

Bridging Regional Trade Agreements in the Americas

Antoni Estevadeordal
and Kati Suominen
with Jeremy T. Harris and Matthew Shearer

***Special Report on
Integration and Trade***



Inter-American Development Bank

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>> Foreword

The recent global economic downturn accentuates the importance of trade and economic integration as engines of growth and development in the Americas. In times of turmoil, exports have served as a countercyclical force in the regional economies, propelling growth and economic stability. Trade has been the anchor of the region's economies through good times and bad throughout the postwar era. It is also in trade that the gains of hemisphere-wide cooperation are perhaps the most palpable and immediate.

The countries of the Americas have made major advances to catalyze growth through trade and integration in recent years. The more than three dozen comprehensive trade agreements that the countries of the region have forged in the past decade and a half with one another and with extraregional partners from the European Union to China and Japan, from Israel to Australia and South Korea, have opened new markets for hemispheric private sector actors, delivered immense new economic opportunities for small and large producers alike, raised thousands out of poverty, and provided means for the regional economies to foster their competitiveness in the global economy.

Countries of the Americas have always understood the power of trade to change societies, and the Inter-American Development Bank has been a partner in this process. We are heavily invested in hemispheric trade, providing technical assistance for the countries of Latin America and the Caribbean in the implementation of new trade agreements,

trade facilitation, export promotion, trade adjustment, and economic competitiveness.

But as this report shows, the regional economies would significantly augment the gains from trade through improved convergence among their manifold common trade agreements. The current web of agreements has been a positive force for the region, but it has also created complexities of overlapping trade rules and regulations that increase the transaction costs for entrepreneurs and enterprises aiming to operate region-wide. Bridging the regional trade agreements would enable these end users of integration agreements to pursue multinational export strategies, pool production, and harness region-wide production possibilities, as well as to score competitiveness gains in the global export markets.

This moment calls not for recoiling and turning our backs on liberalization, but for closer trade integration. There is already fresh momentum and commitment for furthering convergence processes in the Americas. The Bank has supported these initiatives, and this report aims to facilitate their progress further.

Santiago Levy Algazi

Vice President for Sectors and Knowledge, IDB

Antoni Estevadeordal

Manager, Integration and Trade Sector, IDB

>> Introduction*

Since the 1990s, countries of the Americas¹ have pursued a multitiered trade liberalization strategy composed of unilateral opening, regional trade agreements (RTAs), and multilateral trade liberalization.² The various tiers of integration are widely seen as complementary and beneficial for fostering the region's global economic competitiveness. Today, the countries of the Americas have opted to place increasingly strong emphasis on the formation of RTAs. Indeed, they have been the key drivers of the global spree of RTAs, having collectively notified to the World Trade Organization (WTO) three dozen intra- and extraregional comprehensive RTAs (Figure I.1) and set out to negotiate several additional ones.

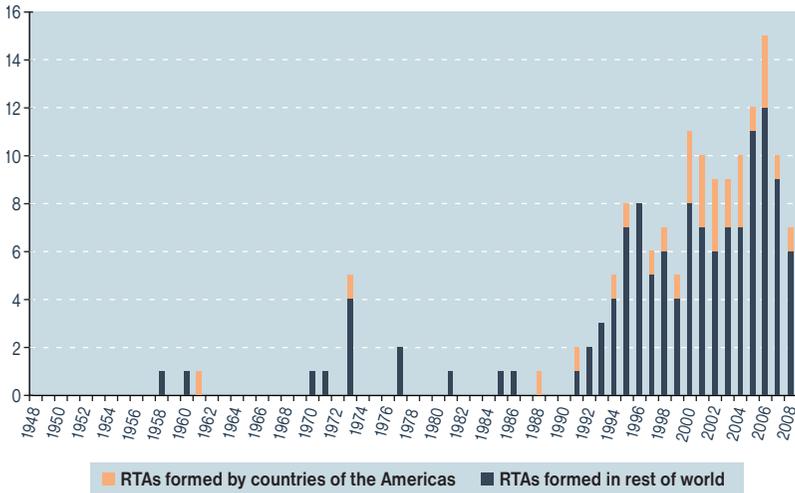
RTAs have transformed the global and regional economic landscapes: they regulate some one-half of global trade, nearly all intraregional trade in the Americas, and the bulk of trade in some of the most prolific integrator countries such as Chile and Mexico, both of which have entered into RTAs

* The authors wish to thank Rafael Cornejo and Juliana Almeida for their comments and inputs; Santiago Flórez Gómez, Carlos M. Gutiérrez Jr., and Sara Marzal Yetano for persistent research assistance; and María Lissette Romero for skilled management of the publication process. Several sections of this report draw on *The Sovereign Remedy? Trade Agreements in a Globalizing World*, by Antoni Esteveordal and Kati Suominen (Oxford: Oxford University Press, 2009).

¹ For methodological reasons, "Americas" and "hemispheric" refer in this report to a group composed of Canada, the Dominican Republic, Mexico, Central and South America, and the United States.

² RTAs here include free trade agreements, customs unions, and common markets.

FIGURE I.1 ■ New RTAs Reported to the WTO in the Americas and around the World, 1948–2008

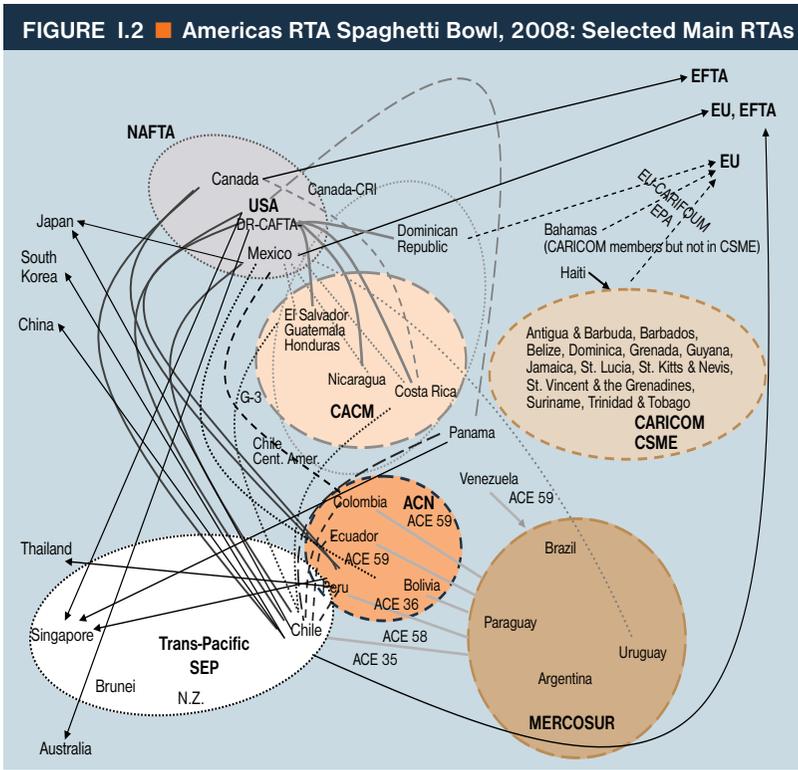


Source: IDB calculations based on WTO data.

with all of their main trading partners. The hard-won agreements have created benefits in terms of expanded market access, greater trade and investment flows, increased firm productivity, and arguably also macroeconomic stability (IDB, 2002). However, at the same time, the proliferation of RTAs has created a veritable “spaghetti bowl” of multiple and often overlapping agreements (Figure I.2). The various disciplines included in each RTA—such as tariff liberalization, rules of origin (RoO), standards, safeguards, and investment rules—entangle the bowl further.

The seemingly incessant proliferation of overlapping, complex RTAs entails a number of risks:

- The proliferation of RTAs can “balkanize” regional and global trading systems. If the various agreements carry widely distinct features, they can impose undue transaction costs for traders, investors, and governments operating in several RTA markets simultaneously.
- The spread of RTAs risks the rise of hub-and-spoke systems centered on a few hub countries in which the potential cost savings from cumulation of production *among* the spokes remain untapped.



Source: IDB.

- The proliferation of RTAs means that although any given country will likely be an insider to a growing number of RTAs, it will also be an outsider to an even larger set of RTAs. Even the most prolific integrator countries can thus end up facing some degree of discrimination and/or preference erosion in a growing number of RTA markets.

The concerns about the RTA spaghetti bowl will likely only intensify should RTAs continue proliferating at the predicted pace. Though also relevant for countries in regions with spreading RTA systems, such as Asia, these concerns are particularly acute for the countries of the Americas, given their extensive network of RTAs with one another and their ongoing RTA negotiations with Asian countries and the European Union (EU). Indeed, many countries in the Americas are today enmeshed in a number

of “RTA systems”—including subregional, hemispheric, trans-Pacific, and trans-Atlantic ones.

The key question for the countries of the region is the extent to which the various RTAs are exerting centrifugal pressures that carve divisions between their respective members’ trade policies and flows. To the extent that the centrifugal forces are present and matter for doing business, the policy question is how to induce some rapprochement among the various RTAs.

The countries of the Americas are at a crossroads: they can choose to continue trading amid the RTA tangle, or they can pursue proactive policies that could overcome the potential spaghetti bowl problems and expand their market access and production possibilities. One major policy alternative, and perhaps the most feasible one in the short run, would be to build bridges among the existing RTAs—strive to achieve some form of convergence or gradual harmonization of the various RTAs in the Americas and to implement cumulation of production among them.

The starting point and initial focus of such an effort could be market access provisions and rules of origin, in particular. While differing in process from that geared towards reaching a megaregional agreement like the Free Trade Area of the Americas that has languished since 2003, bridging RTAs would have some economic effects similar to those of a single integration agreement. It would also help circumvent the rise of hub-and-spoke systems and create a level playing field, eliminating the discrimination stemming from the proliferation of RTAs. And provided it were based on open regionalism and firmly nested in the WTO system, such a scheme would also create trade with nonmembers and could even help propel multilateral talks forward.

As such, convergence would in essence “flatten” the regional RTAs and tame the RTA rule tangle. In a gastronomic analogy, it would be about converting the regional spaghetti bowl of RTAs into a lasagna plate. It would facilitate trade and production across the region and, as such, harness hemispheric scale economies and opportunities for cost savings. It could also undermine protectionist interests and prospects for trade diversion and serve as a base for further region-wide and global

negotiations. In short, bridging RTAs could make the whole of the RTA spaghetti greater than the sum of the parts.

This report examines the prospects for convergence in the area of market access in the Americas. In it, we (1) take stock of the extent of the spread, liberalization, and comprehensiveness of RTAs formed by countries of the Americas in a comparative perspective; (2) diagnose in detail the extent of compatibilities and divergences in market access disciplines among some three dozen RTAs signed between countries of the Americas; and (3) develop practical policy options for the regional economies to deal with the potential challenges posed by the web of RTAs in the Americas so as to facilitate region-wide trade and production.

The assessment of the state of play of RTA liberalization in the Americas yields three main results:

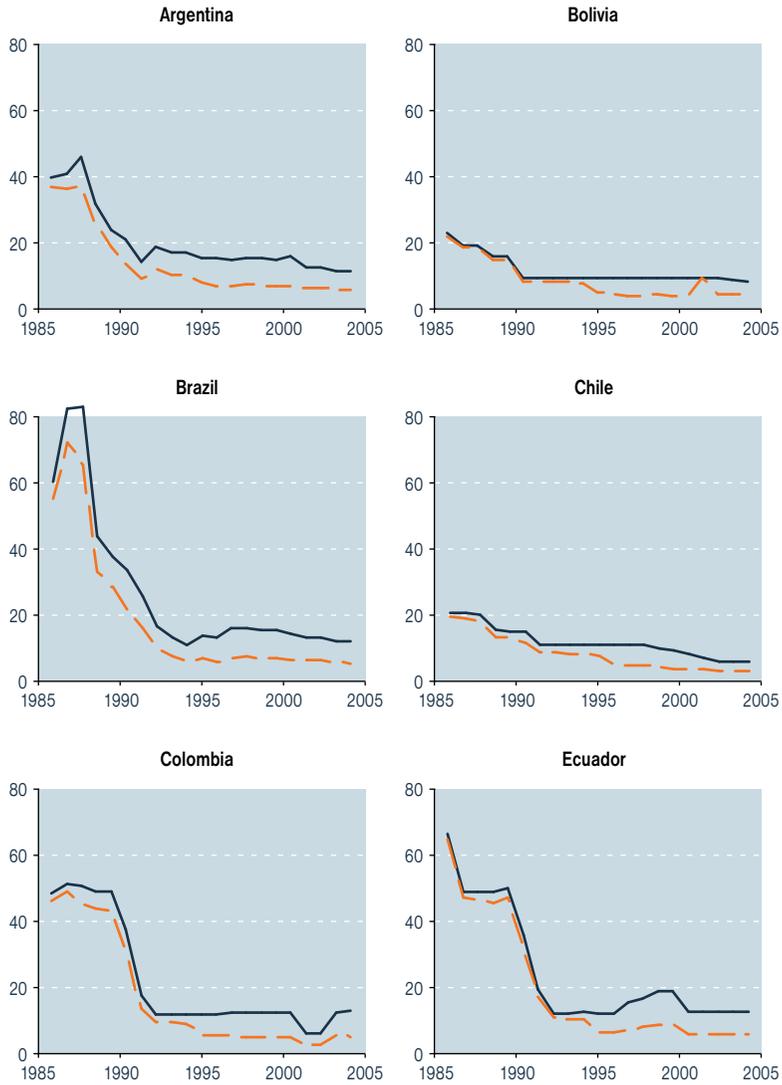
- While trade and foreign investment have surged in importance in regional economies in the past two decades, so has the relevance of RTAs in regulating the regional economies' trade and investment flows. For many economies in the Americas, trade with their RTA partners makes up the bulk of their total foreign trade.
- RTAs formed by the countries of the Americas—and those formed by the North American Free Trade Agreement (NAFTA) members in the 1990s, in particular—are mature and deeply and rapidly liberalizing. However, there are a number of outlier RTA parties and product categories (particularly in sensitive sectors) that trail the overall trend of liberalization. Moreover, the region's liberalization is limited by the use of potentially restrictive instruments such as restrictive rules of origin and exclusions. Overall, however, RTAs in the Americas free more than 90 percent of the product categories within the first 10 years into the agreements; when measured against a timeline, agreements currently in force will have freed more than 95 percent of products by 2015.
- The advance of RTAs has been paralleled by extensive liberalization of external tariffs in the region, which has reduced the discriminatory potential of the RTAs. While opening on the external front has been more modest in recent years, the regional economies

fare quite well when compared to other world regions. Against this backdrop, a number of recent rigorous empirical studies have found the region's RTAs to be trade-creating and conducive to global trade liberalization.

However, this study also finds that preferential margins—the gaps between external and preferential tariffs—are still notable in the region, which increases the lure of trading under the RTA rules. At the regional level, the drive to form RTAs has produced a complex web of agreements that has generated additional transaction costs to producers across the Americas, so that connecting RTAs would have important economic benefits in terms of reduced trade diversion and increased scale economies. The feasibility of such convergence in the area of market access regimes among RTAs in the Americas is rather substantial:

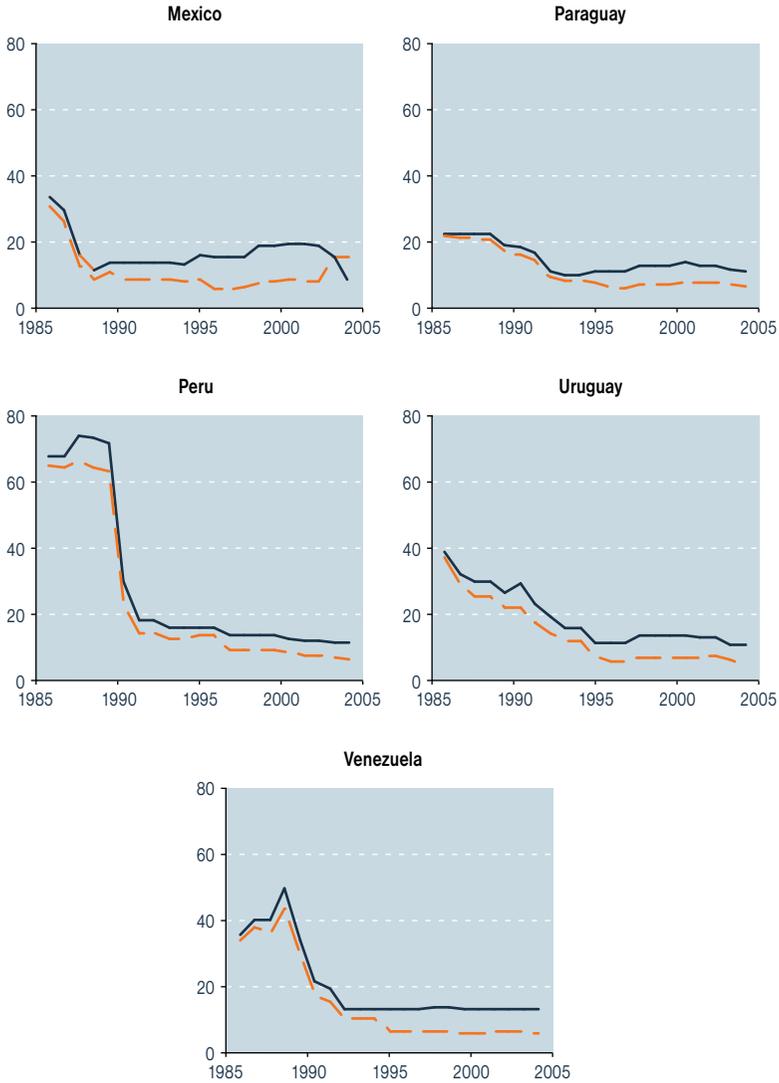
- Tariff elimination—the first precondition for effective convergence—is highly advanced in the Americas and particularly in NAFTA members' agreements, with the MERCOSUR-Andean agreements tariff elimination also well under way. As Figure 1.3 shows, average preferential tariffs to partners in the region have substantially declined over time. In particular, various countries examined here have already liberalized at least some four-fifths of their tariff lines with one another. A case study into 74 hypothetical “cumulation” triangles—relationships in which each of the three partners is linked to each of the other two through a bilateral RTA, yet there is no cumulation among the three RTAs—in the Americas is illustrative. Most of these triangles will have freed bilateral trade flows in more than 80 percent of products by 2016. As far as tariffs are concerned, the region holds solid potential for meaningful convergence.
- In the area of rules of origin, the picture is more mixed. The extent of compatibilities in origin regimes—a factor that can augur well for the negotiation of the second precondition for broad cumulation: a common origin regime—varies across subsets of RTAs as well as across economic sectors in the Americas. RTA families built around MERCOSUR, the United States, and Mexico are

FIGURE I.3 Average MFN and Preferential Tariffs in Select Countries of the Americas, 1985–2005



(continued on next page)

FIGURE I.3 Average MFN and Preferential Tariffs in Select Countries of the Americas, 1985–2005 (continued)



Source: Esteveordal and Volpe Martincus (2009).

Note: The figure reports, for each country, most-favored-nation tariffs (solid line) averaged over 5-digit SITC goods as well as preferential tariffs (dotted line) averaged over partner countries and 5-digit SITC goods.

particularly coherent internally. Similarly, although RTAs differ quite notably in their definition of market access rules for agricultural products, textiles, and machinery, there are also a number of sectors, such as arms, wood products, and precision instruments, in which there are only marginal differences across the hemispheric agreements.

A cursory look at selected trade-related disciplines—investment, services, customs procedures, and competition policy rules—echoes these patterns. Americas-wide, some three-quarters of all agreements cover the main provisions within these four disciplines. However, there is clear clustering of RTAs into families centered on NAFTA members and Chile, which have formed highly comprehensive and also very similar agreements, and MERCOSUR and intra-South American agreements, which are quite thin on these rules.

Overall, the countries of the Americas are quite well-positioned to pursue convergence. There are also already a number of initiatives at different stages of discussion about some forms of convergence, such as the 11-country Pacific Basin Forum formed in January 2007, the Latin American Free Trade Area (Espacio de Libre Comercio) initiative, and a recently announced 12-country trade partnership effort involving 10 Latin American countries as well as the United States and Canada. Five countries of the region are also involved in convergence discussions in the Asia-Pacific Economic Cooperation (APEC) forum.

Although a complex process, convergence of RTAs in any one grouping or hemisphere-wide could be initiated through smaller, more technical endeavors aimed at facilitating trade within existing RTAs and reducing trade costs and uncertainty for exporters. In the area of market access, there are perhaps four short-term measures that could be considered:

- **Harmonized digital “Americas Origin Certificate.”** The first step could be the establishment of a standardized set of information to be included on origin certificates, which, in addition, should be digital in order to facilitate the certification process. Developing common guidelines and procedures for the electronic transmission

and reception of origin certificates, and perhaps a common “Americas Origin Certificate,” not only would help reduce the number of different procedures that traders would have to master, but would also build mechanisms and institutions for customs cooperation, an area of various positive externalities.

- **Standardized origin verification procedures.** Accompanying a standardized certificate could be a set of common parameters for verification procedures, such as the time periods for which records and documents must be retained, and within which separate phases of a verification process must be completed. Solid and reliable regional verification protocols and cooperation are all the more important to ensure the viability of convergence—to avert trade deflection in a region consisting of multiple economies of distinct verification capacities. The potential gains from increased transparency, as well as the intergovernmental cooperation that would be involved in such an exercise, could both encourage trade and build institutions that might facilitate future agreements.
- **Sectoral RoO convergence.** Convergence could likely be accomplished more easily in sectors where the rules are similar across the hemispheric agreements. There are indeed some major sectors, such as vehicles and footwear, where RoO in the regional agreements are rather alike across agreements. Similarities tend to encompass a larger number of sectors in certain subgroups of RTAs, such as in the “family” of agreements formed by the original NAFTA members. Such sectoral convergence could serve as a testing and training ground for pursuing convergence in those sectors where greater heterogeneity exists in rules across the hemisphere, such as textiles.
- **Sectoral most-favored-nation tariff harmonization.** Because RoO are necessary only when there are differences among RTA members in tariffs on goods from third parties, the rules could be eliminated in cases in which members can harmonize their tariffs. Such “mini-customs unions” carrying a commonly agreed-on most-favored-nation (MFN) tariff could be feasible in sectors in which all countries’ tariffs are already quite low. This effort could be modeled

after the Information Technology Agreement reached at the WTO in 1996 and the handful of mini–customs unions instituted in NAFTA. It would help reduce the administrative burdens imposed by rules of origin and enable improved circulation of goods in the common convergent area. The feasibility of such mini–customs unions is quite high: there are several product groups in the Americas that display relatively small differences in MFN tariffs within some groups of countries in the region, including inorganic chemicals and fertilizers, raw leather, photographic goods, and paper products.

- **Selective MFN tariff liberalization.** The regional economies could also eliminate tariffs on an MFN basis (both in RTAs and vis-à-vis third parties) in product categories that countries in the region have already liberalized to major exporters in or outside the region. In these situations, the marginal pain of liberalization in these sectors is small or nonexistent. For example, in the U.S.–Central America–Dominican Republic Free Trade Agreement (DR-CAFTA), Central American countries freed photographic or cinematographic goods and fruit and nuts to imports from the United States, the key source of their imports in the two sectors, yet they also maintain positive applied MFN rates in these sectors, which will no longer provide meaningful protection as the imports from their principal supplier will enter duty free. Another example is wood pulp for Chile in the Chile-U.S. Free Trade Agreement.

There are two important issues to keep in mind in any convergence process. First, although it is the role of governments to form and redefine international agreements, considerations of convergence should incorporate actors in the private sector. Companies are the end users of RTAs and thus hold the best information about the operation of RTAs and the problems posed by the RTA spaghetti bowl in regard to doing cross-border business.

The second important issue is ensuring that the convergence process neither jeopardizes the existing degree of liberalization in the region nor undermines global liberalization. At the regional level, in the case of RoO, a common regime would preferably not be more stringent than any of the

RoO regimes in the hemisphere, but would rather be based on a simple and flexible model. The goal of convergence processes in the region should also be to promote more liberal trade with the rest of the world so as to ensure open regionalism and compliance with the General Agreement on Tariffs and Trade (GATT) principle of most-favored-nation treatment and with WTO agreements.

The first chapter of this report explores the state of play of RTAs in the Americas and beyond and discusses the trade effects of these agreements and of RTAs in general. The second chapter elaborates on the rationales for, and conceptual underpinnings of, convergence and its potential economic effects, analyzes the potential for convergence in the Americas by mapping out compatibilities in market access and other disciplines across the regional RTAs, and concludes by laying out various potential ways to bridge the regional RTAs.

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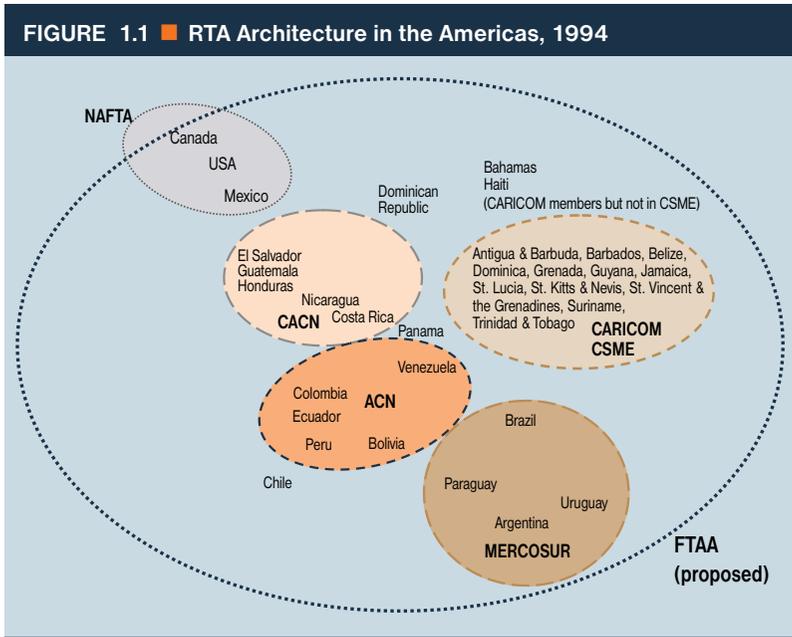
>> RTAs in the Americas: State of Play



This chapter focuses on the state of play of the RTAs formed by the countries of the Americas over the past two decades and makes projections about the regional economies' RTA pathways into the next several years. The first section discusses the rise of RTAs in the regional countries' trade policy portfolios. The second section takes a detailed look at the depth of tariff liberalization in the RTAs in the Americas and beyond and maps out RTAs' coverage of various other trade-related provisions. The third section analyzes the extent of open regionalism in the Americas—the magnitude of discrimination entailed by the regional economies' RTAs vis-à-vis their trading partners in the rest of the world—and reviews some of the findings on the trade effects of regional RTAs.

1.1 RTA Pathways in the Americas: From Intraregionalism to Transcontinentalism

Countries in different world regions have had distinct RTA paths over the past two decades among four main “stations”: intraregional blocs, intraregional bilateral RTAs, continental megablocs, and transcontinental RTAs. In the Americas, there have been three distinct models: intraregional blocs, a megaregional agreement, and bilateral free trade agreements (FTAs). Thus far, although the various intraregional groupings have deepened and expanded to incorporate various topics beyond trade, it is the third of these models that has proven most vibrant.



Source: IDB.

The first modern¹ RTAs were intraregional customs unions formed (and in some instances revived) in the early 1990s: the Andean Community, the Caribbean Community (CARICOM), the Central American Common Market (CACM), and the Southern Common Market (MERCOSUR) (Figure 1.1). The North American Free Trade Agreement, launched in 1994, connected Canada, Mexico, and the United States. The same year, the first Summit of the Americas launched negotiations among 34 countries for the Free Trade Area of the Americas (FTAA), which was to unite the aspiring customs unions and NAFTA under a single umbrella. The FTAA process was paralleled by the rise of numerous bilateral agreements, particularly those between Mexico and Chile, on the one hand, and numerous other countries of the region, on the other.

Subregional integration blocs overlaid by a megaregional agreement could well have been the way into the future. But the stagnation

¹ In the discussion throughout this section, we begin with the 1990s, setting aside the “old regionalism” of the 1960s–1970s, which in any case was “relaunched” in the 1990s.

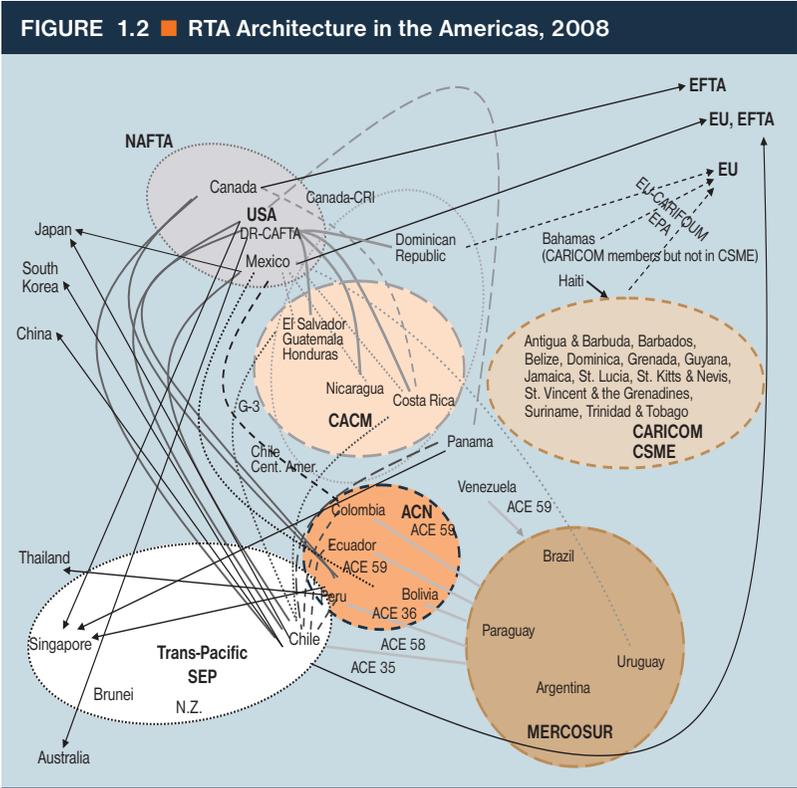
of the FTAA talks in 2003 intensified the already ongoing quest for bilateral intraregional RTAs. Among the most recent highlights are the MERCOSUR–Andean Community RTAs of 2004, the U.S.–Central America–Dominican Republic Free Trade Agreement of 2005, the culmination of the U.S.–Colombia, U.S.–Peru, U.S.–Panama, Chile–Peru, and Chile–Colombia RTA negotiations in 2006, and the approval of the U.S.–Peru RTA in 2007.

Intraregionalism is today being complemented by transcontinentalism. Many countries of the Americas have sought to establish an early foothold in Asia’s fast-growing RTA network, in particular. In 2003, Chile and South Korea signed the Asian country’s first comprehensive bilateral RTA, and in 2005, Chile concluded negotiations for a four-party RTA (P-4) with Brunei Darussalam, New Zealand, and Singapore. The Mexico–Japan Economic Partnership Agreement, Japan’s first extraregional free trade agreement, also took effect in 2005, and in November 2006 Chile became the second country of the Americas to reach an RTA with Japan. An RTA between Chile and China—the East Asian economy’s first extraregional RTA—went into effect in October 2006.

The United States and Singapore reached in 2003 one of the first agreements of Singapore’s now-extensive network of RTAs, and the U.S.–Australia agreement entered into force in 2005. The same year, Peru and Thailand signed a bilateral RTA, and RTAs between Chinese Taipei and Panama and Guatemala took effect in 2004 and 2006, respectively. Panama concluded RTA negotiations with Singapore as well in 2006.

Trans-Pacific agreements are poised to expand: the United States has concluded negotiations with South Korea and pursued some negotiations with Malaysia and Thailand, and Malaysia and Chile are pursuing RTA negotiations. Furthermore, five countries of the Americas—Canada, Chile, Mexico, Peru, and the United States—are pursuing closer ties with Asia in the context of the Asia-Pacific Economic Cooperation forum founded in 1989.

Countries of the Americas have also been reaching across the Atlantic for agreements with the European Union. Mexico launched an



RTA with the EU in 2000, as did Chile in 2003. CACM countries as well as the Andean Community are negotiating comprehensive association agreements with the EU. The EU-CARICOM talks have already been concluded. In addition to the trans-Pacific and trans-Atlantic fronts, MERCOSUR has concluded agreements with India and South Africa, and the United States is building a network of agreements with several Middle Eastern countries. As a result of this prolific integrationism through largely bilateral deals, the RTA spaghetti bowl is today immensely complex and dense (Figure 1.2).

The geographic composition of trade flows of the countries of the Americas appears to have followed the advance of regionalism (Figures 1.3a, 1.3b, and 1.4). The bulk of hemispheric trade is intraregional. The most notable change in the regional export profile is a decline in the

importance of trade with Europe and a rise in the importance of the intrahemispheric market, as well as a moderate increase in the share of the Asia-Pacific region as an export destination. To be sure, there are still wide intraregional differences; countries such as Argentina, Brazil, Chile, and Peru have seen their commodity exports to China surge

FIGURE 1.3a ■ Destination of Western Hemisphere Exports, 2007

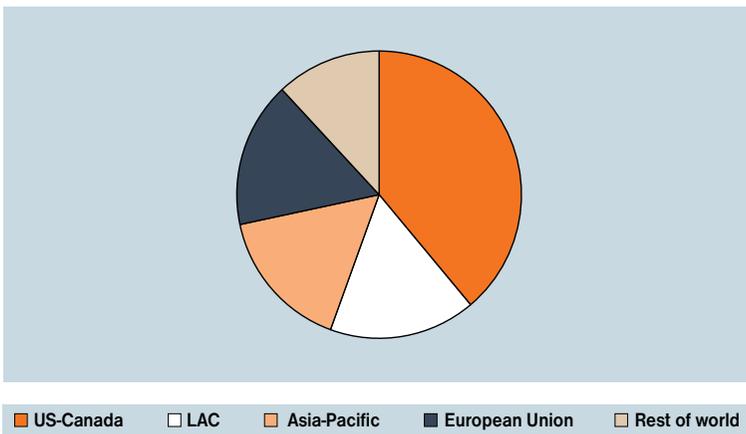
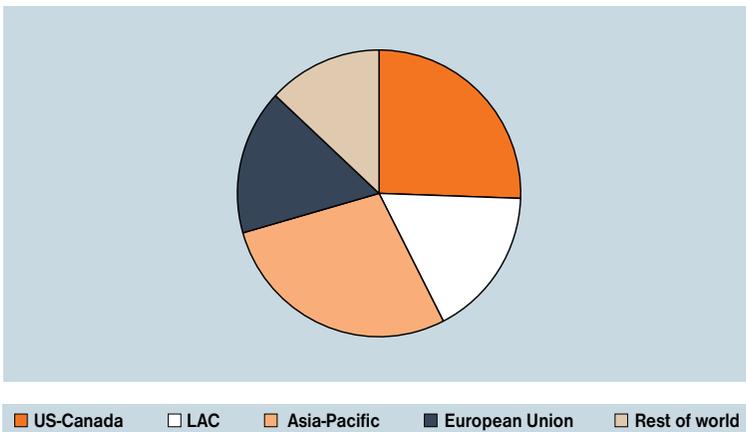
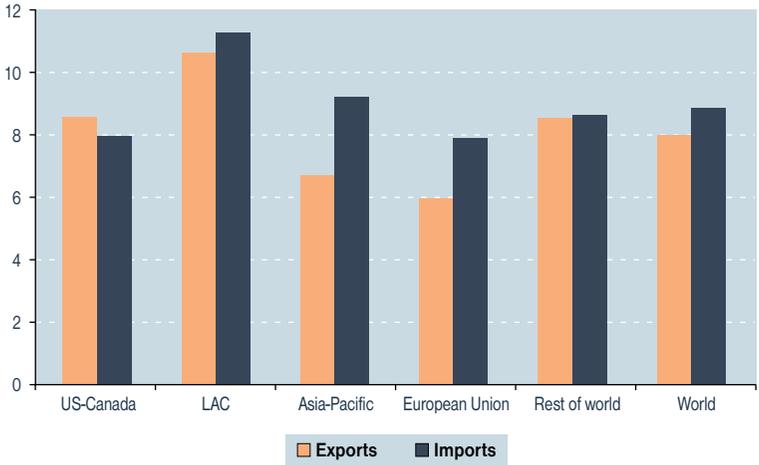


FIGURE 1.3b ■ Origin of Western Hemisphere Imports, 2007



Source: IDB calculations based on IMF Direction of Trade Statistics.

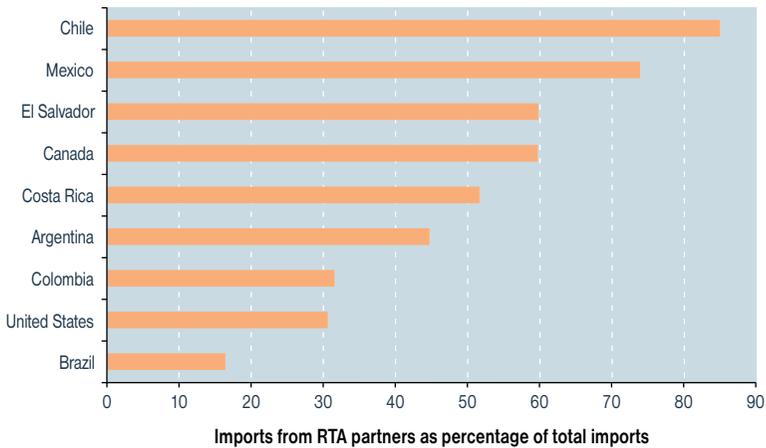
FIGURE 1.4 ■ Growth in Western Hemisphere Trade in 1990–2007, by Partner Region



Source: IDB calculations based on IMF Direction of Trade Statistics.

particularly markedly in their export profiles. On the import side, Asia has penetrated especially the Latin American and Caribbean market forcefully, nearly doubling its share over the period and coming to account for roughly a fifth of the region’s imports. This appears to have come at the expense of Europe, whose import share in Latin America and the Caribbean has been reduced to 14 percent of the region’s total imports.

As the regional trade has grown, so have the importance of trade in the regional output and the relevance of RTAs in governing the regional economies’ trade. The coverage by RTAs of the main bilateral trade relations is large. Within the Americas, a third of the total possible 380 pairs of countries are covered under a comprehensive FTA—one that liberalizes more than 4,000 tariff lines—and 12 percent of pairs share a customs union. Some 57 percent of pairs have no common comprehensive agreement; however, the share in total intra-Americas trade of trade among countries with a common RTA is huge: the main trade corridors in the region are connected by RTAs.

FIGURE 1.5 ■ Trade with RTA Partners, Selected Countries, 2006

Source: IDB calculations based on COMTRADE data.

Intraregional imports among RTA partners skyrocketed after NAFTA to well above 80 percent of intraregional imports;² the statistic is even higher in the intraregional trade in South America after the formation of MERCOSUR, as well as in Central America and the Caribbean, where integration is more long-standing. Particularly indicative of the importance of RTAs to the regional economies is that the share of imports from RTA partners in total imports in 2006 was 85 percent for Chile, 74 percent for Mexico, 45 percent for Argentina, and more than 30 percent for the United States (Figure 1.5).

In short, less than a fifth of intraregional trade in the Americas flows among countries without a common RTA. The “missing links” are generally between North America and MERCOSUR, and between the Andean countries and Central America. Although this does not capture the level of trade that takes place under the RTA regime (as opposed to MFN or other regimes), they are indicative of the fact that a sizable share of the hemispheric economies’ trade is with their RTA partners—as well

² This is due to the disproportionate weight of intra-North American trade in the hemispheric total.

as that countries of the region have forged agreements with some of their leading trade partners.

Why RTAs?

What accounts for the rapid rise of RTAs among the bulk of the most significant economic relationships in the Americas? The question is particularly nettlesome in light of the fact that RTAs have emerged amid the regional economies' unilateral and multilateral trade liberalization. Indeed, RTA formation is but a part of, and has taken place against the backdrop of, broader economic trends over the past two decades.

For many countries of Latin America, the flurry of RTAs can be attributed in good part to the major macroeconomic reforms enacted during and after the economic turmoil of the 1980s. Trade liberalization was one of the main components of the reform packages, and most countries of the region implemented it by pursuing regional agreements in addition to participating in multilateral trade rounds and liberalizing unilaterally. For their part, the United States and Canada, countries traditionally disposed to multilateralism over regionalism, felt compelled to pursue RTAs in the face of a stagnant Uruguay Round and the consolidation of European integration in the early 1990s.

There are numerous rationales for pursuing RTAs against the backdrop of an overall policy of trade liberalization:

- **First-mover advantages in a world of spreading RTAs.** A multitiered integration strategy provides agility for seizing the various opportunities for deep economic integration emerging around the world. Any one country's trade policy options depend to an extent on strategic interactions among other countries. Early integration can enable a country to gain an edge in new markets and to attract foreign investment. Conversely, failure to grasp new opportunities can result in remaining outside of the web of agreements and the economic "insider benefits" they can confer. Indeed, one of the commonly cited motivations for forming RTAs, particularly for Latin American countries, has been to attract foreign investment,

especially for the purposes of job creation and the generation of export revenue through investments in export-oriented assembly operations.

- **Market access insurance.** RTAs provide fallback options that the regional economies can activate in virtually any scenario of global trade policy—that is, should any one policy front yield suboptimal outcomes. Multilateral talks may become protracted or result in “minimalist” outcomes, rather than delivering a substantial, deep agreement. RTAs can serve as an insurance policy against the failure to obtain market access through other means. This may be the case especially in the most integrated regional economies, such as Mexico and Chile. And countries that have secured access to their major markets by way of RTAs have less to lose in global talks, which can strengthen their bargaining positions, though there are arguments that this may also lead to more friction in the multilateral forum.
- **Flexibility.** Adjusting to the changing competitive advantages and the demands of the global markets presents a daunting challenge to policymakers. Global production and trade patterns are evolving at unprecedented speed, and the variety of products traded in global commerce has grown exponentially in the span of just a couple of decades. Changes in technology and reduction of transportation costs—not to mention the rise of electronic commerce and the growing importance of trade in services—will accentuate the speed of change in the world economy. A multitiered trade strategy allows for greater agility in exploiting today’s niches, which might not have existed yesterday. Regional agreements can also pave the way for exports of “regional products”—goods that do not necessarily yet have prospects in the global market but do in the regional one—as well as serve as a training ground for export operations elsewhere down the road.
- **Synergies between tiers.** Regional and global trade rules are essentially about the same disciplines. Thus, understanding, negotiating, and implementing agreements on either front will yield positive externalities to the other. For instance, negotiating liberalization in services trade in the WTO would undoubtedly improve a govern-

ment's capacities for negotiating the services chapter in an RTA. Or, implementing RTA-mandated trade facilitation measures—such as modernizing customs procedures or providing for a single window for exporters to handle paperwork—delivers immediate benefits to the country's trade with *all* of its trading partners, not only the RTA partner. Moreover, there are reasons to believe that trade liberalization in a regional setting may help undercut protectionist lobbies and yield an overall more open trading environment, thus helping to pave the way for liberalization at the multilateral level, as well.³

- **Positive externalities.** Engagement at multiple trade policy levels can produce further positive externalities in the form of regional and global public goods. One simple public good often resulting from international negotiations is intangible: mutual trust and willingness to engage in further cooperation. However, there can be more specific externalities. The dynamic effects of RTAs can yield such regional public goods as scale economies and increases in firm productivity (López-Córdova and Mesquita Moreira, 2003). Moreover, RTA partners can be expected to have greater incentives to provide further regional public goods to facilitate their trading relationships, such as solid regional infrastructure networks—something that they might not realize in the absence of trade agreements.⁴ At the global level, participation in multilateral trade negotiations opens up a host of opportunities to tap into global public goods, such as access to the WTO dispute settlement mechanism. Moreover, for any one country, RTAs with key partners can help meet foreign policy objectives beyond trade.

There are numerous further and complementary theoretical reasons why the countries of the Americas have pursued RTAs with such gusto.

³ See, for instance, Baldwin (2006).

⁴ See Devlin and Estevadeordal (2004) and Estevadeordal and Suominen (2008) for analyses of the interplay among economic integration agreements, cooperation agreements, and regional public goods.

For example, domestic industry sectors seeing benefits in the expansion of global and regional commerce have become an increasingly savvy and vocal counterweight to protectionist interests, pushing for deeper market access. Also, Latin American countries have sought RTAs as credibility signals for attracting foreign investment. Conversely, cross-border investors have been motivated to pursue RTAs as legal guarantees of the integrity of their assets (Yarborough and Yarborough, 1992). Additionally, large firms in particular may have called for RTAs. Indeed, Milner (1997) argues that large firms should prefer RTAs as the first-best trade policy option, as a tool for realizing RTA-wide scale economies and locking in the regional market—something they would not necessarily be able to do in the case of unilateral or multilateral liberalization.

There are also global factors at play. For instance, the growth of WTO membership may have augured poorly for the prospects of decision making in the multilateral system—which after all is based on unanimity, wherein everyone has to agree before anything is agreed, and the “single undertaking,” wherein nothing is agreed before all is agreed. The sluggishness of the multilateral rounds arguably has provided additional incentives for countries in the Americas to advance liberalization by “going regional” with one or a few like-minded partners.⁵

Conversely, the very prior successes of multilateralism may have pushed countries to pursue RTAs for deeper and preferential liberalization in order to gain an edge vis-à-vis MFN partners. Multilateral successes can also help explain the initial rise of RTAs among geographically proximate partners: multilateral liberalization makes trade flow among “natural” trade partners—generally, geographically proximate states with distinct factor endowments—which, in turn, encourages export lobbies to call for the formation of trade agreements with those partners (Ethier, 1998).

The very dynamic generated by the proliferation of RTAs around the world may also have generated diffusion and contagion effects. Under Baldwin’s (1993, 2006) domino theory, the proliferation of trade agreements

⁵ Bagwell and Staiger (1997) hold that if multilateral trade rules allow for full internalization of benefits, countries can reach their “efficiency frontiers,” and an RTA has nothing to add. But if MFN tariffs fail to yield efficiency gains, RTAs may have a role to play, and RTAs can be an optimal trade policy strategy.

gives outsiders incentives to form new RTAs, or to join existing ones, lest they see their market access erode. A complementary theory of competitive liberalization holds that especially developing countries are in a race for RTAs as tools to capture investment (Bergsten, 1997).

To be sure, RTAs can confer various nontraditional gains above and beyond pure trade expansion that give impetus to their formation—including helping reformist interests, particularly in emerging markets, to lock in domestic economic reforms via a comprehensive, binding agreement with a developed country.⁶ Besides domestic policy credibility, RTAs can deliver international bargaining power: many Latin American groupings, such as CARICOM and MERCOSUR, have negotiated as a group in bilateral agreements and global trade talks.

All these potential domestic and international dynamics have likely been in operation in the Americas, pushing countries to form RTAs. For instance, in the early 1990s, the rise of MERCOSUR may have been motivated first and foremost by nontraditional gains, namely, to entrench peace and democracy in the Southern Cone, while NAFTA—a watershed for its members, traditionally disposed to multilateralism over regionalism—may in part have been brought about by concerns over the lack of momentum in the multilateral sphere. These agreements, and many others that followed, would have been less likely to have materialized without the era's new policy consensus on macroeconomic reforms and the power of economic and trade liberalization. In the meantime, the past few years can be seen as having been marked by the rise of strong export interests and domino regionalism: countries of the Americas, often pushed by their private sectors, have followed their neighbors to a prolific spree to integrate.

1.2 Market Access in the Americas in a Comparative Perspective

Countries of the Americas have formed a mosaic of RTAs with partners around the world in the past two decades. RTA formation can be a savvy

⁶ See Ferrantino (2006) for more detail and evidence on the policy anchor hypothesis.

strategy aimed at manifold value-added benefits, such as trade and investment flows, achievement of political objectives, and complementarities with other trade policy theaters.

However, it is the detailed contents of RTAs that in good part determine the actual economic effects of these agreements. Understanding the implications of the regional web of agreements requires a detailed analysis of their anatomy and future trajectories. This section strives to provide such an analysis. We assess the current state of integration in the Americas in terms of both the depth of liberalization in, and the comprehensiveness of, the regional economies' RTAs in a comparative context.

We focus on tariff liberalization schedules of 64 parties in 32 RTAs (see Appendix I.1)⁷ and examine three sets of agreements: contrasting agreements formed by countries of the Americas with their regional partners (“intra-Americas agreements”), as well as those with countries of Asia (“trans-Pacific agreements”) and Europe and the Middle East (“trans-Atlantic agreements”). Much of the data here draw on Estevadeordal, Shearer, and Suominen (2009b).⁸ Note that the tariff analysis herein does not cover the Western Hemisphere’s four main customs unions—Andean Community, Central American Common Market, CARICOM, and MERCOSUR. Trade within these groups is almost fully liberalized. They are also quite solid as blocs, with the common external tariff in each covering on average some 90 percent or more of tariff lines.

⁷ The tariff liberalization schedules were obtained from the Organization of American States’ Foreign Trade Information System at <http://www.sice.oas.org/> and some national sources, including websites. Some tariff data were obtained from TRAINS. The study also maps out the coverage in RTAs of four trade disciplines besides tariffs, including nontariff measures, rules of origin, special regimes, and customs procedures.

⁸ There are a handful of other studies on tariff liberalization in RTAs. The World Trade Organization (2002) carries out an extensive inventory of the coverage and liberalization of tariff concessions in 47 RTAs involving a total of 107 parties. The data cover tariff treatment of imports into parties to selected RTAs, tariff line treatment as obtained from individual countries’ tariff schedules, and tariff dispersion for a number of countries. Scollay (2005) performs a similarly rigorous analysis of tariff concessions in a sample of 18 RTAs. The IDB (2002) presents an exhaustive survey of market access commitments of RTAs in the Americas, while the World Bank (2005) carries out a more general mapping of the various disciplines in RTAs around the world.

State of Liberalization in the Americas

Tariff liberalization modalities can be classified into three different approaches: basket, sectoral, and preferential tariff approaches.⁹

The basket approach assigns all products into a set of distinct categories in the tariff elimination program, each providing a time frame and trajectory towards complete elimination of tariffs on goods originating in the RTA partner. Also included are any tariff rate quotas (TRQs), typically with a reference to an appendix with the quota quantities, as well as exceptions to preferential treatment that are generally entered into a basket of continued MFN treatment.¹⁰ Many of the agreements in this study, such as those signed by the United States, tend to follow the basket approach. This usually subjects nearly the entire tariff universe to eventual full tariff elimination, with some of the less visible “action” in the U.S. agreements taking place within the framework of TRQs.¹¹

The sectoral approach, typically reflected in the EU and European Free Trade Association (EFTA) agreements, subjects all industrial products to a general tariff elimination schedule.¹² Separate lists for exceptions and separate annexes or protocols govern the treatment of such products as agricultural goods, fish, and processed agricultural goods. The protocols tend to be quite complex and feature various regimes, such as end-point preference margins or residual preferential tariffs, TRQs, reference

⁹ See Estevadeordal, Shearer, and Suominen (2009a).

¹⁰ The Thailand-Australia and Thailand–New Zealand RTAs defy easy categorization, as they do not use any clearly defined baskets, but rather implement staging simply by cross-tabbed reduced tariff rates. This lends itself mostly to the basket approach, as a result of the use of comprehensive schedules. However, there are a large number of case-by-case trajectories, which suggests a preferential tariff approach, as well.

¹¹ It should be noted that the in-quota quantities (and even the existence of in-quota treatment) in these agreements differ greatly within DR-CAFTA. Although the United States has given the same schedule with the same baskets to the other countries in the agreement, the treatment within these baskets differs greatly among countries. So although the statistics will reflect identical treatment of all Central American countries, this will not be the case, especially when it is considered that a number of the products subject to TRQs are those for which Central America will have a strong comparative advantage (such as sugar).

¹² In this report, EFTA's tariff elimination in the EFTA-Mexico RTA is based on Switzerland's tariff schedules.

quantities, and a phased reduction of tariffs to a final level (which can be nonzero).¹³

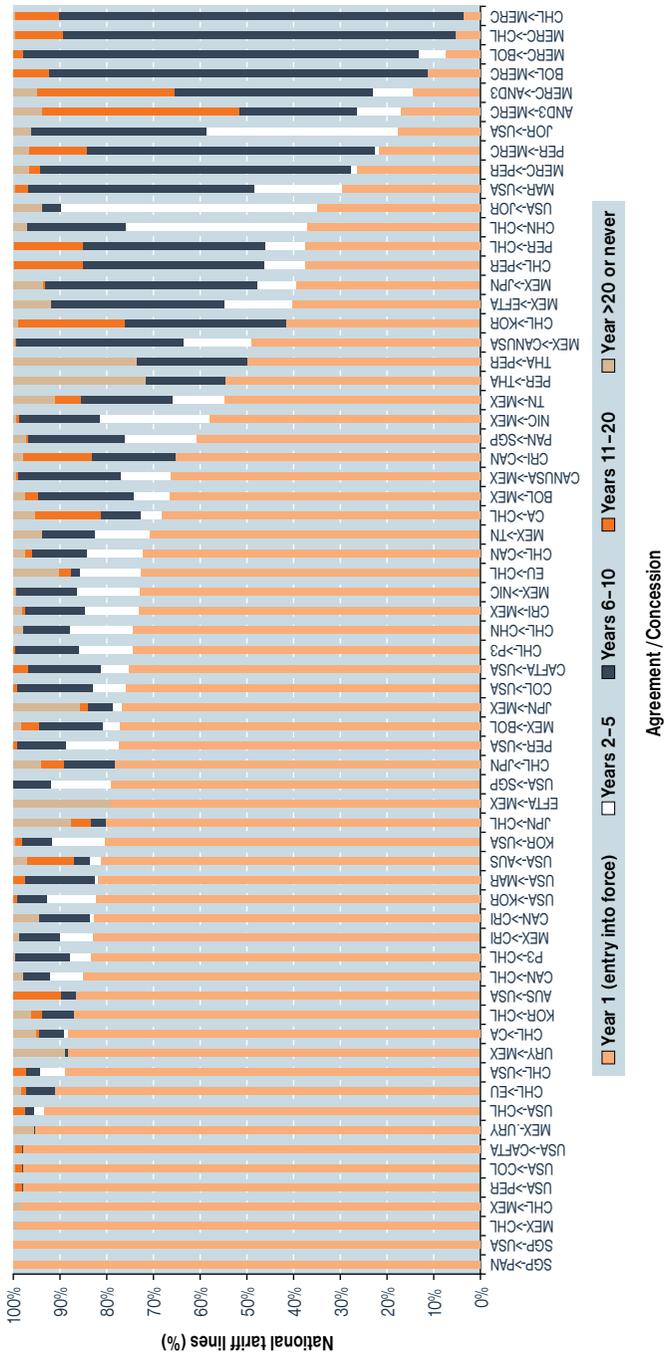
Some agreements, including many of those forged under the Latin American Integration Association (LAI) framework, involve a preferential tariff approach focusing on the end-point preferential tariff or margin of preference. This model takes a positive list approach to the concessions, wherein the schedules include the products to which the market access provisions of the RTA apply, rather than a negative list approach, in which the schedules specify which products those provisions do not cover, and as such lends itself more to partial scope agreements.

How liberalizing are RTAs formed by countries of the Americas? Figure 1.6 takes the first cut, providing an overview of the share of tariff lines liberalized by the partners in the 32 RTAs in the Americas by mapping out the shares of national tariff lines that become duty free in year 1 of, years 2–5 of, years 6–10 of, years 11–20 of, and more than 20 years into the RTA (or never).

Agreements formed in the Americas, particularly those signed by NAFTA members, generally liberalize trade relatively fast, with some 75 percent or more of tariff lines freed in the first year of the agreement. Some South American agreements have a more back-loaded liberalization, with a large share of lines being liberalized between 6 and 10 years into the agreements. Trans-Pacific agreements also stand out for being particularly front-loaded, freeing the bulk of the tariff universe in the first year of the RTA. Japan in the Mexico-Japan EPA and U.S. agreements with Asian countries free some 80 percent of tariff lines in the first year; however, Chile in the Chile–South Korea and Chile-China agreements and Mexico in the Mexico-Japan agreement back-load more than half of their liberalization to years 2–5 or beyond. The share of tariff lines subject

¹³ The recent EU-Chile RTA that entered into effect in 2003 diverged from the EU's standard practice of dividing tariff elimination into separate venues by establishing a single schedule for each party that includes all products. In its category column, the schedule includes various measures that will be maintained, such as TRQs, elimination of only the ad valorem component of a mixed duty (including in cases where the non-ad valorem component is linked to an entry price), products subjected to a tariff concession of 50 percent of the basic customs duty, and cases in which no liberalization takes place, due, for instance, to "protected denominations."

FIGURE 1.6 ■ Percent of Tariff Lines Duty Free, by Selected Benchmark Years



Source: IDB calculations based on agreement texts.

to back-loaded liberalization is largely due to the persistent protection in the agricultural protocols.

Figures 1.7a and 1.7b assess the extent of tariff elimination reciprocity between parties to an RTA by years 5 and 10, respectively. Whereas the parties' respective product coverages often diverge markedly in year 5, with some partners (such as South Korea) liberalizing up to twice as many lines as their partners (such as Chile), the differences shrink considerably by year 10. The wider gaps in concessions among a given pair tend to owe to North-South differences in liberalization—a pattern that is evident nearly throughout the sample in all regions.

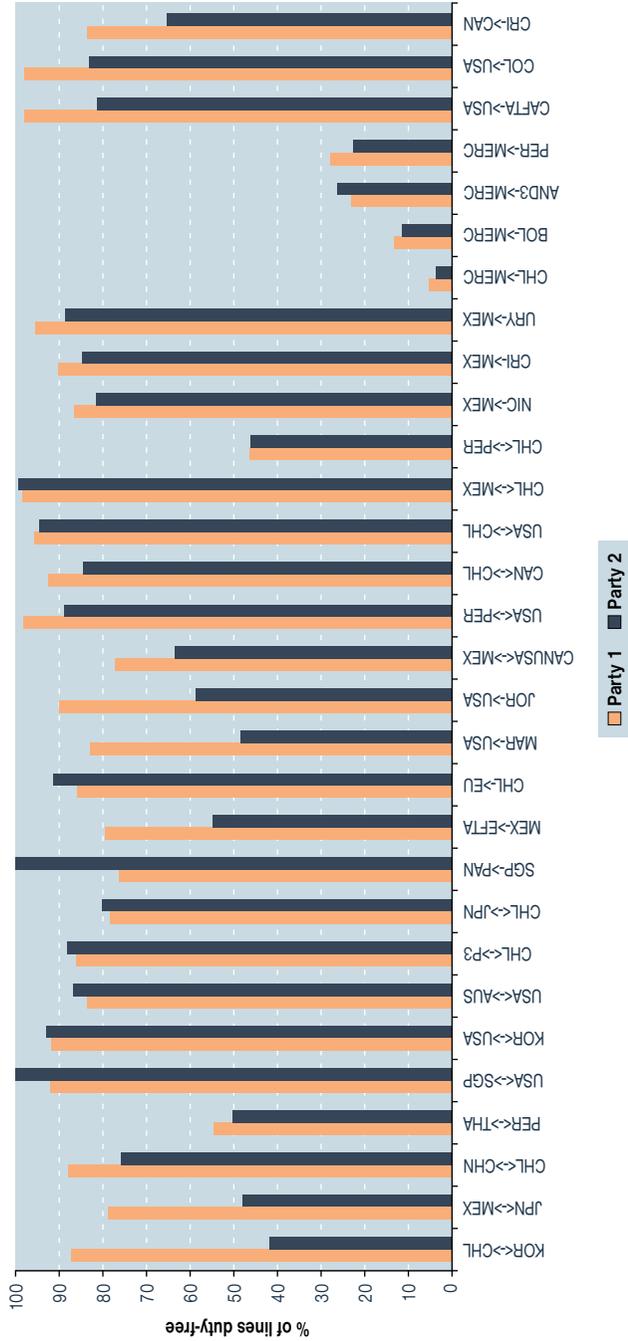
Figure 1.8 goes beyond the snapshots to display the dynamic, year-to-year evolution of liberalization by the 76 parties to RTAs in the Americas over a period of 20 years, as well as the respective averages of the three regional groupings.

The figure echoes prior findings in two ways. First, whereas some countries, such as the NAFTA partners, employ a “stair-step” approach to tariff liberalization (stemming from the use of various gradual baskets), others have a constant fraction of tariff lines liberalized in what could be characterized as a “now-or-never” approach. The main example of the latter is Singapore, which liberalizes basically 100 percent of tariff lines in year 1 in each agreement to which it is a party.¹⁴ Still others—often developing countries of Asia and Latin America—start from a low coverage, proceeding through one or two jumps to nearly 100 percent coverage.

Second, the averages of the regional samples reveal that trans-Pacific agreements feature the fastest and most extensive liberalization. Overall, RTAs in the Americas approach the level of liberalization in trans-Pacific RTAs by year 9. Nearly all RTA partners free more than 90 percent of their tariff lines within 10 years of the agreement's entry into force. However, it should also be noted that a small number of agreements provide for phaseouts even after year 20—although the number of products subject to such prolonged phaseouts is quite small.

¹⁴ Singapore is a special case, as it applies non-zero MFN tariffs only to a very small number of goods, with the overwhelming majority of products tariff free to begin with. Thus the immediate liberalization is mostly maintaining the status quo.

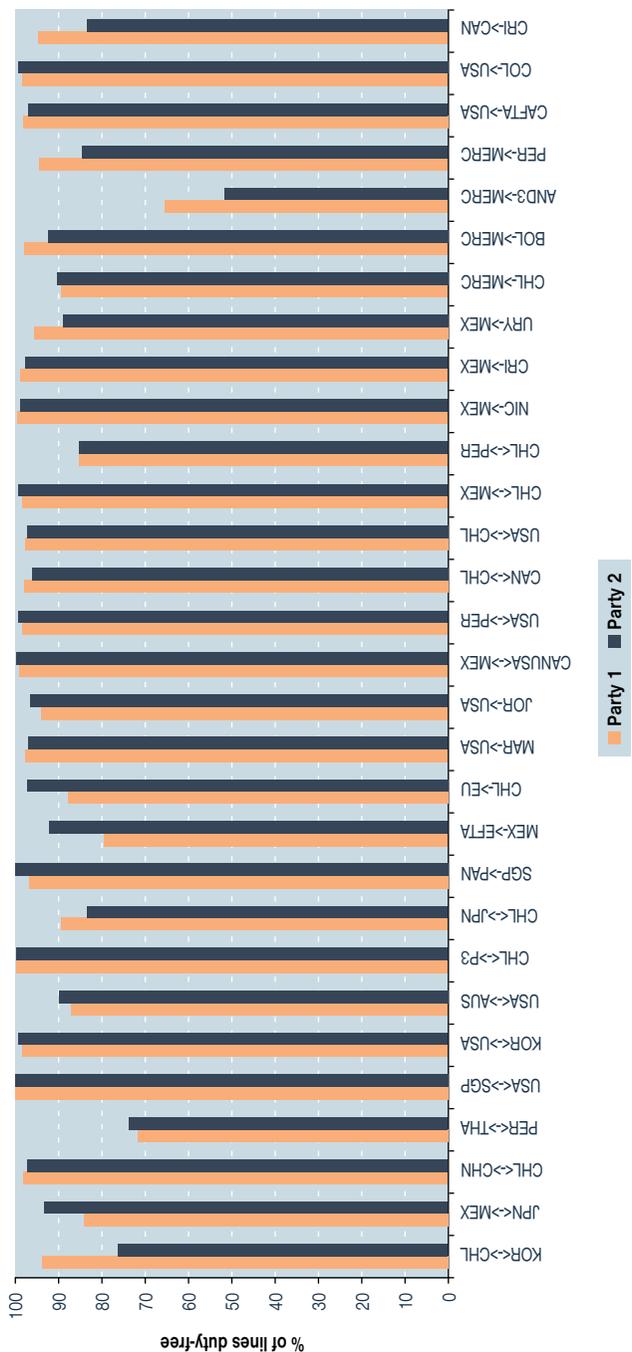
FIGURE 1.7a ■ Reciprocity of Concessions: Year 5



Descending percentage-point difference between parties (ordinal scale)

Source: IDB calculations.

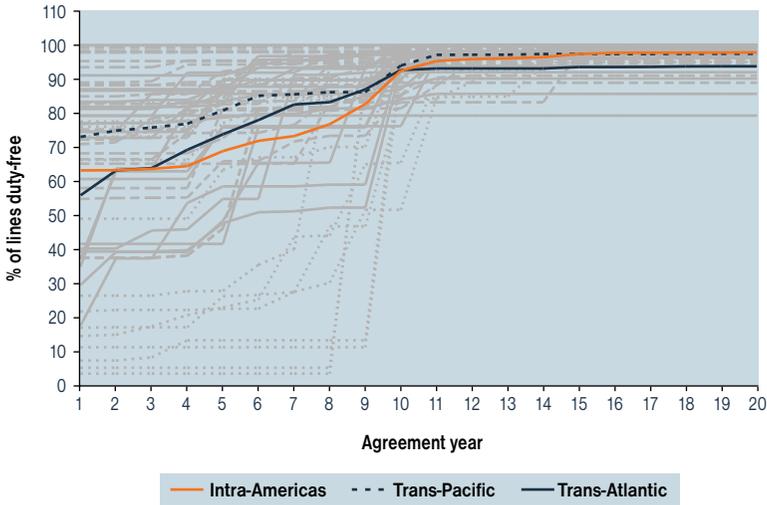
FIGURE 1.7b ■ Reciprocity of Concessions: Year 10



Descending percentage-point difference between parties (ordinal scale)

Source: IDB calculations.

FIGURE 1.8 ■ Evolution of Duty-Free Treatment in Selected RTAs



Source: IDB calculations.

On average, a substantial part of the liberalization in the Americas agreements takes place in the medium term following entry into force (especially in years 5–10) as opposed to up front. This is due not only to a greater use of the stair-step approach in the region, but also to the heterogeneity of the sample. Agreements among Central American countries, Mexico, and the United States tend to be characterized by a large number of small steps, as are U.S. agreements with Peru and Colombia. However, Mexico’s agreements with Chile and Uruguay front-load concessions. The Chile–Central America RTA and Canada’s agreements with Chile and Costa Rica fall somewhere between the two poles.

The Southern Cone’s approach is different still. ACE 58 and ACE 59, the agreements between MERCOSUR and the Andean Community (except for Bolivia), start at a very low share of duty-free lines, then increase that share substantially with a small number of large jumps after year 5. This is also the case in MERCOSUR’s earlier agreements with Bolivia and Chile, in which duty-free coverage is minimal through around year 8, then quickly jumps to around 90 percent or more, fol-

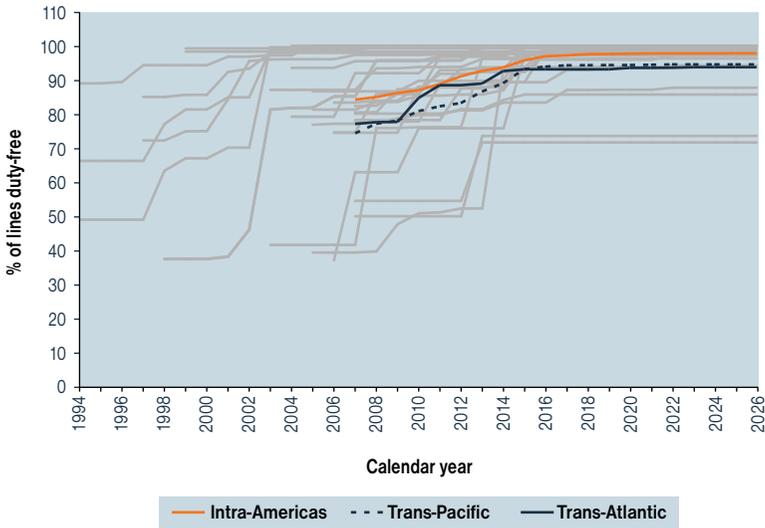
lowed by an eventual progression towards nearly 100 percent coverage over time.

Most of the interregional agreements follow the stair-step model, likely because of NAFTA members' predominance in the data. In agreements involving a northern and a southern party, the latter generally starts at a lower initial level of liberalization and takes larger steps than the northern counterpart. This is particularly clear in the Korea-Chile RTA (with South Korea classified as northern) and in U.S. agreements with Jordan and Morocco. However, there are exceptions. Concessions are much more even in the EU-Chile agreement; in the EFTA-Mexico RTA, Mexico's schedule starts at around 40 percent of lines duty free and surpasses 90 percent of lines liberalized well before 10 years into the agreement by means of a few jumps.

The main finding here is the extent of deep liberalization throughout RTAs of the Americas: most agreement members have already liberalized more than four-fifths of the tariff items to their intraregional partners, and the remaining liberalization is advancing quite rapidly. To be sure, liberalization in the 2004 MERCOSUR-Andean agreements, which are an amalgam of bilateral agreements among the groups' members, is in its early stages. Meanwhile, Chile, Mexico, and the United States are the main drivers of the interregional agreements formed by the countries of the Americas, with Peru rapidly joining in. The liberalization in these agreements is still generally somewhat lower than that in the intraregional RTAs.

How will the regional liberalization state of play unfold in the future? Figure 1.9 goes beyond the annual snapshots to explore the entire period 1994–2026 and in a cross-regional context, including the simple average for the regional samples from 2007 onward (i.e., during the period during which all agreements considered here are expected to have entered into effect). The main findings are the extent of deep liberalization in the intra-Americas agreements examined here. As of the printing of this report, most members of existing RTAs have liberalized at least three-quarters of their tariff items to their partners; some of the newer agreements will attain this level by 2010. Liberalization in the recent MERCOSUR-Andean agreements is more limited, reaching

FIGURE 1.9 ■ Evolution of Duty-Free Treatment in RTAs, 1994–2026



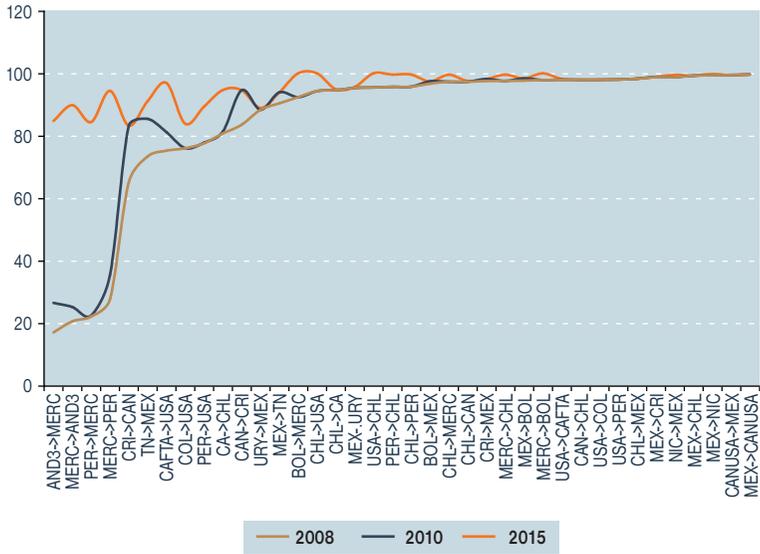
Source: IDB calculations.

about a fifth or a quarter of tariff lines by 2010. Overall, the figure conveys the rapid liberalization by Asian countries and the advance of opening in trans-Pacific agreements, which will have freed more than 95 percent of tariff lines by 2015.

A longer-term look at the pairwise liberalization within the Americas in three benchmark years—2008, 2010, and 2015—is quite positive as to the extent of opening (Figure 1.10). Mexico, the United States, and Canada have freed virtually all bilateral tariff barriers already, and the bulk of RTA partners have liberalized more than 80 percent of tariff lines. While the Andean-MERCOSUR agreements still feature low levels of liberalization, all countries covered in the figure will have freed more than 80 percent of their tariff lines to their partners by 2015.

Overall, the data shown in the figure convey the maturity of liberalization in agreements in the Americas. The region is rather saturated in terms of intraregional agreements, which means that the figure provides a particularly accurate reflection of the progression of future liberalization in the case of intraregional agreements. A number of bilateral agreements that are not included in the figure have nevertheless been negotiated,

FIGURE 1.10 Preferential Liberalization in the Americas in 2008, 2010, and 2015, by Country Pair¹



Source: IDB calculations based on agreement documents and DINAMO database.

¹ The Andean-MERCOSUR tariff elimination schedules in this graph reflect an average across 14 of the bilateral schedules within the overall agreement.

including those of Canada with Peru and Colombia, Colombia with the Northern Triangle of Central America (El Salvador, Guatemala, and Honduras), Panama with four of the five Central American countries, and Chile with Honduras. Although some of these agreements are not in force yet, they all liberalize a significant fraction of tariff lines upon entry into force and as such will rapidly mature in line with the rest of the agreements in the region.

It is certainly the case that the share of liberalized tariff lines alone does not necessarily capture the full effects of the exclusion of sensitive products from RTAs if those products are covered in a very small number of tariff lines: a few protected lines could cover a lot of trade. However, an analysis of two alternative methods—liberalization statistics examined above as weighted by trade, and the actual percentage of total trade (imports) from the RTA partner that is liberalized—reveals broad similarities with the unweighted data. To be sure, the initial point at year 1

is higher in the trade-weighted data than in the unweighted tariff lines. This is hardly surprising: most trade occurs in sectors that are opened up rapidly, whereas sectors with back-loaded liberalization tend to have very little trade precisely because they are protected.

Where Are the Gaps in Liberalization?

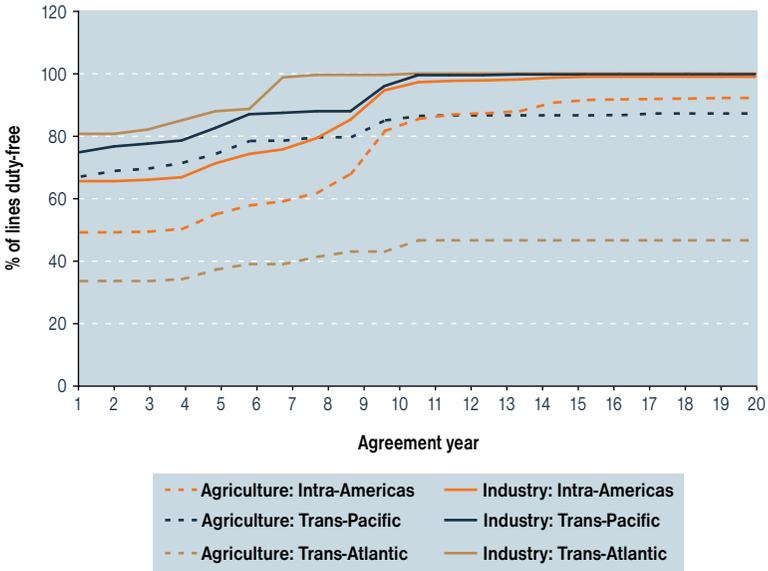
The liberalization in the RTAs formed by the countries of the Americas is quite mature and thorough, particularly in light of the fact that only 20 years ago, RTAs barely figured in the regional rhetoric or trade policy portfolios. However, the tariff reduction statistics disguise what could be expected to be important variation in the speed of liberalization across product categories.¹⁵ Which product categories are liberalized the fastest, and which account for the gaps in liberalization?

One laggard in liberalization is agriculture. Figure 1.11 maps out the evolution of duty-free treatment for agricultural and industrial products (as defined by the WTO) in the regional samples, showing that agricultural products are, in each regional grouping, more protected than are industrial products. On average, RTAs examined here liberalize only 56 percent of tariff lines in agriculture by year 5 and 70 percent by year 10, while reaching duty-free treatment for 80 and 96 percent of industrial goods, respectively, by the same points in time.

The trans-Pacific average sees a meaningful, though smaller, jump in year 10. This is primarily due to increases in China's concession to Chile and Panama's to Singapore. RTAs in the Americas take off in agricultural liberalization in year 10, gradually converging with Asian agreements. This is largely due to very large jumps (on the order of 60 percentage points or more) in agricultural duty-free coverage in the MERCOSUR-

¹⁵ Viewing the percentages of lines that are duty free by a certain benchmark year (e.g., year 10) disaggregated by two-digit Harmonized System chapters may be ideal, given that the level of disaggregation is detailed enough to provide distinct product categories. Furthermore, 2-digit chapters tend to be more stable across time, that is, between various versions of the Harmonized System. A 4-digit approach may be useful as well, but can be excessively complex and disguise the more general trends. The best method could be to identify some 2-digit chapters that have the least comprehensive tariff elimination, then use these as priors to conduct 4- or 6-digit analysis within these chapters.

FIGURE 1.11 Evolution of Sectoral Duty-Free Treatment in Selected RTAs



Source: IDB calculations.

Bolivia and MERCOSUR-Chile agreements, as well as smaller increases in coverage in the Mexico-Nicaragua and Mexico-Costa Rica RTAs and the representative average Central American countries’ schedule in DR-CAFTA vis-à-vis the United States. Peru’s agricultural concessions to MERCOSUR also increase substantially at that point in the schedule. The trans-Atlantic agreements, meanwhile, reveal the scant liberalization in agriculture in the EU’s agreements.

In industrial goods, both intra- and extraregional RTAs feature progressively deeper liberalization, with the takeoff again occurring in year 10. In fact, the trajectories of agricultural versus industrial goods for the three subsets of agreements almost appear as parallel lines, with industry simply starting at a higher intercept on the vertical axis. In the intraregional sphere, the jump in year 10 is in part due to Mexico’s industrial coverage rising quickly that year. In the trans-Pacific agreements, the hike that year is produced by a rise in Mexico’s coverage of Japan’s industrial products.

FIGURE 1.12a ■ Distribution of Liberalization by RTA Parties in Chapters, Year 5

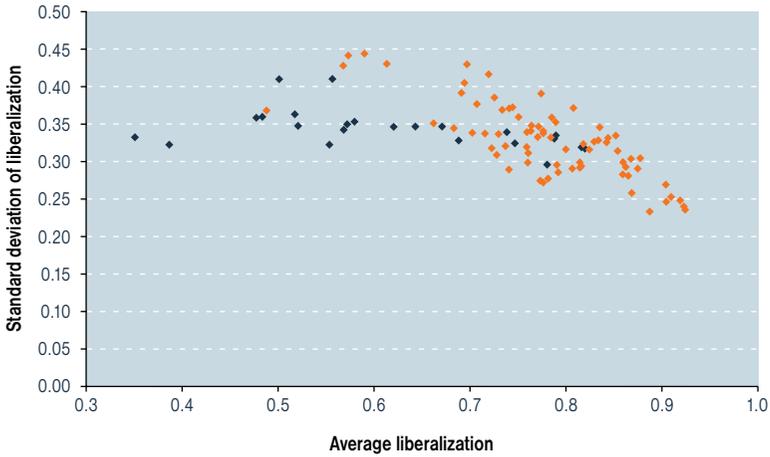
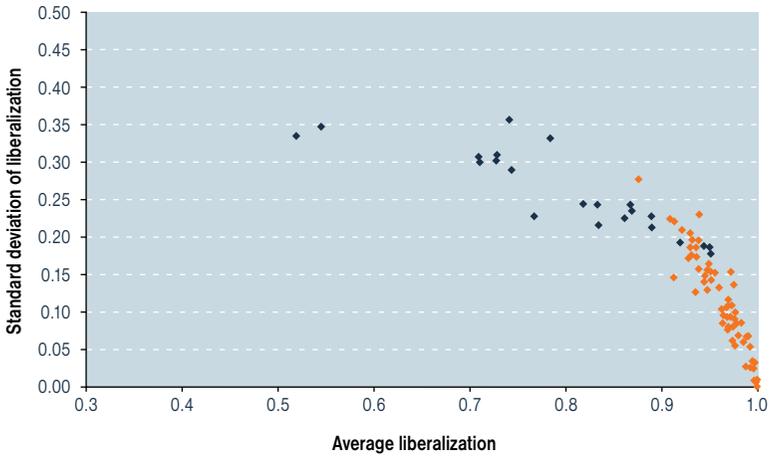


FIGURE 1.12b ■ Distribution of Liberalization by RTA Parties in Chapters, Year 10



Source: IDB calculations.

Figures 1.12a and 1.12b provide further nuance by measuring the average liberalization (horizontal axis) and dispersion of liberalization (vertical axis) across the liberalization schedules of 64 RTA partners (in a total of 32 RTAs) in the 97 Harmonized System (HS) chapters. The dots

in blue indicate chapters generally consisting of agricultural products, while dots in orange refer to chapters consisting of mostly industrial products.¹⁶ The chapters in the lower right-hand portion of the clusters are those in which all RTAs analyzed here feature deep liberalization, with negligible dispersion values resulting. Chapters in the upper left-hand portion of the clusters indicate limited liberalization across RTAs and particularly shallow liberalization in some RTAs, with high dispersion resulting.

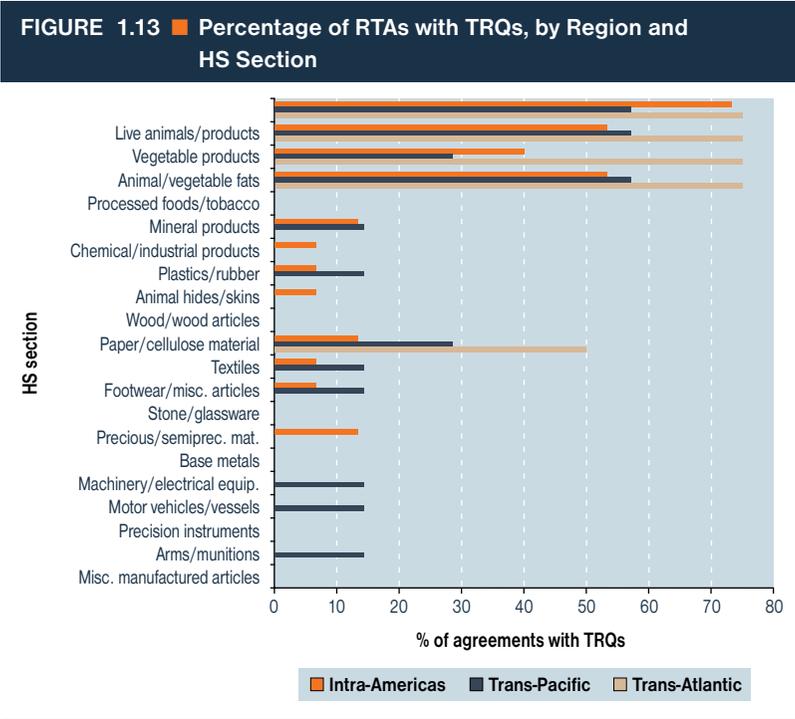
The pattern is clear: agricultural chapters in RTAs feature the least liberalization and also the highest dispersion of liberalization across RTAs, indicating that these chapters are particularly protected in some RTA parties' schedules. Figures 1.12a and 1.12b also show the relatively slow pace of liberalization: on average, RTA parties liberalize well below 50 percent of tariff lines in the most sensitive chapters—dairy (chapter 04) and sugars (17) by the fifth year of the agreement, and less than 55 percent in several others, including meat, cocoa, prepared cereals and baked goods, tobacco, and footwear (2, 17, 18, 24, and 64, respectively), while sugar and dairy still remain below 60 percent at year 10.

Overall, RTA parties on average liberalize more than 75 percent of tariff lines in the bulk of chapters by year 5 and more than 90 percent of tariff lines in most chapters by year 10. The fastest and deepest liberalization is effected in such nonsensitive products as ores (chapter 26), fertilizers (31), pulp of wood (47), and some base metals (81); perhaps one of the reasons is that these are intermediate inputs into other products. There is, however, notable variation across countries of the Americas in these goods as well as in leather (42).

Qualifying Market Access: Exceptions, TRQs, and Rules of Origin

Although RTAs in the Americas are encompassing and liberalizing, it is also the case that they carry provisions that can qualify the extent of liberalization provided by tariff lowering alone, such as tariff rate quotas,

¹⁶ For ease of presentation, in these figures chapters 1–24 (excluding chapter 3) are highlighted as agriculture. However, in the analyses of tariff liberalization statistics, agricultural and industrial products are defined at the 6-digit HS level.



Source: IDB calculations based on agreement texts.

safeguards, exceptions, and demanding rules of origin. These rules can affect the degree of actual liberalization conferred by RTAs.

TRQs in RTAs are usually additional to TRQ entitlements under the WTO Agreement on Agriculture, so that the RTA parties' existing entitlements are not affected.¹⁷ Figure 1.13 shows the percentage of

¹⁷ GATT Article I establishes disciplines on general most-favored-nation treatment and for preferential margins in arrangements that are mentioned in the article. The Appellate Body, in the dispute Turkey—Restrictions on Imports of Textile and Clothing Products, found that a dispensation could be available in cases in which it could be shown that the proposed measure is essential to the formation of the RTA, but did not set the criteria by which this condition could be fulfilled in practice. Nevertheless, in quota-controlled markets in which the Agreement on Agriculture allocates quotas to several supplying countries, the expansion of the quota of one supplying RTA partner will put downward pressure on prices, causing some erosion in the quota rents available to all quota holders, while only the RTA partner is compensated with increased market access. Given the possible negative impact on other quota holders, it is not clear that TRQs in RTAs are consistent with the WTO rules on quotas. It is also unclear whether GATT Article XXIV provides a dispensation from those rules—or from GATT Article I.

agreements in each region in which one or more parties applies a TRQ in a given section of the Harmonized System. The method of calculation is simple and somewhat liberal: if any party to a given agreement applies a TRQ on any other party on one tariff line within a section, and there are five agreements in the region, then 20 percent of the regional agreements are counted as applying TRQs.

Countries of the Americas are frequent TRQ users, particularly in agriculture, and also employ TRQs in textiles, to which extraregional agreements do not apply TRQs. U.S. agreements drive the TRQ incidence in agriculture, with Canada and Mexico contributing to a somewhat lesser extent. Box 1.1 details the operation of TRQs in DR-CAFTA.

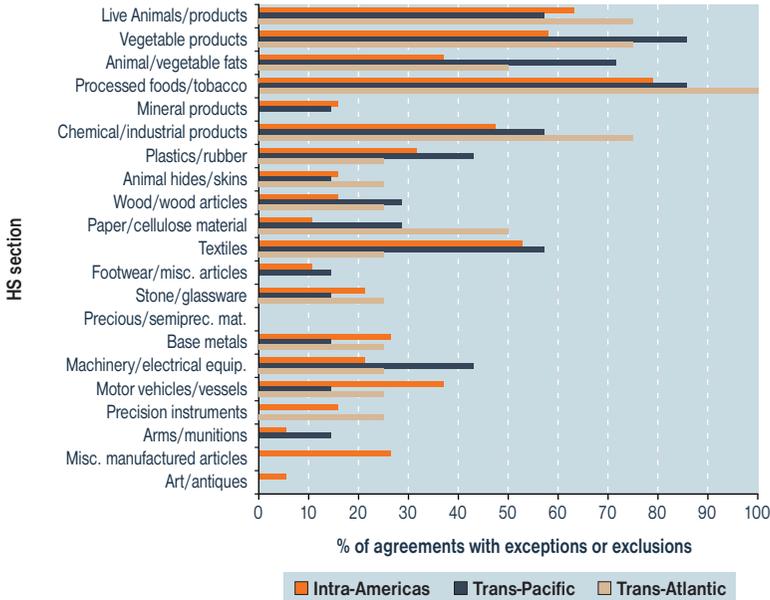
Figure 1.14 turns to exceptions, defining the share of product categories in which at least one of the parties to an RTA has placed an exception (i.e., never brings the tariff on the product to zero) or an exclusion (i.e., has exempted a product from the RTA concessions altogether). Exceptions in most RTAs fall on the most sensitive sectors—agricultural products, food preparations, chemicals, and textiles and apparel. In the Americas, Mexico's agreements are the main drivers of exceptions in agriculture. The Mexico–Northern Triangle, Chile–Central America,

■ Box 1.1 Tariff Rate Quotas in DR-CAFTA

The United States presented a single schedule of tariff concessions to the Central American countries and the Dominican Republic in DR-CAFTA. However, there are some differences in the actual concessions to each Latin American party. The differences in treatment arise from the granting of immediate elimination of duties for finite quantities of some goods by means of a tariff rate quota. Whereas some of the parties receive duty-free access under a quota, others do not, and whereas the products subject to quotas are similar across the parties, the quantities vary widely among them (Appendix 1.2). The differences can have substantial implications, as the products in question are among the most sensitive, and as the tariff reduction takes a long time and may be subject to grace periods before actual reductions begin.

Each of the Central American parties and the Dominican Republic has its individual schedule on products entering from the United States. The concessions are rather similar for the various product categories across these countries. Indeed, although there are some differences in the tariff elimination treatment within Central America for individual products and for the in-quota quantities, the products on which the Central American parties open TRQs tend to be very similar. The Dominican Republic has a slightly different list of products than the Central American parties do; however, the differences can in part be explained by the aggregation of the TRQs in terms of product coverage.

FIGURE 1.14 ■ Percentage of RTAs with Exceptions or Exclusions, by Region and HS Sections



Source: IDB calculations.

and Canada–Costa Rica RTAs contribute to the count in a broad number of sections.

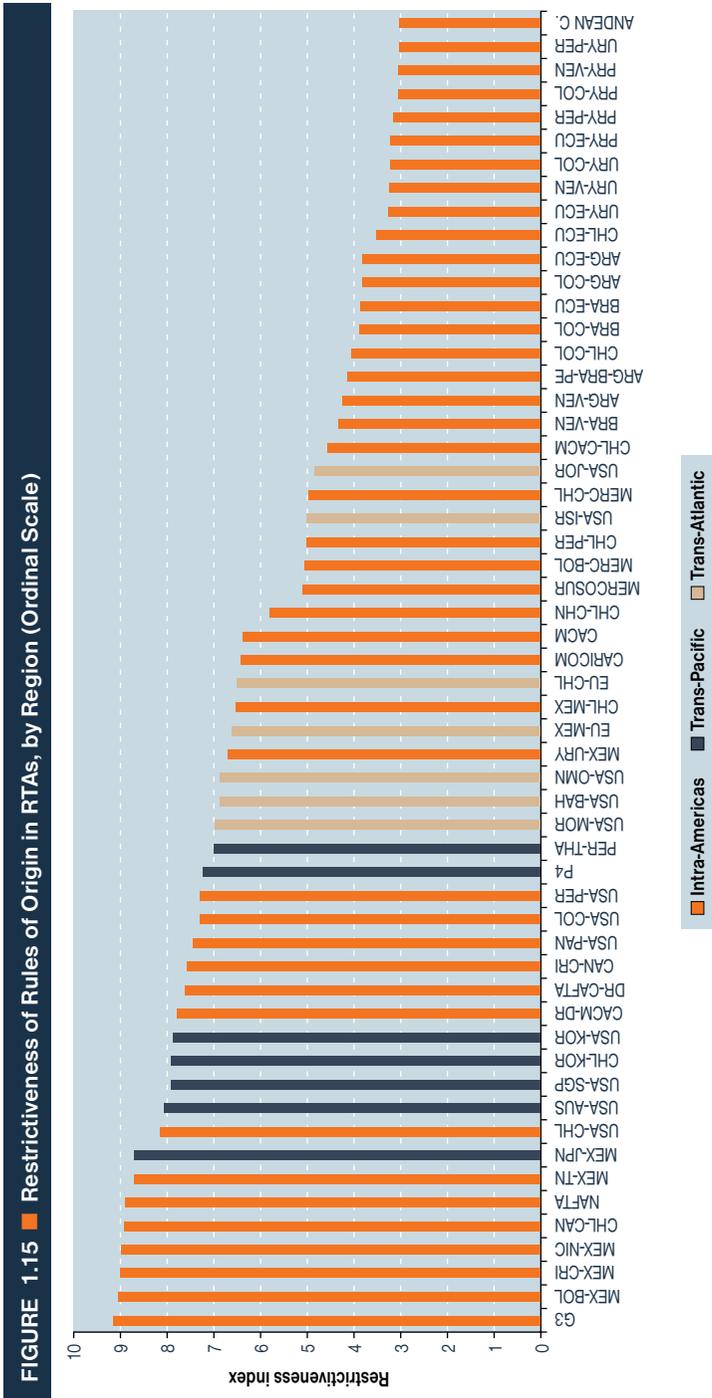
Rules of origin can also arbitrate the trade-creating potential of RTAs. The economic justification for rules of origin is to curb trade deflection—to avoid the transshipment of products from non-RTA members through a low-tariff RTA partner to a high-tariff one. As such, RoO are an inherent feature of FTAs in which the member states’ external tariffs differ, as the members wish to retain their individual tariff policies vis-à-vis the rest of the world (ROW). RoO are also widely used in customs unions (CUs), either as a transitory tool in the process of moving toward a common external tariff, or as a more permanent means of covering product categories for which reaching agreement on a common external tariff is difficult, as a result, for instance, of large tariff differentials between the member countries. Thus, basically all RTAs contain rules for establishing the origin of goods.

However, RoO are widely considered “hidden protectionism,” an obscure and opaque trade policy instrument that can work to offset the benefits of tariff liberalization.¹⁸ RoO in effect set up walls around RTA members that prevent them from using certain inputs in each final product. This limits the access of member country producers to inputs from the rest of the world, as well as extraregional input providers’ sales to the RTA region. The more restrictive are the rules of origin, the higher are the walls they create, and the more difficult efficient allocation of resources becomes. Since a failure to meet the RoO disqualifies an exporter from the RTA-conferred preferential treatment, RoO can and must be seen as a central market access instrument reigning over preferential trade. In empirical studies, Estevadeordal (2000) and Suominen (2004) find RoO restrictiveness to be determined by the same protectionist interests that push tariffs.

How restrictive are preferential rules of origin? Suominen (2004) and Estevadeordal, Harris, and Suominen (2009) measure the restrictiveness of RoO using two different indices, finding EU, Mexican, Chilean, U.S., and selected Asian agreements to sport some of the most restrictive RoO (Figure 1.15; see Appendix 1.3 for the calculation method).¹⁹ At the sectoral level, it is agricultural products and textiles and apparel that are marked by a particularly high restrictiveness score in each regime, which indicates that the restrictiveness of RoO is driven by the same political economy variables that arbitrate the level of tariffs, particularly in the EU and the United States.

¹⁸ Most prominently, RoO can be employed to favor intra-RTA industry linkages over those between the RTA and the rest of the world, and as such, to protect RTA-based input producers indirectly vis-à-vis their extra-RTA rivals (Krueger, 1993; Krishna and Krueger, 1995). As such, RoO are akin to a tariff on the intermediate product levied by the country importing the final good (Falvey and Reed, 2000; Lloyd, 2001).

¹⁹ These measures capture only the level of restrictiveness that is observable in the requirements of the rules as drafted in the agreement text. The real, effective restrictiveness, as would be measured by the implied compliance costs to producers, depends on factors beyond the RoO regime text, namely, on the cost and availability of inputs within the member countries. The greater these are, the less the effective restrictiveness is likely to be. If the RoO walls are high, yet the RTA zone is very large, the restrictive RoO will pose less of a problem for producers in accessing efficient inputs than when the RTA zone is very small and domestic inputs are hard to come by. See Estevadeordal, Harris, and Suominen (2009).



Source: Esteveadoral, Harris, and Suominen (2009).

However, it is also the case that U.S. agreements have become less restrictive over time: NAFTA is more restrictive than the U.S.-Chile RTA of 2004, which is more restrictive than DR-CAFTA of 2005, which is more restrictive than the U.S.-Peru and U.S.-Colombia RTAs negotiated in 2006 (see Suominen, 2004; Estevadeordal and Suominen, 2006; and Estevadeordal, Harris, and Suominen, 2009) (Box 1.2). Indeed, unlike the constant RoO model that the EU uses in all of its RTAs, agreements in the Americas are marked by diversity in RoO that suggests not only political economy forces, but also accommodation of RTA-specific idiosyncrasies. The region's countries have also employed such measures as short-supply clauses to help producers adjust to shocks in availability of intraregional inputs.

1.3 Trade Effects of RTAs: Open Regionalism in the Americas?

The analysis of the state of liberalization in RTAs in the Americas yields a mixed picture. For one, RTAs that have been formed by the countries of the Americas are mature and highly encompassing, liberalizing all or nearly all products in the tariff universe, and RTAs signed by the original NAFTA members in particular free most products rapidly. RTAs formed by the countries of Asia with partners in the Americas are somewhat more back-loaded, particularly for Chile in the Chile-South Korea RTA and Mexico in the Mexico-Japan RTA.

However, some agreements in the region feature a number of outlier RTA parties (often southern parties) that trail the average pace of liberalization. There are also product categories (particularly sensitive sectors—agricultural products, food preparations, textiles and apparel, and footwear) that lag the overall trend of liberalization. Many agreements also carry provisions that could potentially constrain the trade boost provided by tariff liberalization, such as exceptions, TRQs, and restrictive rules of origin. Indeed, these instruments may indicate the trade-offs for the region's integrationist interests in regard to liberalizing RTAs.

But how discriminatory are agreements formed by countries in the Americas vis-à-vis nonmembers? Are RTAs in the region based on open regionalism—simultaneous external and preferential liberalization that

■ Box 1.2 RTAs Evolve: The Case of U.S. RoO Regimes

Although RoO regimes may carry hidden protectionism, an examination of their evolution over the past few years in the Americas gives a number of reasons for optimism.

First, the more recent RoO regimes based on the NAFTA model—namely, the U.S.-Chile free trade agreement and DR-CAFTA—incorporate simpler, more practical, and less restrictive product-specific rules of origin than NAFTA. This evinces a trend toward market-friendly rules of origin in the hemisphere.

Second, the RoO regime of the hemisphere's most remarkable agreement in terms of trade flows, NAFTA, has been under a liberalization process. The Working Group in charge of the rules of origin review process has completed two phases of RoO simplification covering a number of sectors.^a Without exception, all changes have been towards more permissive rules.

Third, the various regimes designed after NAFTA are fairly similar vis-à-vis one another, in both the types of rules of origin specified and their level of restrictiveness. This can help reduce any potential transaction costs for NAFTA-model adherents that export under preferential terms to two or more NAFTA-model RTAs.

Fourth, the NAFTA model has now been adopted in numerous free trade agreements. The members of these agreements will thus find it relatively easy to negotiate, adopt, and implement future free trade agreements with one another, having all had experience with this model.

Finally, negotiators on rules of origin throughout the Americas, and particularly in free trade agreements based on the NAFTA model, have proved their willingness to revise existing RoO regimes to make them more flexible. NAFTA's review of its rules of origin is the clearest example, demonstrating commitment to keeping North America's rules of origin current with changes in technology and the globalization of production, and potentially marking a growing role of export interests in setting trade policy.

More generally, the precision of the NAFTA-model rules of origin provides greater transparency in regard to what is permitted and greater flexibility to negotiators in defining rules to fit the needs of their exporters, as compared to the vaguely defined and subjective rules of origin of the past, though these benefits will accrue more to those engaged in trade of more sophisticated products. (Trade in primary goods or goods manufactured from materials wholly produced in one country will not see extra benefits from this model.) Precision provides clarity and certainty to traders and customs alike. Because the NAFTA regime is based on change in tariff classification, it provides a fairer, more transparent, and more easily verifiable RoO model than regimes based on value content, which paradoxically can be hard to meet in countries with low production costs and are difficult to implement in the face of fluctuations in exchange rates and changes in production costs. Precise rules of origin do not need to be restrictive rules of origin; the NAFTA review process may well yield rules of origin that are both precise and flexible.

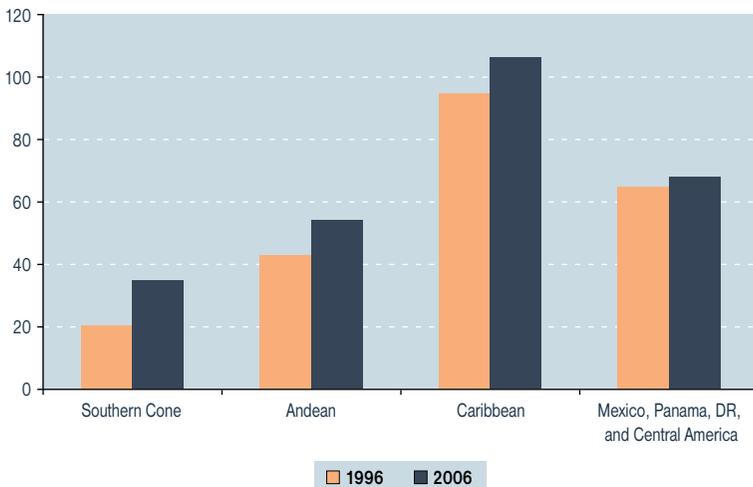
^a The initial set of revised NAFTA rules of origin took effect on 1 January 2003; they involve such products as alcoholic beverages, petroleum/topped crude, esters of glycerol, pearl jewelry, headphones with microphones, chassis fitted with engines, photocopiers, chemicals, pharmaceuticals, plastics and rubber, motor vehicles and their parts, footwear, and copper. See "Regulations Amending the NAFTA Rule of Origin Regulations," *Canada Gazette*, 1 January 2003 (available at www.canadagazette.gc.ca/archives/p2/2003/2003-01-15/pdf/g2-13702.pdf). In July 2004, the trade ministers of the NAFTA countries instructed the trilateral Working Group on Rules of Origin to extend the liberalization drive to all items with a zero most-favored-nation tariff for all of the NAFTA members. See "A Decade of Achievement," NAFTA Free Trade Commission, 16 July 2004.

is conducive to welfare-enhancing trade creation? Or are RTAs of the Americas trade-diverting, denting the region's economic well-being?

Building or Stumbling Blocks?

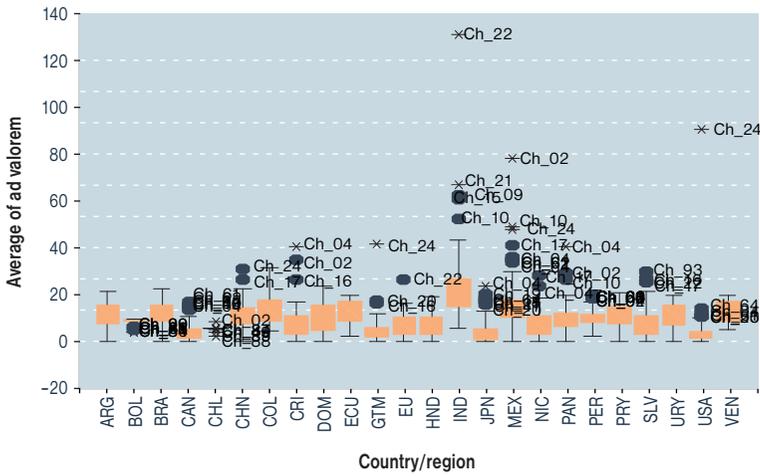
In the 1990s, RTA formation in the Americas proceeded in lock-step with MFN liberalization, with preferential margins remaining rather unchanged during the period (IDB, 2002). Many countries of Latin America started MFN liberalization from average levels as high as 40 percent or more. The advance of RTA liberalization in recent years has been accompanied by a more modest liberalization of external tariffs than was the case in the 1990s, when countries freed their product lines with very high tariffs rapidly and forcefully. In general, however, it can also be said that many of the region's most liberalized countries in the RTA sphere—Chile, Central America, Canada, the United States—also have some of the lowest MFN tariffs and some of the least MFN tariff dispersion. One of the results of the liberalization process was a rise in trade openness—that is, trade as a share of Latin American and Caribbean countries' GDPs (Figure 1.16).

FIGURE 1.16 Trade Openness in Latin America in 1996 and 2006, Regional Averages (Trade as % of Regional GDPs)



Source: IDB calculations.

FIGURE 1.17 Applied MFN Tariffs in 24 Countries, 2006²



Source: IDB calculations based on UNCTAD TRAINS data.

Applied MFN tariffs today are at relatively modest levels. Figure 1.17 takes a snapshot of the current state of applied external tariff profiles in the region’s economies and, for comparison, China, the EU, India, and Japan. The median chapter average for applied external tariffs in Latin America ranges from around 14 percent (Colombia) to 6 percent (Chile). The regional median is not very different from that of China; however, all Latin American countries have a lower median than is applied by India. U.S. and Canadian average tariffs are 2.8 percent and 3.5 percent, respectively.²⁰ Tariff dispersion in the region is rather moderate, barring extreme outliers, particularly in Mexico (meat, cereals, and tobacco) and Costa Rica and Panama (dairy).

What are the trade effects of RTAs against the liberalizing multilateral backdrop? A massive body of academic literature has developed over the past 50 years on whether RTAs markedly increase their member countries’

²⁰ It should be noted that non-ad valorem tariffs are not included in the averages (i.e., calculations do not include ad valorem equivalents). Since non-ad valorem tariffs are generally more highly protective, the actual level of protection applied by the United States and Canada would be slightly higher. Mexico, the EU, and Japan also apply non-ad valorem tariffs to some degree.

bilateral trade, and particularly as to whether they are ultimately trade-creating or trade-diverting.²¹ Yet analysts remain divided. Of the more recent works, Oye (1992), Deardorff and Stern (1994), Baldwin (1993, 2006), Kahler (1995), Wei and Frankel (1995), Bergsten (1995), Frankel, Stein, and Wei (1997), Ethier (1998), Cadot, de Melo, and Olarreaga (2001), Freund (2000), and Ornelas (2005) provide grounds for believing that RTAs can be ever-expanding and propel strategic interactions conducive to global free trade.

In contrast, Bhagwati (1993, 2008) elegantly argues that reduced protection between RTA members will be accompanied by increased protection vis-à-vis outsiders, with RTAs ultimately undermining multi-lateral liberalization. Aghion, Antràs, and Helpman (2006) arrive at two equilibria: one in which global free trade is attained only when preferential trade agreements are permitted to form (a building-block effect) and another in which global free trade is attained only when preferential trade agreements are forbidden (a stumbling-block effect).

In empirical studies, Adams et al. (2003) estimate that 12 of 16 trade agreements, including the EU, the Association of South East Asian Nations (ASEAN), and NAFTA, in the sample period 1970–1997 have diverted more trade from nonmembers than they have created among members. However, one of the latest and most rigorous estimates by DeRosa (2007) shows that some of the world's major RTAs (EU, NAFTA, ASEAN, MERCOSUR, and EFTA) are trade-creating both between “insiders” and, in nearly every instance, for outsiders as well. There is, however, trade diversion from “outsiders” in agricultural trade, an unsurprising finding in light of the pervasive barriers in the sector. Baier et al. (2008) find that effects of membership in RTAs in the Americas have been much larger than empirical estimates using cross-sectional gravity equations have suggested, and more significant in boosting members' trade than the European integration process was in its early years (1957–1972). Overall,

²¹ For early works on the welfare effects of RTAs and customs unions, in particular, see Viner (1950), Meade (1955), Lipsey (1960), Johnson (1965), Mundell (1964), Corden (1972), and Kemp and Wan (1976). Richardson (1994) and Panagariya and Findlay (1996) extend the political economy analysis of RTA formation to looking at welfare implications of endogenously determined RTAs.

after accounting for RTAs' endogeneity, the authors find that "the vast bulk" of RTAs have augmented members' trade by about 100 percent over a 15-year period.

However, although these studies provide a handle on the trade effects of RTAs, they, like most studies on RTAs' effects, tend to operationalize RTAs with a simple dummy variable. As such, they omit both the differences in the pace of tariff liberalization across sectors in an RTA as well as that across RTAs that was described above. For instance, it is quite clear that the effects of back-loaded RTAs would kick in later than those of the more front-loaded ones; similarly, what tariff liberalization gives in RTAs, restrictive rules of origin and TRQs may take from bilateral trade.

Positively, there are increasingly nuanced empirical studies on RTAs' trade effects. The results, however, are somewhat conflicting, in part because of distinct methodologies and samples and political economy contexts. Exploring tariff-level data, Limão (2006) finds that the United States and the EU have limited their multilateral tariff liberalization in goods traded with RTA partners. Limão and Olarreaga (2006) make a similar finding in the case of import subsidies afforded to RTA partners by the United States, the EU, and Japan.

In contrast, Estevadeordal and Robertson (2004) and Estevadeordal, Freund, and Ornelas (2005), operationalizing tariff liberalization in a number of Western Hemisphere RTAs, find that RTAs in the Americas not only have been conducive to trade in the region, but also have helped further multilateral liberalization (see Appendix 1.4 for a discussion of the regressions).²² The authors conclude that RTAs can further open regionalism and set in motion a dynamic that attenuates their potential trade diversionary effects. These findings further attest to the stark distinction between the "closed regionalism" and integration-cum-import substitution in Latin America in the earlier decades, and the region's RTA wave of the 1990s, which was embedded in the context of multilateral liberalization.

²² Estevadeordal, Freund, and Ornelas examine the effects of RTAs on external trade liberalization using industry-level data on applied MFN tariffs and bilateral preferences for 10 Latin American countries from 1989 to 2001. The results show that the greater the tariff preference that a country gives to its RTA partners on a given product, the more the country tends to reduce its MFN tariff on that product.

The exploration of the trade effects of the various RTA market access disciplines beyond tariffs is more nascent. One key area is rules of origin, an instrument long seen as the ultimate gatekeeper of commerce in RTAs. There are as yet only a handful of empirical studies examining RoOs' economic effects, yet these are indicative of the "hidden protectionism" that restrictive rules can entail in RTAs. The few earlier empirical studies that did operationalize RoO focused on a single regime, that of NAFTA, finding that restrictive RoO dampen RTAs' trade-creating potential (Appiah, 1999; Estevadeordal and Miller, 2002. Cadot, Estevadeordal, and Suwa (2006) disentangle NAFTA's administrative costs into those associated with rules of origin and those that are not; they find the former to approximate 2 percent of the value of Mexican exports to the U.S. market. Harris (2007) uses a panel of five RTAs' rules of origin and finds that their restrictiveness responds to both protectionist and export interests.

In the most encompassing global study to date, involving some hundred RTAs and 155 countries over the period 1981–2001, Suominen (2004) and Estevadeordal and Suominen (2008) find that whereas RTAs help create trade, restrictive rules of origin embedded in them dampen their trade-creating potential (see Appendix 1.5 for a discussion of the regressions). Meanwhile, restrictive RoO in final goods encourage trade in intermediate goods and can thus entail trade diversion in inputs. This is worrisome: whereas open regionalism helps propel trade creation, restrictive rules of origin can dampen that potential.²³

Perhaps the most important policy question in the Americas today is what the effects of RTAs may be on their end users: companies trading across borders in the region and around the world. A forthcoming IDB survey of 350 firms from diverse economic sectors in Colombia, Chile, Mexico, and Panama pioneers in exploring this question.

²³ Another interesting strand of the literature has centered on the trade effects of services chapters in RTAs. Mattoo and Fink (2002) analyze the economic effects of preferential as opposed to MFN-based liberalization of *services* trade, finding that for the liberalizing country, preferential liberalization in services generates static welfare gains, but also that MFN liberalization generally yields greater welfare gains than preferential liberalization. Additional gains from trade, resulting from increased economies of scale and knowledge spillovers, are also likely to be greater if liberalization proceeds on a most-favored-nation basis.

Most firms participating in the survey see RTAs in a highly positive light, as providing new market access and even as locking in domestic economic policy reforms, thus providing policy stability and predictability for private sector activity. However, the survey also indicates that many firms find the costs of complying with rules of origin requirements embedded in their country's RTAs to be significant. In Colombia, 30 percent of small and medium-sized enterprises (SMEs) (defined in the study as those having fewer than 200 employees) report that the compliance costs of RoO are "medium high," and 10 percent view them as "high" or "very high" (Figure 1.18a). The corresponding figures for larger firms are 39 and 10 percent.

The findings are very similar in Mexico and, for small firms, in Panama. The costs appear less in Chile for small firms and greater for large firms, potentially because larger firms export multiple products to many more of the country's RTA markets than small firms do. The main factors identified as contributing to these costs are the certification and other administrative costs, rather than the pure technical compliance costs. Problems with origin verification were also viewed as troublesome and costly. There is some (albeit rather modest) variation across key economic sectors (Figure 1.18b).

A 2007 study prepared by the Marshall School of the University of Southern California to the Asia-Pacific Business Advisory Council found that similar problems occur in the developed country context. An analysis of automakers in the Pacific Basin, including those from the United States and Japan, found that RoO are a key factor in companies' market choice (81 percent of surveyed companies say so), sourcing (63 percent), location decisions (56 percent), and budgetary outlays (50 percent). As many as 56 percent of the surveyed firms reported that rules-of-origin-related issues rise to the management level on a regular basis. A Japanese automaker participating in the study claimed it spends \$76,000 per model to audit RoO compliance, while a large U.S. automaker participant indicated it faces \$20 million in penalties for inadequate internal control relating to RoO.

The study also found that not only do RoO affect production costs, but the upfront and per shipment costs of certifying origin cause breakeven rates to be higher than what they would be in a situation without such

FIGURE 1.18a Reported Compliance Costs with Rules of Origin, by Country and Firm Size

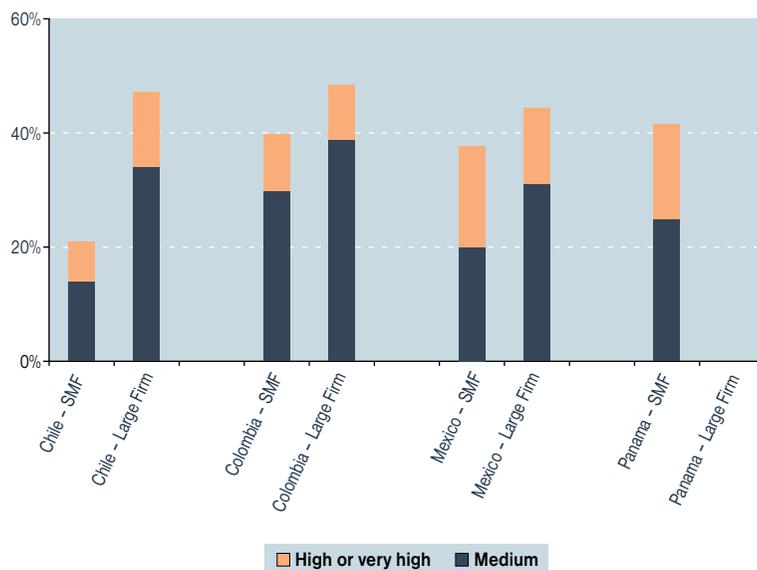
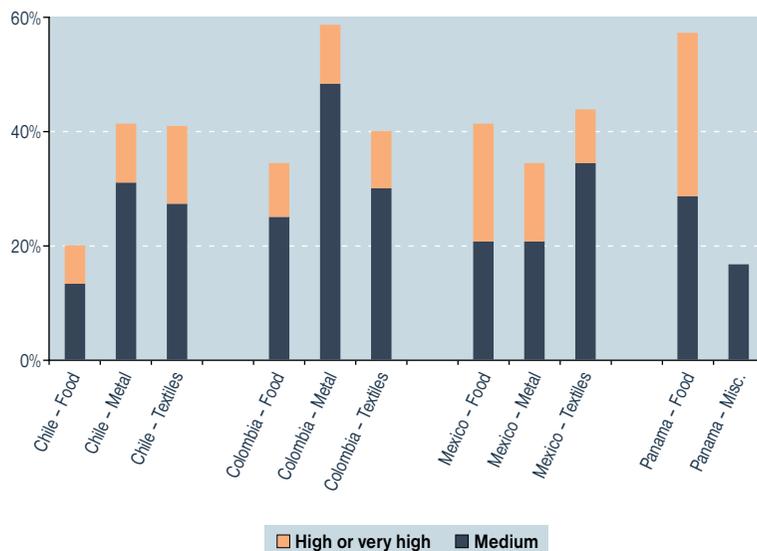


FIGURE 1.18b Reported Compliance Costs with Rules of Origin, by Country and Sectors of Firm



Source: IDB (forthcoming).

costs, and thus volume becomes key to ensuring profitability when rules of origin apply. Indeed, automakers must sell more of their lower-price products, such as dome lights, to make up for the cost of certification of origin, particularly when they make frequent shipments.

The main notion arising from a brief glance over the vast literature and recent surveys on RTAs' effects is that asking whether RTAs are trade-creating or -diverting may be simplistic: the question should be which RTAs have these effects, for which countries and actors, and why. The complexity and diversity of RTAs means that understanding their economic effects requires making finer distinctions than is commonly pursued in the empirical literature. There is also interaction across trade disciplines. Tariff lowering and restrictive rules of origin can pull in opposite directions, whereas the liberalization of services and investment should pull in the same direction as tariff lowering, so that the two potentially magnify one another's effects. Furthermore, RTAs confer manifold dynamic benefits beyond trade, such as increased investment inflows and positive foreign policy externalities.

Overall, RTAs are found to deliver trade creation when couched in a liberalizing trade regime. This should be good news for the Americas, a region that has pursued a string of preferential and multilateral liberalizations since the late 1980s. And at their best, RTAs can be building blocks for multilateral liberalization, "WTO+" testing grounds for new global trade law, training grounds for trade negotiators, and "preference aggregators" at the regional levels that can help reduce the potential collective action problems in the mosaic of interests within the multilateral system.

1.4 Conclusion: The Coming Integration Challenges in the Americas

The spree of RTA formation in the past several years in the Americas has paralleled the regional economies' overall economic and multilateral trade liberalization strategies and yielded a network of numerous overlapping agreements. Although the economies of the region may have had distinct reasons for pursuing RTAs, their agreements share some common features:

- The typical RTA path for countries of the Americas has been from intraregional blocs to an attempted megabloc (FTAA), followed by bilateral agreements within and outside the region. Today, the pursuit of RTAs by the countries of the Americas has resulted in an increasingly dense spaghetti bowl of agreements that is starting to attain a genuinely transcontinental—and particularly trans-Pacific—reach. Most countries in the region belong to several RTAs at once, both within the region and with distant partners.
- Although trade and foreign investment have surged in importance in the region's output in the past two decades, so has the relevance of RTAs in regulating trade and investment flows among the region's economies. Moreover, for many economies in the Americas, trade with the RTA partners makes up the bulk of their total foreign trade. RTAs have also had important implications, including lock-in effects, for domestic laws and institutions ranging from competition policy to financial services regulations and instruments for the monitoring of trade agreements.
- RTAs formed by the countries of the Americas—and those formed by the NAFTA members in the 1990s, in particular—are mature and quite deeply and rapidly liberalizing. However, there are a number of outlier RTA parties and product categories (particularly in sensitive sectors) that trail the overall trend of liberalization. Moreover, the region's liberalization is dotted by the use of potentially restrictive instruments such as tariff rate quotas and exceptions. Overall, however, RTAs in the Americas free more than 90 percent of product categories within the first 10 years into the agreements; when measured against a timeline, they will have freed more than 95 percent of products by 2015, both in the intraregional sphere and in their RTAs with Asian countries.
- The advance of RTAs has been paralleled by liberalization of external tariffs, which has helped preempt the discriminatory potential of the agreements. Although in recent years the opening on the external front has been more modest, in general the region's most integrated countries also feature the deepest external liberalization. Several empirical studies also find regional agreements

to increase trade among the members and with the rest of the world.

Overall, the picture of the state of integration in the Americas, though somewhat mixed, is quite positive as well as highly dynamic. However, RTA formation also entails a number of new policy considerations for the region. Although beneficial, RTAs do not come free and are often accompanied by various opportunity costs—the up-front expenditure of domestic political capital inherent in trade liberalization, the costs of negotiating and implementing agreements, and a number of challenges involved in managing economic integration in the longer term:

- **Complexity of trade rules.** The complexity of the trade agenda in the Americas is accentuated by the expansion of the scope of regional and multilateral negotiations beyond market access to such areas as services, investment, standards, and intellectual property rights. Each new rule in each RTA represents a new policy for private sector players to consider in their export, outsourcing, and investment decisions. Each also has legal, administrative, and economic implications for the RTA partner countries. Dealing with and implementing this complexity in the face of scarce resources requires institutional agility and coordination.
- **Coordination costs across trade theaters.** The rise of the network of agreements presents a challenge of its own: dealing with the administrative and technical complexities of the RTA tangle. Engagement with multiple partners on numerous trade policy fronts poses a challenge in regard to coordinating negotiations, implementing the different agreements, and ensuring compatibilities among them. For firms dealing with multiple trading partners simultaneously, the manifold agreements can introduce policy frictions that increase the costs of doing business. This is a particular consideration in such regions as the Americas, where each country belongs on average to five different FTAs and is negotiating many more, and in negotiating and implementing multilateral trade agreements.

- **Potential inflexibilities.** Trade agreements have binding obligations enforced through dispute settlement mechanisms. Yet they are negotiated at a certain point under the market conditions existing at the time and thus risk “freezing” in place the partners’ contemporary comparative and competitive advantages. The challenge is not only to deal effectively on multiple trade policy fronts simultaneously; it is also about walking the tightrope of opting for the right obligations and standing ready to reengineer rules and partnerships to take advantage of new opportunities.
- **Competitiveness gains for all players.** The complexity and coordination costs of the trading agenda pose particular risks to some of the key stakeholders. Small and medium-sized enterprises will incur relatively steeper learning costs when grappling with the numerous trade disciplines and multiple trading fronts. What is more, because of information asymmetries, they face the added challenges of understanding market opportunities and linking themselves onto the production chains of multinational companies.

These considerations pose two overarching policy challenges for the countries of the Americas. The first is to optimize the benefits (and minimize the costs) of the existing, hard-earned RTAs while identifying key further integration partners that provide the greatest marginal gain to the already notable network of integration agreements. This challenge can be dealt with unilaterally, through addressing the domestic supply-side constraints on trade, such as trade negotiation capacities, infrastructures, and regulatory environments.

The second and more amorphous challenge is to translate the growing complexities of the regional RTA spaghetti bowl into strengths—employing the regional system of RTAs for greater regional economies of scale—all the while retaining the already-important gains from liberal global trade and investment regimes. Defining such a value-adding future integration strategy inherently requires collective action, the focus of the following chapter.

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Appendix 1.1

RTAs Covered in the Study, by Topic

Agreement	Year of Entry into Effect	Tariff Liberalization	TRQs	Exceptions	Rules of Origin
DR-CAFTA	12/17/04 (SV), 03/03/2005 (HO), 03/10/05 (GU), 10/11/05 (NI), 07/27/05 (U.S.) *	√	√	√	√
Canada-Chile	7/5/1997	√	√	√	√
Canada-Costa Rica	11/1/2002	√	√	√	√
Chile-Central America	02/15/2002 (CR), 06/03/2002 (SV)	√	√	√	√
Chile-China	10/1/2006	√	√	√	√
Chile-Korea	4/1/2004	√	√	√	√
Chile-Mexico	8/1/1999	√	√	√	√
Chile-New Zealand-Singapore-Brunei (P4)	11/8/2006 (CHL), 05/28/2005 (NZL, SGP), 07/12/2006 (BRN)	√	√	√	√
Chile-Peru	1998 (original)	√	√	√	√
EFTA-Mexico	7/1/2001	√	√	√	√
EU-Chile	2/1/2003	√	√	√	√
Mexico-Bolivia	1/1/1995	√	√	√	√
Mexico-Costa Rica	1/1/2005	√	√	√	√
Mexico-Japan	4/1/2005	√	√	√	√
Mexico-Nicaragua	7/1/1998	√	√	√	√
Mexico-Northern Triangle	03/15/2001 (SV, GU), 06/01/2001 (HO), 03/14/2001 (MEX)	√	√	√	√
Mexico-Uruguay	7/15/2004	√	√	√	√
NAFTA	4/1/1994	√	√	√	√
Panama-Singapore	7/24/2006	√	√	√	√
United States-Australia	1/1/2005	√	√	√	√
United States-Chile	1/1/2004	√	√	√	√

Continued on next page

Agreement	Year of Entry into Effect	Tariff Liberalization	TRQs	Exceptions	Rules of Origin
United States–Jordan	12/17/2001	√	√	√	√
United States–Singapore	1/1/2004	√	√	√	√
United States–Colombia	NA	√	√	√	√
United States–Peru	12/14/2007	√	√	√	√
ACE 58	6/27/2005	√		√	√
ACE 59	6/27/2005	√		√	√
MERCOSUR–Chile	10/1/1996	√		√	√
Chile–Japan	9/3/2007	√			
Peru–Thailand	10/18/2005	√			√
United States–Korea	NA	√			√
United States–Morocco	1/1/2006	√			√
MERCOSUR–Bolivia	10/1/1995			√	√
Andean Community	1993				√
CACM	1991				√
CARICOM	1972				√
Central America–DR	03/07/2002 (CR), 10/04/2001 (SV), 10/03/2001 (GU), 12/19/2001 (HO)				√
EU–Mexico	7/1/2001				√
MERCOSUR	03/26/1991**				√
United States–Bahrain	12/13/05*				√
United States–Israel	8/15/1985				√
United States–Oman	NA				√
United States–Panama	NA				√
	Total agreements	32	25	29	42

Appendix 1.2

Tariff Rate Quotas in DR-CAFTA

Tables 1A.1 and 1A.2 are summary versions of those used in the Comparative Guide to the Chile–United States Free Trade Agreement and the Dominican Republic–Central America–United States Free Trade Agreement, a joint project of the Tripartite Committee (IDB, OAS, and ECLAC). The categories in Table 1A.1 are in order of appearance in the U.S. General Notes; those in Table 1A.2 are an alphabetized common set.

TABLE 1A.1 ■ Products Subject to Tariff Rate Quotas in DR-CAFTA Agreement: United States Tariff Quotas on Products Entered from Central America and Dominican Republic

Product Category	Out-of-Quota Tariff Elimination Treatment ¹	Initial Quantity ²							Unit
		CRI	DOM	SLV	GTM	HND	NIC		
Beef	15 year	10,536	1,320	105	*	525	10,500	Metric tons	
Sugar ³	Continued MFN	11,000	10,000	24,000	32,000	8,000	22,000	Metric tons	
Sugar (Organic) ⁴	Continued MFN	2,000 ²	*	*	*	*	*	Metric tons	
Peanuts	5 year, non-linear, 6 year grace period	*	*	500	*	*	10,000	Metric tons	
Peanut Butter	15 year	*	*	*	*	*	280	Metric tons	
Cheese	20 year, 10 year grace period	300	413	450	500	350	625 (250 ⁵)	Metric tons	
Milk Powder	20 year, 10 year grace period	50	*	*	*	*	*	Metric tons	
Butter	20 year, 10 year grace period	50	*	60	*	100	*	Metric tons	
Other Dairy Products	20 year, 10 year grace period	150	110 (220 ⁶)	120	250	*	100	Metric tons	
Ice Cream	20 year, 10 year grace period	97,087	160,194	77,670	194,174	48,544	266,989	Liters	
Fluid Fresh Milk and Cream, and Sour Cream	20 year, 10 year grace period	407,461	*	366,715	305,596	560,259	254,663	Liters	

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TABLE 1A.1 ■ Products Subject to Tariff Rate Quotas in DR-CAFTA Agreement: United States Tariff Quotas on Products Entered from Central America and Dominican Republic *(continued)*

Product Category	Out-of-Quota Tariff Elimination Treatment ¹	Initial Quantity ²							Unit
		CRI	DOM	SLV	GTM	HND	NIC		
Ethyl Alcohol (Central America originating)	Immediate	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited	Gallons
Ethyl Alcohol (non-Central America originating)	Most Favored Nation	31,000,000 ²	*	6,604,322 ⁷	*	*	*	*	Gallons

Source: Adapted from Tripartite Committee, *Comparative Guide to the Chile–United States Free Trade Agreement and the Dominican Republic–Central America–United States Free Trade Agreement*, based on TRQ Annexes to the CAFTA Agreement.

¹ In-quota imports shall be free of duty as of entry into force of the Agreement.
² With the exceptions of imports of "Sugar (Organic)" and "Ethyl Alcohol (non-Central America originating)" from Costa Rica, which remain fixed, access quantities will be subject to growth over time.
³ TRQ access based on trade surplus condition.
⁴ A fixed 2,000 MT TRQ was allocated by the U.S. to Costa Rica for organic sugar under the U.S. specialty sugar TRQ, and applies to tariff lines AG17011110, AG17011210, AG17019110, AG17019910, AG17029010, and AG21069044.
⁵ In the case of Nicaragua, an additional initial quantity of 250 metric tons applies to 5 tariff lines of the 62 total tariff lines making up the entire Cheese TRQ.
⁶ In the case of the Dominican Republic, an additional initial quantity of 220 metric tons applies to 4 tariff lines of the 46 total tariff lines making up the entire Other Dairy Products TRQ.
⁷ Or 10 percent of the base quantity of dehydrated alcohol and mixtures established under Section 423, whichever is lesser.
 *No TRQ.

**TABLE 1A.2 ■ Products Subject to Tariff Rate Quotas in DR-CAFTA Agreement: Central America and Dominican Republic
Tariff Quotas on Products Entered from United States**

Product Category	Out-of-Quota Tariff Elimination Treatment ¹										Initial Quantity ²				Unit
	CRI	DOM	SLV	GTM	HND	NIC	CRI	DOM	SLV	GTM	HND	NIC	Initial Quantity	Initial Quantity	
bacon	*	10 year	*	*	*	*	*	220	*	*	*	*	*	*	Metric Tons
beans	*	15 year	*	*	*	*	*	8,560	*	*	*	*	*	*	Metric Tons
beef	*	*	15 year, NL, Special ³	10 year	*	*	*	*	105	1,060	*	*	*	*	Metric Tons
beef, prime and choice	*	15 year	*	*	*	*	*	1,100	*	*	*	*	*	*	Metric Tons
beef, trimmings	*	15 year	*	*	*	*	*	220	*	*	*	*	*	*	Metric Tons
butter	20 year, 10yr GP	10 year	20 year, 10yr GP	20 year, 10yr GP	20 year, 10yr GP	20 year, 10yr GP	150	220	100	100	100	150	100	150	Metric Tons
buttermilk, curdled cream, and yogurt	*	*	20 year, 10yr GP	*	*	*	*	*	10	*	*	*	*	*	Metric Tons
cheese	20 year, 10yr GP	*	20 year, 10yr GP	20 year, 10yr GP	20 year, 10yr GP	20 year, 10yr GP	410	*	410	450	410	575	410	575	Metric Tons
cheese, cheddar	*	15 year	*	*	*	*	*	138	*	*	*	*	*	*	Metric Tons

Continued on next page

TABLE 1A.2 ■ Products Subject to Tariff Rate Quotas in DR-CAFTA Agreement: Central America and Dominican Republic Tariff Quotas on Products Entered from United States (continued)

Product Category	Out-of-Quota Tariff Elimination Treatment ¹					Initial Quantity ²					Unit		
	CRI	DOM	SLV	GTM	HND	NIC	CRI	DOM	SLV	GTM		HND	NIC
cheese, mozzarella	*	20 year, NL, 10yr GP	*	*	*	*	*	138	*	*	*	*	Metric Tons
cheeses, other	*	10 year	*	*	*	*	138	*	*	*	*	*	Metric Tons
chicken meat, mechanically de-boned	*	10 year	*	*	*	*	440	*	*	*	*	*	Metric Tons
chicken leg quarters	17 year, NL, 10yr GP	20 year, NL, 10yr GP	18 year, NL, 10yr GP	18 year, NL, 10yr GP	18 year, NL, 10yr GP	18 year, NL, 10yr GP	330	550	0.0E+01	21,810 ²	0.0E+01	0.0E+01	Metric Tons
corn, white	*	*	Cont MFN ⁴	Cont MFN	Cont MFN	Cont MFN	*	*	35,700	20,400	23,460	5,100	Metric Tons
corn, yellow	*	*	15 year, NL, 6yr GP ⁴	10 year	15 year, NL, 6yr GP	15 year, NL, 6yr GP	*	*	367,500	525,000	190,509	68,250	Metric Tons
fresh onions	Cont MFN	*	*	*	*	*	300	*	*	*	*	*	Metric Tons
frozen french fries	5 year	*	*	*	*	*	2,631	*	*	*	*	*	Metric Tons
glucose	*	12 year	*	*	*	*	*	1,320	*	*	*	*	Metric Tons

Continued on next page

TABLE 1A.2 ■ Products Subject to Tariff Rate Quotas in DR-CAFTA Agreement: Central America and Dominican Republic Tariff Quotas on Products Entered from United States *(continued)*

Product Category	Out-of-Quota Tariff Elimination Treatment ¹					Initial Quantity ²					Unit		
	CRI	DOM	SLV	GTM	HND	NIC	CRI	DOM	SLV	GTM		HND	NIC
glucose	*	12 year	*	*	*	*	1,320	*	*	*	*	*	Metric Tons
ice cream	20 year, 10yr GP	12 year	20 year, 10yr GP	20 year, 10yr GP	20 year, 10yr GP	20 year, 10yr GP	150	165	120	160	100	72,815 ⁶	Metric Tons ⁶
liquid dairy	*	*	20 year, 10yr GP	*	*	*	*	*	10	*	*	*	Metric Tons
liquid milk	*	10 year	*	*	*	*	220	*	*	*	*	*	Metric Tons
milk powder	20 year, 10yr GP	20 year, 10yr GP	20 year, 10yr GP	20 year, 10yr GP	20 year, 10yr GP	20 year, 10yr GP	200	2,970	300	400	300	650	Metric Tons
other dairy products	20 year, 10yr GP	*	20 year, 10yr GP	10 year	20 year, 10yr GP	20 year, 10yr GP	140	*	120	182	140	50	Metric Tons
pig fat	*	12 year	*	*	*	*	*	550	*	*	*	*	Metric Tons
pork	15 year, 6yr GP	*	15 year, NL, 6yr GP ^t	15 year	15 year, NL, 6yr GP	15 year	1,100	*	1,650	4,148	2,150	1,100	Metric Tons
pork cuts	*	15 year, NL, 6yr GP	*	*	*	*	*	3,465	*	*	*	*	Metric Tons
rice, brown	*	20 year, NL, 10yr GP	*	*	*	*	*	2,140	*	*	*	*	Metric Tons

Continued on next page

TABLE 1A.2 ■ Products Subject to Tariff Rate Quotas in DR-CAFTA Agreement: Central America and Dominican Republic Tariff Quotas on Products Entered from United States (continued)

Product Category	Out-of-Quota Tariff Elimination Treatment ¹										Initial Quantity ²				Unit	
	CRI	DOM	SLV	GTM	HND	NIC	CRI	DOM	SLV	GTM	HND	NIC	GTM	HND		NIC
rice, milled	20 year, NL, 10yr GP	20 year, NL, 10yr GP	18 year, NL, 10yr GP	18 year, NL, 10yr GP	18 year, NL, 10yr GP	18 year, NL, 10yr GP	5,250	8,560	5,625	10,500	8,925	13,650	10,500	8,925	13,650	Metric Tons
rice, rough	20 year, NL, 10yr GP ⁴	*	18 year, NL, 10yr GP ^{4,5}	18 year, NL, 10yr GP ⁴	18 year, NL, 10yr GP ⁴	18 year, NL, 10yr GP ⁴	51,000	*	62,220	54,600	91,800	92,700	54,600	91,800	92,700	Metric Tons
sorghum	*	*	15 year	*	*	*	*	*	263	*	*	*	*	*	*	Metric Tons
turkey meat	*	12 year	*	*	*	*	*	3,850	*	*	*	*	*	*	*	Metric Tons
yogurt	*	20 year, 10yr GP	*	*	*	*	*	110	*	*	*	*	*	*	*	Metric Tons

Source: Adapted from Tripartite Committee, *Comparative Guide to the Chile-United States Free Trade Agreement and the Dominican Republic-Central America-United States Free Trade Agreement*, based on TRQ Annexes to the CAFTA Agreement.

¹ With the exception of milk powder in the Dominican Republic, in-quota imports shall be free of duty as of entry into force of the Agreement.
² With the exception of imports of "chicken leg quarters" by Guatemala from the United States, where there are reductions in the duty-free quantity in several years, followed by unlimited access in year 18, access quantities will be subject to growth over time.
³ Duties in this category shall be reduced to 15% in year 1.
⁴ May be subject to performance requirements.
⁵ The aggregate quantity of goods entered into El Salvador from the United States under SAC provision 1006 shall be free of duty in any calendar year specified, "and shall not exceed 3,000 MT for 'parboiled rough' rice or its equivalent 'parboiled milled' rice quantity in any such year. Parboiled milled equivalency shall be calculated according to a 0.7 conversion factor, where 1 MT of parboiled rough rice is equivalent to 0.7 MT of parboiled milled rice."
⁶ Quantities are measured in liters for the Nicaragua ice cream TRQ.
 *No TRQ.

Appendix 1.3

Methodology for Measuring Restrictiveness of Rules of Origin

Estevadeordal's (2000) observation rule yields an RoO restrictiveness index (y) as follows:

$$\begin{aligned}
 y &= 1 \text{ if } y^* \leq CI \\
 y &= 2 \text{ if } CI < y^* \leq CS \\
 y &= 3 \text{ if } CS < y^* \leq CS \text{ and } VC \\
 y &= 4 \text{ if } CS \text{ and } VC < y^* \leq CH \\
 y &= 5 \text{ if } CH < y^* \leq CH \text{ and } VC \\
 y &= 6 \text{ if } CH \text{ and } VC < y^* \leq CC \\
 y &= 7 \text{ if } CC < y^* \leq CC \text{ and } TECH
 \end{aligned}$$

where y^* is the potential level of restrictiveness of RoO (rather than the observed level of restrictiveness); CI is the level of restrictiveness imposed by a requirement of a change in tariff classification at the level of tariff item (8–10 HS digits), CS is the level of restrictiveness imposed by a requirement of a change at the level of subheading (6 digits), CH is the level of restrictiveness imposed by a requirement of a change at the level of heading (4 digits), and CC is the level of restrictiveness imposed by a requirement of a change at the level of chapter (2 digits); VC is the level of restrictiveness imposed by a value content criterion; and $TECH$ is the level of restrictiveness imposed by a technical requirement.

Suominen (2004) makes three modifications to the observation rule in the case of RoO for which no change in tariff classification is specified, in order to allow for coding of such RoO in the Pan-Euro, Southern African Development Community, and other regimes in which not all RoO feature a change in tariff classification component. First, the level of restrictiveness of RoO based on the import content rule is equated to that imposed by a change in heading requirement (value 4) if the content requirement allows nonoriginating inputs up to a value of 50 percent of the ex-works price of the product. Value 5 is assigned when the share of permitted nonoriginating inputs is below 50

percent, as well as when the import content criterion is combined with a technical requirement. Second, RoO featuring an exception alone are assigned a value of 1 if the exception concerns a heading or a number of headings and a value of 2 if the exception concerns a chapter or a number of chapters. Third, RoO based on the wholly obtained criterion are assigned a value of 7.

The restrictiveness index presented in Estevadeordal, Harris, and Suominen (2009) is based on Harris (2007), wherein points are added or subtracted from the restrictiveness score for a particular rule of origin based on different elements used in its definition. The change in classification points is based on the magnitude of the required change, as are exception points and addition points. (Additions are like negative exceptions, in that they permit nonoriginating inputs that would otherwise be prohibited by the change in classification requirement.) Value test points are based on the magnitude of the required value content, with adjustments that depend on the method used for calculating value. The point values were calibrated by observing the relative frequencies of alternative rule combinations in a sample of 13 RTAs in the Americas.

Restrictiveness Points

Change in classification points:

<i>I</i>	+2
<i>S</i>	+4
<i>H</i>	+6
<i>C</i>	+8

where

ΔI represents a required change at the HS item level

ΔS represents a required change at the HS subheading level

ΔH represents a required change at the HS heading level

ΔC represents a required change at the HS item level

Exception points:

<i>exI</i>	+4
<i>>exI</i> and <i>≤exS</i>	+5
<i>>exS</i> and <i>≤exH</i>	+6
<i>>exH</i> and <i>≤exC</i>	+7
<i>>exC</i>	+8

where

exI represents an exception at the HS item level
exS represents an exception at the HS subheading level
exH represents an exception at the HS heading level
exC represents an exception at the HS chapter level

Addition points:

<i>addI</i>	-5
<i>>addI</i> and <i>≤addS</i>	-6
<i>>addS</i> and <i>≤addH</i>	-7
<i>>addH</i> and <i><addC</i>	-8
<i>add without CC</i>	+8

where

addI represents an addition at the HS item level
addS represents an addition at the HS subheading level
addH represents an addition at the HS heading level
addC represents an addition at the HS chapter level
add without CC represents an addition without a requirement
 for a change in classification

Value test points:

<i>>0%</i> and <i>≤40%</i>	+5
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>40% and ≤50%	+6
>50% and ≤60%	+7
>60%	+8
Net cost	+1

where the percentages represent the value content requirement imposed by the rule

Technical requirement points:	+4
Alternative rule points:	-3
Wholly obtained points:	+16

Appendix 1.4

Measuring the Effects of Preferential Tariff Lowering on Multilateral Tariffs in the Americas

Estevadeordal, Freund, and Ornelas (2005) construct a comprehensive data set that includes data on bilateral preferential tariffs, external (MFN) tariffs, and trade for 10 Latin American countries—Argentina, Brazil, Chile, Colombia, Ecuador, Mexico, Peru, Paraguay, Uruguay, and Venezuela—from 1990 to 2001. Data on preferential and multilateral tariffs come from individual country sources. The main novelty of the data set is the compilation of the bilateral preferential tariff rates. The compilation required consultation of the official texts of the agreements (sometimes available only in hard copies), which formed the basis for the conversion of the tariff reduction programs of each agreement into yearly preferential tariffs. Data were supplemented with multilateral tariffs and trade data from the World Integrated Trade System. All data are aggregated as simple averages into International Standard Industrial Classification (ISIC) 4-digit industries.

Annual tariff increases make up 22 percent of the sample, and annual tariff declines 39 percent; tariffs were unchanged the rest of the time. Given the significant number of tariff increases, the authors disregard any potential institutional constraint on tariff increases implied in GATT Article XXIV in their estimations. Declines in MFN tariffs are also larger on average than increases, resulting in considerable liberalization in aggregate.

Overall, the average MFN tariff is 15.2 percent over the whole sample. The average annual external tariff liberalization is greater than 1 percentage point. The preferential tariff averages 4.7 percent over the period when preferences are in place, indicating that there is an average preference margin of about 10 percentage points. The average annual reduction in the preferential tariff is just over 2 percentage points. On average, 28 percent of imports come from RTA partners.

The aggregate figures are somewhat different if only preferences given under customs unions are considered. Whereas MFN tariffs are just slightly lower, the average preferential tariff is much lower under customs unions, averaging 1.7 percent. In part this is because much of

the preferential reduction occurs before the union is formed. The average preference margin is about 11.5 percentage points in CUs.

The authors find a strong contemporaneous correlation between preferential tariff reduction and multilateral tariff reduction. If, as the authors believe, preferential tariffs are set on a schedule, but MFN tariffs are decided over time, this implies that preferential reductions are followed by MFN reductions. Alternatively, this may reflect that some products are easier to liberalize, or that countries in an RTA tend to protect preference margins during external liberalization. This would also be the case if countries' liberalization strategies simply called for liberalizing all tariffs (preferential and multilateral) by a given percent. On the other hand, the authors find that whereas lagged preferential reduction positively and significantly predicts MFN liberalization, lagged multilateral liberalization does not positively predict preferential reduction. In addition, simple correlations show that MFN tariff changes are more correlated with lagged preferential tariff changes (0.36) than with lagged MFN tariff changes (0.25). This suggests that MFN tariff cuts may be more influenced by past preferential tariff reductions than by past MFN cuts. In contrast, the reverse is not true: preferential tariff reductions are more correlated with past preferential reductions (0.20) than with past MFN reductions (0.13). This is supportive of a sanguine view of preferential liberalization, in which preferential tariffs and MFN tariffs are complements. It is possible that in Latin America, high-preference sectors simply happen to be those in which multilateral negotiations were most effective in bringing tariffs down during the 1990s, for example.

Results of an econometric analysis of the effect of RTAs on MFN tariffs in Latin America are reported in Table 1A.3. The dependent variable is the percentage-point change in the MFN tariff, and the independent variables of interest are the lagged percentage-point changes in the preferential tariff with and without interaction with the customs union dummy. Included are a large set of fixed effects, for each country-year and for each country-industry pair. Standard errors are adjusted for clustering at the country-industry level.

The first column reports the results using ordinary least squares (OLS). The positive and statistically significant coefficient on lagged

TABLE 1A.3 ■ Effects of RTA Preferences on MFN Tariffs in Latin America

	Dependent Variable: Change in MFN Tariff				
	OLS (1)	IV-partner (2)	GMM (3)	RoO (4)	Period (5)
L. Δ PREF	0.122** (4.86)	0.259** (8.19)	0.206** (5.43)	0.130** (3.64)	
L. Δ PREFCU	-0.166** (5.40)	-0.243** (5.95)	-0.437** (6.55)	-0.152** (3.73)	-0.076** (3.29)
L.MFN			-0.479** (14.77)		
L.Cualign_andean					
L.Cualign_mercosur					
L. Δ PREF_per1					0.126* (4.83)
L. Δ PREF_per2					0.032* (2.50)
Test:					
L. Δ PREF+L. Δ PREF=0	5.31 (0.02)	0.29 (0.59)	16.91 0.00	1.33 (0.25)	5.27 (0.02)
Hansen <i>j</i> -Statistic		2.64 (0.62)	2.47 (0.48)		
Cragg-Donaldson		45.52	33.52		
Observations	9745	8410	7924	8403	9745
<i>R</i> -squared	0.65	0.04	0.3	0.68	0.65

Note: Country-year and country-industry fixed effects included in all regressions. Robust *t*(*z*) statistics in brackets adjusted for clustering at the country-industry level. P-values in parentheses. Instruments in Partner are lagged preferential tariffs of 3 partner countries, and with CU interactions. Instruments in GMM are L2.PREF, L3.PREF, L2.PREFCU, L3.PREFCU, L2.MFN, L3.MFN.

(a): Test that L. Δ PREF_per2+L. Δ PREFCU=0.

* significant at 5%; ** significant at 1%.

Δ PREF indicates that MFN tariffs fall following a reduction in preferential tariffs in RTA members. The negative and significant coefficient on Δ PREFCU indicates that this is not true when the bloc takes the form of a customs union. The *F*-test shows that MFN tariffs in customs unions increase following a decline in preferential tariffs in the base specification. However, that effect is quite small.

To control for potential endogeneity, the authors use the lagged values of the preferential tariffs of RTA partners as instrumental variables to estimate the impact of preferential liberalization on MFN tariffs. Specifically, $\Delta PREF_{ipj,t-1}$, $j = 1, 2, 3$ (where pj is an RTA partner of country i), are used as instruments for $\Delta PREF_{ij,t-1}$, with and without the interaction with the CU dummy. The instrumental variables (IV) results show strong support for tariff complementarity in free trade areas. They also show that this effect is absent in customs unions: the authors cannot reject the hypothesis that preferential liberalization has no effect on MFN tariffs in customs unions.

In column (3), the authors use two- and three-times-lagged levels of preferential tariffs to instrument for lagged changes. The authors also include the lagged level of MFN to control for the fact that high tariffs may be reduced by more, also instrumented by lagged levels in two and three periods. Again, the authors find strong evidence of tariff complementarity in RTAs but not in customs unions.

The authors perform a series of robustness tests. First, they eliminate the observations for which the preference margin is too small to have a practical effect, given the costs to comply with RoO. Thus, column (4) reports the results when the authors consider only cases in which the preference margin is above 2.5 percentage points. The results imply that preferential liberalization in RTAs induces a slightly deeper reduction in MFN tariffs when RoO are less likely to bind. The effect of preferential liberalization in customs unions is statistically insignificant when RoOs are taken into account.

Finally, there may be a concern that the effects the authors identify are present only in the early period, when the bulk of tariff reduction took place. In the last column, the authors split the $\Delta PREF$ variable into a period 1 (1990–1994) effect and a period 2 (1995–2001) effect. The $\Delta PREF$ variable in period 2 covers the same period as the CUs. The positive effect in RTAs is present in both periods, although it is smaller in period 2. The coefficient on $\Delta PREF_{CU}$ remains negative and highly significant, so that the CU net effect, which is given by the sum of the coefficient on $\Delta PREF_{per2}$ and the coefficient on $\Delta PREF_{CU}$, is negative and significant, as the F -test on their sum indicates.

Appendix 1.5

Measuring the Trade Effects of Rules of Origin

Suominen (2004) and Estevadeordal and Suominen (2008) explore the impact of RoO on aggregate bilateral trade flows between 155 countries in 1981–2001 through a gravity model of international trade.

The authors estimate the following basic gravity equation using OLS:

$$\begin{aligned} \ln(V_{ij}) = & b_0 + b_1 \ln(GDP_i) + b_2 \ln(GDP_j) + b_3 \ln(GDPPC_i) + \\ & b_4 \ln(GDPPC_j) + b_5 \ln(DIST_{ij}) + b_6 (BORDER_{ij}) + \\ & b_7 (COMLANG_{ij}) + b_8 (COL_{ij}) + b_9 (COMCOL_{ij}) + \\ & b_{10} (RTA_{ij}) + b_{11} \ln(ROOR_{ij}) + b_{12} (FACIL_{ij}) + e, \end{aligned} \quad (1.1)$$

where

- V_{ij} is the value of imports of country i from country j ;
- GDP_i is the exporter's GDP;
- GDP_j is the importer's GDP;
- $GDPPC_i$ is the exporter's GDP per capita ratio;
- $GDPPC_j$ is the importer's GDP per capita ratio;
- $DIST_{ij}$ is the distance between the capitals of the two countries and serves as a proxy for transportation costs;¹
- $BORDER_{ij}$ is a dummy that takes value 1 if countries i and j share a land border and 0 otherwise;
- $COMLANG_{ij}$ is a dummy for cultural affinities that takes value 1 when the two countries speak the same language and 0 otherwise;

¹ Another useful control variable would be a "distance from major economic centers" variable; according to Soloaga and Winters (2001), after distance between i and j is controlled for, the farther country i is from all its trading partners, the greater its imports will be from country j —for example, Australia and New Zealand will likely trade with each other more, as a result of their being far apart from any other trading partners, than two other countries separated by the same distance (such as Poland and Spain), as a result of the latter having many trading partners nearby. For now such distance data are lacking for all of the 155 countries in the sample.

COL_{ij} is a dummy that takes value 1 when one country has been colonized by the other and 0 otherwise;

$COMCOL_{ij}$ is a dummy that takes value 1 when the two countries have been colonized by the same colonial power and 0 otherwise;

RTA_{ij} is a dummy that takes value 1 when two countries belong to the same RTA and 0 otherwise;

$ROORI_{ij}$ is the average of the restrictiveness of RoO values (as measured at the 6-digit level of disaggregation) of an RTA regulating trade between the two countries and can take values anywhere between 1 and 7;

$FACIL_{ij}$ is the facilitation index of an RTA regulating trade between the two countries; specifies whether an RTA includes provisions on de minimis, diagonal cumulation, full cumulation, self-certification of origin, and drawback for inputs; and can take values anywhere between 1 and 5; and e is a normally distributed error term.

All regressions include year, importer, and exporter dummies in order to control for any effects peculiar to a certain time or country beyond the variables included in the model. The importer and exporter dummies also serve as a proxy for the multilateral resistance term applied by Anderson and van Wincoop (2001), in which trade between i and j depends on barriers both between the two countries and between either of them and the rest of the world.²

The effect of the GDP and $GDPPC$ variables on trade should be positive, whereas $DIST$ can be expected to have a negative sign. The impact of a common border and cultural affinities should be positive. RTA is expected to have a positive impact on trade flows. Meanwhile, the first key independent variable, $ROORI$, is expected to stifle aggregate trade between RTA partners. In contrast, $FACIL$ should—through its components of de minimis, diagonal and full cumulation, and drawback,

² Indeed, Anderson and van Wincoop (2003) suggest that empirically, the inclusion of country fixed effects captures multilateral resistance and thus corrects misspecification.

which expand the pool of intermediate goods available to producers, and self-certification, which can be hypothesized to reduce the administrative costs to exporters of complying with the RoO regime—have a positive impact on trade flows.

Table IA.4 reports the results for all country pairs in the sample, and for the subset of RTA pairs. The results on the traditional gravity model variables are as expected. The basic gravity model used in several studies to examine the effects of regional integration shows that RTAs have a positive effect on aggregate trade flows. However, and as expected, rules of origin, a key market access provision in virtually all RTAs, has a negative sign and is significant at the 1 percent level. This is the authors' first main finding: restrictive product-specific RoO undermine aggregate trade. Indeed, stringent RoO are key in countering the RTA-inspired boost to trade: the difference in the coefficient for the RTA variable in columns I and II (i.e., $2.417 - 0.550 = 1.867$) approximates the negative coefficient of the RoO variable (-1.482).

Column III incorporates the *FACIL* variable. As expected, *FACIL* has a positive and significant effect on trade. This is the authors' second main finding: the combined effect of regime-wide variables that instill flexibility into the application of product-specific RoO boosts trade.

Columns IV and V show that the results on *RoO* and *FACIL* hold also for the subsample of RTA pairs. RoO undermine aggregate trade flows among RTA pairs; however, and importantly, the opposite effect of permissive facilitation terms compensates for this negative impact of product-specific RoO.³ Indeed, this is an important result, because a regression incorporating all pairs may contain an endogeneity problem: countries do not select randomly into RTAs, but may choose to enter RTAs with the partners with which they trade the most—which, in turn, might cause the effect of RoO on trade to appear excessively accentuated. The policy implication is clear: RTA members adopting stringent product-specific RoO are well advised to adopt lenient regime-wide RoO.

³ To be sure, the facilitation term may pick up and thus proxy for some other trade-enhancing variables of RTAs, such as sturdy regulations on the use of emergency safeguards.

TABLE 1A.4 ■ Effects of Restrictive RoO and Sectoral Selectivity of RoO on Trade, 1981–2001

Independent Variables	Dependent Variable: Ln(Trade)															
	All Pairs 1981–2001					All Pairs 1981–2001						PTA Pairs 1981–2001				
	I	II	III	IV	V	VI	VII	VIII	IX	X	XI					
ln(GDP_imp)	0.224 (8.18)**	0.206 (7.55)**	0.207 (7.58)**	0.8 (9.86)**	0.782 (9.68)**	0.207 (7.58)**	0.207 (7.56)**	0.797 (9.80)**	0.789 (9.72)**	0.437 (4.86)**	0.434 (4.84)**					
ln(GDP_exp)	0.464 (10.58)**	0.403 (9.20)**	0.406 (9.27)**	0.53 (3.04)**	0.48 (2.76)**	0.405 (9.22)**	0.403 (9.17)**	0.532 (3.04)**	0.512 (2.93)**	-0.216 (-0.94)	-0.197 (-0.86)					
ln(PerCap GDP_imp)	0.378 (13.74)**	0.398 (14.51)**	0.397 (14.46)**	-0.533 (8.82)**	-0.516 (8.57)**	0.393 (14.31)**	0.393 (14.30)**	-0.532 (8.79)**	-0.52 (8.60)**	-0.568 (9.00)**	-0.561 (8.90)**					
ln(PerCap GDP_exp)	0.601 (14.40)**	0.659 (15.82)**	0.657 (15.76)**	-0.347 (2.64)*	-0.304 (2.32)*	0.649 (15.54)**	0.65 (15.56)**	-0.35 (2.66)**	-0.327 (2.49)*	0.106 (-0.68)	0.102 (-0.65)					
ln(Distance)	-1.234 (185.94)**	-1.222 (183.73)**	-1.218 (182.75)**	-1.158 (47.45)**	-1.151 (47.29)**	-1.231 (185.22)**	-1.228 (184.45)**	-1.183 (49.01)**	-1.182 (49.09)**	-1.253 (45.61)**	-1.253 (45.70)**					
Common Border	0.27 (10.32)**	0.238 (9.12)**	0.244 (9.37)**	0.504 (11.71)**	0.481 (11.19)**	0.241 (9.22)**	0.245 (9.37)**	0.507 (11.78)**	0.489 (11.34)**	0.539 (10.82)**	0.519 (10.40)**					
Common Language	0.354 (24.39)**	0.334 (23.07)**	0.337 (23.26)**	-0.031 (-0.54)	-0.013 (-0.23)	0.334 (22.99)**	0.335 (23.06)**	-0.013 (-0.23)	-0.002 (-0.04)	0.105 (-1.68)	0.117 (-1.87)					
Colonial Rel.	1.287 (41.74)**	1.295 (42.07)**	1.294 (42.04)**	0.802 (7.99)**	0.765 (7.63)**	1.285 (41.68)**	1.282 (41.60)**	0.846 (8.43)**	0.819 (8.17)**	1.055 (8.19)**	1.014 (7.87)**					
Common Colonizer	0.643 (39.11)**	0.618 (37.67)**	0.627 (38.11)**	0.715 (14.79)**	0.72 (14.93)**	0.625 (38.01)**	0.632 (38.38)**	0.685 (14.13)**	0.676 (13.97)**	0.621 (10.55)**	0.613 (10.44)**					

Continued on next page

TABLE 1A.4 ■ Effects of Restrictive RoO and Sectoral Selectivity of RoO on Trade, 1981–2001 (continued)

Independent Variables	Dependent Variable: Ln(Trade)					Dependent Variable: Ln(Trade)					
	All Pairs 1981–2001					All Pairs 1981–2001					
	I	II	III	IV	V	VI	VII	VIII	IX	X	XI
PTA	0.55 (28.56)**	2.417 (38.53)**	2.341 (36.90)**			0.879 (36.51)**	0.643 (15.66)**				
ln(Restrictiveness Avg)		-1.482 (31.26)**	-1.676 (31.49)**	-0.637 (6.91)**	-0.715 (7.74)**						
ln(Restrictiveness Sd)						-0.942 (22.71)**	-1.144 (22.74)**	0.095 -1.13	-0.048 -0.55	-0.14 -1.49	-0.252 (2.63)**
Facil			0.189 (8.02)**		0.474 (8.47)**		0.181 (7.10)**		0.376 (6.85)**		0.319 (5.53)**
Constant	2.597 (2.59)**	-1.281 -1.28	-1.363 -1.36	-3.806 -1	-3.336 -0.88	-1.137 -1.13	-1.067 -1.06	-4.704 -1.23	-4.779 -1.25	19.176 (3.83)*	18.351 (3.67)**
Observations	185497	185491	185491	11920	11920	185497	185497	11926	11926	8857	8857
Adjusted R-squared	0.73	0.73	0.73	0.88	0.88	0.73	0.73	0.88	0.88	0.88	0.88
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Importer and Exporter FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Sources: Suominen (2004); Esteveadoral and Suominen (2008).

Note: Absolute value of t-statistics in parentheses.

* significant at 5 percent level; ** significant at 1 percent level.

RoO and Intermediate Imports: A Sectoral Approach

Rules of origin are first and foremost geared toward affecting the input composition of goods. As such, they can be expected to have particularly important effects on trade in intermediate goods. This subsection assesses such effects by estimating the impact of the restrictiveness of product-specific RoO in final goods on trade in intermediate goods in five major manufacturing sectors: chemicals, machinery, textiles, television and radio transmitters, and vehicles. Sectors are here defined as Divisions of the ISIC Rev. 3 classification system (Divisions 24 for chemicals, 29 for machinery, 17 for textiles, 32 for television and radio transmitters, and 34 for vehicles). The dependent variable in each sector is the total imports of a bundle of Harmonized System 6-digit-level intermediate products used intensively in the production of the HS 6-digit-level final goods falling in the ISIC Division (here, “sector”) in question. The correspondence between ISIC and HS is obtained from the United Nations. We use Divisions rather than higher levels of disaggregation, such as Groups, of the ISIC system, since a given country may not have any comparative advantages when product categories are highly disaggregated and sectors narrowly defined.⁴

We explore the impact of RoO in final goods on imports in intermediates by estimating the following equation using OLS:

$$\begin{aligned} \ln(INPUT_{ijs}) = & b_0 + b_1 \ln(GDP_i) + b_2 \ln(GDP_j) + b_3 \ln(GDPPC_i) + \\ & b_4 \ln(GDPPC_j) + b_5 \ln(DIST_{ij}) + b_6 (BORDER_{ij}) + \\ & b_7 (COMLANG_{ij}) + b_8 (COL_{ij}) + b_9 (COMCOL_{ij}) + \\ & b_{10} \ln(ROORIFINAL_{ijs}) + b_{11} \ln(FACIL_{ij}) + e, \quad (1.2) \end{aligned}$$

where $INPUT_{ijs}$ is the value of intermediate imports of country i from country j in sector s ; and $ROORIFINAL_{ijs}$ is the average of the restrictiveness of RoO values (as measured at the 6-digit level of disaggregation) in final goods in sector s . The other variables are defined as in equation (1.1).

⁴ Dihel and Walkenhorst (2002) note that the problem dissipates once sectors are defined broadly enough, as potential for intra-industry trade expands.

The expectation is now that the key independent variable, $ROORIFINAL_{ijs}$, will be positively related to trade flows: stringent RoO in final goods should encourage trade in intermediates in the RTA area at the expense of outsourcing by the RTA partners from the ROW. *FACIL* should, as above, be positively related to trade flows between the partners.

Importantly here, the model does not include the *RTA* variable. This is because although an RTA should and does reduce barriers to trade between partners on average in the tariff universe as a whole and does so immediately in the first year of the RTA, its liberalizing impact on trade in the five narrowly defined bundles of intermediate goods examined here is questionable for two reasons. First, the RTA dummy per se is a very crude measure of regional integration agreements, each of which incorporates a great many disciplines and enormous variation across product categories in the discipline of market access. Second, the RTA dummy may be completely inapplicable to any given narrow subset of the tariff lines included in the RTA, such as the small bundles of intermediate goods analyzed here—which make up only between 0.2 percent (textiles) and 3.6 percent (vehicles) of the total of about 5,000 6-digit tariff lines in the negotiated tariff universe.

It is hardly self-evident that tariffs in any particular bundle are being dropped either immediately or completely in any given RTA, much less across all RTAs included in this study—or cut down even after repeated rounds of tariff phaseouts. In other words, RTA-inspired trade liberalization may be subject to significant time lags in certain intermediate goods and/or sensitive sectors; the onset of an RTA per se, ceteris paribus, may thus entail a markedly lower boost to trade between the partners in the narrow bundles of intermediates than it does at the aggregate level, or no boost to such trade at all. Indeed, in the regressions conducted with models that contained (1) both *ROORIFINAL* and *RTA*, and (2) *ROORIFINAL*, *RTA*, and *FACIL*, the coefficient for *RTA* behaves inconsistently across regressions and most often acquires a negative sign. The variable may simply capture the effects of the existing barriers remaining to trade in the small bundles of intermediate goods.

In contrast to the *RTA* variable, *ROORIFINAL* and *FACIL* can be expected to have important explanatory power for trade flows of inter-

mediates for two reasons. First, each intermediate good in each of the five bundles is used very intensively in the production of the final goods in the examined Division. As such, unlike the *RTA* variable, which is insensitive to intrasectoral variations in market access, *ROORIFINAL* is a highly targeted variable arbitrating the flow of trade in the selected bundle of intermediate goods, in particular, and takes effect immediately at the onset of the *RTA*. Second, *FACIL*, unlike *RTA*, applies by and large similarly across products in the entire tariff universe and is, like *ROORIFINAL*, applied immediately upon the launch of the *RTA*. Note that since the *RTA* indicator has poor predictive value in the kind of enterprise being carried out—estimation of the determinants of trade of a narrow bundle of intermediate goods—circumscribing the sample by the *RTA* variable to examine flows among *RTA* pairs only is also theoretically unsound.

Table IA.5 summarizes the regression results by the variables of interest.⁵ The key independent variables, *ROORIFINAL* and *FACIL*, are, as expected, positively related to trade in intermediate goods. This is the authors' fourth major result: restrictiveness of RoO in final goods encourages trade in intermediate products. This finding serves as evidence for the long-suspected impact of RoO on input trade—an impact that could divert trade in intermediates from the ROW to the *RTA* area.

Note that inclusion of the *FACIL* variable reduces the coefficient of the *ROORIFINAL* variable by precisely the amount of the coefficient of *FACIL*; as such, it appears to be the combined effect of *ROORIFINAL* and *FACIL* that serves to boost trade in intermediates.⁶ This result stands

⁵ The dependent variable is here expanded to the log of trade + 1. This is because the use of positive flows curbs each sample to somewhere between 19,000 observations (textiles) and 65,000 observations (vehicles); because of the limited sample, a large set of the *ROORIFINAL* values used to estimate the impact of RoO in final goods on the behavior of the flows in the intermediate goods falls outside the pairs with positive trade flows (from 46 percent of all *ROORIFINAL* values in vehicles to 77 percent in textiles). In other words, the explanatory value of the *RoO* variable is greatly curbed by limiting the estimation to the pairs with positive values only; the “true” impact of RoO on trade can be discerned only also by including in the sample pairs with zero trade flows, which maximizes the use of the explanatory variable *ROORIFINAL*. In sharp contrast, the loss of *ROORI* values at the aggregate level by estimating the regressions with the log of trade is less than 10 percent.

⁶ Thus, omitting either would lead to attributing too much weight to each individual variable.

TABLE 1A.5 ■ Effects of RoO in Final Goods and Facilitation Terms on Trade in Intermediates, 1988–2001

Chemicals		
RoO Restrictiveness	0.984 (64.96)**	0.339 (9.45)**
Facilitation Index		0.474 (19.81)**
Observations	237708	237708
Adjusted R-squared	0.43	0.43
Machinery		
RoO Restrictiveness	0.928 (67.56)**	0.496 (14.73)**
Facilitation Index		0.333 (14.06)**
Observations	237715	237715
Adjusted R-squared	0.45	0.45
Television and Radio Transmitters		
RoO Restrictiveness	1.002 (63.85)**	0.583 (15.25)**
Facilitation Index		0.326 (12.01)**
Observations	237708	237708
Adjusted R-squared	0.47	0.47
Textiles		
RoO Restrictiveness	0.407 (54.47)**	0.347 (18.31)**
Facilitation Index		0.05 (3.42)**
Observations	237708	237708
Adjusted R-squared	0.3	0.3
Vehicles		
RoO Restrictiveness	1 (59.63)**	0.603 (14.66)**
Facilitation Index		0.311 (10.55)**
Observations	237708	237708
Adjusted R-squared	0.5	0.5

Note: Absolute value of *t*-statistics in parentheses. All regressions with year and exporter and importer fixed effects.

* = significant at 5 percent level; ** = significant at 1 percent level.

in clear contrast to those from the regressions at the aggregate level, in which *ROORI* and *FACIL* pulled in different directions. Indeed, even in regressions conducted at the aggregate level that did not contain the RTA variable, *ROORI* entered with a negative and significant sign and *FACIL* with a positive and significant sign. This further warrants concluding that the restrictiveness of RoO plays an inherently different role at the sectoral than at the aggregate level in arbitrating trade flows. The effect of *FACIL* appears less important in textiles. This may be caused by the fact that many RoO regimes define de minimis, one of the key components of *FACIL*, for textiles in terms of weight rather than in terms of value: basing de minimis on the weight principle may reduce the usefulness of de minimis.

>> Bridging RTAs in the Americas 2

The advance of regional trade agreements in the trade portfolios of the countries of the Americas has created benefits in terms of expanded market access, greater trade and investment flows, increased firm productivity, and arguably also macroeconomic stability (IDB, 2002). However, the spread of RTAs has also forged a veritable spaghetti bowl of multiple and often overlapping agreements. This entails a number of risks.¹

Most immediately, the proliferation of RTAs can “balkanize” the regional and global trading systems. If the various agreements carry widely distinct features, they can impose undue transaction costs on traders, investors, and governments operating in several RTA markets simultaneously. The spread of RTAs also risks the rise of hub-and-spoke systems centered on a few hub countries, in which the potential cost savings from cumulation of production among the spokes remain untapped.

Furthermore, the broad proliferation of RTAs means that although any given country will likely be an insider to a number of RTAs, it will also be an outsider to dozens of others. As such, even the most prolific integrator countries can end up facing some degree of discrimination and preference erosion around the world. At the global level, the uneven playing fields and multiple discriminatory relationships created by RTAs are feared to yield suboptimal results for multilateral trade.

¹ Much of this chapter draws on Estevadeordal and Suominen (2009).

Encouragingly, the countries of the Americas have a number of strategic options to enhance the benefits and make more of RTAs, while attenuating their potentially negative effects. The first and most preferable option would be to pursue deep global trade liberalization and multilateral harmonization of trade rules. This would resolve the spaghetti bowl problems with a single blow. However, the odds of this option being realized are quite low, especially in the near term, and something over which the countries of the Americas have only limited control.

The second option would be to “multilateralize” RTAs around the world. This would entail lowering discrimination toward nonmembers, reducing substantive differences in the various RTA disciplines across RTAs and multilateral agreements, and strengthening multilateral disciplines in RTAs. However, since many elements of this process also escape the control of the countries of the region, multilateralization can be best conceived of as a *process* that drives toward these outcomes.

The third option would be to pursue a broader integration scheme in the Americas. Essentially superseding the RTAs criss-crossing the hemisphere, such a megaregional agreement would also streamline the regional trade architecture and sort out the regional RTA spaghetti: traders, investors, and customs authorities would need to refer only to one single agreement on such issues as market access and rules of origin, services and investment regulations, standards, and dispute settlement. Akin to the FTAA process that stagnated in 2003, a region-wide RTA would also help circumvent the rise of hub-and-spoke systems and produce a level playing field, eliminating the discrimination stemming from the proliferation of RTAs. And provided it were based on open regionalism and firmly nested in the WTO system, such a scheme would also create trade with nonmembers and could even help propel multilateral talks forward.

The fourth strategic option, and perhaps the most feasible one in the short run, would be to build bridges among the existing RTAs—strive for some form of convergence by gradually harmonizing the various RTAs in the Americas and implementing cumulation of production among them. The starting point and initial focus of such an effort could be market access provisions and rules of origin, in particular.

Although the process would differ from that geared towards reaching a megaregional agreement, convergence would have effects similar to those of a single integration agreement. It would facilitate trade and production across the region and, as such, harness hemispheric scale economies and opportunities for cost savings in trading across borders. It could also undermine protectionist interests and prospects for trade diversion and serve as a base for further region-wide and global negotiations. In short, bridging RTAs could make the whole of the RTA spaghetti greater than the sum of the parts.

The purpose of this chapter is to get at the heart of RTA spaghetti bowl problems in the Americas and propose solutions to them. The first section explores the rationales for convergence. The second section discusses the existing efforts around the world to employ convergence, elaborates on the various potential trade effects of convergent economic areas, and unfolds recent survey data on private sector views on the usefulness of convergence. The third section examines the potential for convergence in the Americas by detailing the extent of differences and complementarities among the existing regional RTAs, with a particular focus on market access. The fourth section concludes by laying out the various policy considerations raised by the pursuit of convergence by the countries of the Americas.

2.1 Conceptualizing Convergence

The RTA system of the Americas carries an internal paradox.² RTAs can, and are designed to, lower the costs of cross-border business, and they can indeed pave the way for efficient supply and distribution networks and for sequential production. And yet, the spaghetti bowl of multiple overlapping RTAs can also generate frictions that create transaction costs for companies operating on various RTA fronts simultaneously, above and

² For an overall analysis of the RTA spaghetti bowl and market access provisions in the Americas, including rules of origin, see Estevadeordal and Suominen (2005) and Grados and Cornejo (2006). For mappings for RoO regimes, see Garay and Cornejo (2002), Suominen (2004), and Estevadeordal and Suominen (2008). For a detailed treatment of the design and negotiation of rules of origin and the application of full convergence and extended cumulation, see Cornejo and Harris (2007) and Harris (2008), respectively. On further issues related to implementation and administration of rules of origin, see Cornejo (2005).

■ Box 2.1 Spaghetti Bowl Problems: Managing Multiple Rules of Origin

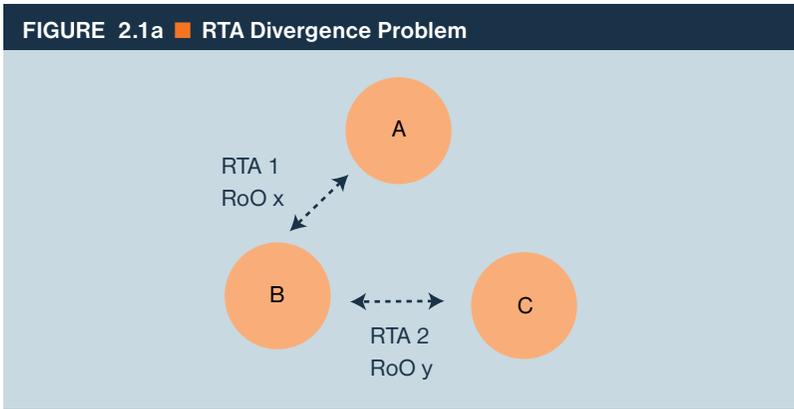
A concrete example on rules of origin illustrates the RTA spaghetti bowl problem from up close. Consider a Chilean producer of typewriters (Harmonized System heading 8469): the firm will have to comply with rules of origin that stipulate a ceiling of 50 percent import content to enter the European Union; a change of subheading (except from subheading 8469.12) to enter the United States; a change of heading to enter Korea (except from heading 84.13 or, alternatively, a change from heading 84.13, provided the regional value content is not less than 45 percent using the build-down method or not less than 30 percent using the build-up method); and a 60 percent regional value content (that is, a ceiling of 40 percent import content) to enter MERCOSUR.

Meanwhile, given that the European Union applies the same rules of origin regime in all of its RTAs, a producer in the same heading can use the same rules of origin—50 percent import content—to enter Mexico, Chile, South Africa, and the whole pan-European system. This example also illustrates the comparative complexities faced by customs: if each rules of origin regime stipulates rules of origin for 5,000 products, the Chilean customs would, just in these four agreements, in the extreme have to verify compliance with 20,000 different rules of origin, whereas customs in the European Union countries would need to verify compliance with only 5,000 rules of origin.

beyond what such costs would be if the companies were operating under one single set of trade rules (Box 2.1).

There are two key policy questions stemming from the proliferation of RTAs. The first centers on RTA divergence, the extent to which the various RTAs differ from one another. Figure 2.1a is a simple illustration of the RTA divergence problem. When RTA 1 (between countries A and B) and RTA 2 (between countries B and C) differ from one another, firms in country B may need to apply different sets of tariff schedules, rules of origin protocols, and other rules when seeking access to A's market than when seeking access to C's market. Similarly, customs in B will need to refer to different agreements when administering the respective imports of the two spokes. To the extent that the divergence across the two RTAs accentuates transaction costs and uncertainties to firms in B, this could be reduced by making the agreements more compatible with one another.

The second policy question arising from the RTA spaghetti is whether it has yielded hub-and-spoke systems in which the potential cost savings from connecting the spokes would remain untapped even if the rules of the hub's RTAs were the same. A hub-and-spoke model augurs poorly for the capacity of firms in the spoke countries (countries A and C in the

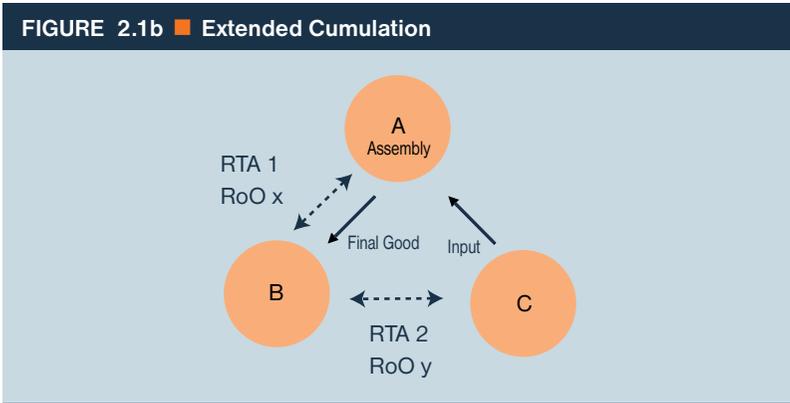


Source: IDB.

figure) to obtain inputs from one another for final goods destined for the hub (country B) market. As such, it could incentivize firms from the spokes to migrate to produce in the hub market. At the regional level, a hub-and-spoke system would also undermine the propensity for firms, whether located in the hub or in the spokes, to build efficient supply chains, pool production, and take advantage of region-wide scale economies. It could result in diversion of trade and investment and policy-driven agglomeration effects, leaving everyone worse off.

Hub-and-spoke patterns could materialize even if all RTA nodes (A, B, and C) were connected to one another. Stringent disciplines in one RTA, such as demanding standards rules of origin, can lock manufacturers into sourcing from one RTA market over another, even if the market selected for the sourcing is more costly. Similarly, foreign investors can “go RTA shopping”—opt to locate in RTA partners where compliance with the trade disciplines is easiest, rather than in partners with the most efficient production, *ceteris paribus*.

How can the divergence and hub-and-spoke problems be overcome? One possible shortcut in the area of market access, even if not necessarily the best option, would be to implement “extended cumulation.” In a simple illustration (see Figure 2.1b), extended cumulation would mean that producers in A could import intermediate goods from C and still qualify for preferential treatment in the final goods when exporting to B under the A–B RTA. The benefit of extended cumulation is that it could



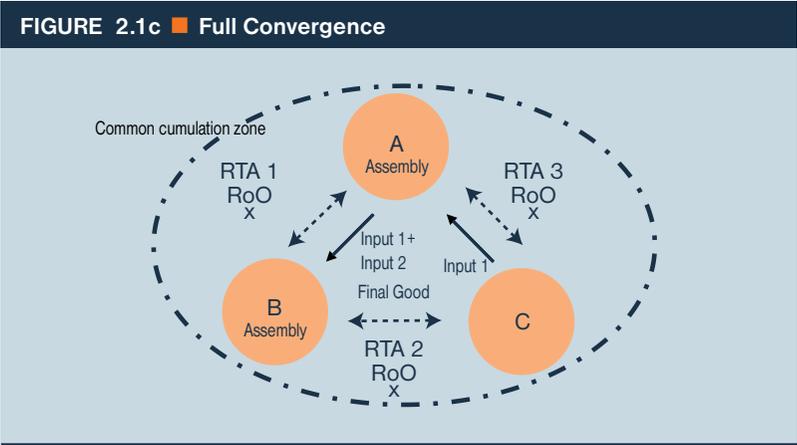
Source: IDB.

thus work in a situation in which not all the partners are connected by a bilateral RTA.

Extended cumulation can, however, be politically difficult. For instance, B would most likely wish to guarantee that the materials traveling from C to A meet the rules of origin of RTA 2 so as to prevent free riding by third parties (nonoriginating inputs from outside the region ABC) on A's RTA preferences. This could result in incredibly complex administrative and origin verification arrangements. As such, extended cumulation would thus likely require the three partners to have full mutual recognition of the administration and verification of rules of origin when procuring inputs from one another.

There is a less complex, more formal, and overall better mechanism for ironing out the balkanization and hub-and-spoke problems: "full convergence." Full convergence refers to a process of establishing a common regime for rules of origin that covers a set of countries with existing RTAs and that permits cumulation among all members.

In a simple illustration (see Figure 2.1c), should the previously "RTA-less" corridor between A and C be connected with RTA 3, the rules of origin regimes in RTAs 1, 2, and 3 be harmonized, and the three partners agree on cumulation of production among themselves, the region ABC would in essence have formed a single seamless production zone (Box 2.2). Such full convergence would enable producers of A, for example, to use materials from C without losing the preferential status of the final



Source: IDB.

■ **Box 2.2 What Is Cumulation?**

Cumulation allows producers of one RTA member to use materials from another RTA member (or other members) without jeopardizing the preferential status of the final product.^a As such, cumulation can reduce the burden associated with restrictive product-specific RoO.

Bilateral cumulation refers to provisions that permit goods that qualify as originating in any one signatory country to be considered as such when incorporated into a subsequent product in another signatory country. For our purposes, bilateral cumulation can be based either on products or on processes (full cumulation).^b Virtually all existing RTAs have bilateral cumulation in place.

Extended cumulation allows countries that are linked via a bi- or plurilateral RTA to use inputs from third parties that do not have an RTA with any (or all) of the parties to that RTA. Diagonal cumulation allows countries that are all linked to one another via separate bi- or plurilateral RTAs and whose RTAs have the same set of preferential origin rules to use products that originate in any part of the common RoO zone as if they originated in the exporting country.

Full cumulation extends diagonal cumulation. It provides that countries tied by the same RoO regime can use goods produced in any part of the common RoO zone even if these were not originating products: any and all processing done in the zone counts as if it had taken place in the final country of manufacture. As such, full cumulation can notably expand the geographical and product pools allowed for by the RoO regime.

^a This box draws on Estevadeordal, Harris, and Suominen (2009).

^b The distinction between cumulation based on products or processes is significant but not essential to our policy analysis.

product when exporting it to B under the A–B RTA. Any of the three countries could now become the intermediate producer and any one the final goods producer; the production processes could also be fully linked in a supply chain across A–B–C.

Full convergence would resolve the divergence and the hub-and-spoke problems at a single blow. Though a larger undertaking with higher up-front negotiation costs than those implied by extended cumulation, full convergence would be easier to administer and also be politically more feasible, as it provides full reciprocity for all parties.

Importantly, for full convergence to work in practice, RoO harmonization and cumulation are not enough. Rather, each RTA in the triangle ABC must also drive bilateral preferential tariffs to very low levels or zero—in addition to featuring a common rules of origin regime. Indeed, complete tariff elimination is very important: even if RTAs 1, 2, and 3 have common RoO and cumulation in place, positive tariffs on any side of the triangle could distort trade and production patterns, with trade tending to flow through the lowest-tariff channels and production agglomerating in the hub country that faces the lowest tariffs in the other two countries.

As such, the zone ABC could be converted into a full convergence area in three stages: first, by eliminating tariffs within each RTA—something that will automatically result from RTAs' tariff phaseouts, discussed in Chapter 1; second, by adopting a common rules of origin regime for the three RTAs; and third, by enabling cumulation among the parties applying the common regime.

Convergence and Stringent Rules of Origin

Although high tariffs around each RTA accentuate barriers for trade between RTAs, particularly problematic and needy of convergence solutions are situations in which RoO are highly restrictive, as restrictive RoO compound the effects of high external tariffs and reduce the benefits of liberalized tariffs. Indeed, understanding the effects of rules of origin in any one RTA helps in grasping the usefulness of convergence.

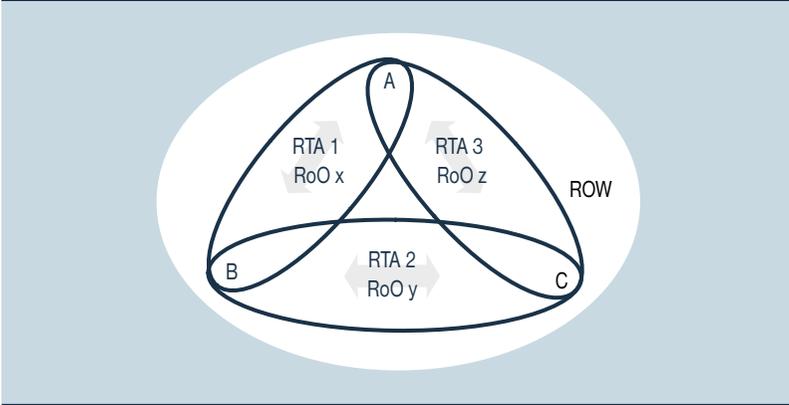
Two concepts are particularly useful for thinking about RoO: input pool and geographical pool. In terms of the input pool, RoO establish for

each product which of its inputs and/or what fraction of its inputs may be “nonoriginating” in order for the product to benefit from access to the preferential tariff treatment established by the RTA. The fewer restrictions placed on the use of nonoriginating inputs, whether qualitative or quantitative, the more open the preferential bloc is to the rest of the world. The more open the RoO regime, the bigger the input pool is.

As for the geographical pool, any origin regime implicitly or explicitly establishes the list of countries whose products can be considered originating for purposes of the agreement (this might also be referred to as the “cumulation zone”). In most RTAs, this list is simply the set of direct signatories to the agreement. Some agreements, however, specify additional countries whose originating products may be used as inputs in one or more direct signatories, with these inputs being treated as originating in the latter. The longer the list of countries whose products qualify as originating in the origin regime of a given RTA, and the larger the economies of those countries, the larger the agreement’s geographical pool.

Rules of origin thus determine both the openness of a bloc and its size, which, in turn, play a role in defining restrictiveness. Increasing the openness or size—input or geographical pool—can be expected to reduce RoOs’ compliance costs and hence to reduce the distortions caused by the origin regime that governs a given bloc. Rules of origin are binding when they are consequential for economic decisions and shape firms’ sourcing decisions; they are restrictive (as well as binding) when they hamper firms’ ability to source inputs from and perform operations in the lowest-cost locations. Restrictive RoO, in essence, limit the geographical pool (to the RTA area) and thereby the input pool.

Restrictive RoO, as opposed to liberal RoO, effectively set up walls around an RTA that prevent the use of some inputs in each product from outside the RTA zone. Multiple overlapping RTAs with divergent origin regimes thus entail many such walls to free and efficient sourcing of inputs. When agreements’ rules are more restrictive, the walls are higher, and efficient allocation of resources is even more difficult. Thus, *more restrictive rules of origin will likely accentuate the divergence problem for countries that have entered into multiple RTAs*, as both the number and the height of the walls will be higher (Figure 2.2a). This is likely a problem in the

FIGURE 2.2a ■ Trade with Divergent and Restrictive Rules of Origin

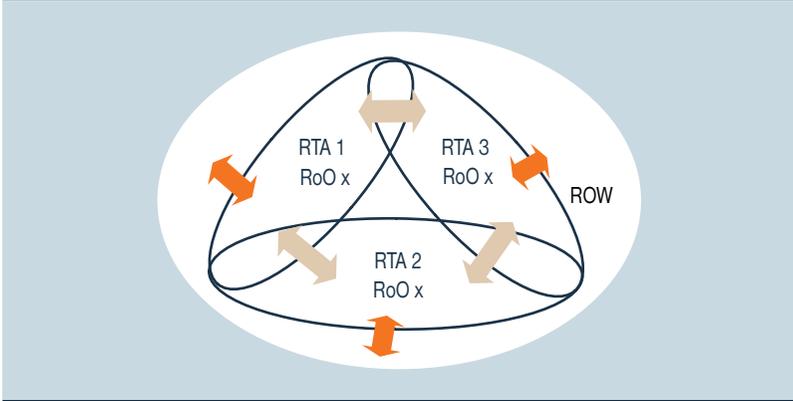
Source: IDB.

Americas: recent research findings cited in Chapter 1 indicate that several RoO regimes in the Americas are quite restrictive. In this situation, supply chains are limited within the RTA channels.

Restrictiveness of RoO is intricately related to the relevance of divergence and absence of cumulation: holding tariffs constant, the more restrictive their rules are, the less freely trade flows between two RTAs or between them and the rest of the world.

There are three ways to ameliorate these negative effects of restrictive RoO. The first is multilateral tariff liberalization. Restrictive RoO do not matter for market access if the RTA members' most-favored-nation tariffs (and nontariff barriers) are zero. This is because zero MFN tariffs obliterate the meaning of any preferential edge provided by RTAs. When A's MFN tariffs are zero, exporters in B have no incentive to strive to qualify for the preferential treatment afforded by A, including meeting the arcane rules of origin, but will instead export under the MFN regime. However, in the presence of positive MFN tariffs and positive preferential margins (i.e., in the presence of a gap between the MFN and the preferential tariff), which are still in place virtually throughout the Americas, exporters do have incentives to use the RTA channel and thus to seek meet rules of origin.

The second solution is to relax RoO in each RTA. Less restrictive RoO in each RTA would expand sourcing options for producers, assuming

FIGURE 2.2b ■ Trade with Convergence and Open Regionalism

Source: IDB.

the external tariffs of the member countries were not prohibitive. Unlike restrictive RoO, nonrestrictive RoO are less of a constraint to trade among RTAs, reducing the need for convergence. Nonrestrictive RoO also reduce barriers to trade between any one RTA and the rest of the world, reducing the risk of trade diversion. However, relaxing RoO in each and every RTA in the Americas also remains a distant possibility.

The third way to deal with restrictive rules of origin is convergence among the regional RTAs. Again, such convergence would deliver trade gains when the preferential tariffs in each RTA were also reduced to zero or very low levels. If the common convergent zone in addition to common RoO also featured less restrictive RoO, it would help promote trade between the RTAs and the rest of the world. This is open regionalism (Figure 2.2b), which ought to be the aim of any convergence process.

2.2 Connecting RTAs: Existing Efforts and Economic Effects

Full convergence would help reduce the complexity of RoO overall: instead of having to deal with two or more RoO regimes at once, the member states' exporters would have to refer to only one set of RoO. This should facilitate firms' compliance with RoO and reduce the administration costs for governments of origin certification and verification. And as the cumulation zones merged and combined, convergence should expand the

potential for procuring intermediate goods from a larger area than from the RTA partner alone, which would be of particular benefit if the RTA rules of origin were restrictive.

However, such convergence would also be a challenging endeavor to negotiate and implement. Yet convergence is not a new idea, nor is it unprecedented in practice. There have been a number of notable efforts around the world to create broad-based cumulation zones out of overlapping RTAs.³

The foremost example of full convergence is the creation of the EU's Pan-European system of cumulation in the 1990s.⁴ The process entailed harmonizing the EU's RoO protocols with EFTA countries, which dated from 1972 and 1973, as well as among the EU's RTAs forged in the early 1990s in the context of the European Agreements with Bulgaria, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia,

³ Besides the regional efforts at RoO harmonization and/or some form of cumulation, there is an ongoing global drive to harmonize nonpreferential RoO. These RoO are inherently national rather than bi- or plurilateral and are used for purposes distinct from those of preferential rules. Unlike preferential RoO, which have thus far escaped multilateral regulation, nonpreferential RoO have been under a process of harmonization since 1995 as mandated by the Uruguay Round's Agreement on Rules of Origin. Indeed, the rapid evolution of the preferential RoO panorama stands in contrast to the glacial progress of harmonizing nonpreferential RoO. The harmonization work, propelled precisely by growing concerns about the divergent national RoOs' effects on trade flows, has been carried out under the auspices of the Committee on Rules of Origin of the World Trade Organization and the Technical Committee on Rules of Origin of the Brussels-based World Customs Organization. The latter has been responsible for the technical part of the work, including discussions on the RoO options for each product.

The harmonization drive was initially scheduled for completion by July 1998. However, the deadline has been extended several times since then. As of now, the pending product-specific issues involve some 30 products. There are also two major issues that have yet to be resolved: use of the value-added versus the change in tariff classification principle in assembly in Harmonized System chapters 84–90, and implementation issues, particularly the use of the harmonized nonpreferential RoO in antidumping cases.

Although the Agreement on Rules of Origin is centered on nonpreferential RoO, its Common Declaration with Regard to Preferential Rules of Origin spells out a requirement for the members to keep the WTO Secretariat informed about their preferential RoO. In their current structure, the nonpreferential RoO approximate those of the Pan-Euro and NAFTA models in sectoral specificity, yet are less demanding than those of either of the two main RoO regimes. However, since the final agreement has yet to be reached, the ultimate degree of complexity and restrictiveness of the nonpreferential RoO remains to be gauged.

⁴ The Pan-Euro rules are also known as the Pan-European Cumulation System or the Pan-Euro-Med rules.

and Romania.⁵ The Pan-Euro system, finalized in 1997, established identical RoO protocols across the EU's existing RTAs as well as for the RTAs among the EU's partners, providing for cumulation among all of the participating countries. The European Commission's Regulation 46 of January 1999 reiterates the harmonized protocols, outlining the so-called Single List RoO. These RoO are highly complex, combining change of tariff classification (mainly at the heading level) with exceptions, value content rules, and technical requirements, varying markedly across products. However, the harmonized RoO do not represent a dramatic break with those of the pre-1997 era.⁶

The Single List became incorporated in the Euro–Mediterranean Association Agreements between the EU and the various southern Mediterranean countries, and the system of cumulation operates among the regional countries that have signed bilateral agreements both with the EU and with one another. The so-called Pan-Euro-Med cumulation zone covers the 27 EU members and is gradually incorporating 17 other countries or territories.⁷ Although the object of this “cumulation system” is to enable goods that fulfill the RoO of one agreement to qualify automatically in other agreements within the system, this also requires that all countries within the system have RTAs in force with

⁵ See Driessen and Graafsma (1999) for a review.

⁶ For example, the RoO for nearly 75 percent of the products (in terms of tariff subheadings) in Pan-Euro and the original EU-Poland RoO protocol published in 1993 are identical. Both the new and the old versions combine change in tariff classification with value content and/or technical requirements. Indeed, EU RoO feature remarkable continuity: the RoO of the European Community–Cyprus RTA formed in 1973 are strikingly similar to those used today. One notable difference between the older and the newer protocols is that the latter allow for an optional way of meeting the RoO for about 25 percent of the products, whereas the former mostly specify only one way of meeting the RoO. The second option, alternative RoO, much like the first-option RoO, combine different RoO criteria; however, the most frequently used alternative RoO is a stand-alone import content criterion.

⁷ The Pan-Euro-Med system of cumulation operates between the EU and the member states of the European Free Trade Association (Iceland, Liechtenstein, Norway, and Switzerland) and Turkey, and countries that signed the Barcelona Declaration, namely, Algeria, Egypt, Israel, Jordan, Lebanon, Morocco, Syria, Tunisia, and the Palestinian Authority of the West Bank and Gaza Strip. The Faroe Islands have been added to the system as well.

all other countries in the system, which is not yet the case in regard to some bilateral relationships.

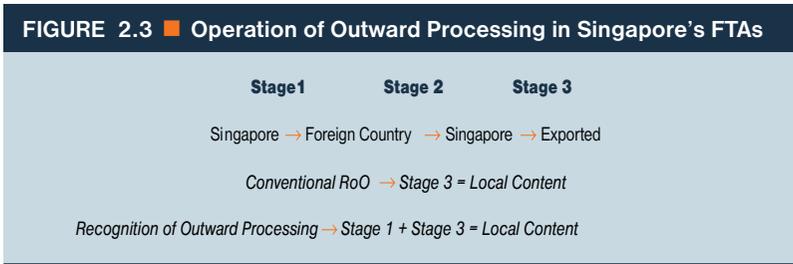
The Pan-Euro RoO model is also incorporated in the EU's RTAs outside the Pan-Euro zone, including the EU's Stabilization and Association Agreements with Albania, Bosnia and Herzegovina, Croatia, the former Yugoslav Republic of Macedonia, and Serbia and Montenegro, and the EU's extraregional RTAs with South Africa, Mexico, and Chile (see Estevadeordal and Suominen, 2003). Also, the RoO of the EU's Generalized System of Preferences and the 2000 Cotonou Agreement with African, Caribbean, and Pacific developing countries are nearly identical to the Pan-Euro rules. EFTA's recently concluded RTAs with Mexico and Singapore also follow the model, albeit with an additional alternative rule in selected sectors, such as plastics, rubber, textiles, iron and steel products, and some machinery products.

In other parts of the world there are examples of cumulation that do not fully reach the Pan-Euro-type full convergence. In the South Pacific Regional Trade and Economic Cooperation Agreement, Australia and New Zealand allow members of the South Pacific Forum islands to cumulate among themselves and still receive preferential treatment. The Forum islands may not, however, cumulate inputs from New Zealand to export to Australia, or vice versa, as trade between Australia and New Zealand is governed by the Australia–New Zealand Closer Economic Relations Trade Agreement (ANZCERTA) (which does not provide for cumulation of Forum country–originating inputs).⁸

The Canada-Israel RTA permits cumulation with the two countries' common RTA partners as of the agreement's entry into force, though in practice this includes only the United States. This extension of cumulation most likely accommodates existing integration of Canadian industry with U.S. suppliers.

U.S. agreements with Israel and Jordan also have some extended cumulation. The U.S.–Israel RTA permits cumulation of inputs from the West Bank and the Gaza Strip, but not Jordan. Prior to the negotiation

⁸ The ANZCERTA rules were completely renegotiated in 2006, with the new rules going into force in 2007.



Source: Suominen (2004).

of an RTA with Jordan, the United States established a classification of qualifying industrial zones (QIZ) with Jordan and also with Egypt. This program allowed for cumulation of inputs from Israel, the West Bank, and Gaza, but not from Jordan and Egypt. The subsequent RTA between Jordan and the United States includes rules that permit cumulation only bilaterally, but the QIZ program remains in effect, allowing continuation of the cumulation of inputs from Israel and the Palestinian territories. The QIZ, however, are still a unilateral concession of the United States, not a bilateral treaty obligation like the RTA.

Singapore has pursued innovative mechanisms in its RTAs that, while not extending cumulation in the conventional sense of the term, do allow for greater participation of nonmembers in the production of originating goods. The main mechanism is outward processing, which is recognized in all of Singapore's RTAs. Outward processing enables Singapore to outsource part of the manufacturing process, usually the lower-value-added or labor-intensive activities, to neighboring countries, yet continue to count the value of Singaporean production that takes place prior to the outsourcing activity toward total Singaporean content in meeting the RoO for the export market (Figure 2.3), despite the subsequent processing in a nonmember of the agreement.

In contrast to these efforts, there are as yet only limited and preliminary efforts to expand cumulation areas within the Americas:

- DR-CAFTA, between the United States, Central America, and the Dominican Republic, contains provisions for cumulation of inputs from Canada and Mexico in the production of garments of

woven fabric (HS Chapter 62). These provisions are subject to negotiation of origin verification protocols different from those in NAFTA as well as adjustments to the rules in the agreements of the Central American countries with Mexico. Thus far, Mexico has participated actively in the negotiation and implementation of these changes, and the cumulation provision is now in force between Mexico and Central America. This provision is available to the Dominican Republic for a transition period, by the end of which it must negotiate an RTA with Mexico in order for the provision to remain in effect.⁹

The agreements between members of MERCOSUR and the Andean Community share a common origin text, including a provision for cumulation that includes all nine countries (including Bolivia). However, the product-level rules were negotiated bilaterally, resulting in 16 sets of rules of origin that in principle permit for cumulation throughout the common biregional space. That these rules are not uniform across bilateral relationships complicates the implementation of genuine regional cumulation. These countries, along with Chile and Mexico, are all participants in the LAIA Free Trade Area, which is working to address issues of multiplicity of origin regimes among member country RTAs, among other topics.

In January 2007, the Pacific Basin Forum of 11 countries in Latin America (Chile, Colombia, Costa Rica, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, and Peru) formed a work agenda to study, among other things, trade convergence and integration. The group, which has received technical support from the IDB, has held four ministerial meetings, furthering analysis of tangible ways of advancing toward convergence.

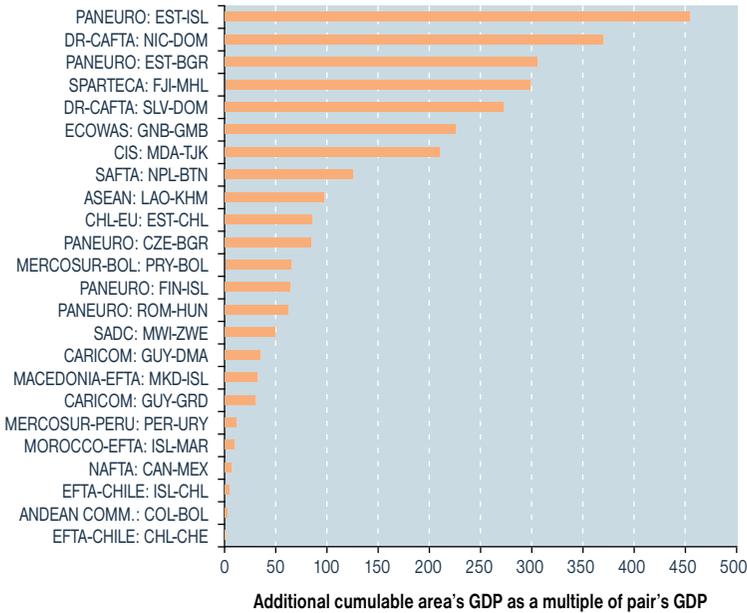
In late September 2008, a group of 12 Pacific countries of the Americas—Canada, Chile, Colombia, Costa Rica, Dominican Republic, El Salvador, Guatemala, Honduras, Mexico, Panama, Peru, and

⁹ The beginning of these negotiations has already been announced.

the United States—announced an initiative to further convergence of their free trade efforts, deepen an open architecture for regional trade, and expand regional cooperation on economic development and competitiveness. The initiative is open to all democratic Western Hemisphere countries that share a commitment to free trade and open markets.

- There is growing discussion among the APEC members, including Canada, Chile, Mexico, Peru, and the United States, of convergence among the RTAs in the Asia-Pacific space. The 21 APEC members have roughly three dozen RTAs with each other; these are seen as both a challenge to the group's coherence and an opportunity for advancing toward tangible liberalization across the entire APEC zone. In 2007, APEC crafted a “model measure” rules of origin regime to guide the format of subsequent RTAs in the Pacific Basin, and the group dedicated a substantial part of its 2008 trade meetings to examining the feasibility of convergence. Indeed, many see such a convergence process among the existing intraregional RTAs—rather than a full-blown megaregional negotiation—as a potential path towards a Free Trade Area of the Asia-Pacific.
- The recently signed RTA between Canada and Peru makes explicit provision for possibly moving towards extended cumulation, whereby either country can use third-party materials from countries with which both have a common RTA: the United States, Mexico, Chile, and probably in the near future, Colombia and Singapore. Those economies, in turn, are allowed to do the same with Canadian (Peruvian) inputs when seeking entry to Peru's (Canada's) markets, as long as they return the favor to Peru and Canada, so that the two countries can cumulate with one another when seeking access to any of these third parties' markets. In short, the arrangement would not entail harmonization of origin regimes and thus would still leave the divergence problem in place; rather, it would permit cumulation of origin across a larger set of countries and thus enable cumulation of production, as long as countries in each bilateral RTA complied with those agreements' respective RoO.

FIGURE 2.4 ■ Size of Additional Cumulation Area as a Multiple of an RTA Pair’s GDP, Selected RTA Pairs

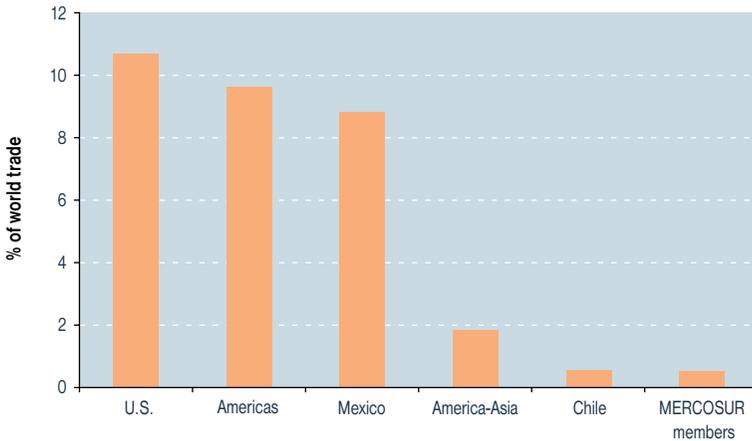


Source: IDB calculations based on World Development Indicators.

These efforts are made for a reason. The effects of belonging to larger, integrated free trade zones can lead to major economic gains, particularly for small countries with limited production possibilities. Figure 2.4 illustrates this by showing the combined GDP of the additional cumulation zones of pairs of countries that have a common RTA as a multiple of the pair’s combined GDPs around the world. For instance, by virtue of both Estonia and Iceland’s belonging to the EU’s Pan-Euro cumulation zone (which here is the only “full convergence” cumulation system), the total size of the area from which they can source inputs and/or perform operations for goods in their bilateral trade is more than 450 times their combined GDP.

Similarly, the fact that El Salvador and the Dominican Republic can use inputs from the United States and the other Central American countries in their bilateral trade under DR-CAFTA means that their “real”

FIGURE 2.5 ■ Percentage of World Trade among RTA Partners, Selected RTA Families



Source: IDB calculations based on IMFDOTS.

or effective input pool is more than 250 times their combined GDP. The figure for Canada-Mexico trade under NAFTA is about six, as a result of the U.S. economy's being six times as large as the combined economies of Canada and Mexico.

The results are clear: cumulation can vastly expand the zone from which RTA partners can source inputs and/or in which they can perform operations. For small countries with small partners, the size of the beyond-RTA cumulation zone in many cases dwarfs the size of the combined economies, permitting increased gains from specialization and integration into much larger supply chains, thus expanding production possibilities well beyond what could ever be accomplished within national borders.

Even on an absolute scale, the amount of trade covered by the RTA families in the Americas is quite large (Figure 2.5). More than 10 percent of world trade flows within the U.S. family of RTAs (which here includes extraregional agreements signed by the United States), and almost as much within the agreements of the Americas proper. Converging agreements just within these families would entail facilitating a sizable share of global trade.

Trade Effects of Convergence

What, then, are the economic effects of convergence? This question is immensely important, yet completely underresearched, with only a few empirical studies in the literature. Augier, Gasiorek, and Lai-Tong (2007) is the foremost empirical assessment. Using the implementation of the Pan-Euro system as a natural experiment, the authors analyze changes in spoke-spoke trade and changes in hub-spoke trade. Spoke-spoke trade under such convergence would see a combination of trade creation and trade reorientation, as spoke A in Figure 2.1 would now be able to source more intermediates from spoke C instead of supplying the goods itself domestically. This would reverse the trade suppression caused by the original RoO in A–C trade. Meanwhile, hub B might switch its supply of inputs away from A and towards country C. This would reverse some of the trade diversion owing to the original RoO in the A–B RTA.

Augier, Gasiorek, and Lai-Tong (2005) also examine the effects of cumulation in the Pan-Euro system, finding that the introduction of continental cumulation increased trade between the Eastern European spokes by between 7 percent and 22 percent. They also find that trade is potentially up to 70 percent lower between the countries that are not part of the Pan-Euro system.

Augier et al. (2007) examine the Pan-Euro's effects at the industry level. Industries in which the effects of cumulation are consistently positive are food manufacturing, textiles, apparel, leather and products of leather, furniture, other chemical products, rubber products, plastic products, nonferrous metal basic industries, fabricated metal products, electrical machinery, and transport equipment; cumulation would increase trade between 14 and 72 percent in these sectors. The largest impact of cumulation would be in apparel, leather products, fabricated metal products, and electrical machinery. Unsurprisingly, these are also industries in which the EU tariff is highest and the RoO most restrictive. As such, it appears that cumulation has liberalizing effects and helps reduce the tariff and RoO constraints.

Harris and Suominen (2008) preliminarily examine the effects of larger cumulation zones over a longer time period (1960–2006) using a set

of more than 100 RTAs. They argue that the trade effects will vary by the size of the countries involved in a given bilateral trade flow. Assuming that countries with larger GDPs produce a greater variety of goods than countries with smaller GDPs, the probability that imported intermediates from a third country C that A and B can use for final goods trade in their bilateral RTA will substitute for intermediates from A and B is increasing in C's GDP.

The availability of cumulable inputs from C should yield efficiency gains for production in A and B, boosting final goods trade between them. But if C is very small, it is more likely to complement the intermediates of A and B and thus will not necessarily have a significant impact on the availability of supplies for A and B. However, when A and B are also very small, adding any third country, and a large one in particular, could notably expand their intermediate products pool and thus potentially help boost bilateral trade in final goods between A and B. Thus, trade diversion in intermediates between A and B should also be decreasing with C's size.¹⁰

Harris and Suominen preliminarily find that adding partners representing 10 percent of world output to a cumulation zone is associated on balance with a 3 percent increase in small countries' bilateral aggregate trade (Appendix 2.2).¹¹ Importantly, this ought to have a net effect of increased trade between A and B, including any reduction in trade due to the reduced level of trade diversion. Substitution of some bilateral trade in final goods may also result from the incorporation of C if cumulation is taken also to mean a reduction in tariffs between RTA members and their cumulation partner C.¹²

¹⁰ Empirically, Suominen (2004) and Estevadeordal and Suominen (2008) find that restrictive rules of origin in final goods divert trade in intermediates to the RTA zone.

¹¹ Without operationalizing rules of origin, Hufbauer and Schott (2006) estimate that a Free Trade Area of the Asia-Pacific covering 21 countries would provide gains of more than 50 percent for the United States, China, and South Korea over their existing trade with the 20 other APEC partners. The gains would be more than 65 percent for ASEAN and nearly 90 percent for Japan.

¹² The authors also find that the impact of cumulation has increased over time, particularly since the 1990s, an expected result considering that the EU's Pan-Euro regime encompassing most of Europe, as well as various other smaller-scale cumulation zones, went into

When viewed against the global backdrop, a crucial issue is the effect of convergence on trade between *all* the members of the cumulation zone and the rest of the world. In a greater scale, if the third country was located in the Americas or if all RTAs in the Americas were connected into one large cumulation zone, what might be the effects on the Americas' trade with the rest of the world?

The changes in hub-ROW trade, according to Augier et al.'s analysis, would be analogous to those in spoke-ROW trade. There could be some trade diversion away from B's imports from the ROW if B switches to A or C suppliers. However, there could also be some trade creation or trade reorientation.

In practical terms, this means that convergence among RTAs in the Americas could have both direct and indirect effects on trade between, say, Japan and Colombia, two countries that do not have a common RTA. The direct effect would hinge on the restrictiveness of the common RoO of the cumulation zone formed among the hemispheric RTAs: if the RoO of such a convergence area were restrictive, Colombia-Japan trade could be dampened; however, if the common RoO were nonrestrictive, Colombia-Japan trade could prosper should the cumulation in the Americas create trade and stimulate hemispheric production and demand (including for extraregional inputs from Japan for intraregional production). Conversely, restrictive RoO could stimulate "RoO-jumping" Japanese foreign direct investment in the Americas' cumulation zone.¹³

Cost Savings from Convergence: What Do Firms Say?

The real measure of convergence in the Americas is the value that it adds for the end users, private sector actors in the region, in terms of both reduced transaction costs and larger regions of cumulated production. How

effect during those years. This result is in line with Suominen (2004) and Estevadeordal and Suominen (2008), which find that cumulation clauses in RTAs (jointly with several other factors) had a significant effect on trade in the period 1981–2001.

¹³ However, in a study of FDI flows into Mexico in the post-NAFTA era, Estevadeordal, López-Córdova, and Suominen (2006) find relatively little empirical support for the RoO-jumping hypothesis.

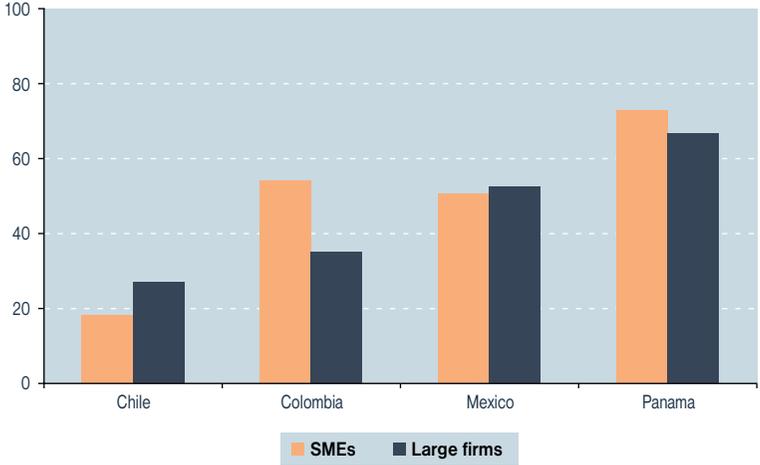
is convergence perceived by companies in the Americas? How much do divergence and hub-and-spoke issues matter to firms in practice?

In a forthcoming survey of RTAs' effects on firms' costs in Latin America, the IDB finds that companies in the region could expect important gains from convergence and cumulation across their respective countries' RTAs. In the case of Colombia, 54 percent of small and medium-sized firms (SMEs, defined in the study as having fewer than 200 employees) surveyed report that cost savings from both harmonizing and cumulating across the various RTAs to which Colombia belongs would be "high" or "very high" (Figure 2.6a). The figure is 34 percent for larger firms. The estimated savings are particularly high in food product and textile sectors, both of which feature particularly restrictive RoO.

Illustrative of the importance of cumulation is that if cumulation was *not* allowed, yet the various RTAs were harmonized, the estimated cost savings would be "high" or "very high" for 42 percent of Colombian SMEs and 17 percent of the country's larger firms (Figure 2.6b). That is, although harmonization of RTAs would reduce the administrative costs associated with RoO compliance, there are notable extra benefits deriving from a reduction of the input supply constraint of rules of origin.

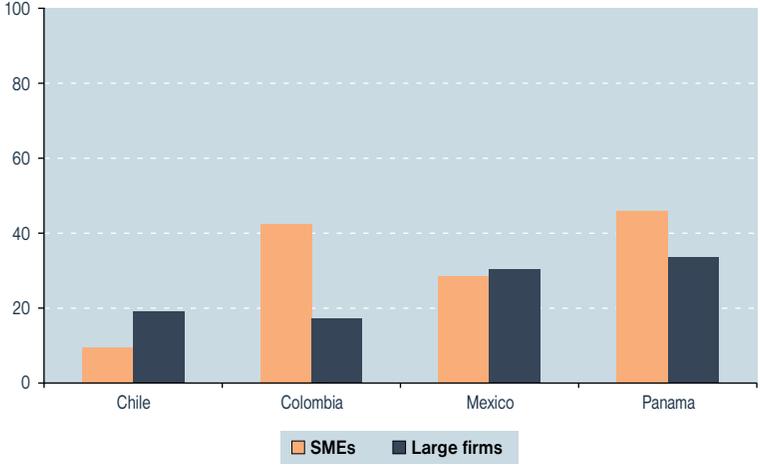
Mexico shows somewhat different patterns than Colombia, with 50 percent of small and medium-sized firms and 52 percent of larger firms stating that cost savings from converging the country's various RTAs would be "high" or "very high." In the case of Chile, a country with a larger number of RTAs but a longer trajectory of leaning toward the use of RoO, the corresponding figures are 18 and 27 percent, respectively; that the benefits are viewed as greater by larger firms may be due to their exporting to a larger number of different markets. The relatively lower figures in Chile may to a great extent be explained by the fact that the sample there is higher in producers of agricultural and metallurgical products produced exclusively from domestic materials, which reduces the complications of RoO. Meanwhile, in Panama, a country that entered the RTA spaghetti bowl only recently, the cost savings from connecting the country's various RTAs would be "high" or "very high" for as many as 73 percent of SMEs and 67 percent of larger firms.

FIGURE 2.6a ■ Percentage of Firms Stating Cost Savings from Cumulation across Their Country's RTAs Would Be "High" or "Very High," by Country and Size of Firm



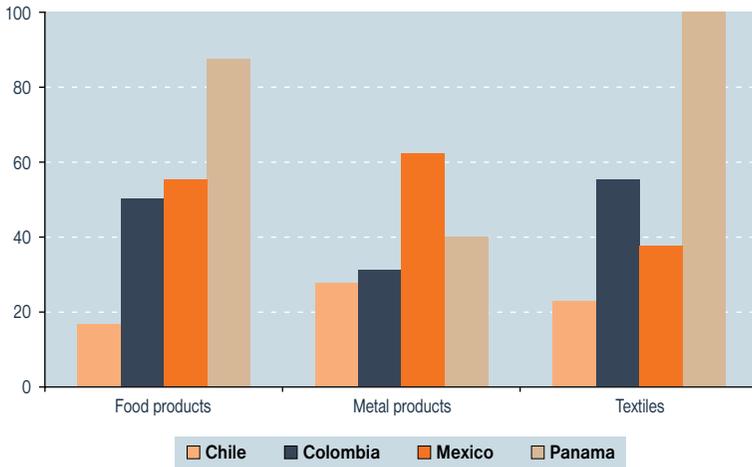
Source: IDB (forthcoming).

FIGURE 2.6b ■ Percentage of Firms Stating Cost Savings from Harmonizing Rules across Their Country's RTAs Would Be "High" or "Very High," by Country and Size of Firm



Source: IDB (forthcoming).

FIGURE 2.7 ■ Percentage of Firms Stating Cost Savings from Cumulation across Their Country's RTAs Would Be "High" or "Very High," by Country and Sector



Source: IDB (forthcoming).

Again, permitting harmonization of rules of origin but without cumulation is perceived by surveyed firms in all countries surveyed here to be useful, but not as useful as harmonization and cumulation would be (Figure 2.6b). However, still about a third of the surveyed firms see “high” or “very high” gains from harmonization alone.

These results vary notably by economic sector—here, food products, metal products, and textiles. For Colombia, 50 percent of food product firms state that cost savings from connecting and cumulating across the country’s various RTAs would be “high” or “very high”; the figure is 31 percent for companies producing metal products and 55 percent for companies making textile products (Figure 2.7).

This is hardly surprising: food products and textiles often feature very complex rules of origin and high tariffs. In Mexico, the corresponding figures are 55, 62, and 37 percent, and in Panama, 88, 40, and 100 percent, respectively. Chilean firms again perceive fewer potential benefits from cumulation, with 17 percent of the country’s food product firms, 28 percent of metal product firms, and 23 percent of textile firms arguing that cumulation would yield “high” or “very high” cost savings.

A 2007 study by the Marshall School for the Asia-Pacific Business Advisory Council on firms trading in the Asia-Pacific space yields similar results. Smaller firms are disproportionately hit by divergence in rules of origin across RTAs as a result of their lacking in-house capacities to deal with international trade rules. Indeed, whereas large automakers may have up to a hundred people who deal with rules of origin alone, medium-sized firms have at most two dozen such professionals, and small firms a couple of individuals at best.

2.3 What Are the Prospects for Cumulation in the Americas?

For many countries of the Americas, and particularly those with multiple RTA partners, convergence would not only expand the area from which inputs could be procured exponentially; it could also affect a large portion of total trade. Section 2.1 showed that the relevance of RTAs in governing the regional economies' trade has surged, with the share of imports with RTA partners of total imports in 2006 as high as 85 percent for Chile, 74 percent for Mexico, nearly 60 percent for Canada and El Salvador, 45 percent for Argentina, and more than 30 percent for the United States.

Convergence could also have major implications for hemispheric trade, as more than 80 percent of intraregional trade in the Americas is among RTA partners. Further, preliminary surveys among Latin American firms indicate that the estimated cost savings from bridging the regional RTAs could be highly significant. What, then, are the prospects for pursuing convergence and cumulation in the Americas on the basis of the region's existing RTAs? Are the region's RTAs worlds apart, featuring widely different rules and tariff liberalization, or are they rather similar, so that they could be bridged rather easily? This section explores these questions in the area of market access.

Liberalizing Tariffs across RTAs

Successful cumulation requires that all members of an expanded cumulation zone have zero tariffs in their respective bilateral RTAs, in addition to sharing a common rules of origin regime. Chapter 1 showed that the

tariffs in the regional RTAs are indeed low and still declining quite rapidly. Are there such “latent” cumulation zones in the Americas? What types of tariff-RoO permutations exist in the region?

The first way of exploring this question is by looking at all potential cumulation triangles. A potential cumulation triangle is one in which each of the three partners is linked to each of the other two through separate RTAs, yet there is no cumulation among the three RTAs. The odds of high-yield cumulation are greater the more extensive is the tariff liberalization in the various RTAs.

Across the 20 countries covered in the present study, the Americas region offers a total of 1,140 possible triangular relationships. However, since some countries do not have RTAs with one another, and as in other cases all three countries are parties to a single plurilateral RTA (such as NAFTA, the Mexico–Northern Triangle FTA, or MERCOSUR), there are a total of 74 potential cumulation triangles in the region that meet the above criteria. One example of such a triangle is that among Chile, Mexico, and Uruguay: each country has an RTA with each of the other two, yet the three RTAs do not provide for cumulation among them.

Figure 2.8 maps out liberalization in the 74 potential cumulation triangles in the region. The bars depict the share of the common 6-digit subheadings of the Harmonized System that are duty free in the six liberalization schedules (one for each of the two parties in each of the three RTAs) within the triangle in 2006, 2010, and 2016, respectively.¹⁴

The most immediate message is that although there is a wide divergence in the share of HS subheadings liberalized by parties vis-à-vis one another that persists through 2010, most of these potential cumulation triangles will feature free bilateral trade in more than 80 percent of subheadings by 2016. Overall, connectivity among the NAFTA countries and their subsequent FTA partners, Chile and Central American countries, is high and will become particularly significant starting in 2010.

¹⁴ The analysis here is restricted to the 4201 HS subheadings that do not change between the 1992, 1996, and 2002 versions of the HS. This is so that triangles can be analyzed among agreements that were negotiated at different points in time.

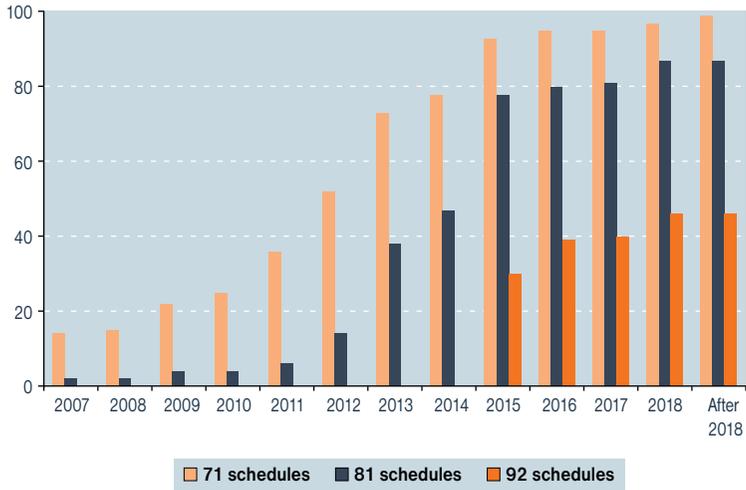
Particularly “ripe” are the triangles among Mexico and the various Central American countries, as well as the triangles among Mexico, Chile, Costa Rica, and El Salvador; Chile, Colombia, Ecuador, and Peru; and Chile, Colombia, and Mexico. The entry into effect of the U.S.-Colombia and U.S.-Peru FTAs will lead to a rapid liberalization between 2010 and 2016, which entails the Colombia-Peru-United States triangle freeing nearly all lines by 2016 and liberalization in the Colombia-Mexico-United States triangle soaring above 90 percent. Triangles among most Andean and MERCOSUR countries will reach an average liberalization of slightly over 70 percent by 2016.

To be sure, although a survey of cumulation triangles provides useful information on the extent to which liberalization schedules match in terms of product composition and temporal sequencing, it is less useful for immediate policy prescriptions. Countries aiming at cumulation would be much better served by a broader, multicountry cumulation zone—one in which all or most countries are currently linked to one another via bi- or plurilateral RTAs. One example of such a zone is one encompassing Canada, Chile, Costa Rica, Mexico and the United States, all of which are linked to one another and have relatively advanced liberalization in their respective common FTAs. An analysis of this five-member “pentagon” shows that no fewer than 65 percent of all products in the 10 bilateral trade channels will be liberalized in 2010, and 85 percent will be free of duty by 2016. In other words, connectivity in these products will be at its maximum, facilitating the prospects for meaningful cumulation.

These findings are quite notable given that Figure 2.8 focuses only on common products with *zero* tariffs and is thus based on a highly conservative estimate. There are various additional products in the bilateral relationships that feature tariffs that are very low but not zero, which implies that the extent of liberalization across the region is even greater than is conveyed by the figure.¹⁵

¹⁵ The figure begs the question whether the various countries’ preferential liberalization applies also to their external tariff regimes—that is, whether the MFN tariffs of the RTA member countries are also zero. The question is of policy relevance: both preferential

FIGURE 2.9 ■ Percentage of Common Liberalized Tariff Universe in 71, 81, and 92 Tariff Liberalization Schedules in the Americas, 2007–2018



Source: Cornejo and Harris (2007), Table 7.

An even more interesting policy question is the potential for cumulation *throughout* the Americas. Figure 2.9 considers the common set of liberalized goods in all 92 liberalization schedules in the Americas as well as in smaller, variable subsets (of 81 and 71 schedules, respectively), revealing marked advances after the year 2013. The figure is instructive. Although these numbers reflect the advance only of those tariff elimination schedules that have been negotiated, leaving aside the number of RTA-less corridors that would need to be bridged in order for the region to aspire to a seamless cumulation zone, the fact is that such “missing links” are relatively few, and most do not cover large trade flows. When the level of coincidence of products whose tariffs have been eliminated

tariffs and rules of origin lose meaning, as does the rationale for pursuing cumulation, when MFN tariffs among all parties to a potential cumulation zone reach zero. However, calculations based on the latest available MFN tariff data show that the share of common products that are duty free for all countries in any of the cumulation triangles in Figure 2.8 is below 20 percent, and below 10 percent in all but one; introducing meaningful cumulation in the triangles would thus inherently require addressing the differences in rules across the various RTAs.

in at least 71 schedules is examined, the share of commonly liberalized goods surges above 75 percent at that point, rising rapidly to above 90 percent by 2015. Requiring coincidence across 81 of the 92 schedules gives similar results.

The statistic for the entire set of agreements remains quite low through 2018, largely as a result of the only-incipient liberalization between MERCOSUR and Andean Community members, as well as to the mismatch in the set of goods liberalized in many South American countries (such as agriculture) vis-à-vis those freed in North America (primarily manufactures). In other words, the conditions for convergence among all agreements in the Americas are still more distant than those for convergence among subregional groups of agreements.

Precondition for Cumulation: Rules of Origin Convergence

Besides tariff liberalization, successful convergence (and implementation of cumulation) requires addressing the differences among the various member RTA rules of origin regimes. Doing this should be easiest where compatibilities among RoO regimes already exist.

Box 2.3 provides a primer on RoO types. There are different RoO families in the Americas. RTAs among North and Central American countries and countries on the Pacific side of South America are based on a heavy change in tariff classification component and tend to combine the change in tariff classification criterion with exceptions in as many as a third of tariff subheadings (although Chile's agreements with Ecuador and Central America employ very few exceptions). RoO regimes formed by MERCOSUR, on the other hand, employ the change in tariff classification criterion less frequently, featuring instead a notably heavier use of the value content criterion. They also stand out for using technical requirements in about a fifth of their RoO.¹⁶

¹⁶ A more detailed analysis (not presented here) reveals wider differences in product-specific RoO across RTAs. For instance, the definition of the method of calculation for the value content requirement often differs across RTAs (such as net cost/transaction value in NAFTA, the Canada-Chile FTA, and Group of Three [or G-3: Mexico, Colombia, and

■ Box 2.3 Primer on Product-Specific Rules of Origin

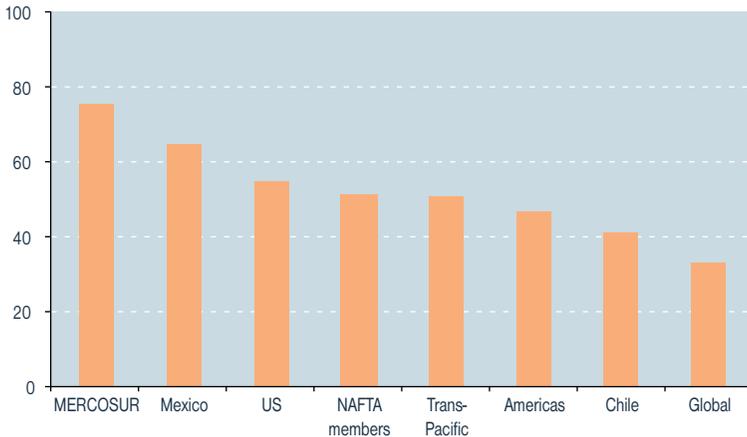
There are four main product-specific RoO criteria employed to govern products in RTAs; these are used both as stand-alones and in combinations with one another for any one product:

- **Change in tariff classification (CTC)** between the manufactured good and the inputs from extra-RTA parties used in the productive process. The CTC required may involve the product's chapter (2 digits under the Harmonized System), heading (4 digits), subheading (6 digits) or item (8–10 digits) in the exporting RTA member.
- **Exception attached to a particular CTC (ECTC)**. ECTC generally prohibits the use of nonoriginating materials from a certain subheading, heading, or chapter.
- **Value content (VC)**. VC defines the minimum percentage of value that must have been added in the exporting country.
- **Technical requirement (TECH)**. TECH prescribes or prohibits the use of certain input(s) and/or the realization of certain process(es) in the production of the good. It is a particularly prominent feature in RoO governing textile products.

The various ways of defining a rule of origin can have far-reaching implications. For example, under the TECH rule employed for many textile and apparel goods in DR-CAFTA as well as in NAFTA, many types of clothing must pass a test involving all three stages of a "triple transformation" before qualifying for preferential treatment: from yarn to thread, thread to cloth, and cloth to clothing. Thus, for example, clothing manufactured in a DR-CAFTA country from cloth woven there but using nonoriginating yarn will not qualify for preferential treatment, because although it passes the TECH requirement for the "thread to cloth" and "cloth to clothing" transformations, it fails the requirement for the "yarn to thread" transformation because the yarn used is nonoriginating. This implies that yarn producers in the DR-CAFTA region capture the input market for clothing producers seeking DR-CAFTA preferences even if they are not globally the most efficient (and cheapest) supplier.

Venezuela] agreement; free-on-board export value in MERCOSUR's agreements; and the build-up/build-down method in DR-CAFTA and the U.S.-Chile FTA). Moreover, the change in tariff classification rule for any product can be expressed in four main ways: as change in a product's chapter, heading, subheading, or item. For instance, whereas many Mexican FTAs, NAFTA, and the Canada-Chile FTA employ change in chapter and change in heading rules rather intensively and the change in subheading criterion sparingly, the rules in the U.S.-Chile FTA have a more balanced distribution among these three criteria, with around one-quarter of the change in tariff classification rules employing the change in subheading criterion. Trans-Pacific RTAs have delivered further diversity to the Western Hemisphere countries' RoO theater. RoO in the Chile-South Korea, Mexico-Japan, U.S.-Australia, and U.S.-Singapore FTAs tend to follow the NAFTA model, yet are notably less complex overall, featuring a strong change in heading component. The Chile-China RoO regime differs from the other RTAs both in the overall setup of the RoO protocol and in the extensive employment of a value content criterion (usually a 50 percent regional value) across the tariff universe. Future trans-Pacific agreements will likely compound the melding of the Asian and Americas RoO regime models. Meanwhile, European overtures on the Asian front will likely bring the EU's RoO model to accompany the trans-Pacific RoO models in Asia.

FIGURE 2.10 ■ Percentage of Similarity in Product-Specific RoO, Selected RoO Families



Source: IDB calculations based on the Regimenes de Origen de las Americas Database.

A product-by-product examination is required to assess the extent of compatibilities in RoO across regimes for any given product. Figure 2.10 does this by mapping out the frequency of the most commonly occurring RoO across RTAs within some of the main RoO families in the Americas: a U.S. family (of 13 agreements) and Mexican (9) and Chilean (8) families; families of agreements signed by NAFTA members (25) and MERCOSUR (18), respectively; and trans-Pacific agreements (8); as well as an Americas-wide sample (41) and a global sample (72) (Appendix 2.1 specifies the agreements included in each family).¹⁷ The data are averages of calculations of RoO type, as proxied by Harris's (2007) RoO restrictiveness index, at the subheading level. The height of the bar for a particular family shows the average percentage of agreements within the family that have similar RoO. Agreements within a family may have

¹⁷ The Asia-Americas and global samples are included in light of the fact that regional integration in the Americas is increasingly of the transcontinental kind; as such, the makeup of agreements in other regions, as well as of those that countries of the Americas have with other regions, is of growing relevance for the regional economies—as well as for any efforts at convergence both within and beyond the Americas. Furthermore, comparing the extent of RTA convergence in the Americas vis-à-vis that in other regions allows for better gauging of the prospects of convergence in the Americas.

exactly the same RoO in some sectors and fully divergent RoO in others; the bars measure the average similarity.

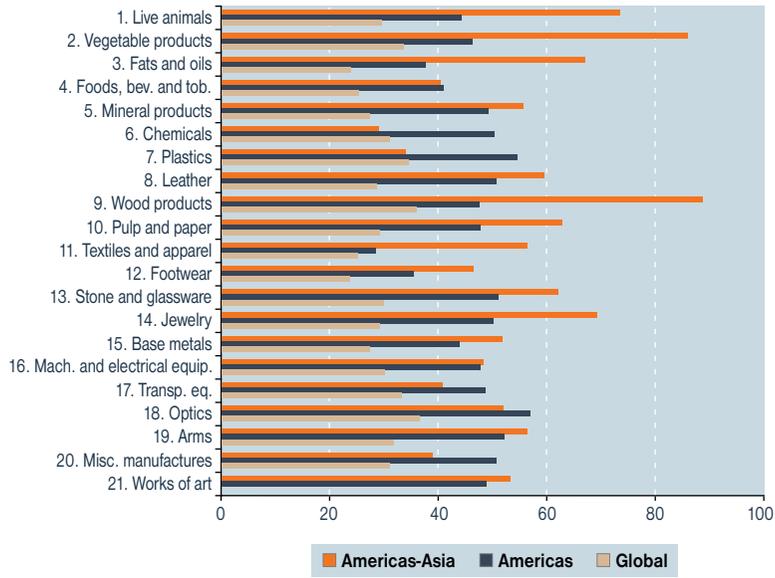
As the figure reveals, rules of origin in agreements within the MERCOSUR family are more similar vis-à-vis one another than are those in agreements signed by Mexico, the United States, or NAFTA countries. This is mainly because MERCOSUR's agreements are all modeled on the LAIA common origin regime and so employ the change in heading rule for a large set of goods. Nonetheless, Mexican and U.S. family regimes show significant internal similarities. On average, nearly two-thirds of Mexican agreements have coinciding product-specific RoO for a given product; the figure is well above 50 percent for U.S. agreements. The Asia-Americas (i.e., trans-Pacific) family, driven by U.S., Mexican, and Chilean RTAs, is also quite internally coherent. Chile's RTAs diverge from one another more than those of the United States and Mexico, reflecting the diversity in Chile's partners. Across the full global set of agreements, on average about one-third of agreements' rules coincide on any given product.

Figures 2.11a and 2.11b examine each of the families at the sectoral level. The first finding is the notable correlation between the families: sectors with most similar RoO in one family tend to be so also in another. There are, however, more nuanced findings. At the hemispheric level, the most frequently occurring RoO does not actually occur very frequently in agricultural products (sections 1–4), textiles (11), and machinery and electrical equipment (16), but more than 50 percent of the regional regimes have common rules in such sectors as chemicals, plastics, and leather. In total, an average of nearly one-half, or 14 of the 30 RoO regimes explored here, share the most commonly occurring RoO.

In Figure 2.11b, the MERCOSUR family's internal inconsistencies are clearest in textiles and apparel, machinery and electrical equipment, and transportation equipment, whereas those of the United States and NAFTA members' RoO family occur in chemicals, plastics, footwear, and machinery. The Chilean family has the greatest discrepancies in fats and oils, chemicals, plastics, and works of art.¹⁸

¹⁸ To be sure, some RTAs are more relevant than others for the countries around which the RTA families are defined. For example, approximately two-thirds of Mexico's imports

FIGURE 2.11a ■ Percentage of Similarity in Product-Specific RoO within Asia-Americas, Americas, and Global RTA Families, by HS Section



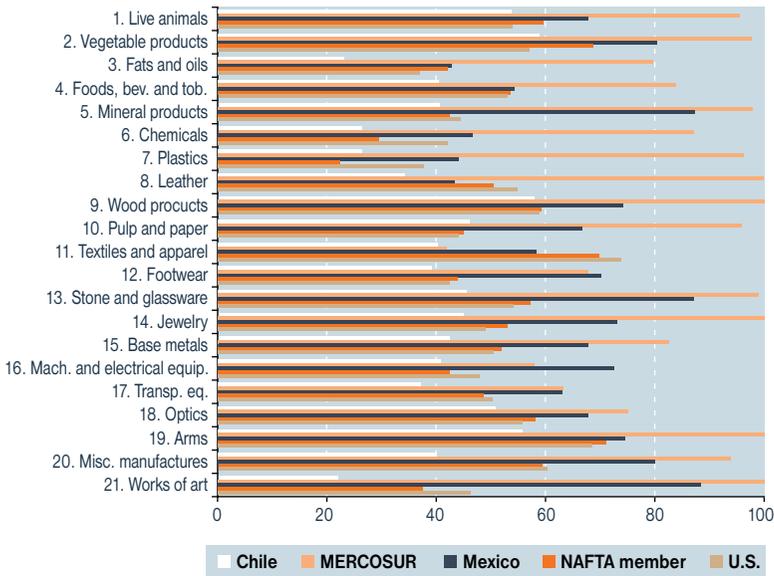
Source: IDB calculations.

At the hemispheric level, *all* 30 hemispheric RTAs considered here have the exact same rule of origin in only 59 of the 4,100 subheadings examined here. These span such sectors as chemical and industrial products (12 subheadings with common rules), wood and wood articles (2), footwear (5), base metals (19), motor vehicles (2), and precision instruments (19).

In the NAFTA members family, there are 477 products in which all RTAs share the same exact rule; particularly alike are RoO in agri-

are from the United States, and nearly 85 percent of its exports are destined for the United States. Thus, the bulk of Mexico’s trade is under a single origin regime. Nonetheless, Mexican firms wishing to take advantage of multiple RTAs will have to confront divergent RoO in several sectors, as a third of the country’s imports and a sixth of its exports must be administered under MFN and an assortment of origin regimes different from that of NAFTA. Even among agreements with regimes modeled on NAFTA, there is meaningful variation in rules.

FIGURE 2.11b ■ Percentage of Similarity in Product-Specific RoO within Selected RTA Families in the Americas, by HS Section



Source: IDB calculations.

cultural goods and paper goods (with all RTAs in the family sharing the exact same RoO in live animals, plants, vegetables, vegetable products, fruit, and books and newspapers). In the MERCOSUR family there are 407 such products, with RoO in pharmaceuticals, fertilizers, tannins, and furskins being universally shared within the group.

Importantly, it should be borne in mind that a rule of origin that establishes the exact same requirement in two different RTAs can have dramatically different effects on firms' cost structures should the pools of available inputs, or the efficiency of processing the inputs, differ markedly between the countries party to the two RTAs. As such, although RoO divergence may highlight the absence of coordination between RTAs, it does not necessarily mean that divergence is economically consequential in every circumstance. However, the various studies discussed above indicate that the economic impact of bridging RTAs can be significant.

Commonalities in General RoO

Besides the product-specific RoO, the rules of origin regimes for all RTAs have general RoO embedded in the main body of the agreement texts. These rules are also central for any convergence process (Appendix 2.4). Encouragingly, the differences in general RoO in the Americas reveal that the agreements are quite compatible:

- **De minimis.** This provision, which functions to “soften the rough edges” of change in tariff classification rules of origin, is included in most origin regimes in the region, as well as the trans-Atlantic and trans-Pacific agreements. The various agreements permit between 7 and 10 percent of the value of a good to be made up of nonoriginating materials that do not comply with a specified change in classification without disqualifying the good. Some agreements suspend application of de minimis for textile products, whereas others calculate the percentage tolerance based on weight rather than value for these goods. Many agreements also limit its application to varying degrees for many agricultural products.
- **Regional value content.** There are at least five different regional value content calculation methods identified in the various intraregional RTAs, with additional methods present in the trans-Atlantic agreements. Some of the different calculation methods, however, though negotiated under different names and seemingly different formulas, are in fact algebraic equivalents. For example, the “transaction cost” method under NAFTA and several subsequent Mexican and Canadian agreements and the “build-down” method under recent U.S., Chilean, and Australian agreements are extremely similar, if not identical. Reconciliation of terminology alone could thus reduce the diversity in the region.
- **Certification.** Origin certification methods vary across the RTAs of the region. The earlier agreements in South America (generally, those within the LAIA framework or those of the LAIA member countries) tend to rely on certification by government-designated entities, based on declarations by producers or exporters. NAFTA

introduced direct certification by exporters or producers, bypassing the role of the certifying entities. This model was followed in several of the NAFTA members' subsequent RTAs. With DR-CAFTA, the ability to produce origin certificates was extended to importers, and this approach was then replicated in subsequent RTAs negotiated by the United States, though certification by importers has not been widely copied by other countries.

- **Verification.** There is a great deal of variation in the level of detail with which the RTAs in the region address the issue of verification of origin. Most of the older RTAs in Central and South America give little or no attention to this topic, relying on their certification systems to provide compliance with the rules of origin. Later agreements, especially those signed by the United States, specify in great detail the procedures, rights, and responsibilities of different parties to a transaction during the verification process.

In sum, the analysis of tariff liberalization schedules and sectoral and general rules of origin in selected hemispheric RTAs yields two main results:

- Tariff elimination—the first precondition for effective cumulation—is highly advanced in the Americas and particularly in NAFTA members' agreements, with the tariff elimination also well under way in the MERCOSUR-Andean agreements. The various countries examined here have already liberalized at least some four-fifths of their tariff lines with one another, and the bulk of them will have free trade in more than 90 percent of products by 2016. A case study into 74 hypothetical cumulation triangles in the Americas confirms these patterns. Most of the triangles will have freed the bilateral trade flows in more than 80 percent of products by 2016.
- The extent of compatibilities in origin regimes—a factor that can augur well for negotiation of the second precondition for broad cumulation, a common origin regime—varies across subsets of RTAs and across economic sectors in the Americas. There are some RTA families, such as those formed by the original NAFTA partners and

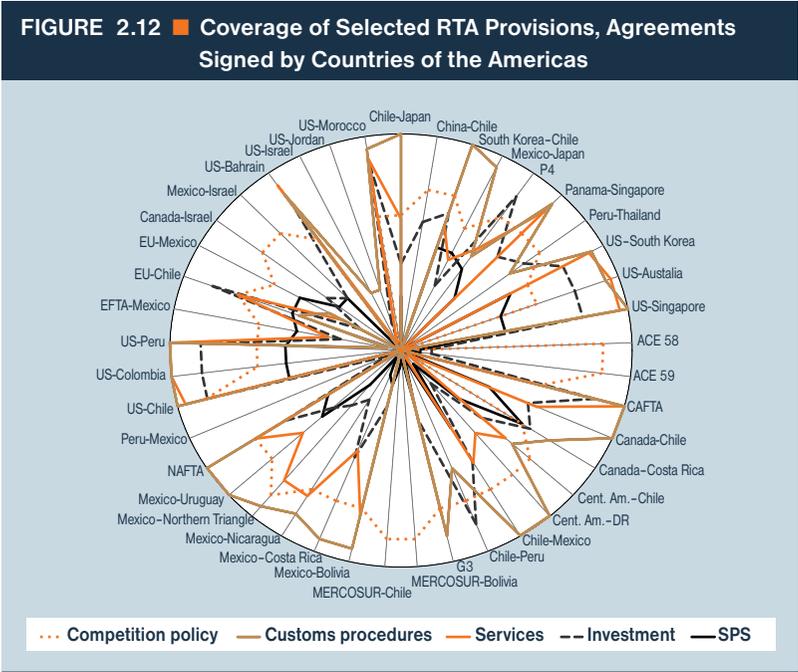
by MERCOSUR, within which the differences across RoO regimes are more limited than they are within the entire sample. Similarly, although RTAs differ quite notably in their definition of product-specific rules for agricultural products, textiles, and machinery, there are also a number of sectors, such as arms, wood products, and precision instruments, for which the regimes in the hemispheric agreements differ only marginally.

Beyond Market Access: Bridging Trade-Related Disciplines in RTAs

Tariff liberalization is but one—albeit a central—part of RTAs. The various other RTA provisions, such as rules governing investment, trade in services, competition policy, and intellectual property rights, all affect the effective access of traders, service providers, and investors in the RTA market. They also work with tariff reductions to arbitrate the ultimate economic effects of, and dynamic gains from, trade integration. For instance, services and investment liberalization can compound the gains provided by tariff liberalization. Moreover, many RTA provisions, such as customs procedures and trade facilitation, while boosting trade among RTA partners, are also inherently good for trade between the RTA members and all of their trading partners. Competition policy provisions can provide the same kind of benefit when helping to transpose nondiscrimination principles to national competition policy frameworks.

These other RTA rules would inherently have to be reconciled in any convergence effort that is encompassing and goes beyond market access. What are the grounds for going beyond tariffs and rules of origin convergence and into these areas in the Americas? This is investigated here preliminarily by examining the *coverage* of 17 investment, 29 services, 24 competition policy, 15 customs procedure, and 10 sanitary and phytosanitary provisions in the regional economies' RTAs, both those with other countries of the Americas and those with extraregional partners.

A stylized visualization of RTAs' coverage of these five disciplines is revealing of the variation across the region (Figure 2.12). The NAFTA



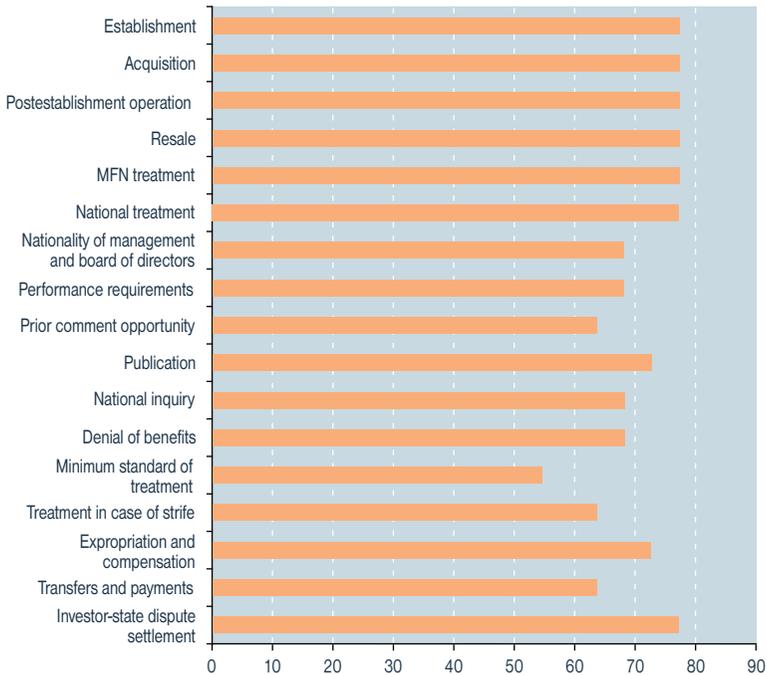
Source: IDB calculations.

partners' agreements are clearly the most encompassing across the four disciplines, whereas agreements among South American countries are thin. The extraregional RTAs with the EU and Asian economies tend to fall somewhere in between, except for U.S. agreements that are comprehensive across the board.

Zooming into agreements formed within the Americas, the regional RTAs are highly comprehensive in all of the major investment provisions (Figure 2.13). All RTAs forged by the three NAFTA members with their respective partners in the Americas are comprehensive, applying the four modalities of investment: establishment, acquisition, postestablishment operations, and resale.¹⁹ They cover such disciplines

¹⁹ In general terms, NAFTA-inspired agreements, forged largely by the NAFTA parties with their subsequent partners, place investment issues in the investment chapter, with limited interaction with the services chapter (Houde, Kolse-Pati, and Miroudot, 2007). In EU and many Asian agreements, investment disciplines are divided between the services and the investment chapters.

FIGURE 2.13 ■ Coverage of Selected Investment Provisions in RTAs in the Americas (Percent of RTAs with the Provision)

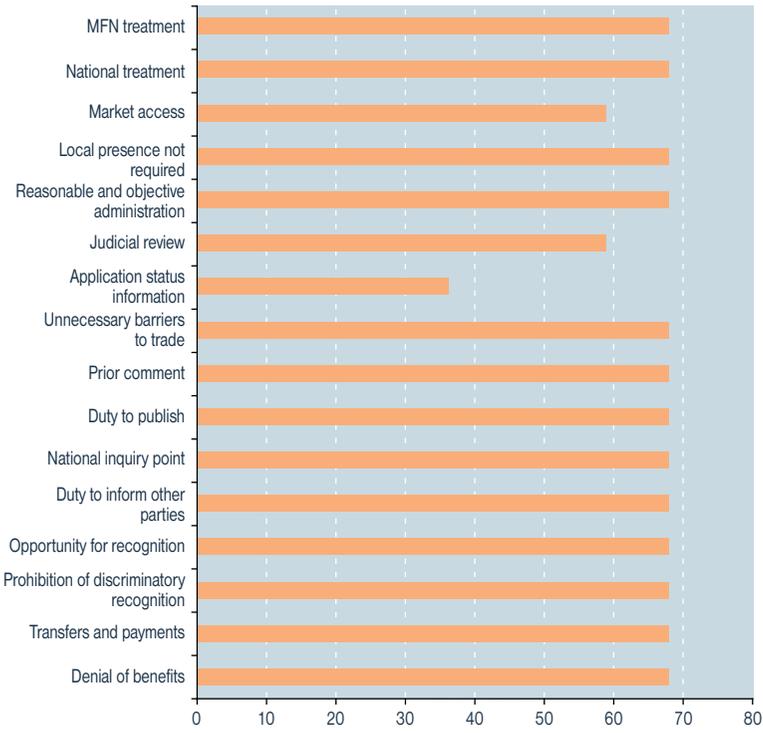


Source: IDB calculations.

as MFN treatment, national treatment, and dispute settlement, and most also address transparency, denial of benefits and restriction of transfers, nationality of management and board of directors, performance requirements, and expropriation. As for liberalization, which is not quantified here, the NAFTA-inspired agreements tend to cover a number of sectors by nondiscrimination and create transparency and predictability through a one-shot liberalization across all sectors. They also include a ratchet mechanism that locks in future reforms. Overall, the U.S. family of agreements is again the most encompassing one, with the provisions here being addressed by nearly all U.S. agreements in the Americas and beyond.

In addition to cross-border investment, services trade is expanding rapidly around the world. Services are seen as providing a new dimension

FIGURE 2.14 Coverage of Selected Services Provisions in RTAs in the Americas (Percent of RTAs with the Provision)



Source: IDB calculations.

to world trade, namely, “trade in tasks” that is aided by digitalization and does not require the shipment of physical products. In the Americas, nearly 60 percent of RTAs address MFN treatment, national treatment, market access, and unnecessary barriers to trade and prohibit discriminatory treatment (Figure 2.14). As with investment issues, there is a difference between NAFTA-based agreements and so-called GATS-inspired (per the General Agreement on Trade in Services) EU and Asian models in the form and depth of liberalization. NAFTA is based on a negative list scheduling modality, wherein everything is liberalized, unless otherwise indicated through lists of reservations. In other, positive list models, liberalization is effected in sectors that are defined by the

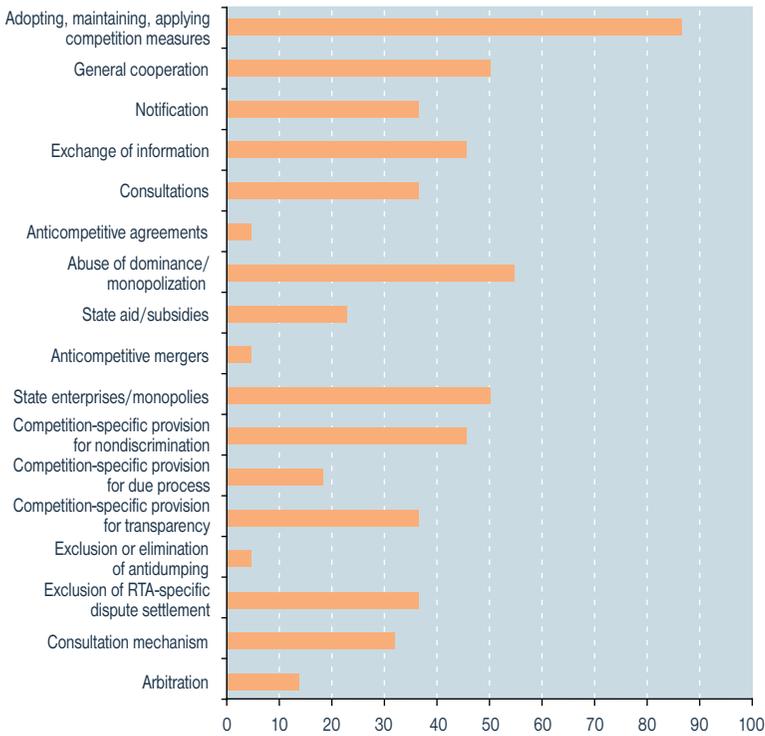
agreement.²⁰ The former approach is viewed as more liberalizing and more expeditious to negotiate. Again, U.S. agreements are particularly encompassing and homogeneous, followed by Chilean and Mexican RTAs.

A growing number of RTAs also include competition policy and other competition-related provisions. There is notable variation across RTAs in the coverage of competition provisions (Figure 2.15). NAFTA, the precursor of competition policy chapters of NAFTA parties' subsequent agreements, is much more general in regard to provisions related to anticompetitive business practices. NAFTA also exempts competition policy issues from the agreement's dispute settlement provisions. However, it does include separate, binding rules on monopolies and state enterprises; Anderson and Evenett (2006) argue that these clauses have facilitated a number of agreements in North America on competition law enforcement. The Chile-EU and Mexico-EU agreements, which draw on the European Communities Treaty of 1958 for competition policy rules, address anticompetitive behaviors ranging from antitrust to abuse of a dominant position and monopolies, as well as coordination and cooperation issues such as exchange of information.

In a reflection of the growing awareness of the importance of transport costs and the complementary relationship between tariff liberalization and trade facilitation, RTA members around the world have adopted comprehensive and specific provisions on customs procedures and trade facilitation. Most RTAs in the Americas include provisions on confidentiality, advance rulings, penalties, review and appeal mechanisms, and cooperation in administration, and the NAFTA members' and Chile's RTAs in particular also provide for technical assistance, transparency, and sharing of information (Figure 2.16). U.S. agreements are particularly precise and encompassing. They also include clauses for cooperation in the administration of customs procedures. DR-CAFTA is perhaps a premier

²⁰ The NAFTA-based agreements are also differently structured. They deal with the different modes of services supply—cross-border supply, consumption abroad, and presence of “natural persons” (service suppliers such as independent professionals) (modes 1, 2, and 4, respectively)—in a chapter on cross-border trade in services, while treating disciplines relating to commercial presence, or mode 3, in the chapter on investment. In contrast, the GATS-based model places all four modes in the services chapter.

FIGURE 2.15 Coverage of Selected Competition Policy Provisions in RTAs in the Americas (Percent of RTAs with the Provision)



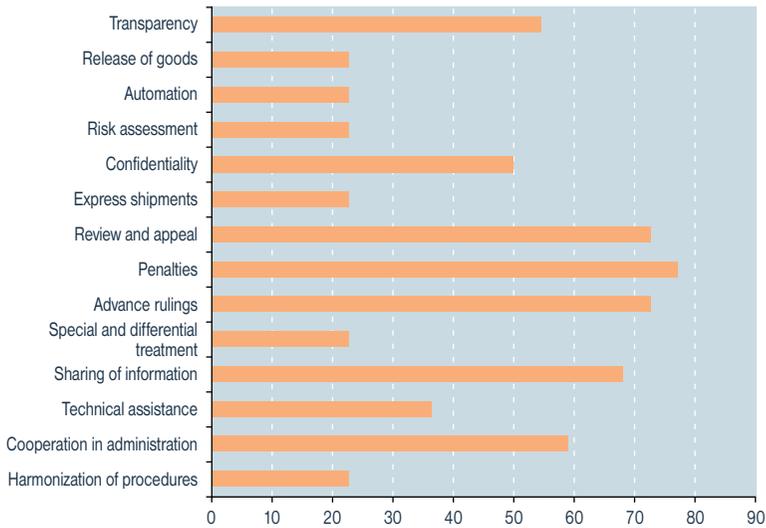
Source: IDB calculations.

example: the agreement includes a specific set of customs procedures in the textiles chapter, fashioned in good part to preempt transshipment of nonmember (such as Asian-country) textiles through Central America to the United States.

Sanitary and phytosanitary (SPS) measures are laws, rules, standards, and procedures that governments employ to protect humans, other animals, and plants from diseases, pests, toxins, and other contaminants. Examples of SPS measures include meat and poultry processing standards to reduce pathogens, residue limits for pesticides in foods, and regulation of agricultural biotechnology.

Most RTAs in the Americas include provisions on the multilateral WTO Sanitary and Phytosanitary Agreement’s core principles (harmo-

FIGURE 2.16 Coverage of Selected Customs Procedure Provisions in RTAs in the Americas (Percent of RTAs with the Provision)

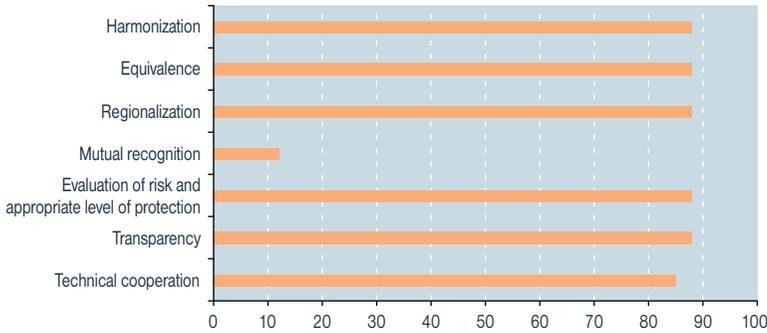


Source: IDB calculations.

nization, equivalence, regionalization, evaluation of risk, and appropriate level of protection and transparency) (Figure 2.17). Three-quarters of the agreements examined here also carry provisions for institutionalized technical cooperation among the parties, such as a committee or working group. On the other hand, only a few RTAs—Central America–Dominican Republic, Mexico–Northern Triangle, MERCOSUR–Bolivia, MERCOSUR–Chile, and U.S.–Chile—commit the parties to addressing mutual recognition of one another’s SPS inspection, control, and/or certification procedures. This can be explained by the sensitivity of the agricultural sector and perceived lack of reliability of inspections methods in the region. Only the U.S.–Chile FTA details the scope of mutual recognition. Other agreements simply state that the parties will make efforts to identify areas that allow the mutual recognition of inspection, control, and certification procedures.

There is a disparity in the depth of coverage afforded to SPS provisions. Of the agreements in the region, 41 percent can be viewed as “WTO+” in terms of incorporating a larger number of and/or more

FIGURE 2.17 Coverage of Selected SPS Provisions in RTAs in the Americas (Percent of RTAs with the Provision)



Source: IDB calculations.

specific provisions than are present in the multilateral SPS regime. These provisions usually pertain to steps for applying SPS principles, such as transparency, evaluation of risk, and appropriate level of SPS protection, as well as time frames for their application. Chile and Mexico are the countries in the region that have made the most notable efforts to establish more detailed SPS provisions. But nearly 60 percent of the RTAs assessed here do not add value to the WTO SPS Agreement. Among the region's RTAs, 44 percent—in particular, U.S. agreements, as well as Mexican RTAs with nonregional countries (EFTA members, Japan, Israel, EU members)—are particularly thin on SPS, simply indicating that the parties will respect the rights and obligations stated by the WTO SPS Agreement.

In sum, this precursory look at the coverage of investment, services, customs procedure, competition policy, and SPS rules in RTAs in the Americas reveals similar patterns as those found in regard to market access—namely, clustering of RTAs into families centered on NAFTA members and Chile, which have formed highly comprehensive and also very similar agreements, and MERCOSUR and intra-South American agreements, which are thin on these trade-related measures. Americas-wide, some three-quarters of all agreements coincide in coverage of the main provisions. A much more detailed analysis than that performed here would have to be carried out to examine the compatibilities of the

various hemispheric agreements with one another; nonetheless, a first glance reveals clear families and marked similarities among RTAs within the families.

2.4 Bridging RTAs in the Americas: Key Considerations and the Way Ahead

This report has been based on the notion that the whole of the Americas RTA network can be greater than the sum of its parts: a consolidation leading to cumulation among the regional RTAs could stimulate region-wide trade and production well beyond the status quo. We have explored the feasibility of such a consolidation among several of the main RTAs signed by the countries of the Americas by providing a diagnostic of the compatibilities in market access disciplines embedded in these agreements. There are two main findings.

First, liberalization programs work in a relatively similar fashion across the region. Most RTAs deliver deep liberalization by the tenth year, and most afford prolonged protection to the same sectors—agriculture, in particular. Today, tariff elimination—the first precondition for cumulation—is advanced in the region: not only do many RTA members belong to many RTAs in the region, serving as key nodes between agreements, but many RTA members examined here have already liberalized at least some four-fifths of their tariff lines with one another, and some half will have done so by 2016, with several countries above the 90 percent mark.

Second, the extent of compatibilities in origin regimes varies across subsets of RTAs and across economic sectors in the Americas. There are some RTA families, such as those formed by MERCOSUR and by the NAFTA members, within which the differences are more limited than those across regimes in the entire sample. Similarly, there are a number of sectors, such as arms, wood products, and precision instruments, in which the differences in rules of origin across the entire hemisphere are marginal and, in some cases, nonexistent.

Moving from potential to actual convergence not only requires numerous practical considerations, but also takes political capital. Bridging RTAs in general, and RTAs in the Americas in particular, is bound to be

complex, particularly given the several regional RTAs and the vast range of RTA provisions in the hemispheric agreements that would have to be reconciled. The first step in such a process might thus be to launch a regional mechanism—perhaps a technical group of experts—that monitors and catalogues RTA tariffs and disciplines, reports to the members on the existing rules, solicits views from the stakeholders about the functioning and pitfalls of the status quo spaghetti bowl of agreements, and advances technical proposals for reforms to RTAs that would make them more effective.

But besides the technical “whats” and “to wheres” of convergence, there are the more important “hows” and “whos” of the process toward convergence. The most immediate issue concerns the coverage of any negotiation aimed at a convergent regime. Resolution of this issue can be aided by a diagnosis, as is made in this report, of the extent and degree of overlap of tariff liberalization in the region’s various RTAs and of the extent to which the agreements are compatible with one another. There are perhaps three main options.

One alternative is an “all disciplines—all RTAs” approach: harmonizing all rules (including those regulating services, investment, competition policy, and so on) among all RTAs in the region. This approach would be a backhanded way of creating a single regional RTA zone.

A second and seemingly more feasible alternative would be a “selected RTAs—selected disciplines” approach. This would at first have to entail knitting subsets of the existing RTAs together. The initial focus of such an approach to convergence could be market access provisions and rules of origin.²¹ The convergence packet could be gradually expanded to incorporate further disciplines and/or countries (i.e., to move toward an all countries—all disciplines model), perhaps with some form of variable geometry.²²

The third option, or a sequel to the second one, would be some combination of the two—for instance, an “all disciplines—selected RTAs”

²¹ See Estevadeordal, Harris, and Suominen (2009) for details.

²² Cornejo and Harris (2007) advocate the use of variable geometry also in forming a common origin regime.

or “selected disciplines—all RTAs” approach. Current activities of the Pacific Basin countries indicate that the former is the favored approach in the short run. However, the latter is quite feasible for selected disciplines, such as investment frameworks or trade facilitation protocols. Indeed, the select disciplines—all RTAs approach would bring all countries of the region on board and allow them to focus on the most crucial elements in RTAs for facilitating trade and investment in the Americas. This report has argued that one of the key starting points of such an endeavor should be market access: tariffs and rules of origin.

There are perhaps four key short-term technical measures that could be considered for converging RTAs in regard to market access issues, aimed at facilitating trade within existing RTAs and reducing trade costs and uncertainty for exporters:

- **Harmonized digital “Americas Origin Certificate.”** A first step could be the establishment of a standardized set of information to be included on origin certificates, which, in addition, should be digital in order to facilitate the certification process. Developing common guidelines and procedures for the electronic transmission and receipt of origin certificates, and perhaps a common “Americas Origin Certificate,” not only would help reduce the number of different procedures that traders would have to master, but also would help to build mechanisms and institutions for customs cooperation, which would have its own benefits.
- **Standardized origin verification procedures.** Accompanying a standardized certificate could be a set of common parameters for verification procedures, such as the time period for which records and documents must be retained, time periods within which separate phases of a verification process must be completed, and potentially even the types of penalties that may be imposed for false or erroneous claims of origin. Solid and reliable regional verification protocols and cooperation are all the more important to ensure the viability of convergence—to avert trade deflection in a region consisting of multiple economies of distinct verification capacities. The potential gains from increased transparency, as well as the intergovernmental

cooperation that would be involved in such an exercise, could both encourage trade and build institutions that would facilitate future agreements.

- **Sectoral RoO convergence.** Convergence could likely be accomplished more easily in sectors where the rules are similar across the hemispheric agreements. There are indeed some major sectors, such as vehicles and footwear, where RoO in the regional agreements are rather alike across agreements. Similarities tend to encompass a larger number of sectors in certain subgroups of RTAs, such as in the “family” of agreements formed by the original NAFTA members. Such sectoral convergence could serve as a testing and training ground for pursuing convergence in those sectors where greater heterogeneity exists in rules across the hemisphere, such as textiles.
- **Sectoral MFN tariff harmonization.** Because RoO are necessary only when there are differences in tariffs on goods from third parties, the rules could be eliminated in cases in which RTA members can harmonize their external tariffs. Such mini–customs unions carrying a commonly agreed on most-favored-nation tariff could be feasible in sectors in which all countries’ tariffs are already quite low. This effort could be modeled after the Information Technology Agreement reached at the WTO in 1996 and the handful of mini–customs unions instituted in NAFTA.²³ It would help reduce the administrative burdens imposed by rules of origin, and enable improved circulation of goods in the common convergent area. The feasibility of such mini–customs unions in the region is quite high: there are several groups of products for which the differences in MFN tariffs displayed across some groups of countries in the region are relatively small, including inorganic chemicals and fertilizers, raw leather, photographic goods, and paper products.
- **Selective MFN tariff liberalization.** The regional economies could also eliminate tariffs on an MFN basis (both in RTAs and vis-

²³ The FTA between the United States and Singapore also identifies a list of products, primarily information technology related, for which no rule of origin is specified because both countries maintain the same MFN tariff (in that particular case, duty free).

à-vis third parties) in product categories that countries in the region have already liberalized to major exporters in or outside the region. In these situations, the marginal pain of liberalization in these sectors is small or nonexistent. For example, in DR-CAFTA, Central American countries freed photographic or cinematographic goods and fruit and nuts to imports from the United States, the key source of their imports in the two sectors. Yet they also maintain positive applied MFN rates in these sectors that are practically irrelevant. Another example is wood pulp for Chile in the Chile-U.S. FTA.

There are several ways to create a common origin regime—carve “one from the many”—and advance toward cumulation across the mosaic of RTAs in the region. Each approach has both trade-offs and benefits and potentially also its respective constituencies. These factors will have to be weighed carefully during any negotiations toward a common regime—and so among all the stakeholders of bridge building across RTAs.

Two important issues must be kept in mind in any convergence process. One is the inclusion of the private sector in the process. Although it is the role of government to form and negotiate international agreements, considerations of convergence should incorporate actors in the private sector, not least given that they are the end users of RTAs and thus hold the best information about the operation of RTAs and the problems posed by the RTA spaghetti bowl. As such, any process aimed at building bridges across RTAs should inherently involve public-private sector cooperation and coordination. Such a consultative process could yield positive externalities, generating fresh ideas on how best to educate private sector actors to take advantage of RTAs, as well as on ways to design agreements so as to maximize their benefits to the economies of the participating countries.

Another important issue is to ensure that the convergence process neither jeopardizes the existing degree of liberalization in the region nor contravenes global liberalization. At the regional level, in the case of RoO, a common regime would preferably not be more stringent than any of the RoO regimes in the hemisphere, but would rather be based

on a simple and flexible model. Further, the common regime could and probably would have to coexist with the currently existing RTAs in the region, as countries would be reluctant to depart from the hard-earned deep liberalization in their RTAs. Under this model, traders could choose between the common regime (and reap the benefits of cumulation) or the existing bi- or plurilateral RoO (and forego the expanded cumulation). This model was chosen for the Central American integration process in the DR-CAFTA agreement, as described above. The coexistence model prevents disruptions to trade from a wholesale replacement of the origin regime, while creating new, region-wide opportunities. The downside is additional complexity for customs administration, with the doubling of alternative methods for demonstrating origin.²⁴

The goal of a convergence process in the region should also be to promote more liberal trade globally. This would enable insider producers to access supplies outside the expanded cumulation zone and reduce the prospects for trade diversion. It would also ensure that any new cumulation zone is consistent with the GATT principle of most-favored-nation treatment and GATT Article XXIV, which requires that RTAs not raise barriers with respect to third parties.²⁵ The key in regional convergence processes is to ensure that expanded RTA zones would not result in discrimination vis-à-vis nonmembers or systemically problematic scenarios along the lines of Krugman's (1991) trade-diverting, welfare-minimizing three-bloc world.

Fortunately, a rapidly growing share of the RTAs formed by countries of the Americas are with extraregional partners, which should provide the regional economies with incentives to aim at a common, consolidated regime that is both compatible with the extraregional RTAs and amenable to trading with extraregional partners, rather than sealing them out of the hemisphere.²⁶ Convergence should ideally be accompanied by some multilaterally established RoO bands or caps—essentially establishing

²⁴ See Granados and Cornejo (2006).

²⁵ In 1998, the United States and Japan aired several objections to the EU's Pan-Euro system of cumulation as a potentially discriminatory entity.

²⁶ For a mapping of RoO in RTAs around the world, see Estevadeordal and Suominen (2006) and Estevadeordal, Harris, and Suominen (2009).

multilateral guidelines on preferential RoO. Such a “cap-and-con” strategy is based on a notion that global “capping” of RoO is crucial so as to prevent “convergence” into trade-diverting megablocs (see Appendix 2.4 for details).

There are two final issues that ought to be raised. First, this report has been limited to market access provisions. Full-fledged convergence would, of course, require broader harmonization of trade rules beyond tariffs and RoO, such as nontariff measures, customs procedures, and investment, services, and competition policy provisions. However, market access is a crucial starting point; the challenges of bridging RTAs could well be far outweighed by the benefits of doing so.

Second, although convergence can have remarkable benefits, the very best option and the ultimate goal should always be multilateral trade liberalization. Multilateral opening trumps all other trade policy options; it behooves any convergence process to be a stepping stone to worldwide free trade.

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Appendix 2.1

Family Assignments of Rules of Origin Regimes Included in Calculations

Agreement	Americas	United States	US-New Generation	Asia	Trans-Pacific	Chile	Mexico	Global
PAN-Euro								√
EU-Chile						√		√
EU-Mexico							√	√
EU-South Africa								√
Chile-United States	√	√	√			√		√
NAFTA	√	√	√				√	√
United States-Colombia	√	√	√					√
United States-Panama	√	√	√					√
United States-Peru	√	√	√					√
Argentina-Brazil-Peru	√							√
Paraguay-Peru	√							√
Uruguay-Peru	√							√
Argentina-Colombia	√							√
Argentina-Ecuador	√							√
Argentina-Venezuela	√							√
Brazil-Colombia	√							√
Brazil-Ecuador	√							√
Brazil-Venezuela	√							√
Paraguay-Colombia	√							√
Paraguay-Ecuador	√							√
Paraguay-Venezuela	√							√
Uruguay-Colombia	√							√
Uruguay-Ecuador	√							√
Uruguay-Venezuela	√							√
CACM	√							√
CACM-Dominican Republic	√							√
DR-CAFTA	√							√

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Agreement	Americas	United States	US-New Generation	Asia	Trans-Pacific	Chile	Mexico	Global
Canada-Costa Rica	√							√
Andean Community	√							√
CARICOM	√							√
Chile-Canada	√					√		√
Chile-CACM	√					√		√
Chile-Mexico	√					√	√	√
Chile-Peru	√					√		√
Mexico-Colombia-Venezuela (G3)	√							√
MERCOSUR	√							√
MERCOSUR-Bolivia	√							√
MERCOSUR-Chile	√							√
Mexico-Bolivia	√						√	√
Mexico-Costa Rica	√						√	√
Mexico-Nicaragua	√						√	√
Mexico-Northern Triangle	√						√	√
Mexico-Uruguay	√						√	√
Chile-Colombia	√							√
Chile-Ecuador	√							√
United States-Australia		√	√		√			√
United States-Bahrain		√						√
United States-Israel		√						√
United States-Jordan		√						√
United States-Korea		√	√		√			√
United States-Morocco		√						√
United States-Singapore		√	√		√			√
United States-Oman		√						√
ASEAN				√				√
ASEAN-China				√				√
ASEAN-South Korea				√				√
Australia-New Zealand				√				√
Australia-Singapore				√				√

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Appendix 2.2

Preliminary Regressions on the Impact of Cumulation on Bilateral Trade among Small Countries, 1960–2006

Harris and Suominen (2008), using a gravity model with a global sample for the period 1960–2006, examine the effects on bilateral trade of having an RTA that includes additional cumulation space (i.e., third countries). They argue that the trade effects should vary by country size. Given that countries with a larger GDP produce more goods than countries with a smaller GDP, the probability that imported intermediates from a third country C (that members A and B can use for final goods trade in their bilateral RTA) will be net complements to A and B intermediates is higher when A and B are small. This, in turn, should yield efficiency gains in production in A and B, boosting trade between them. Indeed, the authors find that adding partners representing 10 percent of world output to a cumulation zone for an RTA between two small countries is associated on balance with a 3 percent increase in the two countries' bilateral aggregate trade. Importantly, this is a net effect of increased trade between A and B, including any reduction in trade due to reduced trade diversion between them. Table 2A.1 provides details on the regression results obtained by Harris and Suominen.

TABLE 2A.1 ■ Regression Results

Small country sample Coefficient	Dependent variable: Bilateral imports, 1961–2006	
	(1)	(2)
RTA Dummy	0.588*** (0.015)	0.560*** (0.016)
<i>Distance</i>	-0.878*** (0.006)	-0.878*** (0.006)
GDP_i	0.438*** (0.013)	0.434*** (0.013)
GDP_j	0.426*** (0.011)	0.423*** (0.011)
<i>Extra Cumulation Zone</i>		0.316*** (0.051)
$Landlocked_i$	0.422 (3,610.564)	0.423 (3,610.056)
$Landlocked_j$	0.114 (5,995.978)	0.118 (5,995.204)
<i>Contiguous</i>	0.288*** (0.022)	0.292*** (0.022)
<i>Colony</i>	0.894*** (0.041)	0.891*** (0.041)
<i>Common Colonizer</i>	0.465*** (0.015)	0.464*** (0.015)
<i>Common Language</i>	0.192*** (0.012)	0.194*** (0.012)
<i>Same Country</i>	0.439*** (0.028)	0.447*** (0.028)
Constant	2.193*** (0.796)	2.321*** (0.796)
Observations	132,718	132,718
Adjusted <i>R</i> -squared	0.55	0.55
<i>F</i> -statistic	429.2	428.3
Root MSE	1.265	1.265

Source: Harris and Suominen (2008).

Note: Standard errors in parentheses. Countries *i* and *j* have GDPs of less than 1 percent of world GDP. Sample is limited to trade flows of at least US\$500,000. Regressions control for country and year fixed effects.

****p* < 0.01, ***p* < 0.05, **p* < 0.1.

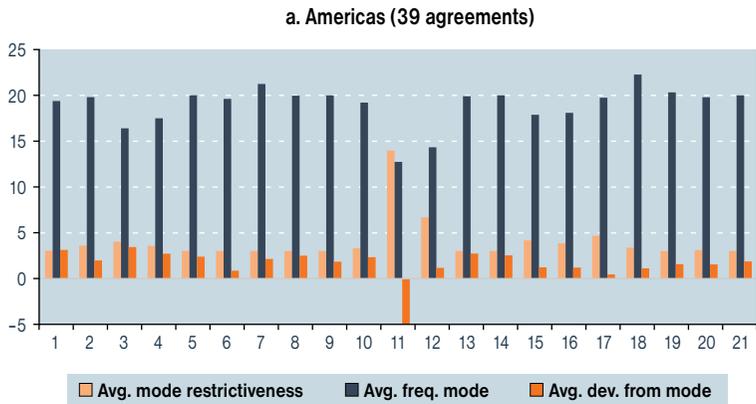
Appendix 2.3 Sectoral RoO Restrictiveness in Main RoO Families

This appendix furthers the analysis of similarities across RTAs within RTA families by showing the number of agreements and the average frequency of the most commonly applied mode rule. It also displays the restrictiveness of the mode rules (a restrictiveness of 6 is equivalent to a change in heading rule or a VC requirement of 50 percent) as well as characterizes the deviations from the mode.

The average deviation from the mode gives an indication as to how these rules are negotiated. The analysis of the complexity of RoO in the chapter showed that countries tend to have more selective rules when they trade more products and hence have more product-specific interests to satisfy internally. This appendix examines whether satisfying these interests tends to lead to more or less restrictive rules on average.

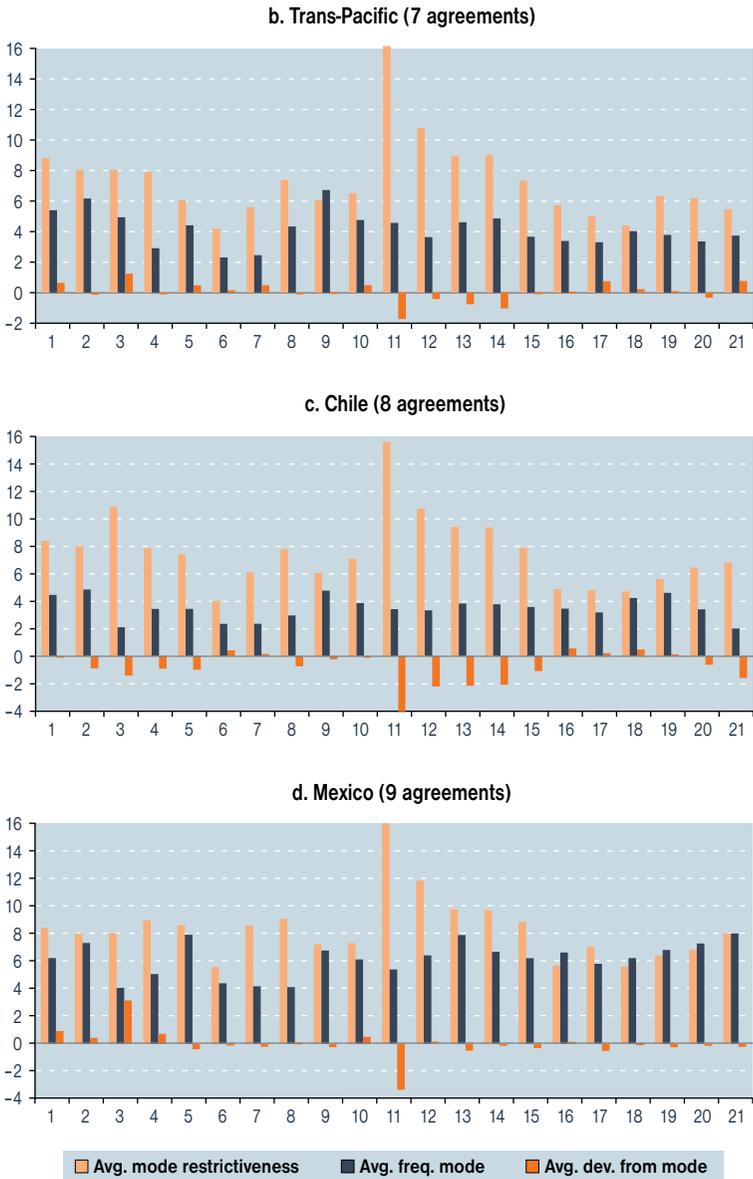
Divergence from the mode rule within a family in the Chilean, Mexican, and U.S. cases is on average towards less restrictive rules. This is also true for trans-Pacific agreements and in the overall global case, though to a lesser degree. The opposite occurs in the Americas family.

FIGURE 2A.1a–2A.1g Average Mode Restrictiveness, Frequency of Mode, and Deviation from Mode in 7 Families



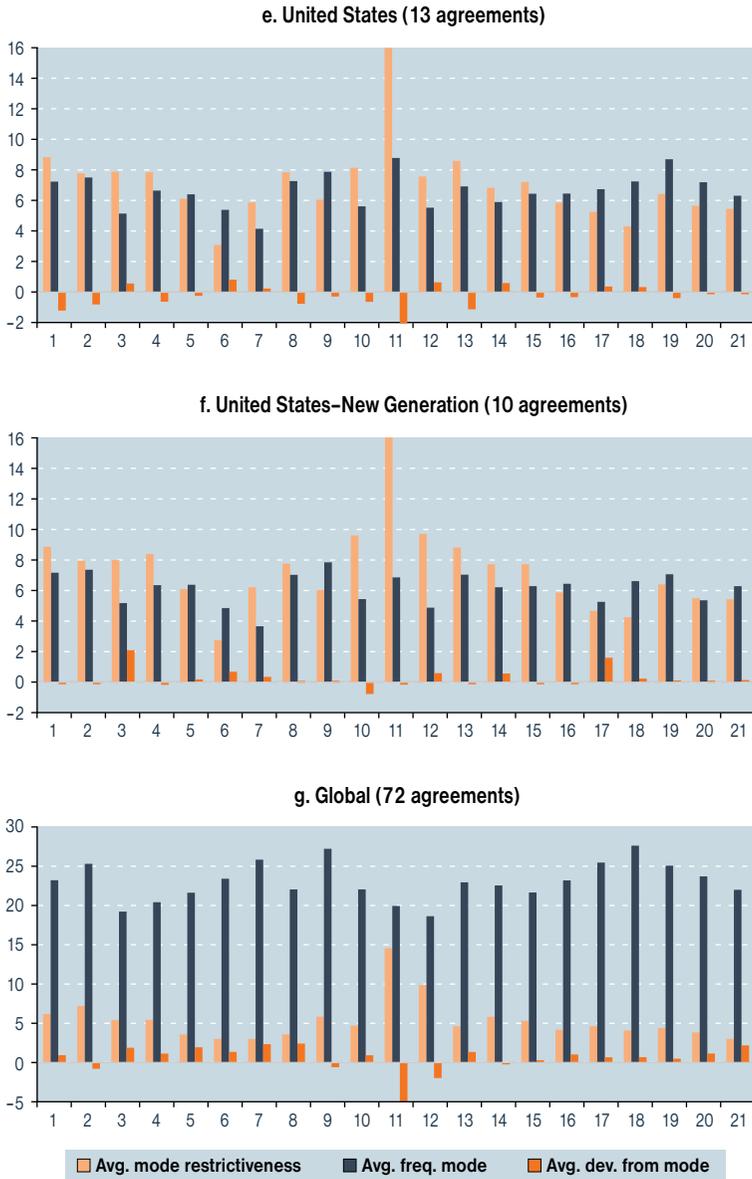
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FIGURE 2A.1a–2A.1g Average Mode Restrictiveness, Frequency of Mode, and Deviation from Mode, in 7 Families



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FIGURE 2A.1a–2A.1g Average Mode Restrictiveness, Frequency of Mode, and Deviation from Mode, in 7 Families



Source: Esteveadeordal, Harris, and Suominen (2009).

Appendix 2.4

General Origin Rules in the Americas

TABLE 2A.2 ■ Value Content Criteria by Agreement

Agreement	Regional value content/ build-up	Build- down	Maximum imported content	Factory cost	Net cost
Andean Community			50-55		
Argentina-Brazil-Peru			50		
Argentina-Colombia			40-55		
Argentina-Ecuador			40-55		
Argentina-Venezuela			40-55		
Brazil-Colombia			40-55		
Brazil-Ecuador			40-55		
Brazil-Venezuela	55		40-50		
Canada-Costa Rica	30-60				20-30
CARICOM			30-65		
Chile-Canada	30-65				20-55
Chile-China	40-50				
Chile-Ecuador			50		
Chile-South Korea	45-80	30			
Chile-CACM	20-30				
Chile-Mexico	32-50				26-40
Chile-Peru		50	50		
Chile-U.S.	40-65	30-55			
Chile-Colombia	30-70				
DR-CAFTA	30-65	25-55			35
EU-Chile				20-50	
EU-Mexico				20-60	
G3 (Mexico-Colombia- Venezuela)	35-60				
MERCOSUR	60		40		
MERCOSUR-Bolivia	60	40	40		
MERCOSUR-Chile	60	40			
Mexico-Bolivia	50				40-60
Mexico-Costa Rica	50				40-60

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TABLE 2A.2 ■ Value Content Criteria by Agreement (*continued*)

Agreement	Regional value content/ build-up	Build-down	Maximum imported content	Factory cost	Net cost
Mexico-Japan	50-90				
Mexico-Nicaragua	50				40-41.66
Mexico-Northern Triangle	50				
Mexico-Uruguay	50-55		50		40-50
NAFTA	30-80				25-70
P4 (Chile-New Zealand-Singapore-Brunei)	45-50				
Peru-Thailand	35-60				
Paraguay-Colombia			50		
Paraguay-Ecuador			50-60		
Paraguay-Peru			50		
Paraguay-Venezuela			50		
Thailand-India	20-40				
Thailand-New Zealand	50				
Uruguay-Colombia			50		
Uruguay-Ecuador			50		
Uruguay-Peru			50		
Uruguay-Venezuela			50		
U.S.-Australia	45-65	35-50			50
U.S.-Bahrain	35				
U.S.-Colombia	35-65	20-65			35
U.S.-Israel	35				
U.S.-Jordan	35-60				
U.S.-South Korea	30-60	30-55			35
U.S.-Morocco	35				
U.S.-Panama	30-65	20-55			35
U.S.-Peru	30-65	20-65			35
U.S.-Singapore	40-65	30-55			

Source: Authors' calculations on the basis of RTA texts.

TABLE 2A.3 ■ Regime-Wide RoO in Selected RTAs

Agreement	De minimis	Extended cumulation	Certification method
Andean Community	None	No	Public (or delegated to a private entity)
CACM	10 (10% of weight in chaps. 50–63)	No	Self-certification
CACM-Chile	8% (not chaps. 1–27 unless CS)	No	Self-certification
CAFTA-Dominican Republic	10% (not chaps. 4 and 15)	Possibly chap. 62 (w/Canada and Mexico)	Self-certification
Canada–Costa Rica	10% (exceptions in chaps. 10–24; 10% of weight in chaps. 50–63)	No	Self-certification
Canada-Chile	9% (exceptions in agricultural and industrial products; 9% of weight in chaps. 50–63)	No	Self-certification
Canada-Israel	10% (exceptions in agricultural and industrial products; 7% of weight in chaps. 50–63)	Yes (w/United States)	Self-certification
CARICOM	None	No	Public (or delegated to a private entity)
Chile-China	8%	No	Public (or delegated to a private entity)
Chile-Colombia	10% (exceptions in agricultural and processed agricultural products; 10% of weight in textiles)	No	Public; limited self-certification
Chile-Ecuador	None	No	Public; limited self-certification
Chile–South Korea	8% (not chaps. 1–24 unless CS; 8% of weight in chaps. 50–63)	No	Self-certification
Chile-Peru	None	No	Public; limited self-certification
Common Market for Eastern and Southern Africa	2%	No	Two-step private and public

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TABLE 2A.3 ■ Regime-Wide RoO in Selected RTAs *(continued)*

Agreement	De minimis	Extended cumulation	Certification method
Economic Community of West African States	None	No	Public (or delegated to a private entity)
EU-Chile	10% (except chaps. 50–63)	No	Public; limited self-certification
EU-Mexico	10% (except chaps. 50–63)	No	Public; limited self-certification
G3 (Mexico-Colombia-Venezuela)	7% (7% of weight in chaps. 50–63)	No	Two-step private and public
MERCOSUR	None	No	Public (or delegated to a private entity)
MERCOSUR-Bolivia	None	Yes (Bolivia may cumulate from LAIA)	Public (or delegated to a private entity)
MERCOSUR-Chile	None	No	Public (or delegated to a private entity)
MERCOSUR-Colombia-Ecuador-Venezuela	None	Yes (within MERCOSUR and Andean Community)	Public (or delegated to a private entity)
MERCOSUR-Peru	None	Yes (within MERCOSUR and Andean Community)	Public (or delegated to a private entity)
Mexico-Nicaragua	7% (except chaps. 1–27 and 50–63)	No	Self-certification
Mexico–Northern Triangle	7% (except chaps. 1–27 and 50–63)	No	Self-certification
Mexico-Uruguay	8% (except chaps. 1–27 and 50–63)	No	Self-certification
Mexico-Bolivia	7% (not chaps. 1–27 unless CS; not chaps. 50–63)	No	Self-certification
Mexico-Chile	8% (exceptions in agricultural and industrial products; 9% of weight in chaps. 50–63)	No	Self-certification

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TABLE 2A.3 ■ Regime-Wide RoO in Selected RTAs *(continued)*

Agreement	De minimis	Extended cumulation	Certification method
Mexico-Costa Rica	7% (exceptions in chaps. 4-15 and headings 0901, 1701, 2105, 2202)	No	Self-certification
NAFTA	7% (exceptions in agricultural and industrial products; 7% of weight in chaps. 50-63)	No	Self-certification
Peru-Thailand	10%	No	Public (or delegated to a private entity)
U.S.-South Korea	10% (by weight in textiles; except in agricultural and processed agricultural products)	No	Self-certification
U.S.-Panama	10% (by weight in textiles; exceptions in agricultural and processed agricultural products)	Possibly for chap. 61 or 62	Self-certification
U.S.-Colombia	10% (by weight in textiles; exceptions in agricultural and processed agricultural products)	Possibly with Peru	Self-certification
U.S.-Peru	10% (by weight in textiles; exceptions in agricultural and processed agricultural products)	Possibly with Colombia	Self-certification
U.S.-Australia	10% (exceptions in agricultural and processed agricultural products)	No	Self-certification
U.S.-Bahrain	None	Possibly with regional countries	Self-certification
U.S.-Chile	10% (by weight in textiles; exceptions in agricultural and processed agricultural products)	No	Self-certification
U.S.-Israel	None	Yes (West Bank and Gaza)	Self-certification
U.S.-Jordan	None	QIZ cumulation from Israel	Self-certification

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TABLE 2A.3 ■ Regime-Wide RoO in Selected RTAs *(continued)*

Agreement	De minimis	Extended cumulation	Certification method
U.S.-Singapore	10% (exceptions in various agricultural products; 7% of weight in chaps. 50–63)	Integrated Sourcing Initiative ^a	Self-certification

Source: IDB calculations on the basis of RTA texts.

^a Primarily information and communications technology products need not meet any rule of origin if shipped directly between the signatories.

Appendix 2.5

Multilateral Policies for Preempting Increases in RoO Restrictiveness and Complexity in a Convergent RoO Zone

Effective Restrictiveness and Size of Cumulation Zones

Restrictiveness on paper is one thing: a RoO that appears restrictive when the governing agreement is given a cursory examination may turn out not to be so when the “real” input and geographical pools are taken into consideration.¹ There are two key issues that qualify RoO restrictiveness but are not incorporated in the RoO restrictiveness index used in this report.

The first is the fact that RoO regimes employ several regime-wide mechanisms, such as de minimis and cumulation, that can add flexibility to the application of the product-specific RoO and consequently attenuate the restrictiveness of RoO—and even render them nonbinding. Suominen (2004) and Estevadeordal and Suominen (2008) find that many such measures indeed alleviate the negative trade effects of restrictive product-specific RoO. Several regimes have also experimented with innovative mechanisms to alleviate supply shortages and to help the developing member countries to comply with RoO.²

Second, a rule of origin is “effectively restrictive” to the extent that it limits both the input and geographical pools, thus increasing the cost of production by requiring firms to use higher-cost regional inputs. This concept of “effective” restrictiveness is less observable, as it requires knowledge of the input-output structure of each product as well as the scale and efficiency of production of the relevant inputs in each country within the cumulation zone of the applicable agreement. However, this is the sense of restrictiveness that matters economically, both for the degree of liberalization achieved within an RTA and for the degree of impact on third parties. As such, it arbitrates the degree to which a producer can globalize production without foregoing the preferential access in an RTA.

¹ This appendix is based on Estevadeordal, Harris, and Suominen (2009).

² See, for instance, Suominen (2004) or Estevadeordal and Suominen (2006) for details.

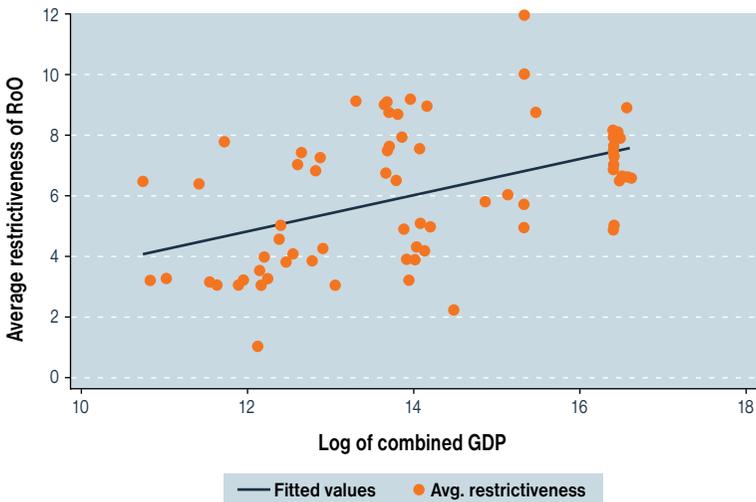
Imagine trade in roasted, ground coffee. In an agreement between the United States and Canada, a rule that requires that all coffee products be derived from originating beans would be highly restrictive, effectively cancelling any preferential tariff treatment, as there is no significant production of coffee beans in either country. The same rule applied to trade between the United States and Colombia, on the other hand, while still binding on producers of specialized blends of coffee, would be significantly less onerous, as Colombia is a major global producer of coffee.

As discussed above, “real” or effective restrictiveness thus depends on the availability of efficient input supplies in the RTA member countries, which one would expect to be correlated with the size of the integrating economies. Larger economies are more likely to produce a greater variety of products at a greater scale, and thus with (probably) greater efficiency. This means that an RTA that covers a larger economic area (say, North America or Europe) is relatively less likely to exclude the global least cost producer of any given intermediate than is an RTA that covers a smaller economic zone (say, Central America).

This issue of the size of an agreement’s cumulation zone is of crucial importance when the utility of connecting or multilateralizing RoO regimes is under analysis. However, since effective restrictiveness is so difficult to observe, any broad analysis must move forward with measures of observed restrictiveness (that is, restrictiveness as inferred from the text of the rule alone) as a useful proxy, but bearing in mind that it is a proxy and not an ideal measure.

Figure 2A.2 illustrates the relationship between restrictiveness and the size of the cumulation zone, measured as combined GDP of the member countries, in a global set of RTAs. A clear stylized fact is that observed restrictiveness is increasing in the size of the cumulation zone. There are two alternative conclusions that can be drawn from this. One is that large, dominant partners such as the United States and the European Union tend to dictate more restrictive rules of origin in their RTAs, whereas developing countries tend to negotiate less restrictive regimes. This interpretation is perhaps the most popular.

However, this explanation ignores the fact that observed restrictiveness is not strictly linked to effective restrictiveness across agreements. A

FIGURE 2A.2 Restrictiveness versus Cumulation Zone

Source: Estevadeordal, Harris, and Suominen (2007).

rule with high observed restrictiveness in an agreement with the United States or the European Union will still allow a firm to source inputs from the vast partner country/region in the cumulation zone, and the likelihood of that rule precluding the use of inputs from the global low-cost source is lower (though not necessarily zero) than in the case of a rule with the same observed restrictiveness in an RTA joining two small developing countries.

The alternative conclusion to be drawn is that average *effective* restrictiveness could have no relationship, or even a negative relationship, with the economic size of an agreement's cumulation zone. This is because the greater availability of inputs implied by the larger economy of the cumulation zone results in rules with greater *observed* restrictiveness in fact having lower *effective* restrictiveness.

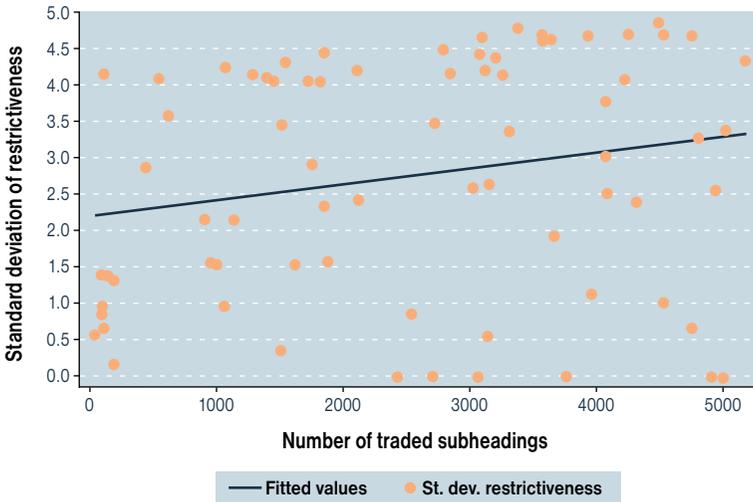
Complexity of Rules and of Trade

Complexity of RoO—product-by-product differentiation of RoO within a regime—could be hypothesized to be directly related to the complexity of

the bilateral trade relationship (Harris, 2007). It is broadly recognized that the level of restrictiveness of rules of origin is affected by political economy variables. Regardless of the specific political economy model employed, the variables that will likely determine the rule of origin for a particular product will focus on the levels of its production in the countries participating in the agreement as well as the scale and efficiency of production of the product's inputs both within and outside of the cumulation zone. Consequently, the number of products for which the political economy pressures reach some minimum threshold for influencing the negotiations of the specific rule for that product will depend on the number of products actively traded among the participating countries.

Complexity of the origin regime (as measured by the standard deviation of RoO restrictiveness within an agreement) is thus dependent on the complexity of the pattern of trade among the members of the RTA (as measured by the number of HS subheadings in which products are traded). For the purposes of the arguments presented here, the political economy forces that drive RoO will apply to higher numbers of products when RoO under negotiation are to govern the preferential trade of larger blocs (with consequently more complex trading relationships). This will hypothetically create a tendency toward more complex origin regimes in RTAs with more diversified sets of traded products (Figure 2A.3).

The strong outliers in this relationship are interesting cases. The points with low numbers of traded subheadings and high variation in rules of origin in the figure are most notably Mexico-Bolivia (85 products), U.S.-Morocco (527 products), and Canada-Costa Rica (1,050 products). The first and third of these are agreements by NAFTA members that were negotiated shortly after the conclusion of the NAFTA negotiations, when NAFTA rules seemed the most appropriate (note that both feature rules involving value content calculated based on net cost, a calculation method that has largely fallen out of use in recent agreements except for in regard to automotive products). The U.S.-Morocco agreement features an across-the-board VC requirement, except for in the case of textiles and a small set of products that seem to have been of particular interest to Morocco (some fruits and vegetables, coffee, and some auto parts). The large difference in the restrictiveness of the general rule and

FIGURE 2A.3 ■ Complexity of RoO and of Trade

Source: Estevadeordal, Harris, and Suominen (2007).

the rule for those products identified for special treatment seems to be generating the especially high standard deviation figures in the cases of these three agreements.

In the opposite corner, the notable outliers are the larger Asian agreements (ASEAN, ASEAN-China, Bangkok Agreement) and the U.S.-Israel agreement. All of these agreements feature across-the-board VC rules, except those involving ASEAN, which has a relatively small number of specific rules for some products (primarily steel, textiles, and wood). The choice of this regime is a bit harder to explain. A possible reason for the selection might be that many of the ASEAN countries maintain relatively low MFN tariffs or very limited preferential tariff liberalization, and so the levels of preference are quite low, necessitating only minimum rules. This is backed up by anecdotal evidence of relatively low utilization rates in ASEAN.

Thus a second stylized fact is that complexity of rules of origin is increasing in the diversity of products traded among RTA members. The more product-specific interests there are to satisfy with the origin negotiations, the more different outcomes are likely to be found.

Restrictiveness and Complexity: The Key Policy Issues

The main important point here, and one that is key to capturing our policy recommendations, is that restrictiveness and complexity within regimes imply that as regions of overlapping RTAs pursue convergence, forming convergence zones—groups with greater economic size and variety of traded goods—there could be a tendency towards greater observed restrictiveness and complexity. Both of these are potentially problematic for the international trading system. Greater observed restrictiveness, while not necessarily implying greater effective restrictiveness, still amounts to increasing barriers to trade among regions, a problem in regard to GATT Article XXIV, which precludes RTAs that raise barriers toward third parties. Greater complexity of the origin regimes simultaneously implies increasing difficulty of administration and thus greater potential uncertainty, especially in developing countries.

To be sure, the caveats have their caveats. As noted above, the theory may not always play out in practice. The observed restrictiveness did not really change in the EU's RoO harmonization and pursuit of the Pan-Euro system, since the new RoO were remarkably similar to the old ones. Meanwhile, some other countries, like the United States, are loosening their RoO. Moreover, economic dynamics, such as the expansion of global supply chains, can strengthen industry lobbies interested in ever-looser RoO.

Moreover, none of this is to say that the benefits of expanded cumulation (and the potential reduction in *effective* restrictiveness) within a convergence zone would not outweigh these potential problems. However, careful consideration of these problems ahead of time can lead to strategies for mitigating their effects.

Multilateralism-cum-Convergence: A “Cap-Con” Strategy

The rise of convergent zones with rules of origin of greater restrictiveness can potentially be preempted at a multilateral level through “capping” RoO multilaterally—establishing multilateral “model measures” for RoO. Recall that countries in larger cumulation zones at least in theory tend to negotiate rules of origin with higher observed restrictiveness. Granted, any

expansion of the U.S. or EU cumulation zones would imply only marginal proportional increases in the size of the zones, and thus in the degree to which the rules are likely to become more restrictive. However other regional groupings, such as those within Latin America (Pacific Basin Forum), Asia (ASEAN+6), or Africa, should they follow convergence paths, would be well advised to take care to resist pressures to establish more restrictive rules than those prevailing in their existing regimes. Although any multilateral “cap” is unlikely to bind on such arrangements, as it would have to be agreed to by the larger players as well, the existence of such a reference point could aid in efforts to restrain protectionist tendencies in the negotiation of the new origin regime.

Moreover, the argument assumes away (1) ongoing MFN tariff liberalization among the members; (2) potential RoO loosening by some members or a major member (as per the NAFTA relaxation of RoO); and related, (3) the rise of an export lobby amid a convergence process to push for decreasingly restrictive RoO. Indeed, that such a process could be launched at all would likely suggest the consolidation of the globalized industry lobbies (and weakening of the import-protecting industries), while of course not precluding stepped-up efforts of protectionist lobbies aimed at expanding rent-seeking opportunities via the convergence talks.

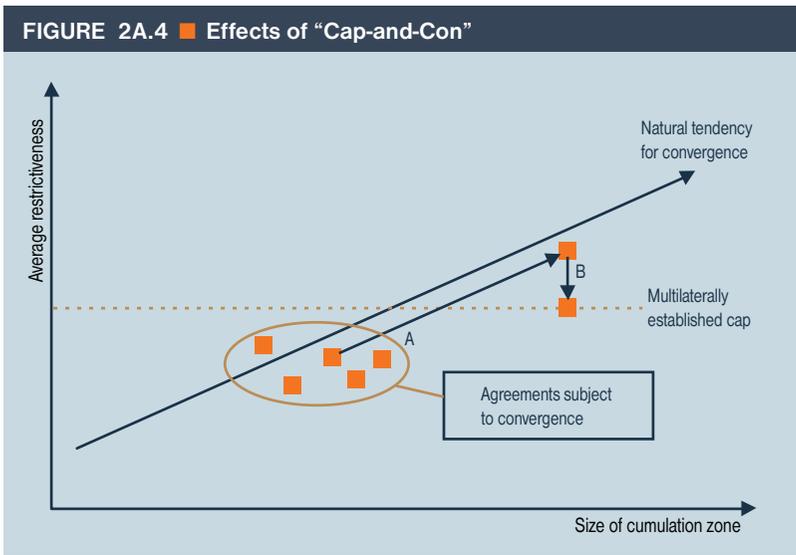
In any case, expansion of an agreement’s RoO zone could lead to greater complexity. Moreover, to the extent that countries wish to pursue convergence that also leads to more liberal global trade, it could be important first, at the minimum as insurance policy against the theoretical rise in restrictiveness, to have in place some global guidelines for (the convergent) preferential RoO. Such guidelines would simply serve to counteract the theoretical tendency of larger cumulation zones to create complex RoO and to erect higher barriers to extrazone inputs, and thus entail simultaneous global capping and regional convergence processes.³

³ Note that the argument presented earlier that the effective restrictiveness of such rules is lower in larger blocs applies to the effects that rules have on the production costs of members, as the globally low-cost producer is more likely to be included within the cumulation zone as it becomes larger. This attenuating effect is of no help to suppliers left outside the expanded cumulation zone, and it is this distortion that the discussion here seeks to minimize through multilateral rules governing preferential origin regimes.

This could be termed a “cap-and-con strategy,” based on a notion that global “capping” of RoO is useful so as to prevent “convergence” into trade-diverting megablocs.

Figure 2A.4 shows the proposed optimal outcome. The countries party to a group of overlapping RTAs decide to establish a convergent origin regime that will allow cumulation among all of them under a newly negotiated set of rules of origin. This new origin regime risks moving them up line *A* following the natural tendency for larger grouping towards more complex and restrictive regimes. In the presence of multilaterally agreed-upon guidelines (a cap), this movement would be counteracted with a move down line *B*.

Whether the guidelines would serve to promote one type of criterion over another (change in tariff classification over value content or vice versa, for example) is a distinct question from whether such guidelines function to limit the erection of new barriers to global trade. As discussed above, it is preferable that the limitations be imposed on some aggregate calculus and not product by product, as flexibility at this level would be indispensable for political economy reasons within each convergent group.



Source: Estevadeordal, Harris, and Suominen (2007).

The important danger to keep in mind when establishing global caps, however, is that they must be set in such a way as to avoid reducing the incentive for convergence. Bringing groups of countries with multiple, overlapping RTAs into a single cumulation zone has the potential to increase trade greatly, especially among those that might be considered spokes, as well as to create trade, as long as the zone in question is grounded in open regionalism. As such, convergence of the right, nonrestrictive kind should be encouraged, not stifled.

The wrong type of convergence—that which produces trade-diverting megablocs that will silo global commerce, something that cap-and-con is to preempt—should be opposed with the most stringent of terms. Although the reduction of the level of restrictiveness may have minimal effect on intra-RTA trade, the lowering of barriers could increase openness to producers of intermediates in excluded countries.

Although optimally some global capping would happen before the convergence processes begin, that horse seems to have already left the barn, as evinced by the current policy debates on regional bridging of some RTAs in the Americas and Asia and the EU's entrenched Pan-Euro regime. The Pan-Euro architecture implies that all new EU RTAs will have the potential to continue the expansion of the EU cumulation zone, though at least in that case the prospect for the increasing restrictiveness of the rules is reduced, as new EU agreements tend to carry rules identical to those of the EU's previous agreements.

INTEGRATION AND TRADE

This is an extremely useful work that reveals high technical competence in the very complex field of trade negotiations. Those of us who have been practitioners in many of these negotiations cannot but celebrate that the IDB is providing us and future negotiators with solid technical analysis for the next phase: convergence conditions for trade agreements in Latin America.

Alejandro Foxley, CIEPLAN, and Former Minister of Trade and Foreign Affairs of Chile

This excellent volume provides a concise and insightful empirical assessment of the state of market integration in the Americas and offers a number of innovative and, as important, practical suggestions to further reduce regional market access barriers. It should be of interest to everyone with an interest in reducing the transaction costs generated by the plethora of preferential trade agreements, whether in the Americas or in other parts of the world.

Bernard Hoekman, Director, International Trade Department, World Bank

This extremely enjoyable small volume offers a lucid account of regional trade agreements in the Americas, the extent and complexity of which I had not quite suspected. The authors are to be commended for the quality of their analysis and the pertinence of their recommendations. This volume should be read attentively not only in the Americas but also by all those seeking to reconcile regional and global trade liberalization in other parts of the world.

André Sapir, Professor of Economics, Université Libre de Bruxelles, and Senior Fellow, Bruegel, and Former Economic Advisor to European Commission President Romano Prodi



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