARICOM) and the Central American Common Market (CACM). In December 1994 came the Miami summit that launched the FTAA, the hemispheric economic integration initiative.

Since the mid-1990s, Mexico and Chile have been in the process of consolidating their positions as strategic trade hubs in the region for some time to come. In 1994, Mexico secured three important agreements based on the NAFTA model—with Costa Rica, with Colombia and Venezuela (known as the Group of Three or G-3 Agreement), and with Bolivia. All three agreements were implemented at the beginning of 1995. Mexico then built on this momentum by concluding agreements with Nicaragua in 1997 and with the Northern Triangle (Guatemala, El Salvador and Honduras) in 2000. Finally, Mexico successfully broadened and deepened its agreement with Chile in 1998.

For its part, Chile built its status as a trade hub in gradual and consistent fashion. It signed its first and most basic agreements, in terms of the scope and nature of coverage, with Mexico in 1991, Venezuela in 1992, Colombia in 1993 and Ecuador in 1994. The level of sophistication was expanded somewhat in Chile's 1996 agreement with Mercosur and 1998 agreement with Peru. The broadest effort came in 1996 with the signing of a free trade agreement with Canada, which almost mimicked NAFTA. Chile's upgraded agreement in 1998 with Mexico was also based on the NAFTA model, as were its 1999 accords with the countries of the Central American Common Market. Most recently, Chile has been negotiating a free trade agreement with the United States based on the NAFTA model. When concluded, it will add to the ever-growing list of such North-South Agreements in the hemisphere.

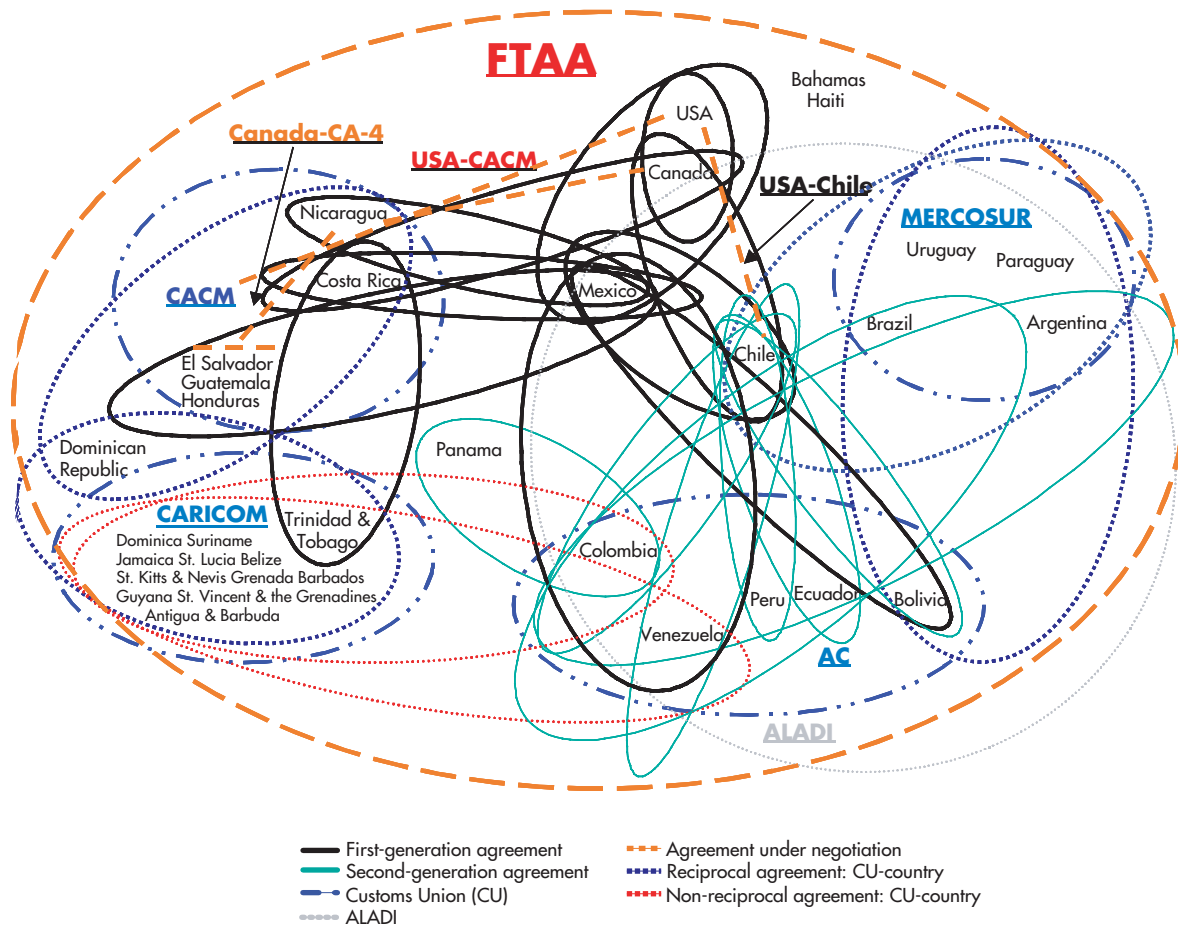
This dynamism has also been present at the extra-regional level, particularly in the context of the Asia-Pacific Economic Cooperation (APEC) initiative. Mexico joined APEC as a full member in November 1993, Chile entered a year later, and Peru in 1998. During the 2nd Presidential Meeting of APEC in November 1994 in Indonesia (the same year of the launching of the FTAA), leaders agreed to achieve free trade and investment in the region by no later than 2010 for the industrialized economies and 2020 for developing countries.

This brief review of the integration efforts in the 1990s would be incomplete without reference to the European Union's involvement with Latin America. The EU signed a trade and economic cooperation agreement with Mercosur in 1995, followed by a framework cooperation agreement with Chile in June 1996. However, the most far-reaching process to date has been the Economic Partnership, Political Coordination and Cooperation Agreement between Mexico and the European Union. The broad framework agreement was finalized in 1997 and led to the signing of a comprehensive free trade agreement between the two parties in 1999. Formal launching of negotiations for association agreements between the EU and Mercosur and Chile was agreed upon in 2000, with Chile signing the agreement in May 2002.

Although all of the 30 reciprocal agreements plus some partial agreements are linked to the objectives of the "new regionalism" approach, each country has pursued its own strategic trade objectives with its own tariff reduction scheme, rules of origin, and technical, procedural and even documental systems. This has given rise to what some observers have dubbed the "spaghetti bowl" effect of trade agreements (Table 3.1 and Figure 3.2). The potential problems represented by this phenomenon will be analyzed in the final section of this chapter in the context of the challenges for the ongoing FTAA negotiations.

The "spaghetti bowl" effect notwithstanding, this overview provides some insights on how Latin America's new regionalism has interacted (and will interact in the future) with other approaches to trade liberalization. Some of the commitments undertaken by the countries in the region under multilateral negotiations can be explained by successful unilateral trade liberalization reforms carried out at the national level. In turn, those same commitments at the multilateral level acted as lock-in mechanisms for the domestic reforms. Similarly, the Uruguay Round agreements set the stage for the pursuit of regional agreements under a common umbrella of global trade rules and a clearer set of disciplines under which preferential agreements can be negotiated. Those global rules may be further strengthened under the new Doha round of negotiations. Moreover, while the reciprocal nature of the multilateral round provides a national political underpinning to further liberalization, and the eco-

Figure 3.2 The Spaghetti Bowl: Trade Agreements Signed and Under Negotiation in the Americas



conomic advantages of free trade achieved at the multi-lateral level are well understood, it is sometimes difficult to evaluate net gains in a negotiating forum of more than a hundred countries with very different strategic interests acting as a constraint to new commitments. Regional and bilateral agreements offer certain advantages in this respect. These agreements are based on reciprocity principles involving a smaller group of countries. This can provide a better environment to reach consensus on the complex range of issues in modern trade agendas, better evaluate the potential gains from this bargaining exercise, and gain private sector understanding and support for the liberalization process. Ethier (1998) has pointed out that regional integration can spur multilateral liberalization by facilitating coordination. In sum, the wave of new

regionalism in the Americas—including the deepening of existing agreements and the ongoing FTAA negotiations—should be seen as complementing unilateral reforms and multilateral efforts.¹

Preferential Tariff Liberalization

Market access negotiations under the “old” regionalism (Chapter 2) used to be carried out by means of a fixed preferential tariff under the most favored nation (MFN) tariffs and, in many cases, were only for a selected group of products or sectors. Unilateral and

¹See Devlin and Ffrench-Davis (1999) and Devlin and Estevadeordal (2001).

Table 3.1 Provisions in Selected Trade Agreements in the Americas

| | NAFTA | Ecuador- Chile | G-3 | Chile- Mercosur | Mexico- Nicaragua | Canada- Chile | Mexico- North Triangle | Bolivia- Mercosur | CARICOM- Dominican Rep. | Chile- Central America |
|-------------------------------------|-------|-------------------|-----|--------------------|----------------------|------------------|------------------------------|----------------------|-------------------------------|------------------------------|
| Tariff elimination | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ |
| HS-based rules of origin | √ | | √ | | √ | √ | √ | | √ | √ |
| ALADI-based rules of origin | | √ | | √ | | | | √ | | |
| Special rules-auto sector | √ | √ | √ | √ | | √ | | | | |
| Agriculture-separate chap. | √ | | √ | | √ | | √ | | √ | |
| SPS measures | √ | √ | √ | √ | √ | | √ | √ | √ | √ |
| Technical barriers to trade | √ | √ | √ | | √ | | √ | | √ | √ |
| Investment | √ | √ | √ | √ | √ | √ | √ | | √ | √ |
| Investor-state dispute settlement | √ | | √ | | √ | √ | √ | | | |
| Services | √ | BE | √ | √ | √ | √ | √ | BE | √ | √ |
| Temporary entry of business persons | √ | | √ | | √ | √ | √ | | √ | √ |
| Government procurement | √ | BE | √ | | √ | | | | BE | √ |
| Intellectual property | √ | | √ | √ | √ | | √ | | √ | |
| Anti-dumping/countervail | √ | √ | | √ | √ | √ ¹ | √ | √ | √ | √ |
| Competition policy | | | | | | √ | | | | √ |
| Dispute settlement | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ |
| Labor/Environment | SA | | | | | SA | | | | |
| Special and differential treatment | | √ | | √ | | | | √ | √ | |

Notes: SA = side agreement; BE = best endeavor to define in the future: the parties shall explicitly seek to develop disciplines in these areas in the future; HS = harmonization system.

¹ The parties agreed to a reciprocal exemption from the application of anti-dumping.

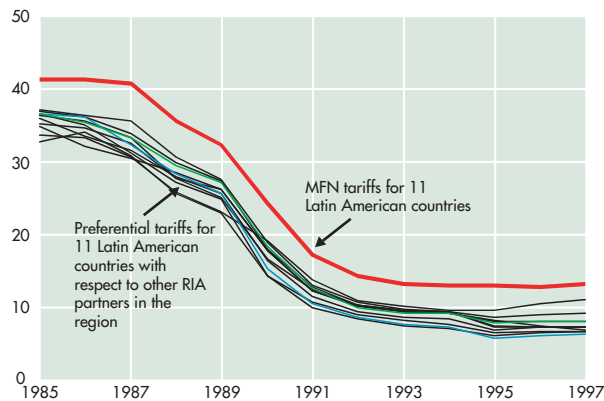
multilateral tariff reductions had the effect of progressively eroding the margins of preference initially agreed upon. In order to maintain those margins constant over time, countries had to renegotiate the agreements on a continuous basis. Alternatively, some agreements were negotiated by means of preferential tariff reductions as a percentage of current MFN applied rates, in this way keeping the margins of preference constant over time. Today, most new regionalism FTAs have followed the NAFTA model,² moving towards tariff elimination programs that are relatively quick, automatic and nearly universal. The tariff elimination mechanism follows pre-specified timetables ranging from immediate elimination up to generally a 10-year phase-out, with longer transitional periods for those products regarded as “sensitive.” The negotiations usually start with an agreement on a base rate or

base level from which phase-out schedules will be applied. These rates can also be subject to negotiations with the aim of beginning the phase-out schedules from lower rates.

Figure 3.3 shows the evolution of MFN tariffs vis-à-vis the preferential rates from 1985 to 1997. The figure compares the average MFN rate for 11 Latin American countries with the average preferential rate that each country applies to all partners in this group under different bilateral or regional trade agreements. It shows in a particularly striking way the simultaneous lowering of external and internal barriers as one of the key features of new regionalism minimizing the proba-

² The internal tariff elimination mechanism in Mercosur also followed an automatic linear program.

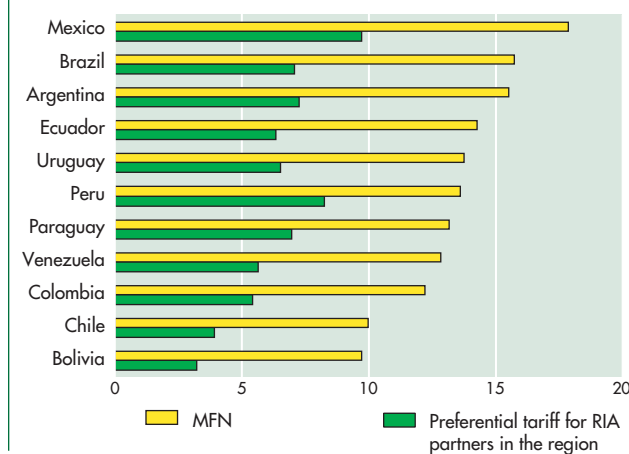
Figure 3.3 MFN and Preferential Tariff Liberalization, Latin America, 1985-97
(In percent)



Note: The countries included are Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Mexico, Paraguay, Peru, Uruguay and Venezuela. Calculations include only ad valorem tariffs.

Source: Estevadeordal and Shearer (2002).

Figure 3.4 MFN and Preferential Average Tariffs for All Products, 1999
(In percent)



Source: IDB calculations using only ad valorem tariffs.

bility for trade diversion. Although tariffs will be fully dismantled under most trade agreements currently in force (the average percentage of exceptions is around 5 percent, which contrasts favorably with most of the old agreements), the internal dynamics of the tariff phase-out programs vary widely across agreements. For some agreements, more than 50 percent of the products become free of tariffs during the first year of implementation of the agreement. For others, those percentages will not be reached until the fifth year or

much later. For instance, in the case of NAFTA, most trade liberalization between the United States and Canada vis-à-vis Mexico took place during the first year of the agreement, while the bulk of Mexico's liberalization to the NAFTA partners was realized five years after the agreement entered into force. The current average margins of preference of selected countries in the region are shown in Figure 3.4. The figure compares the average MFN rate with the average preferential rate of each country to other selected partners in the region with whom there is a trade agreement. Figure 3.5a estimates the percentage of tariff lines that will be fully liberalized by 2005 as a result of implementing existing tariff liberalization programs, while Figures 3.5b and 3.5c provide estimates in terms of the amount of intra-regional trade covered by those agreements and the percentage that would be fully liberalized by 2005 assuming a stable trade pattern. Based on the estimate that 80 percent of total intra-hemispheric trade will be liberalized by 2005, the year that the FTAA is expected to enter into force, and the fact that compliance with multilateral rules will require that liberalization cover "substantially all trade,"³ it can be concluded that the bulk of the difficulties in negotiating tariff liberalization in the FTAA will affect around 10 percent of current intra-regional trade flows.

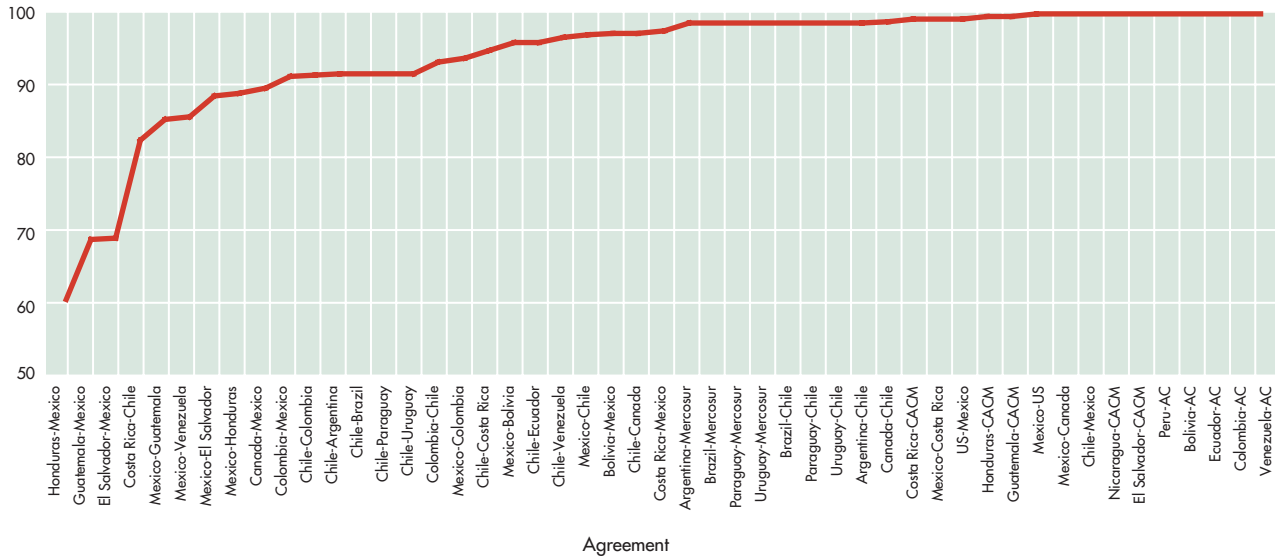
Do Preferential Trade Agreements Matter for Trade?

Over the past decade, a significant amount of meaningful literature has attempted to assess the implications of preferential trading arrangements for trade patterns, global welfare, and the multilateral trading system.⁴ This literature has for the most part focused on

³ GATT Article XXIV (8) mandates that for customs unions and free trade areas to be considered as such under multilateral trade rules, they must provide for the elimination of duties and other restrictive measures on "substantially all trade." No universally accepted definition exists as to what constitutes "substantially all trade." Disputes among parties have arisen over whether the criteria should be the number of tariff lines liberalized, the value of trade liberalized, a combination thereof, or whether or not it must include all major categories of products, (i.e., agriculture). In this calculation we are using 90 percent of trade as the cut-off level for the definition of "substantially all trade."

⁴ See Bhagwati and Panagariya (1996); Frankel (1997); and Bhagwati, De Melo and Panagariya (1993); Krishna and Panagariya (1999).

Figure 3.5a Trade Liberalization by 2005: Percent of Items to be Tariff-Free



Note: The first country is the importer (liberalizing country in the bilateral relation), and the second is the exporter (beneficiary country in the bilateral relation).

Figure 3.5b Trade Liberalization by 2005: Percent of Free Trade Imports from the Americas (including U.S. and Canada)

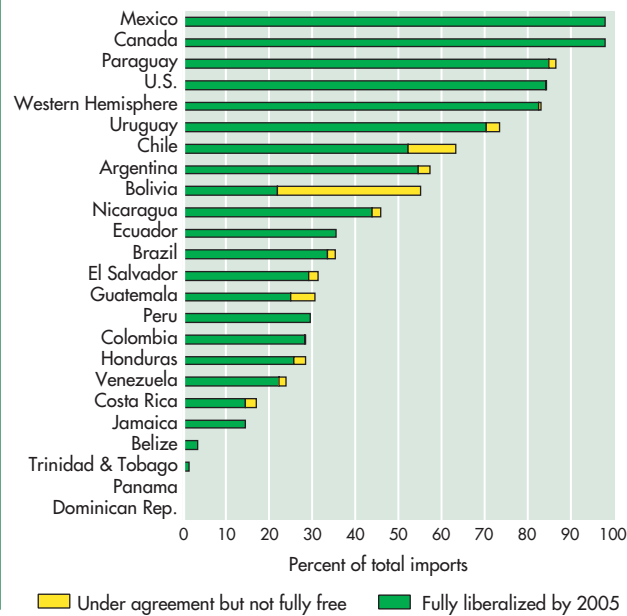
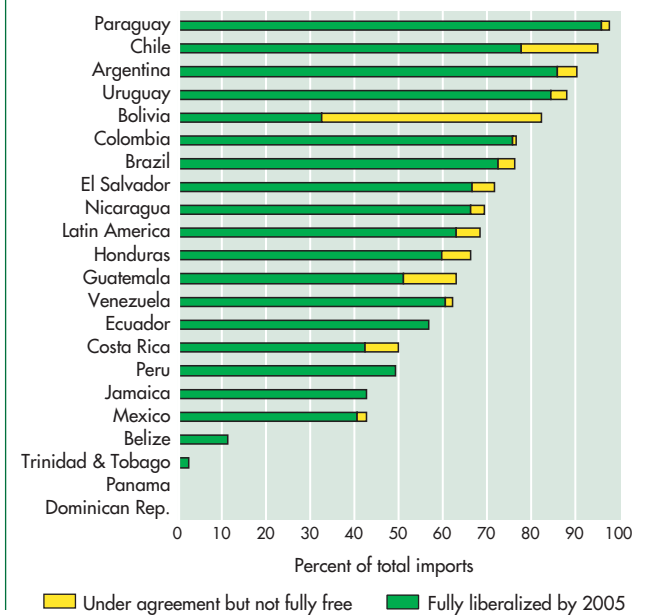


Figure 3.5c Trade Liberalization by 2005: Percent of Free Trade Imports from Latin America



Source: Esteveordal, Harris and Shearer (2002).

Box 3.1 A Primer on the Gravity Model

The gravity model provides a useful framework for assessing the impact of policy variables on the behavior of bilateral flows between countries, such as trade, foreign direct investment (FDI) or migration flows. The gravity model was first applied to the analysis of international trade flows by Tinbergen (1962), Poyhonen (1963) and Linnemann (1966). Its name is derived from its passing similarity to Newtonian physics, in that large economic entities such as countries or cities are said to exert pulling power on people (migration models) or their goods (trade models) or capital (FDI models). The simplest form of the gravity model for international trade assumes that the volume of trade between any two trading partners is an increasing function of their national incomes and populations, and a decreasing function of the distance between them. It is also common to use the so-called dummy variables to capture geographical

effects (such as signaling whether the two countries share a border, or if a country has access to the sea), cultural and historical similarities (such as if two countries share a language or were linked by past colonial ties), regional integration (such as belonging to a free trade agreement or sharing a common currency), as well as other macroeconomic policy variables (such as bilateral exchange rate volatility). Although widely used because of its empirical success, the gravity model had lacked rigorous theoretical underpinnings, and was long criticized for being an ad hoc model. However, Anderson (1979), Bergstrand (1985), and Helpman and Krugman (1985) have derived gravity equations from trade models based on product differentiation and increasing returns to scale. Evenett and Keller (2002) provide a good overview of this debate.

whether those agreements are good or bad for world welfare from a theoretical perspective. However, the empirical evidence is still relatively limited, and we know very little about the magnitude and significance of changes in trade barriers on a preferential basis and the resulting changes in bilateral trade volumes. Most of the recent literature has explored the effects of preferential trade agreements on trade volumes using a gravity model with the inclusion of dummy variables for trade agreements (see Box 3.1).⁵ In general, the effects of a free trade agreement on intra-area trade are quite large. Frankel (1997) has found that the formation of the EC raised trade among European countries by about 65 percent, and Mercosur and the Andean Pact promoted trade by a factor of about two-and-a-half among their partners. Estevadeordal and Robertson (2002) have examined the effects of preferential agreements on the volume of bilateral trade employing a gravity equation by precisely measuring preferential tariffs.⁶ They analyze the role of preferential and MFN tariffs on the volume of trade, based on a specification advocated by Anderson and van Wincoop (2000) with data from several Latin American countries and its major industrialized partners, the United States, Canada, Europe and Japan.

One of the key advantages of this gravity approach is that it directly compares the contributions of “policy” frictions, such as tariffs, with “geographical” frictions due mainly to transportation costs.⁷ A consistent result of the gravity equation literature is that transportation costs, as proxied by distance to markets, have a large and significant effect on trade volumes. If distance dwarfs the effects of trade barriers, then countries that are relatively far from larger markets may not experience large benefits from integration agreements. Estevadeordal and Robertson (2002), however, find that tariff elasticities (the percent change in trade vol-

⁵ See Frankel (1997). There is also considerable literature based on general equilibrium models that estimates the impact on trade of liberalization, including scenarios of regional trade agreements not reviewed here.

⁶ Linnemann and Verbruggen (1991) have explicitly studied the impact of tariffs on bilateral trade patterns using a gravity model framework. However, Estevadeordal and Robertson (2002) is the first study that explicitly incorporates preferential tariff rates in a gravity model.

⁷ It is important to understand the magnitude of the impact of removing those frictions on trade, since some studies also find a positive relationship between trade and growth (Frankel and Romer, 1999). However, the argument that trade liberalization leads to growth has been disputed by others (Rodríguez and Rodrik, 1999).

umes induced by a 1 percent change in tariffs) are almost equivalent in magnitude to the effects of distance. This suggests that while countries cannot change their location, they can change trade policy in a way to increase the benefits of trade. For example, Chile, which suffers a geographical disadvantage in terms of distance from most industrialized markets, experienced a large increase in bilateral trade after signing a bilateral FTA with Mexico. A similar result is expected from Chile's recent agreement with Canada and one currently being negotiated with the United States. Therefore, FTAs are a speedy way to look for new trade opportunities with distance partners, as in the case of the agreements with the European Union or other Northern partners.

Rules of Origin

Rules of origin are an important but often forgotten aspect in analysis of market access in FTAs. Under an FTA, each country maintains its own external tariffs vis-à-vis the outside world.⁸ To the extent that these barriers differ, there is always the incentive to import a good through the country with the lowest barriers. Rules of origin are required to prevent such trade deflection. They specify the conditions that goods must meet in order to be deemed as "originating" and hence be eligible for preferential tariff treatment. The growth of international trade in goods that are not manufactured in a single country has made the issue of the rules for determining the "origin" of traded goods one of the most important and complex areas of preferential market access negotiations.

While the simpler rules rely on a single uniform criterion across all products, such as in ALADI-type agreements, the more complex agreements such as NAFTA⁹ use a general rule plus additional specific rules negotiated at the product level, combining in different ways three methods to establish "substantial transformation." Those methods can be defined in terms of a "tariff shift" approach, a "value-added" criterion, or a "technical test."¹⁰ Immediate precedents of the NAFTA model, with a lower degree of specificity, are the rules of origin contained in the FTA between the United States and Canada. The rules negotiated under the G-3 agreement, the Mexican bilateral agreements with Costa Rica and Bolivia, and the recent Chilean

bilateral agreement with Mexico and Canada are also close to the NAFTA model. Meanwhile, rules introduced under Mercosur and its bilateral agreements with Chile and Bolivia, as well as the Central America Common Market, can be considered intermediate models between the two extreme cases.¹¹

Although rules of origin are well known to trade lawyers and customs specialists (Vermulst and Bourgeois, 1994), they have only recently caught the attention of economists. While the impact of political and economic interests in shaping rules of origin is well known, there have been few attempts to estimate those effects. Economic analysis has been relatively limited both in terms of formal modeling as well as empirical testing. It has been argued that the way in which rules of origin are defined and applied within modern preferential agreements plays an important role in determining the degree of protection they confer and the level of trade distortion effects that they produce (Hoekman, 1993). One of the most convincing treatments of the potential "hidden" protectionism of rules of origin has been by Krishna and Krueger (1995), who argued that, provided that margins of preference are large and rules are restrictive, they can induce a switch in the sourcing of low-cost nonregional to high-cost regional

⁸ This is a key difference with a customs union, where the members maintain common external tariffs vis-à-vis the rest of the world.

⁹ NAFTA arguably contains the most sophisticated origin regime yet devised. These highly disaggregated and heterogeneous rules run for many pages and make liberal use of the different types of origin methodologies. Understandably, the negotiating history of NAFTA is replete with battles over the content of specific rules of origin, for the difference between a favorable and unfavorable rule can easily run in the millions of dollars annually for some firms.

¹⁰ The "tariff shift" criterion requires that after transformation of one or several imported inputs in the exporting (originating) country, the processed product exported falls under a different heading of the tariff nomenclature than that under which the imported inputs were classified. The "value-added" criterion prescribes the minimum percentage of value that must be added in the exporting country or the maximum percentage of value accounted by imports in order to be qualified as originating. Finally, the "technical test" is based on manufacturing or processing operations that are required to confer originating status.

¹¹ While the method for conferring origin to a product constitutes the central element of an origin regime in a free trade agreement, there are other important provisions that are not analyzed in this chapter. These include the cumulative provisions that establish the conditions under which imports from certain sources may be counted as domestically supplied in the preference-receiving exporting country. Other provisions related to origin consideration include whether or not there are duty drawback rules.

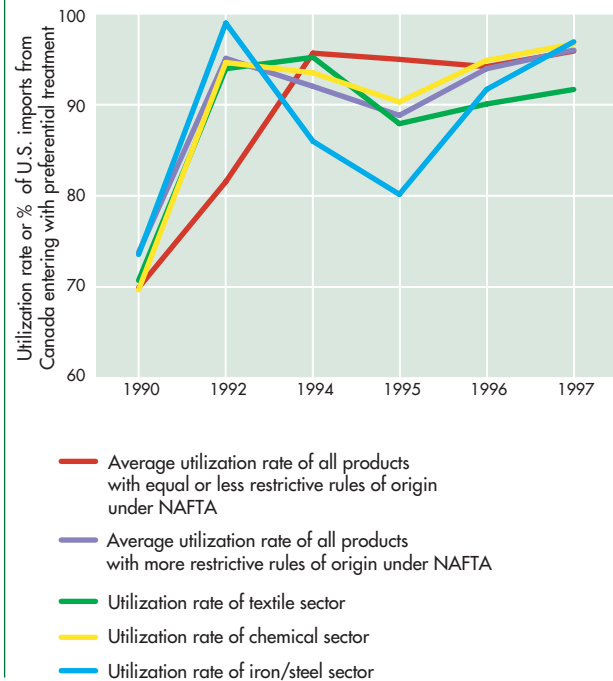
inputs in order for producers to take advantage of the preferential rates. Thus, restrictive rules may provide additional protection to regional producers of intermediate goods, to the detriment of downstream or final goods producers. Moreover, outside producers of intermediate goods hurt by restrictive rules may have an incentive to move production facilities into the lower-cost country within the region, even though it is not the lowest cost producer worldwide.

Do Rules of Origin Matter for Trade?

As noted in a recent document of the United Nations Conference on Trade and Development, “the mere granting of tariff preferences or duty-free market access to exports originating in LDCs does not automatically ensure that the trade preferences are effectively utilized by beneficiary countries” (UNCTAD 2001, p. 8). Brenton and Manchin (2002) have estimated that in 1999, whereas the EU’s Generalized System of Preference (GSP) theoretically covered 99 percent of EU imports from eligible countries, only 31 percent of exports were shipped under preferential rates by those countries. According to the authors the main reason was restrictive rules imposed by the EU, coupled with the costs of compliance with those rules. Estevadeordal and Miller (2002) have also shown that in the case of NAFTA, those “missed preferences” (UNCTAD, 2001) can be directly related to the restrictive effects and compliance costs of the rules of origin.¹² The study shows that for those sectors where the NAFTA rules of origin became more restrictive vis-à-vis the rules governing the previous FTA agreement between the United States and Canada, the “utilization rates,” or the percentage of trade that uses preferential tariffs as opposed to MFN tariffs, experienced a substantial decline (Figure 3.6). Depending on individual sectors, this effect can be attributed to the sudden administrative burden of dealing with a new set of complicated rules to which firms may eventually adjust, or to absolutely restrictive effects of more stringent rules.

Rules of origin should be viewed as primary policy instruments in any market access negotiations, not just as having a supportive role in the application of a primary instrument such as preferential tariffs. Estevadeordal (2000) has documented the interaction

Figure 3.6 From U.S.-Canada FTA to NAFTA: Rules of Origin and Utilization Rates



Source: Estevadeordal and Miller (2002).

between the degree of stringency of the NAFTA rules of origin and the speed of tariff liberalization, stressing the importance of considering rules of origin as key policy instruments in the design and implementation of FTAs. In the case of NAFTA, the study finds that the origin regime clearly performed its main role as an instrument against trade deflection. It finds a strong correlation between the differential of Mexican and U.S. MFN tariffs, which provides an incentive for trade deflection, and the degree of restrictiveness imposed by the rules of origin. However, as discussed earlier, those rules can have an additional intended or unintended protectionist effect. In the case of NAFTA, there is evidence that sectors with more restrictive rules of origin were also the ones with longer tariff phase-out periods; that is, rules of origin and phase-out periods

¹² From a methodological point of view, the study takes advantage of the fact that the preferential tariff regime negotiated in the U.S.-Canada FTA was not modified under NAFTA, while the major changes in market access conditions were due to the drastic overhaul of the origin regime.

could be viewed as complementary instruments of a discriminatory tariff policy. However, a more sophisticated interpretation of this result would be the existence of a substitution effect; that is, although preferential tariffs would be fully dismantled at the end of the phase-out period, the origin requirement would remain in place, providing some protective effects. Borrowing the language of the endogenous protection literature, one could conclude that the same forces that push for tariff protection also push for more stringent origin rules.¹³

Obstacles to Market Access Liberalization: Non-tariff Measures

Because governments have to a significant degree abandoned across-the-board protectionism, they are increasingly seeking other restrictive trade instruments that can be used effectively at the sectoral level. Hence the burgeoning interest in rules of origin and other non-tariff measures (NTMs). A major accomplishment of several rounds of multilateral trade negotiations in the context of the GATT agreement has been the steady reduction of tariffs across sectors and countries. Tariff reductions negotiated during the Kennedy Round (1967) and the Tokyo Round (1979) were followed by an increased use of non-tariff barriers in the form of quantitative restrictions. The Uruguay Round made important progress in reducing those types of trade barriers. Although consistent under WTO rules, countries are progressively relying on more subtle forms of protection such as anti-dumping investigations or the use of technical standards. The level of protection provided by such barriers is far more difficult to quantify than for tariffs or other quantitative restrictions, making negotiations for their removal difficult. But while determining the tariff equivalent of quantitative restrictions is difficult, figuring out the costs to an importer of the paperwork for a health permit, a change in packaging requirements, or inconsistent enforcement of customs standards often proves practically impossible. The benefits of traditional trade liberalization can be greatly reduced if countries merely compensate by imposing hidden protective technical measures.

Although most regional agreements contain provisions on the application of non-tariff measures, in most cases those are applied on a most-favored nation basis (minimum price setting, automatic license

arrangements, non-automatic licenses, tariff rate-quotas,¹⁴ import prohibitions, monopolistic measures in the administration of imports, and other technical measures). During the period prior to trade liberalization reform, most countries required import licenses in order to assure that imports did not surpass pre-set quotas. These levels could be modified by authorities in response to foreign exchange crises, becoming in practice an instrument to deal with balance of payment problems. The countries of the region gradually eliminated quantitative limits on imports both unilaterally and within the framework of multilateral commitments assumed during the Uruguay Round. There remains, however, trade regulation that could potentially restrict trade, such as government purchasing arrangements, inappropriate use of anti-dumping measures, and the increasing use of certain competitive policies and technical measures for protective purposes. Figure 3.7 gives an overall estimate of NTM coverage as well as a measure of the incidence of quantitative and technical measures.¹⁵ Although their importance differs greatly among countries, these measures clearly are significant, particularly in light of their potential use as protectionist measures.¹⁶

THE SPECIAL CASE OF AGRICULTURAL TRADE LIBERALIZATION

Agriculture is a sensitive, complex and heterogeneous sector for most Western Hemispheric countries, having different importance and meaning for each country. Overall, it absorbs a considerable portion of the eco-

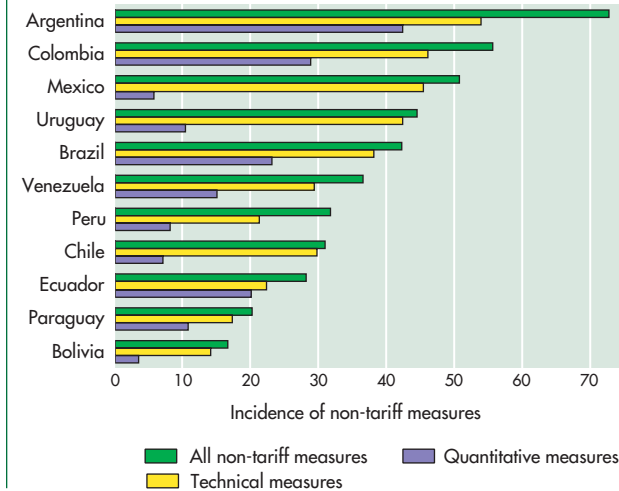
¹³ An extension of this analysis can be found in Cadot et al. (2002).

¹⁴ A tariff-rate quota (TRQ) is a two-tiered tariff. In a given period, a lower in-quota tariff is applied to a given amount of first imports and a higher over-quota tariff is applied to all subsequent imports.

¹⁵ Those measures are based on data compiled by UNCTAD and the Inter-American Development Bank under the project TRAINS for the Americas.

¹⁶ The empirical evidence on the administrative costs of non-tariff measures and other regulations is scant. Using firm-level data, Koskinen (1983) estimated administrative compliance costs under the FTA between the European Free Trade Association (EFTA) and the EC were between 1.4 percent and 5.7 percent of the value of export transactions, while according to Holmes and Shephard (1983), the average export transaction from EFTA to the EC required 35 documents and 360 copies.

Figure 3.7 Non-tariff Measure Incidence Indicator as a Percent of Tariff Lines Covered



nomically active population, and represents a high percentage of GDP and exports. For small economies such as most of the Caribbean countries, it means strong dependence on preferential or duty-free access agreements such as the Generalized System of Preferences (GSP) or the Lomé-Cotonou Agreements between the European Union and the ACP countries. The elimination of subsidies is a sensitive issue for the net food importer countries, since they depend strongly on low-cost food imports and consequently resist the elimination of export incentives in the developed world such as agricultural export subsidies and credits and food aid mechanisms. For medium-sized economies such as Brazil and Argentina, agriculture is a competitive sector with strong potential to generate trade balance surpluses. These countries can be expected to demand further liberalization. For large economies like the European Union, the United States and Japan, agriculture is a politically sensitive sector due to the pressure that lobby groups exert on the lawmaking process. As a result, agriculture is a strategic issue for all Latin American countries in all of the regional and multilateral trade negotiations.

Despite the achievements of the Uruguay Round Agreement on Agriculture, the sector continues to be the most protected in the world economy. Protection through ad valorem tariffs continues to be the main

vehicle for trade protection; however, agricultural products are unique in that they also are protected through specific and compound tariffs, tariff rate quotas, sanitary restrictions, domestic and export subsidies, and many different types of non-tariff barriers (licensing, standards, voluntary export restrictions, prohibitions, state trading, etc.). This section examines some of those policy instruments used today throughout the Western Hemisphere to protect the agricultural sector. It analyzes current agricultural trade in the region as well as tariff profiles and comparative protection levels.^{17, 18}

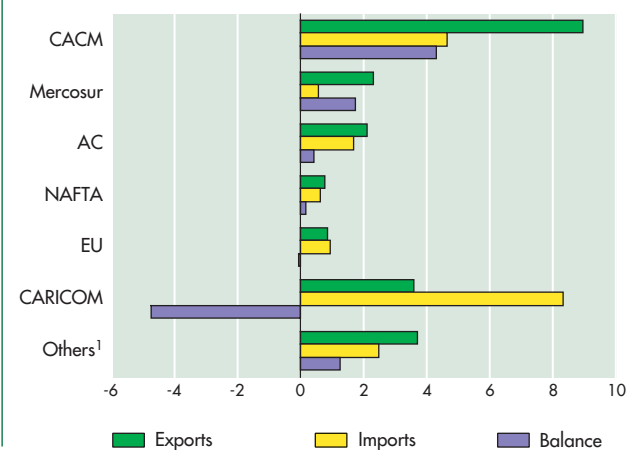
Agricultural trade in the Western Hemisphere totals \$200 billion and represents approximately 30 percent of the world's agricultural trade and 7 percent of total hemispheric trade. Approximately half of the countries included in this study run agricultural trade surpluses. Figure 3.8 shows trade performance as a share of GDP of the five regional blocs within the Western Hemisphere. Even though NAFTA is by far the major hemispheric trader of agricultural products, it has the smallest trade as a percentage of GDP. Mercosur and Central America have the largest trade surplus in relative terms, while the 15 Caribbean countries show an overall deficit, mainly concentrated in food products. Specifically, in 2000, the United States, Argentina, Brazil and Canada had the largest agricultural trade surpluses, while Mexico, Venezuela, the Bahamas and the Dominican Republic had the largest deficits (see Appendix 3.1, Table 1).

The most commonly used methods to measure tariff protection are the mean to depict the overall level of tariffs, and the standard deviation to measure tariff dispersion. The average tariff on agricultural products in the region is 16 percent, with Barbados, the Bahamas, Mexico, Dominica, the Dominican Republic and Canada having the highest ad valorem equivalent

¹⁷ See Appendix 3.1 for data definitions and methodologies used in this section.

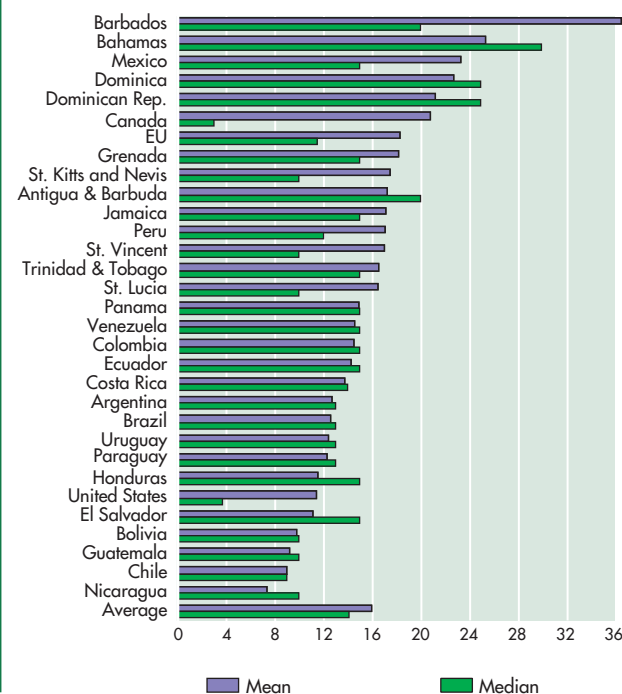
¹⁸ This chapter uses data collected from the 2001 Hemispheric Database of the Americas for 30 of the 34 FTAA member countries (excluding Belize, Suriname, Guyana and Haiti, due to lack of trade-related data). The objective is to build a complete profile of the levels of protection by country and by main groups of products. The study uses MFN applied rates, since these will be the tariffs used in the FTAA negotiations. Therefore, preferential and intra-bloc tariffs were not considered.

Figure 3.8 Total Agricultural Trade in the Western Hemisphere, 2000
(Percent of GDP)



¹ Chile, the Dominican Republic and Panama.
Source: Hemispheric Database in the Americas, 2001.

Figure 3.9 Tariff Structure in Agriculture, 2000
(In percent)



Source: IDB calculations based on Hemispheric Database in the Americas, 2001, including the conversion of all specific and mixed tariffs into ad valorem equivalents.

tariffs (AVE), averaging over 20 percent. Nicaragua, Chile, Guatemala and Bolivia have the lowest average tariffs, below 10 percent (Figure 3.9 and Appendix 3.1, Table 1). However, aggregates such as the mean and dispersion do not tell the whole story. For example, comparing the mean and the median of a country's tariff schedule may provide valuable insights into the agricultural trade policy of different countries.¹⁹

Most countries of the Western Hemisphere have close mean and median tariffs, indicating that their tariff schedule is normally distributed. However, in Canada, the European Union and the United States, the median is far lower than the mean. This indicates the simultaneous presence of a large number of tariff lines far below the mean, and a smaller number of tariff lines with very high rates, commonly called "tariff peaks" or "megatariffs." In other words, these countries apply very high tariffs on a very small group of sensitive products, while the remainder of their tariffs are kept at low levels.²⁰ Canada ranks first with 98 tariff lines above 50 percent, with some products from the milling industry reaching equivalent rates of up to 530 percent. In the case of the United States, 4 percent of its tariff lines (61 lines) have rates above 50 percent, and up to 350 percent in some tobacco products. Nevertheless, the United States' high proportion of low rates (83 percent of its tariff lines have rates below 15 percent) offsets the impact of its megatariffs and ultimately results in a low overall average. In the case of Mexico, 5 percent of its tariff lines (54 tariff lines) are above 50 percent and run as high as 260 percent. But Mexico also represents the third highest mean among all FTA countries (23 percent).

All the South American countries except Peru have means and medians that are very close. This

¹⁹ The arithmetic mean is what is commonly called the average and is the sum of all the scores divided by the number of scores. Dispersion is measured through the standard deviation, which measures the degree to which a value varies from the distribution mean. The median is the midpoint of a tariff schedule's distribution in ascending order of value: half the scores are above the median and half are below the median.

²⁰ Olarreaga and Soloaga (1997) study several industry conditions that are correlated to high tariff protection, including high levels of industry concentration, low import penetration ratios, low share of sector production that is purchased by other sectors as intermediaries, high labor/capital ratio, and small share of intra-industry trades.

shows that the process of liberalization in the 1990s was accomplished without exclusions in the agricultural sector. Mercosur countries in particular have experienced a strong convergence in their agricultural tariffs. These countries all have means of approximately 12 percent; medians of exactly 13 percent; and standard deviations of about 6 percent. Andean countries have means and medians ranging between 10 percent and 17 percent and dispersions below 6.5 percent. Chile is a particular case. Even though its ad valorem tariffs appear to be one of the lowest, set at 9 percent for all products, agricultural imports are subject to price bands²¹ and other restrictions that significantly protect against imports. This is a clear example of how non-tariff barriers make measurement of tariff protection a difficult task.

Another important measure of tariff protection is the type of tariff applied. Tariff barriers in agriculture are not only based on ad valorem tariffs, but also on the extensive use of specific and mixed tariffs and tariff-rate quotas.²² NAFTA countries in particular stand out for their use of such tariffs. More than one-third of U.S. tariffs are specific, followed by Canada with 19 percent and Mexico with 1 percent. Some Caribbean countries also apply specific tariffs, which results in higher protection the more competitive the exporting country is. All the South American countries only use ad valorem tariffs.

The concentration of exports in some specific agricultural product groups is a clear phenomenon in Latin American and Caribbean countries. The Hirschmann-Herfindahl Index (HHI)²³ can be used to measure the level of trade concentration in specific products (see Figures 3.10a and b and Appendix 3.1). According to the HHI, exports are approximately seven times more concentrated than imports. Caribbean and Central American countries have the highest levels of export concentration in specific products. Examples are St. Kitts and Nevis, where raw sugar represents 75 percent of agricultural exports; St. Lucia, where bananas and beer represent 92 percent of exports; and Honduras, with coffee and bananas representing 74 percent of exports. The most diversified countries in terms of exports are the United States, Canada and Mexico.

A country whose main exports are raw sugar and bananas is not interested in the overall level of tar-

iffs imposed by another partner, but only on the tariffs imposed on its main exports. In fact, this country will be interested in the additional access that would be provided to its primary traded products through multilateral and regional negotiations. Statistical aggregates such as those shown above (e.g., means, medians and dispersions) do not measure the real importance and levels of tariff protection on very specific and sensitive products. A better measure in those cases is the Relative Tariff Ratio (RTR) index, originally developed by Sandrey (2000). The index considers a two-country world, where each tariff line of country A is weighted by country B's total exports for the same tariff line, and vice versa (Appendix 3.1). The index is constructed as the ratio between a country's faced tariffs in the numerator and its imposed tariffs in the denominator.

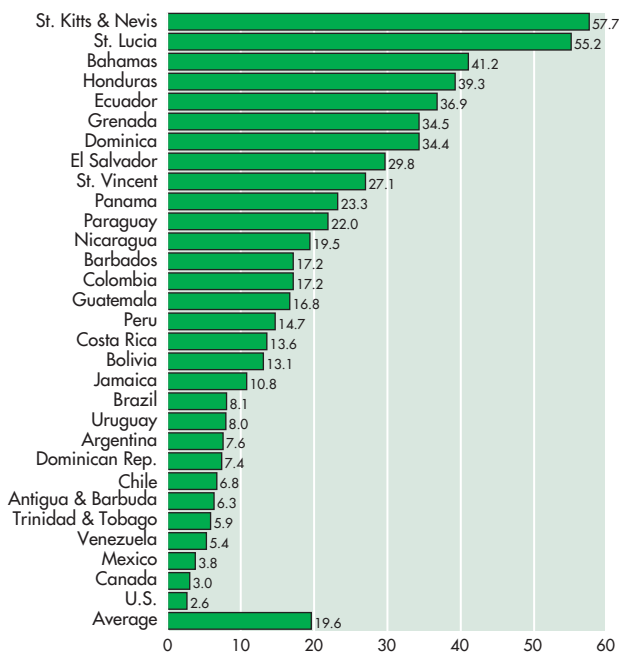
Following the RTR concept, Jank, Giordano and Devlin (2002) propose an extension of a new RTR index at the regional level called the Regional Export Sensitive Tariff index (REST, see Appendix 3.1). The REST index aggregates all tariffs faced and imposed by each country at the regional level into a single indicator, representing a ratio of the weighted value of those tariffs. The index measures each country's faced tariffs from its partners, weighted by its total exports in

²¹ Price bands regulate markets so prices remain within a specified range. In the case of Chile, for example, the price band for wheat is a pair of variable tariffs: one increases to defend a floor price and one decreases to defend the ceiling price. The band has two tariffs, an ad valorem tariff that is always imposed, and a specific tariff that is determined by a tariff algorithm. When international prices are between the floor and the ceiling, the specific tariff is zero and only the ad valorem tariff is imposed. When the international prices are below the floor or above the ceiling, the specific tariff is increased or lowered to keep the price within the set limits. The price band loses its capacity to offset international prices when the tariff increase reaches its bound level or when it is decreased to zero. See Skully (2001b).

²² Ad valorem tariffs are calculated as a percentage of the value of the goods, which is normally the CIF (cost, insurance and freight). Specific tariffs are calculated as a percentage or a fixed amount per volume units (i.e., kilograms), and consequently result in higher protection levels the more competitive the exporting country is (lower import prices result in higher ad valorem equivalents). Mixed or compound tariffs are a combination of ad valorem plus specific rates.

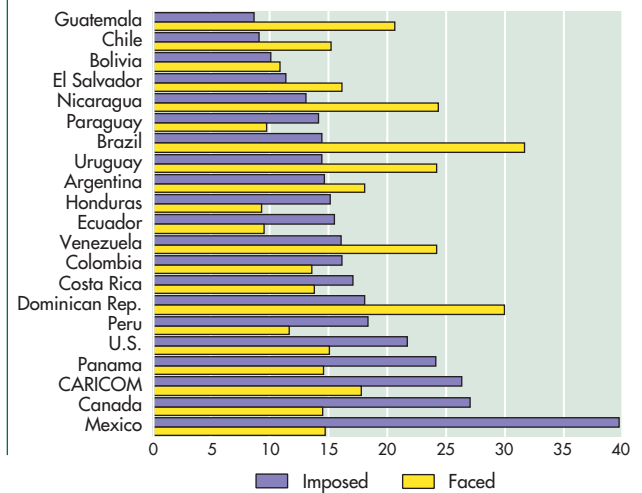
²³ The Hirschmann-Herfindahl Index (HHI) is equal to the sum of the squared shares of all products (tariff lines) exported. When a single export product or tariff line produces all the revenues, the HHI equals 100; when export revenues are evenly distributed over a large number of products, HHI approaches zero (see Appendix 3.1).

Figure 3.10a Agriculture Trade Concentration: The Hirschmann-Herfindahl Index for Exports
(0-100)



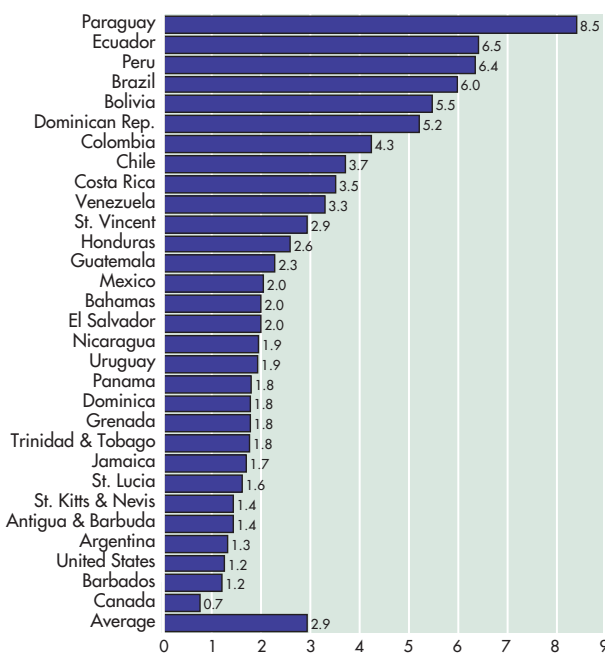
Source: IDB calculations based on Hemispheric Database in the Americas, 2001.

Figure 3.11 Weighted Agricultural Tariffs Faced and Imposed
(In percent)



Source: IDB calculations based on Hemispheric Database in the Americas, 2001, including the conversion of all specific and mixed tariffs into ad valorem equivalents.

Figure 3.10b The Hirschmann-Herfindahl Index for Imports
(0-100)

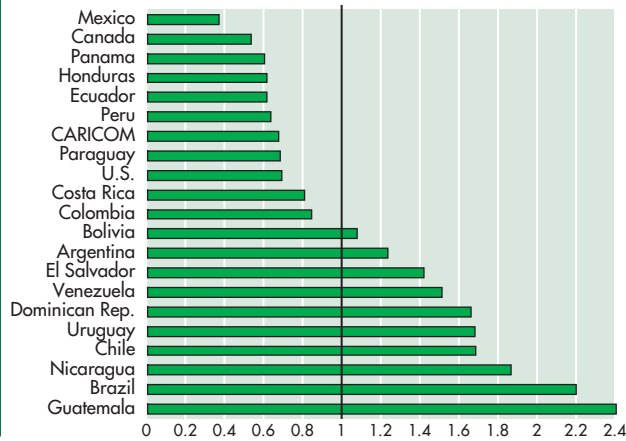


Source: IDB calculations based on Hemispheric Database in the Americas, 2001.

the numerator, and each country's imposed tariffs, weighted by the total exports of all its partners in the denominator, calculated on a bilateral basis. Both the RTR and the REST indices can be used to gauge the concessions that each country would be making relative to those it would receive, in the event of the elimination of barriers for agricultural trade. The advantage of the REST index is that it can go far beyond the bilateral level, and address the important issue of liberalization at a regional or multilateral level.

Figure 3.11 displays the value of the agricultural tariffs effectively faced and imposed by 20 individual countries in the Americas as well as by the CARICOM nations. Figure 3.12 presents the calculation of the REST index for agricultural products considering the same sample and using MFN tariffs. These figures show very clearly that NAFTA, Caribbean and most Andean countries impose higher weighted tariffs than they face in the Western Hemisphere. The biggest face-off is in Mexico and the United States, whose high tariffs imposed on a very small group of products are significant to potential FTAA partners. In other words, those countries are net liberalizers within the integration process in terms of tariff protection. But this could be substantially modified when one considers other

Figure 3.12 Regional Export Sensitive Tariffs Index (REST)



Source: IDB calculations based on Hemispheric Database in the Americas, 2001, including the conversion of all specific and mixed tariffs into ad valorem equivalents.

aspects of protectionism, such as non-tariff barriers, domestic support and export subsidies (see Box 3.2). One of the best ways to measure the trade effects of removing tariff protection and subsidies is through the use of a computable general equilibrium model (CGE). Appendix 3.2 displays an exercise of the potential trade effects of agricultural reform in the Americas.

On the other hand, all the Mercosur nations, Chile and most Central American countries would be net winners of agricultural liberalization. Brazil would rank second in this process above Uruguay, Chile and Argentina as a result of the high tariffs faced by Brazil's sensitive products such as sugar, orange juice and tobacco. All Mercosur countries should take into consideration the important potential gains to be realized in the agricultural sector as a result of balanced FTAA negotiations, as well as the setback that they could face in the absence of this agreement. In brief, agricultural trade liberalization in the Western Hemisphere will prove to be one of the main challenges throughout the FTAA negotiations, but also one of the main areas for market access opportunities.

THE "SPAGHETTI-BOWL" OF TRADE AGREEMENTS IN THE AMERICAS AND THE FTAA NEGOTIATIONS

The FTAA faces a difficult job in defining the terms of coexisting with other trade agreements in the hemisphere. The ministers have coined a language that does not necessarily contribute to solving the technical problems involved.²⁴ For practical purposes, more than 30 trade agreements now coexist in the hemisphere, in addition to those that are under negotiation or that will be negotiated by 2005. This implies the challenge of deciding how to deal with current and potential market access conditions for the goods that will benefit from this complex set of trade agreements, each with its own tariff reduction schemes, rules of origin, and technical, procedural and even documental systems.

Many of these agreements have led or are leading to different complex programs to phase out trade barriers. The pace and speed of each depends on the results of negotiations among member states. Some of these also exclude certain goods or give special treatment to specific sectors. Consideration clearly must be given to what kind of treatment the FTAA can give these goods or sectors; or, if the treatment given under other agreements differs from that negotiated in the FTAA framework, it is worth considering whether such agreements can in fact coexist.

In addition to the multitude of programs for phasing out trade barriers in the hemisphere, each agreement also has its own rules of origin regime.²⁵ Rules of origin in themselves can add considerable complexity, both to negotiations and to their execution and verification. Likewise, the criteria for determining origin, the precise content of the "accumulation" clauses, and the specific rules for goods can vary greatly

²⁴ The Ministerial Declarations made at the San José and Buenos Aires conferences establish that "the FTAA can co-exist with bilateral and subregional agreements, in so far as the rights and obligations under such agreements are not covered by or do not exceed the rights and obligations of the FTAA." Despite these observations, it is important to remember that the agreements in force are the building blocks of the FTAA. In many countries in the hemisphere, these agreements have helped build political consensus in favor of freer trade and the FTAA.

²⁵ For a detailed analysis of the different regimes, see Cornejo and Garay (1999, 2001).

Box 3.2 Agricultural Domestic and Export Subsidies

One of the major breakthroughs of the Uruguay Round Agreement on Agriculture was the recognition of the direct link between agricultural subsidies and international trade. In terms of domestic support, agricultural policies that have trade-distorting effects were identified by an indicator called the "aggregate measurement of support" (AMS). The "amber box" was created based on this AMS. In addition, the agreement required countries to notify (identify) their export subsidies. While under GATT export subsidies for industrial products have been prohibited during the multilateral rounds, in the case of agriculture, such subsidies were only subject to limited disciplines and reductions. The table below shows the evolution of domestic and export subsidy notifications in the Western Hemisphere, compared to all

other major players in the world. The potential FTAA members have low levels of both subsidies, but the United States has been increasing its domestic support in recent years, a trend expected to continue after the approval of the 2002 farm bill (the Farm Security and Rural Investment Act). The Western Hemisphere countries traditionally have very low levels of export subsidies and would easily be able to eliminate such subsidies in the near future. However, other similar measures—such as officially supported export credits on agriculture, the abuse of international food aid programs, the presence of state trading enterprises, and export restrictions—have been used in the region and could be relevant in the multilateral and regional negotiations.

Table 1 WTO Notifications in Domestic Support and Export Subsidies
(Millions of US\$)

| | Domestic support ¹ | | | Export subsidies | | |
|----------------------------|-------------------------------|-------------------|------------------|------------------|-------|------------------|
| | 1995 | 1998 ⁴ | (%) ² | 1995 | 1998 | (%) ² |
| United States | 6,214 | 10,400 | 7.1 | 26 | 147 | 1.5 |
| Mexico | 452 | 1,258 | 0.8 | - | 4 | 0.1 |
| Canada | 568 | 522 | 0.5 | 38 | na | 0.2 |
| Venezuela | 542 | 211 | 0.4 | 3 | na | 0.1 |
| Argentina | 123 | 83 | 0.1 | - | - | 0.0 |
| Colombia | 58 | 10 | 0.0 | 18 | 23 | 0.3 |
| Brazil | - | 83 | 0.0 | - | - | 0.0 |
| Costa Rica | - | - | 0.0 | - | 123 | 0.8 |
| FTAA | 7,957 | 12,567 | 8.8 | 85 | 297 | 3.1 |
| European Union | 64,436 | 52,453 | 58.1 | 6,292 | 5,843 | 88.0 |
| "Like-minded" ³ | 44,716 | 11,479 | 31.1 | 619 | 440 | 7.6 |
| Others | 2,427 | 934 | 2.0 | 116 | 62 | 1.3 |
| World | 119,536 | 77,433 | 100.0 | 7,112 | 6,642 | 100.0 |

¹ Notifications of total AMS (aggregate measurement of support) reduction commitments in the "amber box."

² Average for 1995-98.

³ "Like-minded" countries are the Czech Republic, Hungary, Iceland, Norway, Poland, Switzerland, Liechtenstein, Japan and Korea.

⁴ Most countries did not notify their subsidies after 1999.

Source: WTO.

from agreement to agreement. This begs the same question as before: How can different rules of origin schemes coexist during the FTAA transition period? If a businessperson wants to export and has an FTAA rule of origin and another different rule for the same product under a bilateral agreement, how can his or her decision be facilitated? In fact, one of the basic aims of

the FTAA is precisely this—to simplify trade in the hemisphere. At the technical and political levels, however, the question of coexistence is complex and will require a great deal of analysis.

The agreements currently in force in the hemisphere often contain disciplines relating to exporting and importing procedures, document and labeling

requirements, technical regulations and standards, and requirements for verification and certification.²⁶ Once again, it will be up to the negotiators to define the best way of simplifying these requirements—something not always easy.

The panorama is indeed complex for current FTAA negotiations. However, three possible scenarios are most likely: (i) the FTAA negotiates its own tariff elimination program, set of rules of origin, and requirements, while exporters decide on a case-by-case basis whether to opt for FTAA treatment or for treatment in accordance with another agreement, depending on what best suits their interests; (ii) the FTAA invalidates pre-existing agreements on tariffs, origin and technical and procedural requirements,

making FTAA criteria the only valid ones; and (iii) the FTAA does not step in to regulate tariffs, origin or procedural requirements among countries that already have a trade agreement in force.

Each of these options has its advantages and disadvantages. What is certain is that if the FTAA manages to rationalize the spaghetti bowl, it will have achieved a significant positive externality. It is still early to predict to what degree the FTAA will be able to do this, but there is no reason to be too pessimistic. Perhaps the most important conclusion is that the FTAA could become a regional agreement that will contribute to the construction of a vigorous multilateral system—an example of regionalism as a building block rather than a stumbling block.

²⁶ For an idea of the vast number of agreements in this area, see FTAA (1998).

APPENDIX 3.1

TECHNICAL NOTES: TRADE CONCENTRATION AND TARIFF PROTECTION INDICES

General methodology: The objective of the study was to compile all trade-related data available for agricultural products country by country, using the 2001 Hemispheric Database of the Americas. A database was created containing both 6-digit and 8-digit (or more) harmonized system tariff lines. It includes product descriptions, most favored nation (MFN) ad valorem tariffs, MFN specific and mixed tariffs, preferential rates, and ad valorem equivalents for such tariffs, import value and volume, import price, export value, export volume, and an indication of whether the tariff is a tariff rate quota (TRQ). Once all tariffs were expressed in terms of ad valorem equivalents, we were able to calculate the number of tariff lines and TRQ, mean, median, tariff dispersion, maximum and minimum tariffs, and frequency distributions.

Tariff conversions: The first step in developing tariff profiles was the conversion of all specific and mixed tariffs into ad valorem equivalents (AVE). Specific tariffs are tariffs that are set as a monetary amount per unit of import, i.e., a product can have a specific tariff, which charges \$1.50 per kilogram. Countries may also combine ad valorem and specific tariffs so that a product's tariff may be the sum of the ad valorem tariff plus the specific tariff, called mixed or compound tariffs. According to the WTO, AVE are usually calculated "either by comparing collected custom revenues to the value of imports or by comparing unit values of traded products with the applied non-ad valorem tariff." The methodology followed in this study to obtain ad valorem equivalents was to divide the product's specific rate by its import price. In this case, the price was calculated by dividing the value of imports by the quantity of imports. Where no trade data were available, the price of the closest related product was used.

Tariff rate quotas: As a result of the "tariffication" effort of the URAA, many products that used to be protected with import quotas are now protected through TRQs. In this case, lower "within access commitment" rates are set for specified quantities, and higher "over access commitment" rates are set for

quantities that exceed the quota. The in-quota tariff would be the tariff rate up to the quota limit, and the over-quota tariff is the higher duty rate.

Hirschmann-Herfindahl Index (HHI): The HHI is equal to the sum of the squared shares of all individual products exported, where i stands for a particular product and n is the total number of products. When a single export product (tariff line) produces all the revenues, HHI equals 100; when export revenues are evenly distributed over a large number of products, HHI approaches zero.

$$HHI = \sum_i^n \left(\frac{X_i}{\sum_i^n X_i} \right)^2 * 100.$$

Relative tariff ratio index (RTR): The RTR index was developed by Sandrey (2000) and assumes, in the first instance, that only the bilateral partners exist in the world, placing great emphasis on tariffs from an importing country that are of the greatest importance to the exporting partner. So, the index is always calculated on a bilateral basis, using country A's total exports as weights in the calculation of a weighted average tariff of country B, and vice-versa. For example, if the tariff line "boneless frozen meat of bovine animal" represents 23 percent of Uruguay's exports, it will weight 23 percent on Uruguay's "faced" tariffs from each FTAA country. The RTR is the ratio between country A's faced tariffs in the numerator and imposed tariffs in the denominator, relative to country B, or:

$$RTR_{AB} = \frac{\sum_i^n (X_i^B * Y_i^A)}{\sum_i^n (X_i^A * Y_i^B)}$$

where

A, B = countries A and B

X_i = ad valorem equivalent (AVE) tariff rate for product i ;

Y_i = share of exports of product i in total exports;

Regional export sensitive tariff index (REST): The REST index of Janks, Giordano and Devlin (2002) measures each country's faced tariffs from its partners weighted by its total exports in the numerator and each

country's imposed tariffs weighted by the total exports of all its partners in the denominator, calculated one by one, considering a potential regional integration agreement (RIA). Each combination of tariffs and share of export ratios for one country is weighted by the relative importance of total exports to the region in the case of faced tariffs and total imports in the case of imposed tariffs. Preexisting RIAs need to be considered using preferential tariffs or assuming a zero tariff in the case of a future free trade area.

$$\text{REST}_A = \left[\frac{\left(\frac{X_B^A}{X_T^A} \right) * \sum_{i=1}^n (x_i^B y_i^A) + \left(\frac{X_C^A}{X_T^A} \right)}{\left(\frac{M_B^A}{M_T^A} \right) * \sum_{i=1}^n (x_i^A y_i^B) + \left(\frac{M_C^A}{M_T^A} \right)} \right] * \left[\frac{\sum_{i=1}^n (x_i^C y_i^A) + \dots + \left(\frac{X_N^A}{X_T^A} \right) * \sum_{i=1}^n (x_i^N y_i^A)}{\sum_{i=1}^n (x_i^A y_i^C) + \dots + \left(\frac{M_N^A}{M_T^A} \right) * \sum_{i=1}^n (x_i^A y_i^N)} \right]$$

where

A, B, C, ..., N = member countries of an RIA.

X_i^A = maximum ad valorem equivalent tariff rate at HS-96 level for tariff line i

y_i = share of exports of product i in total exports for each country; or:

X_w^i = country's total exports of tariff line i to the world

$$y_i^B = \frac{x_w^i}{\sum_{i=1}^n x_w^i}$$

M_B^A = country A's total imports from country B

M_T^A = country A's total imports from all RIA countries, excluding preferential trade

X_B^A = country A's total imports to country B

X_T^A = country A's total imports to all RIA countries, excluding preferential trade.

APPENDIX 3.2 AGRICULTURE TRADE POLICY REFORM IN THE AMERICAS¹

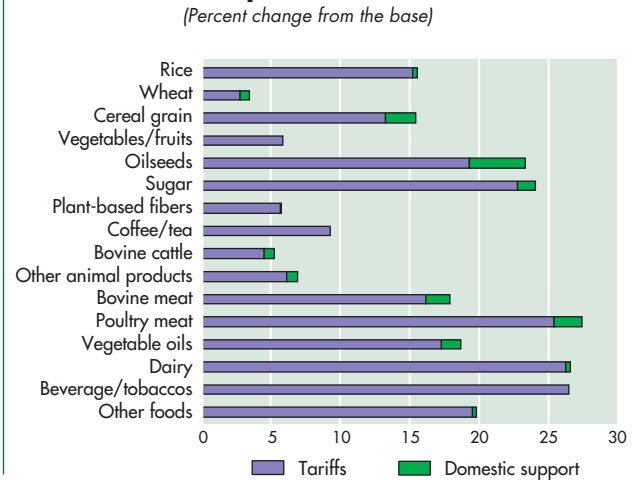
Agricultural trade barriers and producer subsidies distort global agriculture, a sector where Latin America and the Caribbean have a salient comparative advantage and strong export competitiveness. Trade barriers lower demand for products from trade partners; domestic support creates an excess supply of agricultural products, and export subsidies lead to lower prices. The current negotiations on market access and agriculture in the FTAA process will offer promising opportunities and potential gains for countries in the region.

To evaluate the potential trade effects of agricultural reform, a multi-region, multi-sector, comparative static CGE model was used. The analysis focuses on three pillars of agricultural policies distorting world prices and restricting trade flows: market access (trade barriers), domestic support, and export subsidies. The model simulates to examine the individual and complementary effects of these policy variables in the Western Hemisphere. It also assesses the impact of the liberalization of agriculture between Mercosur and the European Union under negotiation.

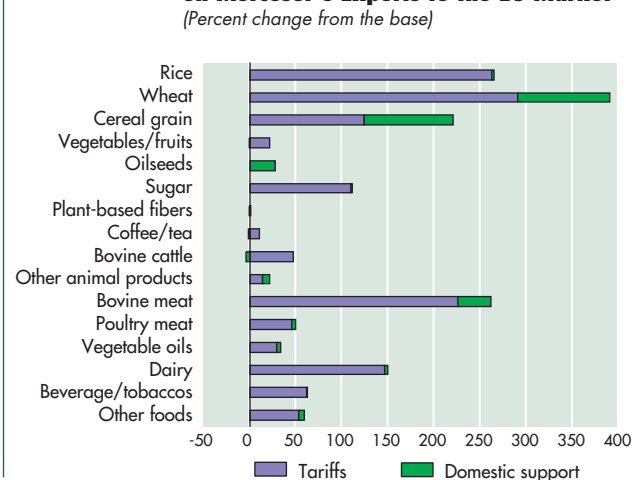
In the Western Hemisphere, the elimination of all tariffs (including tariff equivalents) increases Latin America's exports by 14 percent. However, the impact significantly differs by sector. Due mainly to high protection across the hemisphere, dairy and beverage/tobacco exports grow fastest at 25 percent and 22 percent, respectively, followed by sugar and oilseeds (23 percent and 19 percent, respectively). The removal of domestic support has few positive effects on Latin America's exports except for oilseeds (2.7 percent), and eliminating export subsidies alone does not appear to enhance exports.

For Mercosur, the patterns of trade gains from the Mercosur-EU liberalization are sharply distinguished from those of the hemispheric agricultural reform process. The elimination of tariffs between the two blocs increases Mercosur's exports by 37 percent. Among the agricultural exports from Mercosur, bovine

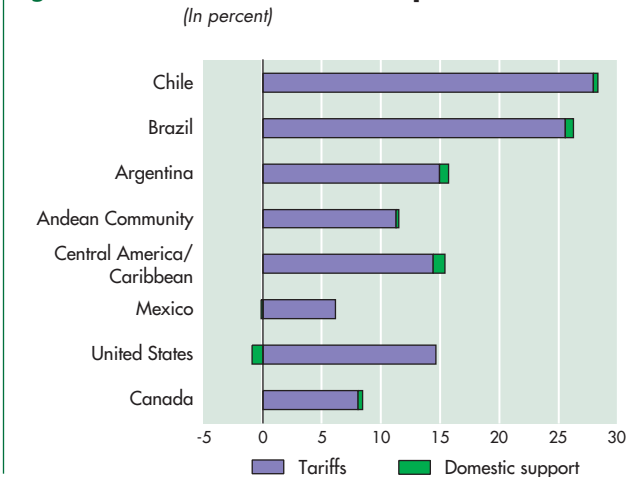
Appendix 3.2 Impact of Hemispheric Agricultural Reform on Latin America's Exports to Hemispheric Market
Figure 1a.



Appendix 3.2 Impact of Hemispheric Agricultural Reform between Mercosur and the EU on Mercosur's Exports to the EU Market
Figure 1b.



Appendix 3.2 Impact of Agricultural Reform on Exports in the Western Hemisphere
Figure 1c.



¹ Based on Monteagudo and Watanuki (2002).

meat dramatically jumps by almost 230 percent, due largely to the EU's highest initial protection (55 percent ad valorem equivalent). Mercosur also increases exports of other foods and poultry meat by more than 10 percent. The EU's removal of domestic support increases the bloc's exports by 2.7 percent. Exports of bovine meat jump by 36 percent and oilseeds by 27 percent. The abolishment of the EU's export subsidies in a variety of agricultural commodities again does not boost exports. However, due to strong complementary effects among policy variables, the implementation of all agricultural reforms chiefly in the European Union raises Mercosur's exports by 55 percent from the baseline.

In sum, Latin America will greatly benefit from agricultural reform in the Western Hemisphere and beyond. The elimination of high protection for agricultural commodities in the form of tariffs is the primary factor contributing to the potential trade gains. Compared with the hemispheric agricultural reform, the liberalization process with the European Union also generates sizable positive effects (on Mercosur). The simulation therefore suggests that the simultaneous integration process would likely create strong cross-fertilization effects for countries in Latin America.

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