



INTER-AMERICAN DEVELOPMENT BANK

INTEGRATION AND REGIONAL PROGRAMS DEPARTMENT



Institute for the Integration
of Latin America and the Caribbean

ITD

Integration, Trade and
Hemispheric Issues Division

Rules of Origin in FTAs in Europe and in the Americas: Issues and Implications for the EU-Mercosur Inter-Regional Association Agreement

Antoni Estevadeordal
Kati Suominen

Rules of Origin in FTAs in Europe and in the Americas: Issues and Implications for the EU-Mercosur Inter-Regional Association Agreement

Antoni Estevadeordal
Kati Suominen

Intal ITD

January, 2004
Working Paper 15

The Institute for the Integration of Latin America and the Caribbean (INTAL), and the Integration, Trade and Hemispheric Issues Division (ITD) of the Integration and Regional Programs Department of the IDB have organized a joint publication series:

WORKING PAPERS

Refereed technical studies providing a significant contribution to existing research in the area of trade and integration.

OCCASIONAL PAPERS

Articles, speeches, authorized journal reprints and other documents that should be of interest to a broader public.

Integration and Regional Programs Department

Nohra Rey de Marulanda	Manager, Integration and Regional Programs Department
Robert Devlin	Deputy Manager, Integration and Regional Programs Department
Peter Kalil	Chief, Integration, Trade and Hemispheric Issues Division, INT
Juan José Taccone	Director, Institute for the Integration of Latin America and the Caribbean, INT

Inter-American Development Bank
Integration and Regional Programs Department

Institute for the Integration of Latin America and the Caribbean IDB - INTAL
Esmeralda 130, 16th and 17th Floors (C1035ABD) Buenos Aires, Argentina - <http://www.iadb.org/intal>

Integration, Trade and Hemispheric Issues Division
1300 New York Avenue, NW. Washington, D.C. 20577 United States - <http://www.iadb.org/int>

The opinions expressed herein are those of the authors and do not necessarily reflect the official position of the IDB and/or INTAL-ITD, or its member countries.

Printed in Argentina

INTAL-ITD

Rules of Origin in FTAs in Europe and in the Americas:
Issues and Implications for the EU-Mercosur Inter-Regional Association Agreement
Buenos Aires, 2004. 68 pages.

Working Paper 15

Available in pdf format at:

<http://www.iadb.org/intal> and/or <http://www.iadb.org/int>

I.S.B.N. 950-738-168-6

US\$ 5.00

Editing:
Mariela Marchisio

CONTENTS

I.	INTRODUCTION	1
II.	RULES OF ORIGIN AS COMMERCIAL POLICY INSTRUMENTS: OBJECTIVES, TYPES AND EFFECTS	3
	A. Objectives	3
	B. Types of RoO	4
	<i>Product-Specific RoO: Five Main Components</i>	4
	<i>Regime-Wide RoO</i>	6
	C. Effects of RoO	7
	<i>The Costs of RoO</i>	8
	<i>Impact on Trade and Investment Flows</i>	8
	<i>Empirical Evidence</i>	9
III.	RULES OF ORIGIN IN EUROPE AND IN THE AMERICAS	13
	A. Comparative Analysis of the Structure of RoO Regimes	13
	<i>Types of Rules</i>	13
	<i>Administration of RoO</i>	22
	B. Comparative Analysis of the Levels of Restrictiveness of RoO	22
	<i>Restrictiveness of RoO Regimes</i>	23
	<i>Sectoral RoO: Comparing EU and NAFTA</i>	24
	<i>Sectoral "RoO Phase-Ins" and Deviations for the Single List in EU-Mexico and EU-Chile FTAs</i>	26
	C. Substitution vs. Complementarity of RoO: Tariff and RoO Packages in EU's FTAs	29
IV.	MERCOSUR-EU MARKET ACCESS NEGOTIATIONS: TARIFFS AND RULES OF ORIGIN	37
	A. Basic Stylized Facts on Trade and Tariffs	37
	<i>Trade Flows and Patterns</i>	37
	<i>Tariffs</i>	39

B. Rules of Origin and Market Access Negotiations: Lessons for Mercosur from EU Inter-Regional Agreements on Negotiations	41
<i>Tariff Lowering: What Effect?</i>	41
<i>RoO and Tariff Preferences</i>	43
<i>Market Access Prospects for Mercosur</i>	45
C. Future Prospects: Operating in Multiple RoO Theatres	47
V. CONCLUSIONS	49
APPENDIX I	51
BIBLIOGRAPHY	

RULES OF ORIGIN IN FTAs IN EUROPE AND IN THE AMERICAS: ISSUES AND IMPLICATIONS FOR THE EU-MERCOSUR INTER-REGIONAL ASSOCIATION AGREEMENT

Antoni Estevadeordal *
Kati Suominen **

Rules of origin (RoO) are a central topic both in the Inter-Regional Association Agreement negotiations between the European Union (EU) and the Southern Common Market (Mercosur), and in the 34-country negotiations of the Free Trade Area of the Americas (FTAA). The purpose of this paper is to provide a detailed mapping of the different rules of origin regimes in FTAs in Europe and the Americas, and to draw lessons from these regimes to the EU-Mercosur RoO negotiations, in particular.

The paper offers four recommendations. First, the EU's standardized RoO regime will play a central role in the EU-Mercosur RoO negotiations. However, there is plenty of room for mutual tariff concessions. At the minimum, the EU's tariff preferences for Mercosur should approximate those provided to Chile in order to foster Mercosur's chances to augment its industrial exports to the European market. Second, the EU-Mercosur FTA RoO regime should incorporate general and sector-specific adjustment mechanisms in order to enable Mercosur to better utilize the preferential treatment provided by the EU. Third, Mercosur will need to further consolidate its common market in order to take full advantage of the RoO regime's likely provision of diagonal cumulation. Fourth, Mercosur should make the most of its strategy of simultaneous trade negotiations in the Americas and with the EU by ensuring a high degree of compatibility between its two major future agreements.

I. INTRODUCTION

Rules of origin (RoO) will be at the heart of the upcoming rounds of the Inter-Regional Association Agreement negotiations between the European Union (EU) and the Southern Common Market (Mercosur). They are also a central topic and the 34-country negotiations of the Free Trade Area of the Americas (FTAA), and an increasingly salient issue for the World Trade Organization (WTO), which is seeking to harmonize non-preferential RoO at the global level and has opened

* Principal Trade Economist, Integration, Trade and Hemispheric Issues Division, Inter-American Development Bank. E-mail: antonie@iadb.org.

** Consultant, Integration, Trade and Hemispheric Issues Division, Inter-American Development Bank. E-mail: katis@contractual.iadb.org.

The opinions expressed herein are those of the authors and do not necessarily reflect the official position of the institution they represent. This paper has also been prepared for publication in Valladão, Alfredo G. A. and Roberto Bouzas, (eds). *Market Access for Goods & Services in the EU-Mercosur Negotiations*. Paris: Chaire Mercosur de Sciences Po. 2003.

The authors are grateful for most helpful comments to Nicola Ardito, Roberto Bouzas, Ana del Valle Franco, Robert Devlin, Paolo Guerrieri, Rosa López Jarrín, Jaime de Melo, Vera Thorstensen, Ramon Torrent, Madelaine Tuininga, Alfredo Valladão and all the other participants to the *Second Cluster Workshop on Rules and Market Access in Goods and Services*.

the door for possibly launching negotiations over preferential RoO during the ongoing Doha Development round.

The purpose of this study is to present an in-depth analysis of the structure of different preferential RoO regimes in some of the major trade agreements in Europe and the Americas, and to draw insights from these regimes for the EU-Mercosur negotiations. In particular, the analysis here strives to: (1) provide an overview of the types of RoO employed in preferential trading arrangements (PTAs) around the world; (2) capture and compare the levels of sectoral restrictiveness of RoO in the existing RoO regimes in Europe and the Americas; (3) extract lessons for the EU-Mercosur RoO negotiations particularly from the RoO regimes applied in the EU's recent extra-European FTAs with Chile (2002), Mexico (2000), and South Africa (1999); and (4) examine the implications of the hypothetical EU-Mercosur RoO-tariff preference package to Mercosur's access to the EU market.

The main findings are three-fold. First, the EU-Mercosur RoO regime will likely approximate those of the FTAs forged between the EU and its other extra-European partners. Indeed, the bi-regional RoO regime will probably be like that applied *vis-à-vis* Mercosur today in the context of the EU's generalized system of preferences (GSP). Second, there are a number of ways in which the RoO regime can be adjusted to accommodate particular sectoral needs in Mercosur; as such, the FTA RoO regime provides an opportunity for Mercosur to add leniency to the currently applied GSP RoO. Third, should the EU's preferential tariff lowering schedule offered to Mercosur come to resemble the schedules in place in the EU-Mexico and EU-Chile FTAs, the EU-Mercosur agreement would have the quickest and most substantial impact on Mercosur's manufacturing exports to the EU. However, the greatest trade and welfare gains for Mercosur would arise from the EU's opening its agricultural market. This suggests that Mercosur would be well served to pursue a RoO/tariff package that would differ on the agricultural front from the parameters set by the EU-Mexico and EU-Chile FTAs.

The first section of this paper lays out the various types of product-specific and general RoO, and discusses their prevalence in RoO regimes around the world. The second section unpacks the structure of the existing RoO regimes employed by the EU and in the Americas, presents measures of the restrictiveness of RoO on both sides of the Atlantic, and examines the interplay between the levels of restrictiveness of RoO and the tariff preferences in the EU's recent FTAs. The third section turns to EU-Mercosur trade relations, exploring the likely trade effects of the EU-Mercosur agreement for the Mercosur countries. It also makes some longer-term projections for Mercosur's operation in the divergent RoO theaters in Europe and the Americas. The fourth section puts forth the main conclusions and policy recommendations.

II. RULES OF ORIGIN AS COMMERCIAL POLICY INSTRUMENTS: OBJECTIVES, TYPES AND EFFECTS

A. Objectives

There are two types of rules of origin, non-preferential and preferential RoO. Non-preferential RoO are used to distinguish foreign from domestic products in establishing anti-dumping and countervailing duties, safeguard measures, origin marking requirements, and/or discriminatory quantitative restrictions or tariff quotas, as well as in the context of government procurement. Preferential RoO, the focus of this paper, define the conditions under which the importing country will regard a product as originating in an exporting country that receives preferential treatment from the importing country. PTAs, in effect, employ RoO to determine whether a good qualifies for preferential treatment when exported from one PTA member state to another. The economic justification for preferential RoO is to curb trade deflection -to avoid products from non-PTA members from being transshipped through a low-tariff PTA partner to a high-tariff one-. As such, RoO are an inherent feature of free trade agreements (FTAs) where the member states' external tariffs diverge and/or where the members wish to retain their individual tariff policies *vis-à-vis* the rest of the world (ROW). RoO would be unnecessary in a customs union (CU) with a common external tariff (CET) that covered the whole tariff universe. However, in practice, RoO are widely used in CUs, as well, either as a transitory tool in the process of moving toward the CET, such as in Mercosur, or as a more permanent means of covering product categories where reaching agreement on a CET is difficult, for instance due to large tariff differentials between the member countries. RoO are a feature of virtually all PTAs around the world; the Asia-Pacific Economic Cooperation (APEC) forum is a prominent exception, with its members employing their respective domestic RoO (OECD [2002]).

Since RoO can serve as an effective means to deter transshipment, they can give rise to uses beyond and unrelated to the efforts to avert trade deflection. Indeed, with the lowering of tariff and non-tariff barriers and the concomitant proliferation of PTAs around the world, RoO have arguably become a widespread and potentially powerful trade policy instrument.¹ Analysts engaged in the nascent but lively debate on RoO are increasingly picking up on the political economy of RoO (Krueger [1993]; Krishna and Krueger [1995]; Jensen-Moran [1996]; Garay and Estevadeordal [1996]; Ju and Krishna [1998]; Appiah [1999]; Falvey and Reed [2000]; Estevadeordal [2000]; Dutttagupta [2000]; Dutttagupta and Panagariya [2001]; Flatters [2002]; Garay and Cornejo [2002]; Hirsch [2002]; Krishna [2002]). Most prominently, RoO can be employed to favor intra-FTA industry linkages over those between the FTA and the ROW, and, as such, to indirectly protect FTA-based input producers *vis-à-vis* their extra-FTA rivals (Krueger [1993]; Krishna and Krueger [1995]). Stringent RoO can compel intra-FTA firms with low-cost extra-FTA supply sources to turn to higher-cost inputs produced within the FTA in order to qualify for the PTA-conferred preferential treatment for their final products, particularly in sectors where preferential margins are wide. As such, RoO liken a tariff on the intermediate product levied by the importing country (Falvey and Reed [2000]), and can be used by one PTA member to secure its PTA partners' input markets for

¹ That governments forego negotiating simple regional value added rules, and, rather, engage in prolonged, contentious bargaining over highly complex and different types of RoO suggests that RoO play a role beyond resolving the trade deflection problem.

the exports of its own intermediate products (Krueger [1993]; Krishna and Krueger [1995]). In an econometric study of the determinants of the restrictiveness of the RoO in the North American Free Trade Agreement (NAFTA), Estevadeordal [2000] shows that the same political economy factors that drive tariff protection also drive RoO. Flatters [2002] reaches similar conclusions in an analysis of the Southern African Development Community RoO.

If RoO introduce a price wedge in the intermediate market, they could be expected to engender opposition by downstream producers intent on retaining their extra-PTA low-cost supply sources while qualifying for the PTA-conferred preferential treatment. However, scholarly literature offers two theoretical reasons why downstream producers may accept or even favor stringent RoO. First, RoO may simply be the price that downstream producers have to pay for the PTA: despite risking costly trade diversion, restrictive RoO can help placate protectionist sectors so as to render PTA formation politically feasible (Dutttagupta [2000]). Second, downstream producers can draw contingent benefits from stringent RoO, and, as such, be willing to shoulder the heightened production costs. For instance, should the linkages between different stages of production in the industry be tight, extra-PTA final goods producers would likely be hard-pressed to locate appropriate components within the PTA and remain competitive *vis-à-vis* the intra-PTA producers in the PTA market. Even if extra-PTA firms were to locate in the PTA market via tariff-jumping-like "RoO-jumping", discrimination would continue until the regional sourcing met the RoO (Graham and Wilkie [1998]).

RoO can thus be used to meet the political economy goal of extending protection to both intra-PTA input and final goods producers. Furthermore, given that RoO hold the potential of increasing local sourcing and affecting the locational decisions of investors, governments can use RoO to encourage investment in certain strategic or high-value sectors -for instance in order to create lucrative jobs (Jensen-Moran [1996]; Hirsch [2002])-.

B. Types of RoO

Product-Specific RoO: Five Main Components

The Kyoto Convention recognizes two basic criteria to determine origin: wholly obtained or produced, and substantial transformation.² The wholly obtained or produced-category applies only to one PTA member, and asks whether the commodities and related products have been entirely grown, harvested, or extracted from the soil in the territory of that member, or manufactured there from any of these products. The rule of origin is met through not using any second-country components or materials. Most countries apply this strict and precise definition.

The substantial transformation-criterion is more complex, involving four main components that can be used as stand-alone or in combinations with each other. The precision in which these components define RoO in PTAs today contrasts sharply with the vagueness of the substantial

² The Revised Kyoto Convention is an international instrument adopted by the World Customs Organization (WCO) to standardize and harmonize customs policies and procedures around the world. The WCO adopted the original Convention in 1974. The revised version was adopted in June 1999.

transformation-criterion as used by the United States since 1908 through the inception of the Canada-US Free Trade Agreement (CUSFTA) and, subsequently, NAFTA (Reyna [1995] p. 7).³

The first component of the substantial transformation criterion is a change in tariff classification (CTC) between the manufactured good and the inputs from extra-PTA parties used in the productive process. The CTC may require the product to alter its chapter (2 digits under the Harmonized System), heading (4 digits), sub-heading (6 digits) or item (8-10 digits) in the exporting country.

The second criterion is an exception attached to a particular CTC (ECTC). ECTC generally prohibits the use of non-originating materials from a certain sub-heading, heading, or chapter.

The third criterion is value content (VC), which requires the product to acquire a certain minimum local value in the exporting country (or, alternatively, to remain below a certain ceiling percentage of value originating in the non-member countries). The value content can be expressed in three main ways: as the minimum percentage of value that must have been added in the exporting country (domestic or regional value content, RVC); as the difference between the value of the final good and the costs of the imported inputs (import content, MC); or as the value of parts (VP), whereby originating status is granted for products meeting a minimum percentage of originating parts out of the total.

The fourth RoO component is technical requirement (TECH), which requires the product to undergo certain manufacturing operations in the originating country. TECH requires or prohibits the use of certain input(s) and/or the realization of certain process(es) in the production of the good.⁴ It is a particularly prominent feature in RoO governing textile products.

TABLE 1
FREQUENCY OF VARIOUS PRODUCT-SPECIFIC CRITERIA

PTAs	Criterion				
	CTH	VALUE CONTENT			TECH
		MC	RVC	VP	
Customs unions (6)	6	2 (40-60%)	2 (35-60%)	--	--
FTAs and other PTAs (87)	83	68 (30-60%)	7 (25-65%)	67	74

Source: WTO [2002].

Table 1 summarizes the frequency of the various product-specific criteria in 93 PTAs -6 customs unions and 87 FTAs- around the world. The change of heading-requirement is the staple of PTAs. It is used either as stand-alone or in tandem with other RoO criteria. Also frequently used are the

³ The old criterion basically required the emergence of a "new and different article" from the manufacturing process applied to the original article. It was, however, much-criticized for allowing -and indeed requiring- subjective and case-by-case determinations of origin (Reyna [1995] p. 7).

⁴ TECH can be highly discretionary given that lack of classification tools to objectively guarantee sufficient transformation in the production of the good.

import content (usually ranging from 30 to 60 percent), value of parts, and technical requirements. Adding analytical complexity albeit administrative flexibility is that many RoO regimes provide two alternative RoO for a given product, such as a change of chapter or, alternatively, a change of heading + RVC.

Regime-Wide RoO

Besides product-specific RoO, RoO regimes vary in the types of general RoO they employ -including in the degree of *de minimis*, the roll-up principle, and the type of cumulation-.

First, most PTAs contain a *de minimis* rule, which allows for a specified maximum percentage of non-originating materials to be used without affecting origin. The *de minimis* rule inserts leniency in the CTC or TECH criteria by making it easier for products with non-originating inputs to qualify.

Second, the roll-up or absorption principle allows materials that have acquired origin by meeting specific processing requirements to be considered originating when used as input in a subsequent transformation. That is, when roll-up is allowed, non-originating materials are not taken into account in the calculation of the value-added of the subsequent transformation.

Third, cumulation allows producers of one PTA member to use non-originating materials from another PTA member (or other members) without losing the preferential status of the final product. There are three types of cumulation. Bilateral cumulation operates between the two PTA partners and permits them to use products that originate in the other PTA partner as if they were their own when seeking to qualify for preferential treatment. Diagonal cumulation means that countries tied by the same set of preferential origin rules can use products that originate in any part of the area as if they originated in the exporting country. Full cumulation extends diagonal cumulation. It provides that countries tied by the same set of preferential origin rules among each other can use goods produced in any part of the area, even if these were not originating products. All the processing done in the zone is then taken into account as if it had taken place in the final country of manufacture.⁵ As such, diagonal and full cumulation can notably expand the geographical and product coverage of a RoO regime. Table 2 illustrates the frequency of general RoO provisions around the world.

**TABLE 2
FREQUENCY OF GENERAL RoO PROVISIONS**

PTAs	<i>De minimis</i>	Type of Cumulation			Roll-Up
		Bilateral	Diagonal	Full	
Customs unions (6)	3	6	0	0	2
FTAs and other PTAs (87)	85	87	58	8	81

Source: WTO [2002].

⁵ In bilateral cumulation, the use of the partner country components is favored; in diagonal cumulation, all the beneficiary trading partners of the cumulation area are favored. While diagonal cumulation and, even more so, bilateral cumulation, promote the use of materials originating within the FTA, full cumulation is more liberal than diagonal cumulation by allowing a greater use of third-country materials. It is, however, rarely used.

Whereas *de minimis*, roll-up, and cumulation allow for leniency in the application of RoO, there are three provisions that may have the opposite effect -increase the stringency of RoO-.⁶

First, most PTAs contain a separate list indicating the operations that are in all circumstances considered insufficient to confer origin, such as preservation during transport and storage, as well as simple operations of cleaning, sorting, painting, packaging, assembling, and marking and labeling.

Second, most PTAs prohibit duty drawback -preclude the refunding of tariffs on non-originating inputs that are subsequently included in a final product exported to a PTA partner market-. Many developing countries in particular employ drawback in order to attract investment and to encourage exports; however, drawback in the context of a PTA is viewed as providing a cost advantage to the PTA-based producers who gear their final goods to export over producers selling their final good in the domestic market.⁷ The end of duty drawback entails an increase in the cost of non-originating components for PTA-based final goods producers. As such, the end of drawback in the presence of cumulation may encourage intra-PTA producers to shift to suppliers in the cumulation area (WTO [2002]).

Third, PTAs may impose high administrative costs stemming from the method of certifying the origin of goods. The main models of certification employed in PTAs are self-certification by exporters, certification by an industry umbrella group, and certification by the exporting country government -or various combinations of the three-. The more numerous the bureaucratic hurdles and the higher the costs for an exporter to obtain an origin certificate, the lower the incentives to seek PTA-conferred preferential treatment.

C. Effects of RoO

The complexity and stringency of RoO employed in PTAs has given rise to concerns over their potentially diversionary effects on trade and investment flows. More generally, the often dauntingly complex RoO have led analysts to question the extent to which PTAs can create trade, boost welfare, and serve as stepping-stones in the march toward global free trade. From a legal standpoint, preferential RoO are feared to breach Article XXIV of the General Agreements on Tariffs and Trade (GATT), which in paragraph 8(b) defines a free trade area as "a group of two or more customs territories in which the duties and *other restrictive regulations of commerce* (...) are eliminated on *substantially all* the trade between the constituent territories in products originating in such territories."⁸

⁶ To be sure, some countries argue that a system of cumulation merely introduces another layer of discrimination, since non-participating countries are not eligible for its benefits.

⁷ De Melo, Cadot and Olarreaga [2001] show that duty drawback may have a protectionist bias for reducing the interest of producers to lobby against protection of intermediate products.

⁸ Italics added.

The Costs of RoO

RoO can affect trade by inflicting two types of costs -production and administrative costs-. Both of these costs can introduce a protectionist bias. Production costs arise from the various technical criteria imposed by the RoO regime. In theoretical terms, a RoO less PTA could be expected to result in dramatic changes in trade patterns due to rise in transshipment through the country with the lowest tariff: without RoO, a PTA would be highly liberalizing given that the lowest tariff would apply to each import category (Krishna [2002]). However, in the presence of stringent RoO, the potential for a PTA to boost trade between the members will likely be moderated by the rise in the cost of inputs for the intra-PTA final goods producers -which decreases final goods production and lowers the final goods' producers' derived demand for intra-PTA inputs, undercutting intra-PTA trade in both inputs and final goods (Ju and Krishna [1998])- . The costs of production may be compounded by the fact that RoO are formulated on the basis of the Harmonized System, which was not designed with a consideration for the determination of origin. For instance, a product that undergoes a substantial transformation in practice may still fail to alter its tariff classification, and hence fail to meet the CTC test.

The administrative costs stem from the procedures required for ascertaining compliance with the RoO. These involve bookkeeping costs -the costs for the exporter of certifying the origin of a good prior to its export to the territory of another PTA member- and the costs to the partner country customs of verifying the origin of goods. The different certification mechanisms impose divergent costs on firms and governments alike, particularly when countries belong to several PTAs with different types of RoO. These costs are hardly trivial. In Brazil, for instance, the cost of obtaining certification for a single shipment from a certifying agency is estimated to range between US\$6 and US\$20; in Chile, the cost is US\$7. Koskinen [1983] estimates the administrative costs for Finnish exporters under the European Community-EFTA FTA at 1.4 percent to 5.7 percent of the value of export transactions. In another pioneering study, Herin [1986] puts the cost of obtaining the appropriate documentation to meet the RoO at three to five percent of the FOB value of the good in the context of EFTA. Holmes and Shephard [1983] find the average export transaction EFTA to the EC to require 35 documents and 360 copies. In a recent study, Cadot, *et al.* [2002]) disentangle NAFTA's non-RoO related and RoO-related administrative costs, finding the latter to approximate two percent of Mexican exports to the US market. Producers in sectors governed by RoO that are based on the VC criterion face the added administrative complexity of fluctuations in exchange rates and changes in production costs. Besides increasing unpredictability, changes in relative prices complicate the verification of origin by customs, and may give rise to subjective administrative discretion on the part of the importing country customs.

Impact on Trade and Investment Flows

Encouraging the use of intra-PTA inputs at the expense of extra-PTA ones even if the latter were cheaper, restrictive RoO can result in trade diversion. This is a concern particularly for small countries whose producers have grown to depend on supply sources beyond their domestic market (and outside the future PTA area) simply due to the lack of domestic supply of inputs. However, when their restrictiveness rises further, RoO can constrain intra-PTA trade altogether. With the production and administrative costs imposed by RoO rising to unsustainably high levels, producers

of the final good would rather import their inputs from the ROW and sell their output at their home market than produce to the PTA partner's market at high input costs. Alternatively, final goods producers may act as producers in the ROW -do export their products to the PTA partner by paying the MFN tariff and hence foregoing the costs of meeting the RoO-. To be sure, the higher the MFN tariff, the greater the willingness of firms to comply with the RoO, including to shift to intra-PTA inputs and furnish the certifying documentation.

Besides the short-run trade effects, RoO may in the longer-run encourage RoO-jumping investment, whereby extra-PTA producers locate plants within a PTA region in order to satisfy the RoO. If this occurs even when the PTA region was not economically the most optimal investment location, RoO can engender investment diversion. Moreover, RoO can produce investment diversion within the PTA area. For one, should final goods producers be hard-pressed to locate appropriate components in the PTA area and remain competitive, they may simply choose to locate to the territory of the largest PTA market and the one with the lowest external tariffs -such as the United States in the context of NAFTA- and continue importing third-country inputs required for the final product.⁹ Two, producers located in the PTA member with the lowest production costs can be placed in a disadvantage when the RoO are based on RVC, which is easier to meet in PTA members with higher production costs. As such, RoO may encourage investment to a large hub country that may well be an inefficient producer -and perpetuate it given the agglomeration effects of foreign direct investment-.

Empirical Evidence

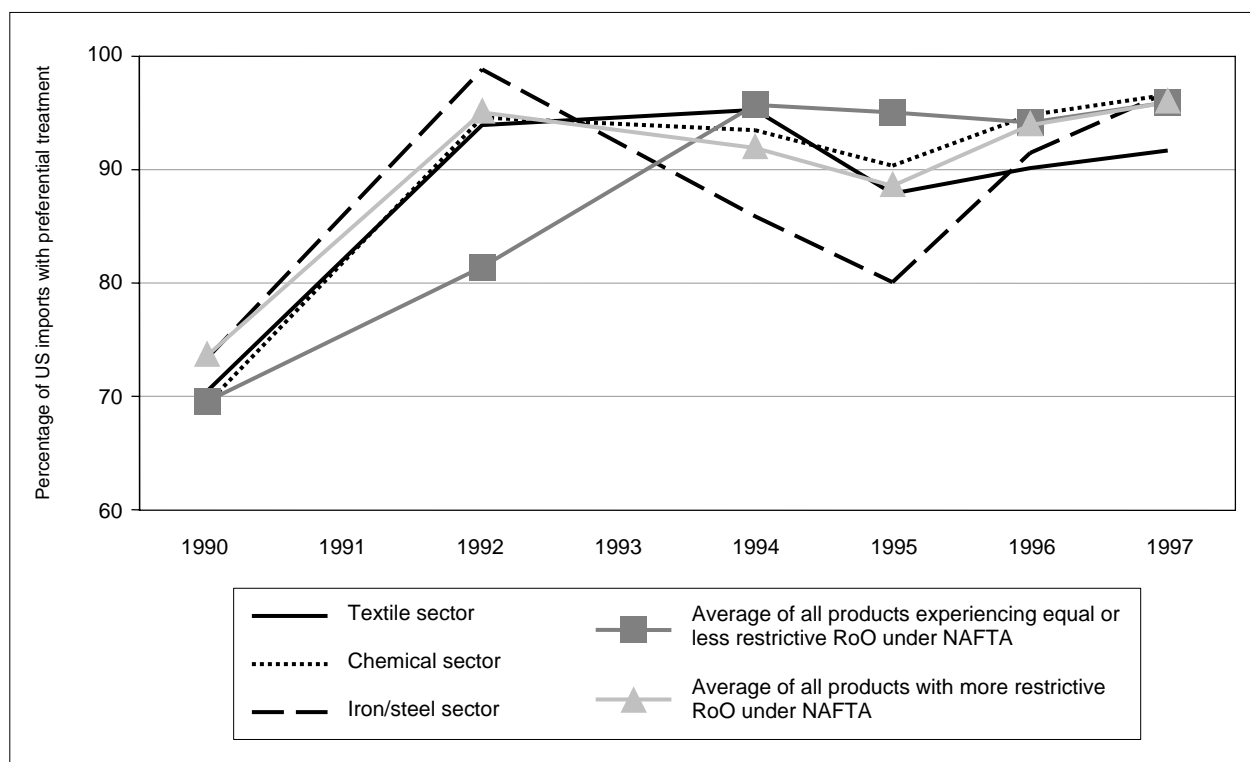
The potential effects of restrictive RoO have three immediate implications to the theoretical debate over the potential trade effects of PTAs. First, RoO can reduce the utilization rates of the PTA-provided preferences. Second, RoO can hamper PTA-induced trade liberalization, undercutting the trade effect that tariff lowering between the PTA partners would have in a PTA with loose RoO. Third, the relevance of RoO *per se* -and their importance as a constraint on commerce thereby-decreases with the lowering of MFN tariff barriers across PTA members. These issues have rendered some analysts to suggest that the expanding spaghetti-bowl of overlapping PTAs and RoO regimes should be accompanied by the principle of open regionalism and/or replaced by customs unions or a hybrid arrangement between and CU and FTA altogether, lest the benefits of preferential trade liberalization be lost (see Bergsten [1997]; Wonnacott [1996]).

However, theoretical literature is hard-pressed to specify the exact level of restrictiveness where the RoO is loose enough to keep input prices low or restrictive enough for the price of inputs to rise to unsustainable heights, and for the negative effects of trade diversion to kick in (Ju and Krishna [1998]; Duttagupta and Panagariya [2001]). As such, the relationship between the restrictiveness of RoO and intra-PTA trade flows in intermediate and final goods is relegated to an empirical matter.

⁹ For example, a Mexican and a US firm selling at the US market and purchasing their inputs from outside the NAFTA region would be unequally treated under NAFTA, as the Mexican firm would be disadvantaged *vis-à-vis* the US firm by the former's failure to meet the RoO required to export to the US market (Graham and Wilkie [1998] p. 110).

Empirical evidence, for its part, is scarce given the difficulties of operationalizing RoO -translating the complex technical requirements into a variable that serves as a measure of the stringency of RoO-. However, the pioneering works are rather clear on the dampening effect of the technical and administrative requirement of RoO on trade. Appiah [1999], examining NAFTA in a three-country, multisector Computable General Equilibrium (CGE) model, finds that RoO distort trade flows, diverting resources from their most efficient uses and undercutting global welfare. Estevadeordal and Miller [2002] document "missed preferences"-i.e., utilization rates below 100 percent -between the United States and Canada due to the tightening of the pre-FTA RoO under NAFTA launched in 1994 (Figure1)-. Cadot, *et al.* [2002] attribute the mere 64 percent utilization rate of NAFTA preferences in part to RoO, and also show that Mexican exports to the United States have been undermined by stringent RoO.¹⁰ Canadian producers are reported to have opted to pay the tariff rather than going through the administrative hurdles to meet the RoO already in the context of the NAFTA predecessor, the US-Canada FTA (Krueger [1995]).

**FIGURE 1
FROM USA-CANADA FTA TO NAFTA:
RULES OF ORIGIN AND UTILIZATION RATES**



Note: 1991 and 1993 data points linearly interpolated.

Source: Estevadeordal and Miller [2002].

¹⁰ In January 1995, the US found a high compliance rate among the Mexican and Canadian exporters and producers on RoOs, or at 90 percent and 80 percent, respectively (Reyna [1995] pp. 37-38). In NAFTA, the United States played a key role in establishing the agreement's Uniform Regulations and RoO enforcement mechanisms.

In the EU context, Brenton and Manchin [2002], albeit not operationalizing RoO, attribute the low utilization rates of the EU's trading partners in the textile sector to excessively stringent EU RoO. Augier and Gasiorek [2002] examine two different types of PTAs -one with RoO and the other whereby the RoO regime permits diagonal cumulation- finding preliminary evidence that when there is no cumulation between countries, trade is more than a third lower than expected level of total trade; for manufacturing trade, the figure rises to above 40 percent. These contributions notwithstanding, much remains to be done to further the empirical understanding of the effects of RoO on trade and, in particular, on investment.

III. RULES OF ORIGIN IN EUROPE AND IN THE AMERICAS

This section turns to analyzing the structure of the most prevalent RoO regimes used in Europe and the Americas. After laying out the types of RoO used in these regimes, we examine the relative restrictiveness of the RoO governing different economic sectors in the different agreements, and consider the behavior of EU RoO against the backdrop of the EU's preferential tariff lowering schedules, the other crucial market access instruments employed in FTAs.

A. Comparative Analysis of the Structure of RoO Regimes

Types of Rules

The RoO regimes employed today across the EU's FTAs are highly uniform *vis-à-vis* each other. This owes largely to the European Commission's recent drive to harmonize the EU's existing and future preferential RoO regimes in order to facilitate the operations of EU exporters dealing on multiple trade fronts, and to pave the way for particularly the East European FTA partners to draw greater benefits from EU-provided preferential treatment via diagonal cumulation -that is precluded by the lack of compatibility between RoO regimes. The harmonization efforts pertained to product-specific and regime-wide RoO alike. They extended to the RoO protocols with the EFTA countries that dated from 1972 and 1973, as well as across the EU's FTAs forged in the early 1990s in the context of the Europe Agreements with Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia, and Romania.¹¹ The work culminated in 1997 in the launch of the Pan-European system, which established identical RoO protocols and product-specific RoO across the EU's existing FTAs, providing for diagonal cumulation among the participating countries thereby. The Commission's regulation 46 of January 1999 reiterates the harmonized protocols, outlining the so-call single list RoO.

The standard, single list RoO have since 1997 become incorporated in the EU's newer FTAs, including the Euro-Mediterranean Association Agreements, the Stabilization and Association Agreements with Croatia and the Former Yugoslav Republic of Macedonia, the EU-Slovenia FTA, as well as the extra-regional FTAs with South Africa, Mexico, and Chile. Also the RoO of the EU's generalized system of preferences (GSP) and the 2000 Cotonou Agreement with the African, Caribbean, and Pacific (ACP) developing countries approximate the single list model. However, the harmonized RoO do not represent a dramatic break with those of the pre-1997 era. For example, the RoO in nearly three-quarters of the products (in terms of tariff sub-headings) in the single list and the original EU-Poland RoO protocol published in 1993 are identical. Both the new and the old versions combine the CTC mainly at the heading level with VC and/or TECH. Indeed, the EU RoO feature remarkable continuity: the RoO of the European Community-Cyprus FTA 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 specify mostly 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 based on the import content criterion.

¹¹ See Driessen and Graafsma [1999] for review.

There is much more variation across RoO regimes in the Americas. Nevertheless, distinct RoO families can be identified (Garay and Cornejo [2002]). One extreme is populated by the traditional trade agreements such as the Latin American Integration Association (LAIA), which uses a general rule applicable across the board for all tariff items (a change in tariff classification at the heading level or, alternatively, a regional value added of at least 50 percent of the FOB export value). The LAIA model is the point of reference to RoO used in the Andean Community (CAN) and Caribbean Community (CARICOM). At the other extreme lie the so-called new generation PTAs such as NAFTA, which, in turn, is used as a reference point for the Mexico-Costa Rica, Mexico-Chile, Mexico-Bolivia, Chile-Canada, and Mexico-Colombia-Venezuela (or G-3) FTAs.¹² The RoO regimes in these agreements may require a change of chapter, heading, sub-heading or item, depending on the product in question. In addition, many products combine the change of tariff classification with an exception, regional value content, or technical requirement. Mercosur RoO, as well as RoO in the Mercosur-Bolivia and Mercosur-Chile FTAs are mainly based on change of heading and different combinations of regional value content and technical requirements. The Central American Common Market's (CACM) RoO regime can be seen as located between those of the Mercosur and NAFTA: it uses chiefly change in tariff classification only, but in a more precise and diverse ways than Mercosur due to requiring the change to take place at either the chapter, heading, or subheading level, depending on the product in question. In some products, CACM introduces exceptions; a handful of products are also governed by regional value content or technical requirements.¹³

Figure 2 centers on the first RoO component, the CTC criterion, in three of EU's new RoO regimes (FTAs with South Africa -where the RoO are basically fully identical to those of the 1999 single list- Mexico, and Chile), three old ones (the original, pre-single list FTAs with Poland and Estonia, and the GSP RoO as specified in 1993), five RoO regimes based on the NAFTA model gaining prominence in the Western Hemisphere (NAFTA, Group of Three between Colombia, Mexico, and Venezuela, and Mexico-Costa Rica, Mexico-Bolivia, and Canada-Chile FTAs), and the RoO regimes in the FTAs between Mercosur on the one hand, and Chile and Bolivia, on the other.¹⁴

The change of heading-criterion predominates EU RoO, whereas the RoO built upon the NAFTA RoO regime are based on change of heading and change of chapter-criteria at relatively even quantities.¹⁵ Mercosur's FTAs with Chile and Bolivia, meanwhile, use the change of heading-criteria across the RoO. Another notable difference between the EU and the NAFTA models is the EU's defining about a quarter of its RoO without a CTC-criterion. The bulk (more than 80 percent) of these RoO are based on the wholly-obtained criterion used particularly in agricultural products, or on the import content-rule that impose a ceiling of 40-50 percent to non-originating components

¹² NAFTA RoO enshrined in Chapter 4 constitute a maze of highly disaggregated trade regulations described in a 150-page long Annex.

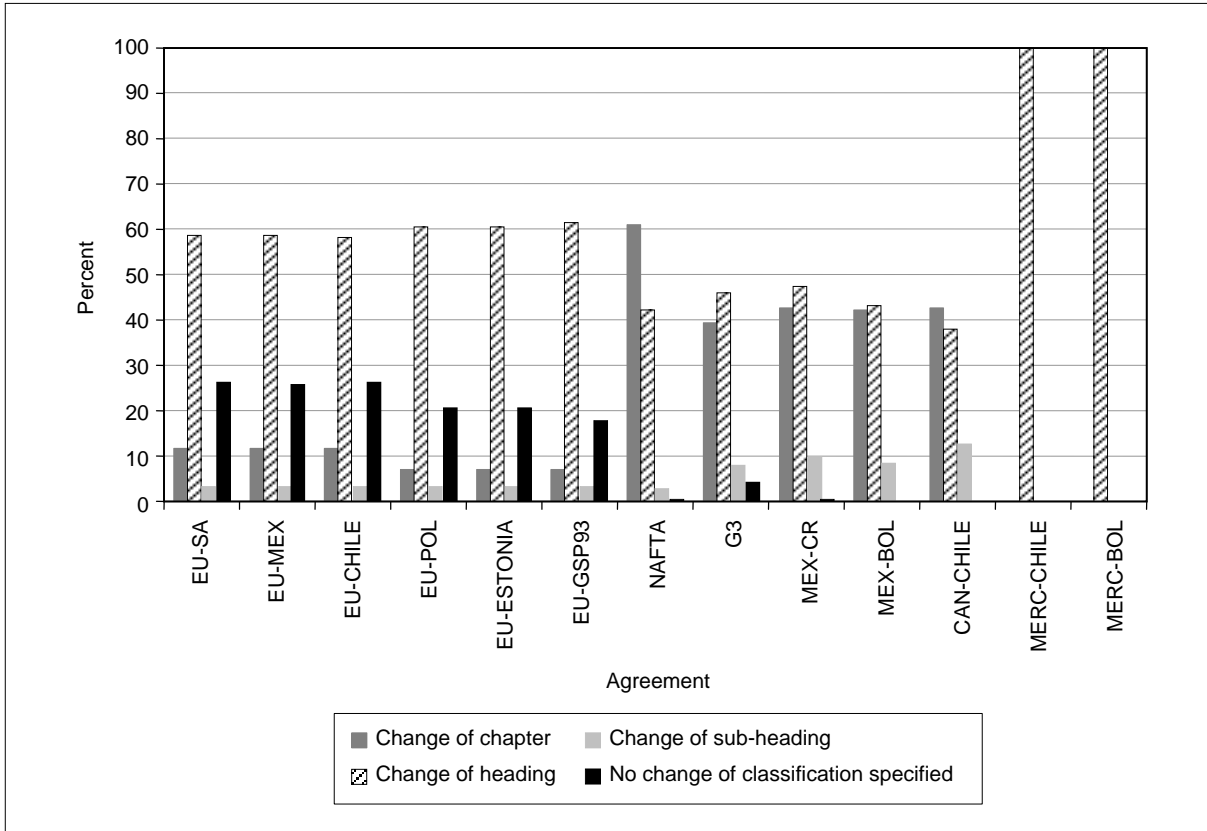
¹³ There are numerous different RoO regimes beyond those forged by the countries of the Americas and the EU. For instance, the ASEAN Free Trade Area (AFTA), and the US-Jordan and US-Israel FTAs principally operate on VC alone, while the Australia-New Zealand Closer Economic Relations Trade Agreement (ANZERTA) combines VC and TECH. The Common Market for Eastern and Southern Africa (COMESA) features CTC and VC.

¹⁴ The figure is based on the first RoO only when two or more possible RoO are provided for a tariff heading or subheading.

¹⁵ The EU RoO are generally specified at the level of tariff heading in the texts of the RoO protocols, while the NAFTA family specifies RoO at the level of sub-heading.

of the ex-works price of the final product. The stand-alone import content RoO are used particularly frequently for optics, transportation equipment, and machinery and electrical equipment.

FIGURE 2
DISTRIBUTION OF CTC CRITERIA BY AGREEMENT



Source: Authors' calculations based on RoO protocols.

Capturing the full scale of variation in the RoO regimes requires a look at the various combinations of RoO components. Table 3 displays the RoO combinations in selected EU FTAs and FTAs in the Americas.

Figures 3(a)-(e) extend the analysis of RoO combinations to the sectoral level in five product categories -plants, vegetables fruits and nuts; pharmaceuticals; textiles; iron and steel; and vehicles- in EU's FTAs with South Africa, Mexico, and Chile, in the 1993 RoO of the EU-Poland FTA, as well as in NAFTA and the Mercosur-Chile FTA.

TABLE 3
STRUCTURE OF RoO IN SELECTED FTAS

Requirement	EU-SA	EU-MEX	EU-CHI	EU-POL93*	EU-EST95	EU-GSP93	NAFTA	G-3	MEX-CR	MEX-BOL	MERC-CHI	MERC-BOL
NC	0.39	0.39	0.39	0.20	0.20	0.20	0.54	4.05	0.55	0.95		
NC+ECTC	2.39	2.04	2.39	2.36	2.36	2.30						
NC+TECH	1.39	1.39	1.39	0.72	0.72	0.72						
NC+ECTC+TECH	0.00	0.00	0.00	0.00	0.00	0.00						
NC+VC	11.46	10.91	11.90	11.08	11.08	10.22			0.02			
NC+ECTC+VC	1.57	1.57	1.57	1.61	1.61	2.43						
NC+VC+TECH	0.08	0.20	0.20	0.00	0.00	0.00						
NC+WHOLLY OBTAINED CHAPTER	7.62	7.62	7.62	3.24	3.24	3.43						
NC+WHOLLY OBTAINED HEADING	0.70	0.70	0.70	0.70	0.70	0.70						
<i>Subtotal</i>	<i>25.60</i>	<i>24.82</i>	<i>26.16</i>	<i>19.91</i>	<i>19.91</i>	<i>20.00</i>	<i>0.54</i>	<i>4.05</i>	<i>0.57</i>	<i>0.95</i>	<i>0.00</i>	<i>0.00</i>
CI+ECTC							0.02		0.04			
CI+ECTC+VC							0.02					
<i>Subtotal</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.04</i>	<i>0.00</i>	<i>0.04</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>
CS	0.20	0.20	0.20	0.08	0.12	0.12	1.29	1.54	2.99	2.94		
CS+ECTC	0.00	0.00	0.00	0.00	0.00	0.00	2.52	0.73	2.14	1.32		
CS+TECH	1.90	1.90	1.78	1.89	1.89	1.87	0.04	0.10		0.02		
CS+ECTC+TECH	0.00	0.00	0.00	0.00	0.00	0.00	0.40	0.04	0.28	0.43		
CS+VC	0.27	0.27	0.27	0.37	0.37	0.37		4.60	4.25	4.24		
CS+ECTC+VC	0.00	0.00	0.00	0.00	0.00	0.00	0.10					
CS+VC+TECH	0.00	0.00	0.00	0.00	0.00	0.00		0.04		0.26		
CS+ECTC+VC+TECH	0.00	0.00	0.00	0.00	0.00	0.00		0.83				
<i>Subtotal</i>	<i>2.37</i>	<i>2.37</i>	<i>2.25</i>	<i>2.34</i>	<i>2.38</i>	<i>2.36</i>	<i>4.35</i>	<i>7.88</i>	<i>9.66</i>	<i>9.21</i>	<i>0.00</i>	<i>0.00</i>
CH	32.99	32.99	32.86	36.83	38.00	38.35	17.09	16.45	24.32	17.00	46.00	44.60
CH+ECTC	4.60	5.13	4.56	4.57	4.10	4.05	19.18	13.45	19.66	14.27		
CH+TECH	0.00	0.00	0.00	0.34	0.86	0.92	0.02	0.97		0.22	20.04	21.20
CH+ECTC+TECH	6.66	6.66	6.66	6.68	6.66	6.62	0.14	0.26		1.74		
CH+VC	13.01	12.68	12.78	13.58	13.56	13.56	3.54	2.01	2.67	2.17	9.99	11.90
CH+ECTC+VC	0.37	0.86	0.37	0.43	0.42	0.20	0.58		0.52	0.85		
CH+VC+TECH	0.00	0.00	0.00	0.00	0.00	0.00	0.10	8.06	0.02	10.01	23.97	22.30
CH+ECTC+VC+TECH	0.02	0.02	0.02	0.02	0.02	0.02		4.82		0.89		
<i>Subtotal</i>	<i>57.65</i>	<i>58.34</i>	<i>57.25</i>	<i>62.43</i>	<i>63.62</i>	<i>63.70</i>	<i>40.65</i>	<i>46.02</i>	<i>47.19</i>	<i>47.15</i>	<i>100.00</i>	<i>100.00</i>
CC	2.16	2.16	2.16	2.28	2.28	2.11	30.95	21.09	31.05	21.80		
CC+ECTC	1.02	1.02	1.02	0.74	0.74	0.74	17.71	5.90	5.65	6.67		
CC+TECH	0.04	0.04	0.04	0.04	0.04	0.04	0.02	5.43		6.30		
CC+ECTC+TECH	11.02	11.25	11.02	11.02	11.02	11.04	5.76	6.65	5.81	6.24		
CC+VC	0.00	0.00	0.00	0.00	0.00	0.00		0.14	0.26	0.43		
CC+ECTC+VC	0.00	0.00	0.00	0.00	0.00	0.00		0.00				
CC+VC+TECH	0.00	0.00	0.00	0.00	0.00	0.00		2.67		1.24		
CC+ECTC+VC+TECH	0.00	0.00	0.00	0.00	0.00	0.00		0.20				
<i>Subtotal</i>	<i>14.24</i>	<i>14.47</i>	<i>14.24</i>	<i>14.08</i>	<i>14.08</i>	<i>13.93</i>	<i>54.44</i>	<i>42.08</i>	<i>42.77</i>	<i>42.68</i>	<i>0.00</i>	<i>0.00</i>
Total	100	100	100	99	100	100	100	100	100	100	100	100

Notes: CC = CHANGE IN CHAPTER.

CH = CHANGE IN HEADING.

CS = CHANGE IN SUBHEADING.

ECTC = EXCEPTION TO CHANGE OF TARIFF CLASSIFICATION.

VC = VALUE CONTENT.

TECH = TECHNICAL REQUIREMENT.

CI = CHANGE IN ITEM

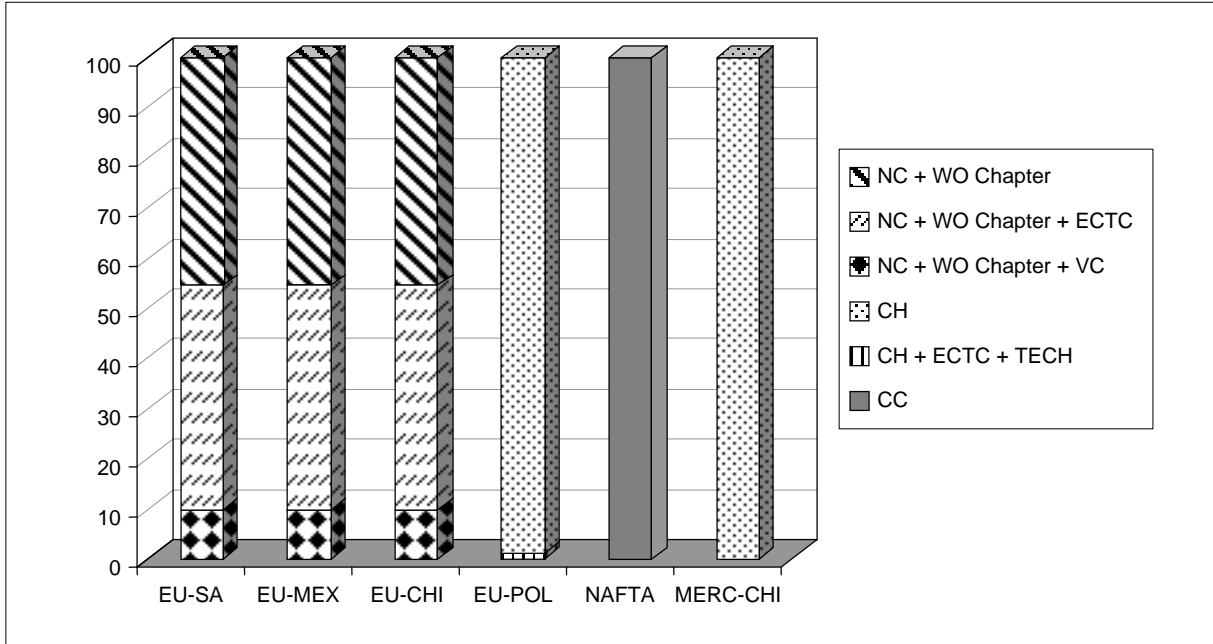
NC = NO CHANGE IN TARIFF CLASSIFICATION REQUIRED

* = 1.27 percent of RoO (by sub-heading) in EU-Poland FTA are covered by Annex IV.

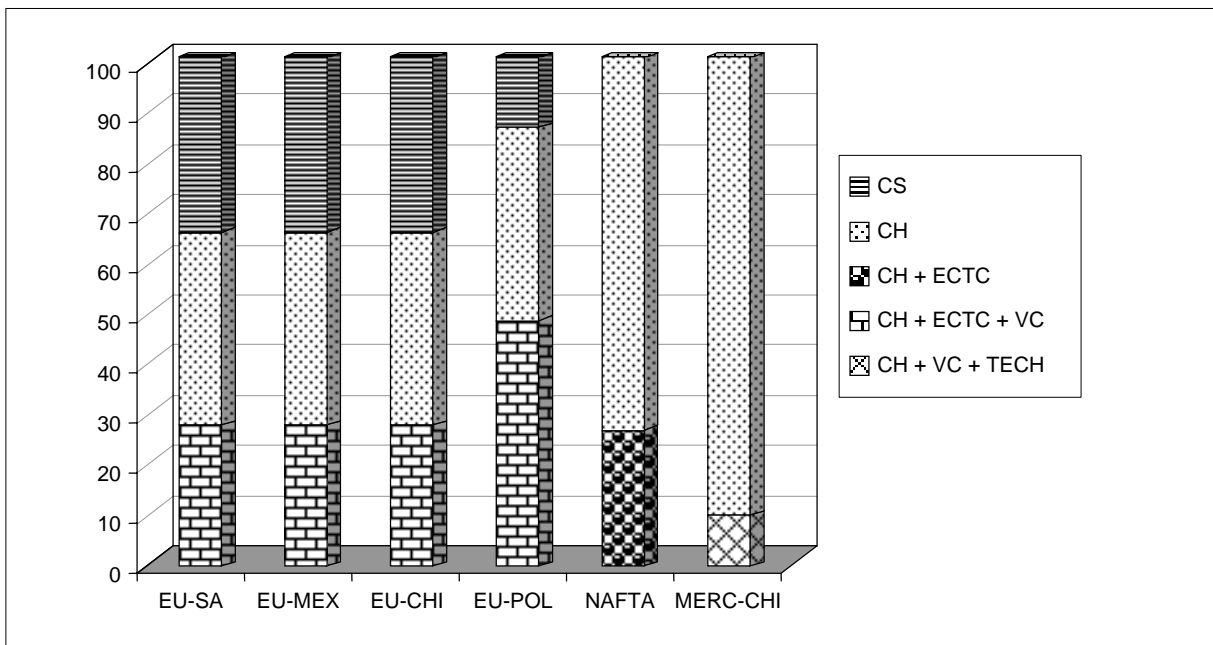
Source: Authors' calculations and Devlin and Esteveordal [2001].

FIGURE 3

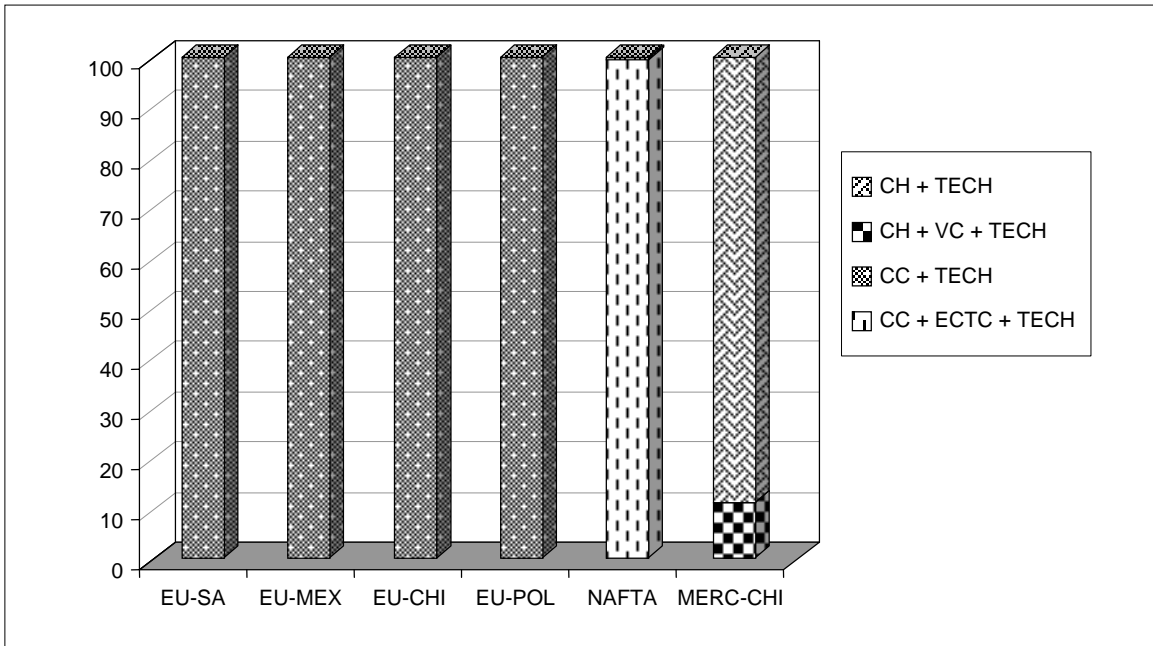
(A) - PLANTS, VEGETABLES, FRUITS, NUTS (Chs. 6-8)



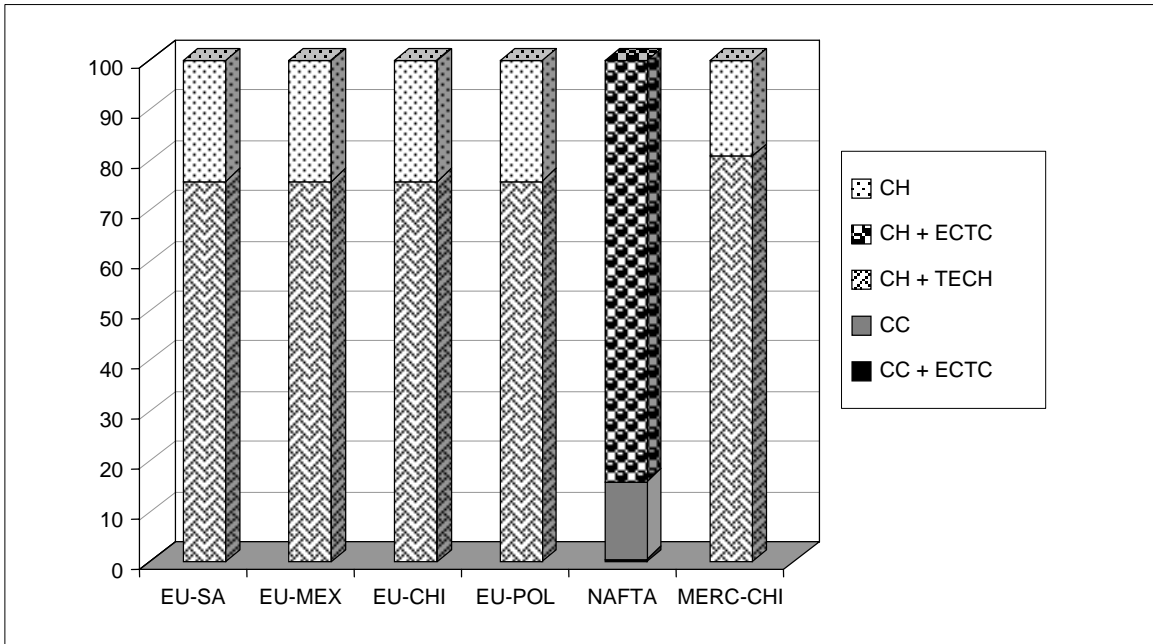
(B) - PHARMACEUTICALS (Ch. 30)



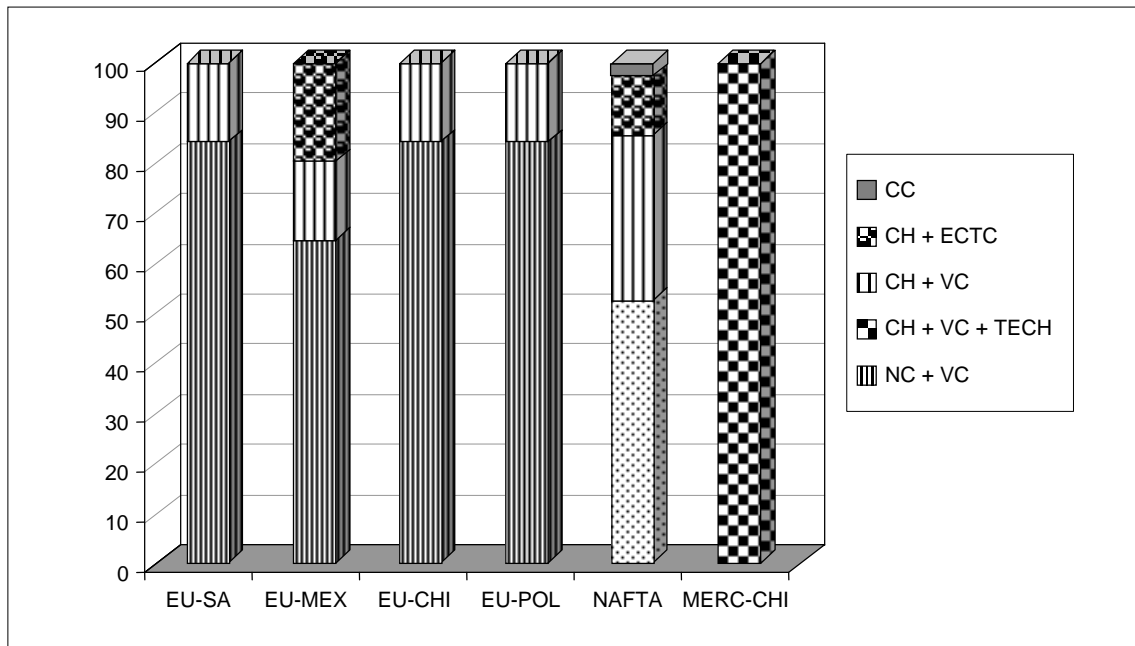
(C) - TEXTILE APPAREL (Chs. 61-62)



(D) - IRON AND STEEL (Ch. 72)



(E) - VEHICLES (Ch. 87)



The figures reveal the rich diversity of combinations of different RoO criteria across sectors particularly in the EU- and NAFTA-based RoO regimes; Mercosur RoO are more uniform across sectors. Yet, the graphs also illustrate the similarity of the sectoral RoO combinations across agreements. Even though NAFTA RoO diverge at the sectoral level from the EU model, the differences are seldom marked but derive from the particular combination of RoO (for example, CH + ECTC predominating the NAFTA model in iron and steel, as opposed to CH + TECH for EU and Mercosur). Particularly notable are the prevalence of the ECTC and CV criteria in combinations with the CTC-criteria. Both NAFTA and the EU RoO regimes rely heavily on TECH in the textile sector, which can have important implications to production patterns. This is because TECH in essence requires the CTC to occur sequentially through specified tariff headings: in NAFTA and well as in the EU's FTAs, clothing must have gone through the CTC from yarn to thread, from thread to cloth, and from cloth to clothing. Thus, clothing manufactured in a NAFTA country from cloth woven there but using non-originating yarn will not qualify for preferential treatment. However, NAFTA and EU models do diverge in a dimension that is beyond the scope of the figures: NAFTA uses the regional value content criterion as the main VC RoO, whereas the EU mainly employs the import content criterion.

There are more similarities than differences between the RoO regimes based on the EU, the NAFTA, and the Mercosur models, respectively. However, one prominent feature of the EU RoO regime draws it apart from the RoO employed in the Americas, namely the frequent use of the so-called "soft RoO". Soft RoO as employed by the EU means that even when a given RoO requires a change of heading (or change of chapter), it also allows the use of inputs from the same heading

(or chapter) up to a certain share of the price of the final product.¹⁶ This share is most generally between 5 and 20 percent. Table 4 shows that more than a quarter of the EU RoO requiring a change of heading and about a sixth of RoO requiring a change of chapter employ a "soft" RoO, which reduces the stringency of the CTC and ECTC criteria.

TABLE 4
SHARE OF "SOFT" CHANGE OF TARIFF CLASSIFICATION-CRITERIA IN
SELECTED EU RoO REGIMES, BY CRITERION
(Percentages)

Requirement	EU-SA	EU-MEX	EU-CHILE	EU-POL93	EU-EST95	EU GSP-93
NC + Soft ECTC	12.7	13.2	12.5	10.8	11.0	12.8
CS Soft	19.8	19.9	20.9	20.9	20.6	20.8
CH Soft	26.0	25.7	25.9	40.6	39.8	39.8
ECTC Soft alone (CH not soft)	1.3	1.3	1.3	0.7	0.7	0.5
CC Soft	15.2	14.9	15.2	16.2	16.2	14.9

Source: Authors' calculations based on the texts of RoO protocols.

Besides sectoral RoO, the different RoO regimes in Europe and the Americas can be compared by their regime-wide RoO. Table 5 contrasts the various RoO regimes in Europe and the Americas by their general, regime-wide RoO *-de minimis*, roll-up, cumulation, and drawback-.

TABLE 5
REGIME-WIDE ROO IN SELECTED FTAs IN EUROPE AND THE AMERICAS

PTA	<i>De minimis</i> (percentage)	Roll-Up	Cumulation		Drawback Allowed
			Bilateral	Diagonal	
EU-South Africa	15	Yes	Yes	Yes (SACU)	Not mentioned
EU-Mexico	10	Yes	Yes	No	No after 2 years
EU-Chile	10	Yes	Yes	No	No after 4 years
EU-Poland	10	Yes	Yes	Yes	No
NAFTA	7	Yes except automotive	Yes	No	No after 7 years for Mex.
Mercosur-Chile	Not mentioned	Yes	Yes	No	Yes

Source: Texts of the RoO protocols, WTO [2002].

¹⁶ The VC in EU RoO requires that the value of non-originating materials not exceed a certain percentage of the ex-works price of the finished product. Value is defined as the customs value at the time of importation of the non-originating materials (or, alternatively, the first ascertainable price for materials in the community when the customs value is not clear). Ex-works price is defined as value of the ex-works price of the product, which means the price paid to the manufacturer who varied out the last working or processing of the product in question. See Roos [1996, p. 218]. These definitions apply also the share of non-originating materials allowed by the soft RoO.

First, EU RoO regime features a higher *de minimis* than NAFTA, while there is no *de minimis* rule in Mercosur's FTAs. However, the principle does have exceptions: for example, the EU's *de minimis* does not apply to textiles and apparel, except for allowing an 8 percent *de minimis* of the total weight of textile materials in mixed textiles products. In the EU-South Africa FTA, *de minimis* is set at 15 percent but excludes fish and crustaceans, tobacco products, as well as certain meat products and alcoholic beverages. The NAFTA *de minimis* does not extend to the production of dairy produce; edible products of animal origin; citrus fruit and juice; instant coffee; cocoa products, and some machinery and mechanical appliances, such as air conditioners and refrigerators (Reyna [1995] pp. 115-117). In textiles, the 7 percent *de minimis* refers to the total weight rather than cost of the input component.

Second, the roll-up principle is widely used by EU's FTAs and FTAs in the Americas. For example, in NAFTA, a good may acquire originating status if it is produced in a NAFTA country from materials considered as originating (whether such materials are wholly obtained or having satisfied a CTC or RVC criterion) even if no change in tariff classification takes place between the intermediate material and the final product. Similarly, the EU-Mexico FTA stipulates that "if a product which has acquired originating status by fulfilling the conditions (...) is used in the manufacture of another product, the conditions applicable to the product in which it is incorporated do not apply to it, and no account shall be taken of the non-originating materials which may have been used in its manufacture". Roll-up is also a feature of EU's FTAs with East European countries.

Third, the EU's Pan-European system of cumulation applied since 1997 draws a clear distinction between the EU RoO regimes on the one hand, and NAFTA and Mercosur RoO, on the other. The foremost diagonal cumulation regime in the world, the Pan-European system covers no fewer than 50 FTAs. These include FTAs between EU and third parties, such as the members of the European Free Trade Agreement (EFTA), central and eastern European countries, the Baltic states, and Turkey, and also FTAs forged between the EU's partner countries -such as between Slovenia and Estonia-. In concrete terms, the Pan-European system enables producers to use components originating in any of the participating countries without losing the preferential status of the final product. The EEA agreement between EU and EFTA permits full cumulation. The EU-South Africa FTA also provides for full cumulation. It incorporates the "single territory" concept, whereby goods originating from countries party with South Africa to the Southern Africa Customs Union (SACU) are considered as originating in the EU-South Africa FTA area.

Fourth, both the EU's FTAs and NAFTA preclude drawback. Nonetheless, both have allowed for phase-out periods during which drawback is permitted. For instance, Mexico was allowed to employ drawback for the first two years under the EU-Mexico FTA, while Chile can do so through 2007, the fourth year of the FTA with the EU. NAFTA allowed Mexico to use drawback during the first seven years. NAFTA also provides for leniency in the application of the no-drawback rule by putting in place a refund system, whereby the producer will be refunded the lesser of the amount of duties paid on imported goods and the amount of duties paid on the exports of the good (or another product manufactured from that good) upon its introduction to another NAFTA member. Mercosur's FTAs stand out for permitting drawback. However, in Mercosur *per se*, a no-drawback rule does govern Argentine and Brazilian imports of intermediate automotive products when the final product is exported to a Mercosur partner.

Administration of RoO

The EU-inspired RoO regime and the RoO regimes employed in the Americas diverge administrative requirements, particularly the method of certification (Table 6).

TABLE 6
CERTIFICATION METHOD IN EU, NAFTA, AND MERCOSUR

PTA	Certification method
EU-South Africa	Two-step private and public; limited self-certification
EU-Mexico	Two-step private and public; limited self-certification
EU-Chile	Two-step private and public; limited self-certification
EU-Poland 93	Two-step private and public; limited self-certification
NAFTA	Self-certification
Mercosur-Chile	Public (or delegated to a private entity)

Source: Texts of RoO protocols.

The EU RoO regimes require the use of a movement certificate, EUR.1, that is to be issued in two steps by the exporting country government once application has been made by exporter or the exporter's competent agency, such as a sectoral umbrella organization. However, the EU regimes provide for an alternative certification method, the invoice declaration, for "approved exporters" who make frequent shipments and are authorized by the customs authorities of the exporting country to make invoice declarations. NAFTA, meanwhile, relies on self-certification, which entails that the exporter's signing the certificate suffices as an affirmation that the items covered by it qualify as originating. Mercosur's certification method approximates that of the EU's movement certificate system, requiring certification by a public entity or a private umbrella entity approved as a certifying agency by the government. The NAFTA model can be seen as placing the burden of proof essentially on the importing country producers; as such, it arguably minimizes the role of the government in the certifying process, entailing rather low administrative costs to exporters and governments alike. In contrast, the EU's movement certificate system requires heavier involvement by the exporting country government and increases the steps that an exporter is to bear when seeking certification. To be sure, the invoice declaration system facilitates exporting among the frequent traders.

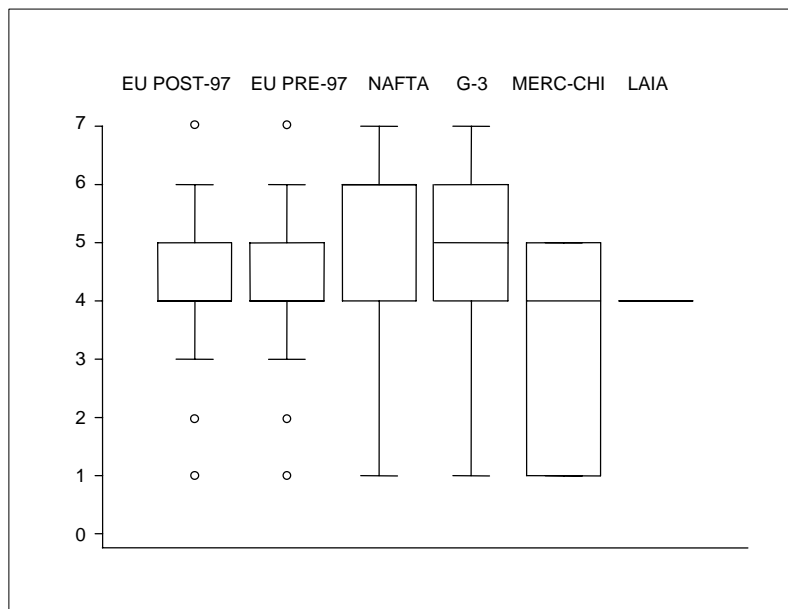
B. Comparative Analysis of the Levels of Restrictiveness of RoO

The NAFTA RoO family is based on the change of chapter rules, whereas the EU and Mercosur models feature a strong change of tariff-heading component. As such, these regimes will entail somewhat divergent demands on exporters. However, understanding the implications of membership in the different types of regimes for an exporter operating in a particular industry requires both a measure of the restrictiveness of RoO, and a more nuanced sectoral analysis of the requirements imposed by RoO.

Restrictiveness of RoO Regimes

The manifold RoO combinations within and across RoO regimes present a challenge for cross-RoO comparisons. This paper seeks to draw such comparisons through an index grounded on the plausible restrictiveness of a given type of RoO. Estevadeordal [2000] constructs a categorical index ranging from 1 (least restrictive) to 7 (most restrictive) on the basis of NAFTA RoO. The index can be conceptualized as an indicator of how demanding a given RoO is for an exporter. The observation rule for the index is based on two assumptions: (1) change at the level of chapter is more restrictive than change at the level of heading, and change at the level of heading more restrictive than change at the level of sub-heading, and so on; and (2) VC and TECH attached to a given CTC add to the RoO's restrictiveness.¹⁷ While this paper builds on Estevadeordal's index, some modifications are made to the observation rule (specified in Appendix I) to account for the structure of EU RoO -in particular the instances where the CTC criterion is not used-

FIGURE 4
RESTRICTIVENESS OF RoO OF THE EU AND IN THE AMERICAS, SELECTED FTAS



Note: Boxplots represent interquartile ranges. The line in the middle of the box represents the median 50th percentile of the data. The box extends from the 25th percentile to the 75th percentile, or through the so-called inter-quartile range (IQR). The whiskers emerging from the boxes extend to the lower and upper adjacent values. The upper adjacent value is defined as the largest data point less than or equal to $x(75) + 1.5 \text{ IQR}$. The lower adjacent value is defined as the smallest data point greater than or equal to $x(25) + 1.5 \text{ IQR}$. Observed points more extreme than the adjacent values are individually plotted (extreme values are marked with "o" symbol).

Source: Authors' calculations based on RoO protocols.

Figure 4 reports the restrictiveness of RoO as calculated at the six-digit level of disaggregation in selected FTAs formed by the European Union and in the Americas, respectively. The EU RoO

¹⁷ Given that the degree of restrictiveness is a function of *ex ante* restrictiveness rather than the effective restrictiveness following the implementation of the RoO, the methodology -much like that of Garay and Cornejo [2002]- is particularly useful for endogenizing and comparing RoO regimes. The methodology allows RoO to be analyzed in terms of their characteristics rather than their effects.

regimes are strikingly alike across agreements; indeed, the similarities are accentuated in comparison to the graphs above as the differences between the pre- and post-1997 RoO regimes in about a fifth of subheadings are too small to alter the restrictiveness code. For instance, in many products the only difference between the two sets of regimes is that a RoO requiring, say, a change of heading for a given product may also impose an ECTC under one regime while not doing so under another; such differences go uncaptured by the index employed here. The RoO regimes based on the NAFTA model, such as the G-3, are highly alike. The Mercosur model pertinent to Mercosur-Chile and Mercosur-Bolivia FTAs is more general, yet still exhibiting more cross-sectoral variation in the restrictiveness of RoO than the LAIA model marked by the across-the-board change of heading RoO. However, diverging from each other, the NAFTA, Mercosur, and LAIA models evince the distinctive RoO families operated in the Americas.

Sectoral RoO: Comparing EU and NAFTA

Economic sectors in the two predominant RoO regimes in Europe and the Americas -those based on the EU and the NAFTA models, respectively- are governed by different types of RoO and RoO combinations, such as a high domestic value content for agricultural products, technical requirements for textiles products, and change of tariff heading in combination with RVC for automobiles. But to what extent does the restrictiveness of RoO vary across sectors? Are some sectors more susceptible to the negative trade and investment effects of RoO than others?

We explore this question by focusing on EU and NAFTA RoO. Table 7 reports the restrictiveness values aggregated by section of the Harmonized System that are established on the basis of the EU's 1999 regulation and NAFTA, respectively.

TABLE 7
RESTRICTIVENESS OF EU AND NAFTA RoO

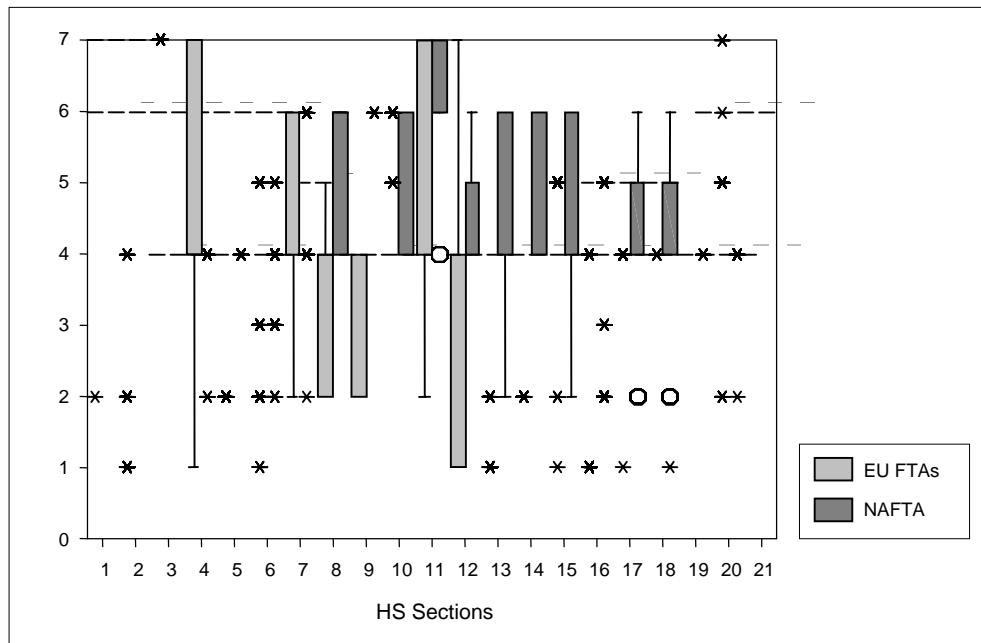
HS Section	EU-99	NAFTA
1. Live Animals	7.0	6.0
2. Vegetable Products	6.6	6.0
3. Fats and Oils	4.7	6.0
4. Food, Bev. and Tobacco	5.0	4.7
5. Mineral Products	3.5	6.0
6. Chemicals	3.9	5.3
7. Plastics	4.9	4.8
8. Leather Goods	3.3	5.6
9. Wood Products	2.9	4.0
10. Pulp and Paper	4.4	4.8
11. Textile and Apparel	6.1	6.9
12. Footwear	2.8	4.9
13. Stone and Glass	3.7	4.9
14. Jewelry	3.7	5.3
15. Base Metals	4.2	4.6
16. Machinery and Electrical Equipment	4.8	3.2
17. Transportation Equipment	4.7	4.8
18. Optics	5.0	4.0
19. Arms and Ammunition	4.0	4.7
20. Works of Art, Misc.	4.1	5.1
<i>Average</i>	<i>4.5</i>	<i>5.1</i>

Source: Authors' calculations; Estevadeordal [2000].

Two issues stand out. First, the average restrictiveness value for EU RoO falls between 4 and 5, which correspond to the change of heading and change of heading plus regional value content criteria, respectively. As such, the index conveys the same message as the analysis above of the predominance of the change of heading rule in EU's RoO regimes. The average is somewhat higher for NAFTA, reflecting the use of the change in chapter criterion. Second, the data reveal important variation in the degree of restrictiveness across economic sectors within the two regimes, as well as striking similarities in the variation of cross-sectoral restrictiveness within each agreement. Agricultural products and textiles and apparel are marked by a particularly high restrictiveness score in both regimes, which provides precursory evidence that the restrictiveness of RoO may be driven by the same political economy variables that arbitrate the level of tariffs in the EU and United States.

The box-and-whisker plots in Figure 5 provide a more nuanced look at the sectoral restrictiveness of the EU and NAFTA RoO. The first set in each of the 21 sectors refers to EU RoO, while the latter set refers to NAFTA RoO. The plots reveal some differences in the range of restrictiveness (or the lack of it) within sectors in each agreement. For instance, while EU RoO are nearly uniform with sections 13-21, NAFTA RoO vary more within these sections -and tend to be more restrictive than the EU RoO-. Meanwhile, EU RoO in foodstuffs (section 4) feature a wide range of restrictiveness values, while the NAFTA RoO are highly uniform in the sector.

FIGURE 5
PROFILES OF SECTORAL RESTRICTIVENESS OF EU AND NAFTA RoO



Note: Observed points more extreme than the adjacent values are individually plotted (outliers and extreme values are marked using "x" and "o" symbols).

Source: Authors' calculations based on the texts of EU and NAFTA RoO protocols.

Sectoral "RoO Phase-Ins" and Deviations for the Single List in EU-Mexico and EU-Chile FTAs

EU RoO are highly uniform across agreements, as consequently is their level of sectoral restrictiveness. However, a closer look at the product-specific RoO in the EU-Mexico and EU-Chile FTAs regimes reveals that the EU does provide partner-specific sectoral transition periods and adjustment mechanisms.

First, both the EU-Mexico and EU-Chile FTAs contain a number of "RoO phase-ins" -deviations from the EU's standard baseline for a certain period of time-. In the case of Mexico, these pertain to one whole chapter (knitted apparel) and to 25 headings (or subheadings) in chemicals, textiles, footwear, machinery, and vehicles, and endure from two to six years prior to converging to the benchmark RoO. The most notable exceptions favoring Mexico involve three headings in vehicles (road tractors and semi-trailers; public transport vehicles; and motor vehicles for transport of goods), for which Mexico applies a 55 percent VC for an annual quota of 2,500 units through 2002, followed by a 50 percent VC on the quota through 2006. This contrasts with the 60 percent VC that will be applied otherwise and following year 2006. A similar alleviating exception applies to three other headings in vehicles and two headings pertinent to piston engines in chapter 84, but only through the year 2004. In footwear, the RoO for shoes is more restrictive for the EU than in its other FTAs: same RoO applies as in the FTAs with Chile and South Africa up to a certain quota, while the rest of EU exports to the Mexican market are regulated by much more stringent RoO.

The other RoO phase-outs in the EU-Mexico FTA involve *Zea indurata* maize (through 2002), organic chemicals (subheadings of headings 2914 and 2915 feature stricter RoO through June 2003); leather (heading 4104 involves change of heading rather than TECH through 2002); knitted apparel (whereby chapter 61, instead of manufacture from yarn, permits a greater number of options through 2002); unknitted apparel (whereby several headings in chapter 62 allow a greater number of options than manufacture from yarn through 2002, and a third alternative RoO will be made available starting in 2003); and nuclear fuel elements (heading 8401 involves a looser RoO through 2005).

The RoO phase-ins are fewer in the case of Chile and pertain to textiles and bicycles for the first three years of the agreement. For two headings in man-made staple fibers (chapter 55), the RoO is more lenient prior to the phase-in. In special woven fabrics (chapter 58), the RoO is stricter prior to the phase-in, whereas in headgear (chapter 65), the initial RoO requires a VC instead of a change in heading. In bicycles (chapter 87), the initial RoO requires a VC rather than an ECTC, which sets in three years into the agreement.

Tables 8(a) and 8(b) list the phase-ins granted to Mexico and Chile in the RoO regimes with the EU.

A second means to add leniency to the RoO protocol are product-specific deviations from the single list. Tables 9(a) and 9(b) present such deviations in the EU-Mexico and EU-Chile FTAs, respectively, at the heading level. Many of the deviations are negotiated at the sub-heading level; the product descriptions define to which precise sub-headings or items the rule applies within a given heading.

TABLE 8(A)
RoO PHASE-INS IN EU-MEXICO FTA

Sector(s)	Phase-in through
Zea indurate maize	12/31/2002
Chemicals (2914)	06/30/2003
Chemicals (2915)	06/30/2003
Hides and Skins (4104)	12/31/2002
Knitted Apparel (Chapter 61)	12/31/2002
Unknitted Apparel (6201-6209, 6211)	12/31/2002
Unknitted Apparel (6202, 6204, 6206, 6209, 6211)	12/31/2002
Footwear (6402-6404)	RoO applied on Mexican imports from EU within a quota
Nuclear fuel elements (8401)	12/31/2005
Engines (8407)	12/31/2004
Engines (8408)	12/31/2004
Vehicles (8701, 8702, 8704)	Mexico to apply a more lenient RoO for an annual quota until 12/31/2006
Vehicles (8703, 8706, 8707)	Parties to apply a more lenient RoO for an annual quota until 12/31/2004

Source: Appendix ii(a) of the EU-Mexico RoO Protocol.

TABLE 8(B)
RoO PHASE-INS IN EU-CHILE FTA

Sector(s)	Phase-in through
Yarn (5509, 5511)	12/31/2005
Non-Woven Labels (5807)	12/31/2005
Felt Headgear (6503)	12/31/2005
Bicycles (8712)	12/31/2005

Source: Appendix ii(a) of the EU-Chile RoO Protocol.

TABLE 9(A)
DEVIATIONS FROM THE EU SINGLE LIST: EU-MEXICO FTA (1ST RoO ONLY)

Heading (or subheadings thereof)	EU Single List	EU-MEX RoO
4810 (Paper or paperboard, coated on one or both sides with kaolin or other inorganic substances, with or without a binder, and with no other coating, whether or not surface-colored, surface-decorated or printed, in rolls or sheets)	CH	CC + ECTC + TECH
6307 (Other made-up articles, including dress patterns)	VC 60%	CC + ECTC + TECH
6401 (Waterproof footwear with outer soles and uppers of rubber or of plastics, the uppers of which are neither fixed to the sole nor assembled by stitching, riveting, nailing, screwing, plugging or similar processes)	NC + ECTC	NC + multiple ECTC
6402-6404 (Footwear of plastics, leather and textiles)	NC + ECTC	CH + ECTC+ VC 40%*
8483 (Transmission shafts and cranks; bearing housing and plain shaft bearings; gears and gearing; ball screws, gear boxes and other speed changers; flywheelers and pulleys; clutches and shaft couplings intended for use in vehicles in Ch. 87)	CH + VC 60%	CH + ECTC+ VC 60%
8508 (Electromechanical tools for working in the hand with self-contained electric motor, parts thereof)	CH + VC 60%	CH + ECTC
8509 (Electromechanical domestic appliances, with self-contained electric motor, parts thereof)	CH + VC 60%	CH + ECTC
8516 (Electric ovens, electric heating resistors, electric smoothing irons; parts thereof)	CH + VC 60%	CH + ECTC
8518 ("Other appliances" under the heading microphones and stands thereof, loudspeakers; head-phones; earphones and combined microphone/speaker sets; audio-frequency electric amplifiers; electric sound amplifier sets, parts thereof)	VC 60%	VC 50%
8527 (Radio broadcast receivers not capable of operating without an external source of power, of a kind used in motor vehicles)	VC 60%	CH + ECTC
8544 (Insulated wire, cable and other insulated electric conductors, whether or not fitted with connectors; optical fiber cables, made up of individual sheathed fibers)	VC 60%	VC 50%
8708 (Parts and accessories of motor vehicles of headings 8701 to 8705)	VC 60%	CH + ECTC
9009 (Electrostatic photocopying apparatus operating by reproducing the original image via an intermediate onto the copy)	CH + VC 60%	CH + VC 50%
9022 (Apparatus based on the use of x-rays or of alpha, beta or gamma radiations, not for medical, surgical, dental, or veterinary uses, including radiography and radiotherapy apparatus, parts and accessories thereof)	CH + ECTC	CH + VC 60%
9026 (Instruments or apparatus for measuring or checking the flow, level, pressure or other variables of liquids or gases, excluding instruments and apparatus of heading No. 9014, 9015, 9028, or 9032)	VC 60%	CH

Note: NC + ECTC applies to EC imports to Mexico to a limit set by a quota.

VC hereby implies the minimum originating value of all materials used in the production of the final good of the price of the final good.

Source: RoO Protocols.

TABLE 9(B)
DEVIATIONS FROM THE EU SINGLE LIST: EU-CHILE FTA (1ST RoO ONLY)

Heading (or subheadings thereof)	EU Single List	EU-Chile RoO
7601 (Unwrought aluminum)	CS + TECH	CH + VC 50%
8469-8473 (Office machines and parts and accessories thereof)	VC 60%	VC 50%
8481 ("Other appliances" under the heading of taps, cocks, valves and similar appliances for pipes, boiler shells, tanks, vats or the like, including pressure-reducing valves and thermostatically controlled valves)	CH + VC 60%	VC 60%
8504 (Power supply units for automatic data-processing machines)	VC 60%	VC 50%
8509 (Vacuum cleaners, including dry and wet vacuum cleaners; floor polishers)	CH + VC 60%	VC 60%
8517 (Electrical apparatus for line telephony or line telegraphy, including line telephone sets with cordless handsets and telecommunication apparatus for carrier-current line systems or for digital line systems; videophones)	CH + VC 60%	VC 50%
8523 (Prepared unrecorded media for sound recording or similar recording of other phenomena, other than products of Ch. 37)	VC 60%	VC 50%

Note: VC hereby implies the minimum originating value of all materials used in the production of the final good of the price of the final good.

Source: RoO Protocols.

Although the deviations are rather minor, the fact that most of them feature a less stringent rule of origin than that on the single list suggests, much like the RoO phase-ins do, that both Mexico and Chile achieved favorable outcomes in the RoO bargaining with the EU. Notably, in both cases, the divergences apply to industrial products only (i.e., chapters 25-97). For Mexico, the bulk of the deviations are in apparel; footwear; machinery and mechanical appliances; electrical machinery and equipment; vehicle parts; and optical instruments. The RoO in these sectors were modified in order to accommodate the lack of raw materials, components, and local production in Mexico (Holbein, *et al.* [2002]). Nonetheless, the EU is by and large viewed as the beneficiary of the RoO package, particularly after the phase-ins are completed. For instance, Mexico's goal was to keep RoO on car components at 30 percent of the value of the vehicle (*Ibidem*). However, the FTA grants preferential access to the European market for units that have at least 50 percent local content based on value added by Mexican producers; as noted above, after the third year of the FTA, the local content will rise to 60 percent as under the single list.¹⁸

For Chile, most deviations from the single list are in machinery and mechanical appliances, and electrical machinery and equipment. However, perhaps the most contentious issue in EU-Chile RoO negotiations centered on fishing and on a topic therein that is not defined in the product-specific RoO. Under international agreements, sea products caught within a nation's territory are regarded as originating from that country. However, in the Chile-EU FTA, fish will be considered originating from the country of the ship that catches them; as such, only fish caught by Chilean or EU vessels can enter the EU free of duty four years into the agreement. This means that fish caught by third-country vessels in the territorial waters of either Chile or EU will not meet the RoO. The FTA also provides inroads for Europeans to the Chilean fishing industry by liberalizing investment for the EU in the sector -where foreign direct investment had previously been capped at 49 percent of local companies-. However, the FTA does exclude the EU's original proposal for full access to Chile's fishing waters and ports.

C. Substitution vs. Complementarity of RoO: Tariff and RoO Packages in EU's FTAs

While isolating RoO has given important insights into their plausible trade effects, the actual market access and, hence, trade effects of PTAs are inherently a function of *both* RoO and the extent of preferential tariff liberalization. Indeed, that the EU is applying a uniform RoO regime across its PTA partners yet follows somewhat distinct tariff liberalization schedules in its PTAs begs an analysis of the interaction of RoO and tariff preferences. Furthermore, given that the EU RoO are remarkably resilient to variation in FTA partners and arguably also to changes in production structures over time suggests that the largely pre-set RoO, while introducing *ex ante* clarity and simplifying PTA negotiations, impose a constraint on EU's PTA negotiators. As such, the EU's pre-established RoO regime can be viewed as diverting the main focus of the FTA negotiations to the preferential tariff liberalization schedules.

The tariff packages in FTAs can be considered as varying in two dimensions: the relative depth of tariff lowering upon the agreement's entry into force, and the speed of tariff lowering to a zero

¹⁸ This contrasts with NAFTA RoO, which allows Mexico to claim all the value of an autopart if the imported components to that part have been significantly transformed in Mexico (Holbein, *et al.* [2002]).

duty. The depth of tariff lowering can be measured as the difference between the EU's MFN tariff and the preferential tariff offered to the partner country in a given sector. There is discernible variation across EU's extra-European FTAs along this dimension. For example, both Mexico and, in particular, Chile, gained full access to the EU market in several industrial product categories marked by high MFN tariffs at the first year of the FTAs' entry into force. For instance, the bulk of Chilean textile and footwear gained an immediate tariff-free access to the EU market. For South Africa, meanwhile, the preferences were more meager. Table 10 lays out the preferential margins for South Africa, Mexico, and Chile, respectively, at the entry into force of their FTAs with the EU. The preferential tariff for a given partner country is in each case weighted by the EU's imports from that country. The preferential margin is measured in percentage points and calculated as the difference between the EU's MFN tariff in 2000 and the preferential tariff. Agricultural tariffs for Mexico and Chile are measured by including only the sectors that: (1) were not excluded from the coverage of the FTA; and (2) are covered only by a tariff rather than a specific rate (usually expressed as Euro per unit of quantity, such as kg, liters, etc.) or a mixed tariff (which combines an *ad valorem* tariff and a specific rate tariff quota). For South Africa, the specific rates or mixed tariffs have been translated into a tariff and thus included in the calculations.

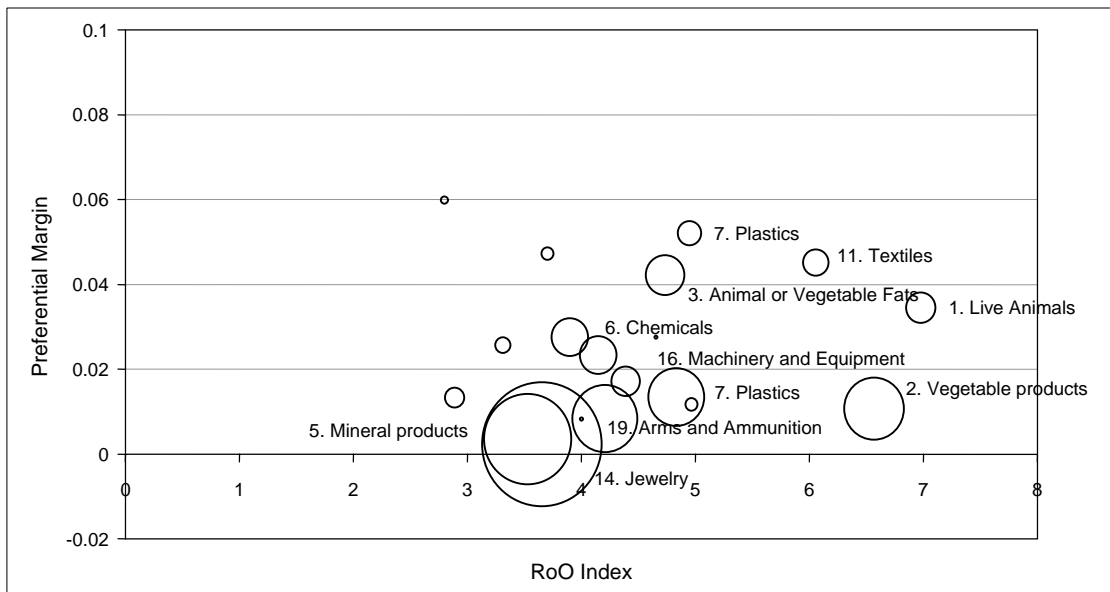
TABLE 10
PREFERENTIAL MARGINS IN THE 1ST YEAR OF FTA WITH THE EU:
SOUTH AFRICA, MEXICO, CHILE
(Percentages)

HS Section	South Africa	Mexico	Chile
1. Live Animals	3.45	6.13	4.27
2. Vegetable Products	1.07	1.25	0.0
3. Fats and Oils	2.75	4.69	0.0
4. Food, Bev. and Tobacco	0.0	5.81	0.97
5. Mineral Products	0.36	0.36	0.36
6. Chemicals	2.75	2.26	3.26
7. Plastics	5.20	4.40	5.32
8. Leather Goods	2.57	3.97	4.03
9. Wood Products	1.33	1.35	1.65
10. Pulp and Paper	1.72	1.73	1.73
11. Textiles and Apparel	4.52	5.53	10.69
12. Footwear	5.98	5.06	8.39
13. Stone and Glass	4.73	3.34	4.45
14. Jewelry	0.23	0.22	0.23
15. Base Metals	0.83	2.53	3.07
16. Machinery and Electrical Equipment	1.34	1.25	1.47
17. Transportation Equipment	4.22	2.44	4.84
18. Optics	1.17	1.43	1.42
19. Arms and Ammunition	0.83	1.17	0.86
20. Works of Art, Misc.	2.34	2.29	2.34
<i>Average</i>	2.15	2.86	2.75

Source: Authors' calculations based on the FTA texts and UNCTAD data.

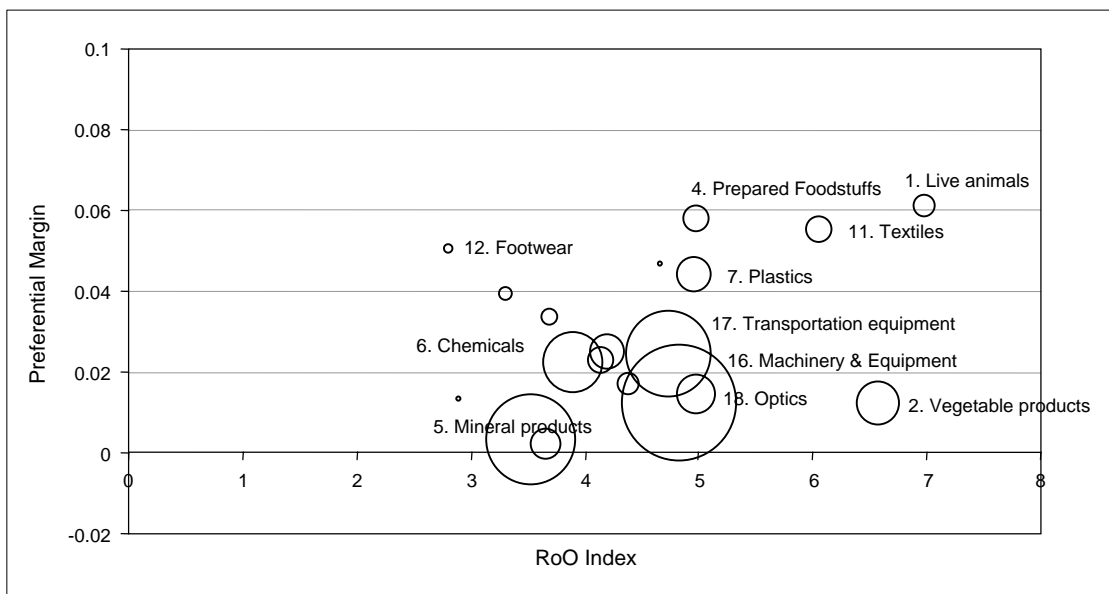
Following the methodology used in Cadot, *et al.* [2002], Figures 6(a)-6(c) examine the interplay of the depth of tariff lowering and the restrictiveness of RoO for South African, Mexican, and Chilean industrial exports to the EU. Given the similarity in RoO across these regimes, the RoO index is that of the EU's single list. The size of the dots is proportional to each sector's share in the examined country's total exports to EU (due to data constraints, the export data for Chile is from 2000 even though the EU-Chile FTA took effect in 2003).

FIGURE 6(A)
SOUTH AFRICA: EXPORTS TO THE EU IN PREF/RoO SPACE, 2000



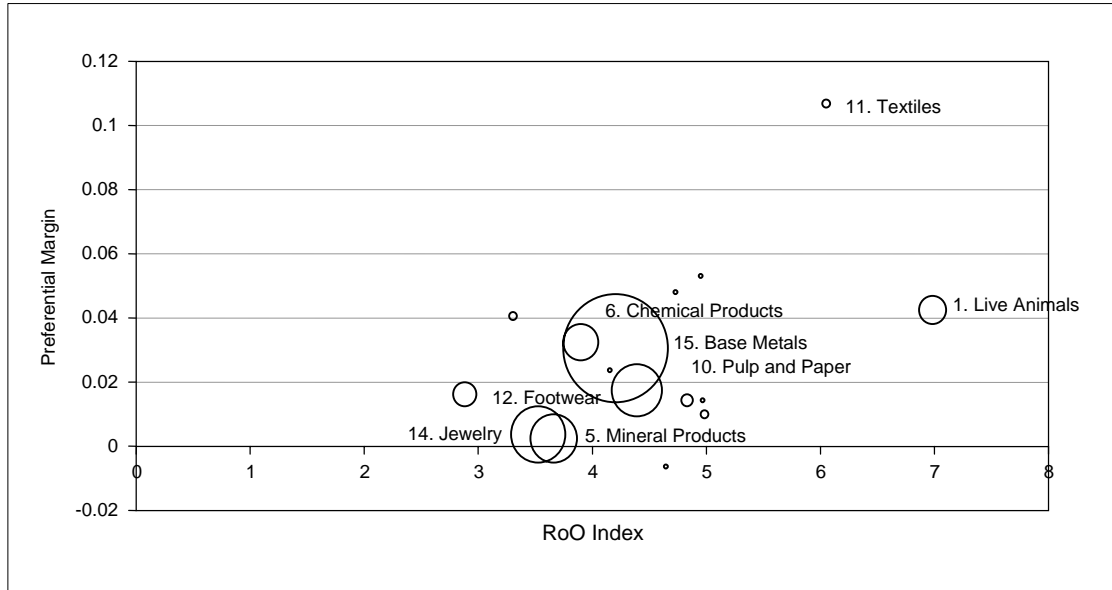
Source: Author's calculations based on Cadot, *et al.* [2002] methodology.

FIGURE 6(B)
MEXICO: EXPORTS TO THE EU IN PREF/RoO SPACE, 2000



Source: Author's calculations based on Cadot, *et al.* [2002] methodology.

FIGURE 6(C)
CHILE: EXPORTS TO THE EU IN PREF/RoO SPACE, 2000



Source: Author's calculations based on Cadot, *et al.* [2002] methodology.

Should RoO be taken as a constraint and the depth of tariff preferences as a boost for market access and trade, the sectors closest to the Northwest part of the picture -those with highest preferential margins and least restrictive RoO- ought to be the winners in terms of improved market access. The location of the various economic sectors on the graphs for Mexico and Chile is quite similar, and both countries enjoy deeper preferences than South Africa. However, some of Mexico's most important exports to the EU are also in sectors where the EU RoO are stringent and preferences below the average offered to Mexico -transportation equipment, machinery and electrical equipment, and mineral products-. Chile's main export to the EU, base metals, fares somewhat better, featuring a below-average RoO index and a preference approximating the average margin offered to Chile. Moreover, given that the EU's MFN and GSP tariffs in this sector are low to begin with, the margin for Chile suggests that the lowering for most items in the sector has been very substantial at the entry year.

Agricultural products, meanwhile, receive less generous treatment in all three cases, featuring strict RoO and low preferential margins. Even where the margin is higher -live animals- the MFN tariff is very high, which implies that the preferential tariff will continue to be substantial, the deep preference notwithstanding. Furthermore, the graphs for Mexico and Chile contain the optimistic bias in agriculture due to not including sectors that were either excluded from the FTA or covered by special rates or mixed tariffs. The EU-Mexico FTA, for instance, excludes the EU's most vulnerable agricultural sectors, including grains, meat, potatoes, some fruit, sugar and milk derivatives (although their market access provisions are to be revised in 2003).¹⁹ However, a closer

¹⁹ Europeans gained immediate market access to Mexico for such exports as certain vegetables, fruits and fruit juices, tobacco, cheese, beer, liquors, spirits (vodka, cognac, certain whisky, gin), cut flowers, and olive oil. Trade of quality wines (above US\$5) was liberalized in 2003.

look at the EU-Chile FTA is encouraging on two fronts, in particular. The first is the greater access to the EU for Chilean fresh fruit, harvested in the Southern Hemisphere summer to supply northern markets during their winter. The EU immediately lifted tariffs on Chilean apples, which previously faced a five percent duty in the EU market. Nearly 40 percent Chilean table grapes to the EU also enter duty-free; the eight percent tariff on the remainder is being phased out over four years (Reuters 04/27/02). The EU was more protective on nectarines and peaches, however. Second, Chile and the EU struck two specific agreements on wines and spirits. These grant reciprocal and exclusive protection to geographical indications, traditional expressions, and other protected names. The agreements are also expected to increase market access on both sides, particularly for quality wines. Chilean wines will enter the EU market duty free four years into the agreement.

On a more general level, it should be borne in mind that the figures are not fully comparable due to our not examining the tariff schedules that the three partners respectively provided to the EU. The EU's tariff offers to each partner may in part be influenced by the effect of reciprocity, that is, each respective partner's tariff liberalization offer presented to the EU. Should the different partners' offers diverge from each other, they may have affected the EU's tariff liberalization schedule differently -in which case establishing whether Mexico obtained better terms in its bargaining with the EU than Chile or South Africa, for instance, is somewhat complicated. However, a glance at the tariff offers by each of the three countries to the EU allows to establish that they are relatively similar. Moreover, even absent comparability, each graph would be instructive in its own right. Indeed, each of them suggests a direct relationship between tariff preferences and restrictiveness of RoO -or substitutability of between preferential tariff lowering and restrictiveness of RoO-. In political economy terms, assuming that the partner country's final goods producers obtained inputs outside the bloc before the FTA, they are provided an incentive to turn to intra-PTA intermediate producers for inputs by the deep tariff preference. RoO, in other words, become the price the partner country's final goods producers have to pay to enjoy the premium of market access. Extending the argument, EU's intermediate good producers that have *ex ante* obtained a stringent RoO would have an incentive to lobby for deep tariff preferences for their downstream sectors in order to capture the latter's market for inputs (Cadot, *et al.* [2002]).

To be sure, some of the low preferential margins merely mark sectors that are already open in the EU; as such, they do not necessarily indicate insubstantial preferential trade opening. These, indeed, are the sectors where exporters have the greatest incentive to avert the RoO and simply pay the MFN tariff to enter the EU market. This notion, in turn, would be consistent with the political economy explanation of the substitution effect between tariffs and RoO: sectors least protected by tariffs have been least insistent on added-on protection via restrictive RoO. Nonetheless, that the depth of tariff lowering varies across partners may be indicative of the partner country's level of competitiveness in the production of inputs -in which case the partner country's final goods producers would procure inputs from their (likely low-cost) domestic market and still meet the RoO, and the EU-based input producers would consequently face lowered incentives to lobby for deep tariff preferences in the final goods. In the latter scenario, preferential tariffs would likely tend towards complementing rather than substituting RoO.

Table 11 extends the analysis to the second dimension in which EU's tariffs vary across FTAs, the EU's tariff phase-out schedules. The phase-out is measured as the number of years to reach zero preferential tariffs in a given sector. Another way of conceptualizing the phase-out is that when

the bilateral tariff reaches zero, the preferential margin offered to a given FTA partner will become the inverse of the EU's MFN tariff.

TABLE 11
TARIFF PHASE-OUTS IN FTA WITH THE EU:
SOUTH AFRICA, MEXICO, CHILE
(In years)

HS Section	South Africa	Mexico	Chile
1. Live Animals	2.61	5.39	3.48
2. Vegetable Products	3.62	3.87	2.58
3. Fats and Oils	3.08	4.65	3.30
4. Food, Bev. and Tobacco	4.42	6.46	5.76
5. Mineral Products	0.01	0.02	0.00
6. Chemicals	0.70	0.77	0.74
7. Plastics	0.60	0.77	0.79
8. Leather Goods	0.91	0.70	0.62
9. Wood Products	0.81	0.94	0.34
10. Pulp and Paper	0.14	0.00	0.00
11. Textile and Apparel	3.92	2.81	0.08
12. Footwear	1.25	1.58	0.19
13. Stone and Glass	0.47	0.57	0.88
14. Jewelry	0.06	0.00	0.00
15. Base Metals	2.16	1.12	0.55
16. Machinery and Electrical Equipment	0.32	0.30	0.08
17. Transportation Equipment	2.05	0.95	0.70
18. Optics	0.41	0.23	0.40
19. Arms and Ammunition	2.17	2.70	2.26
20. Works of Art, Misc.	0.64	0.45	0.15
<i>Average</i>	<i>1.52</i>	<i>1.71</i>	<i>1.14</i>

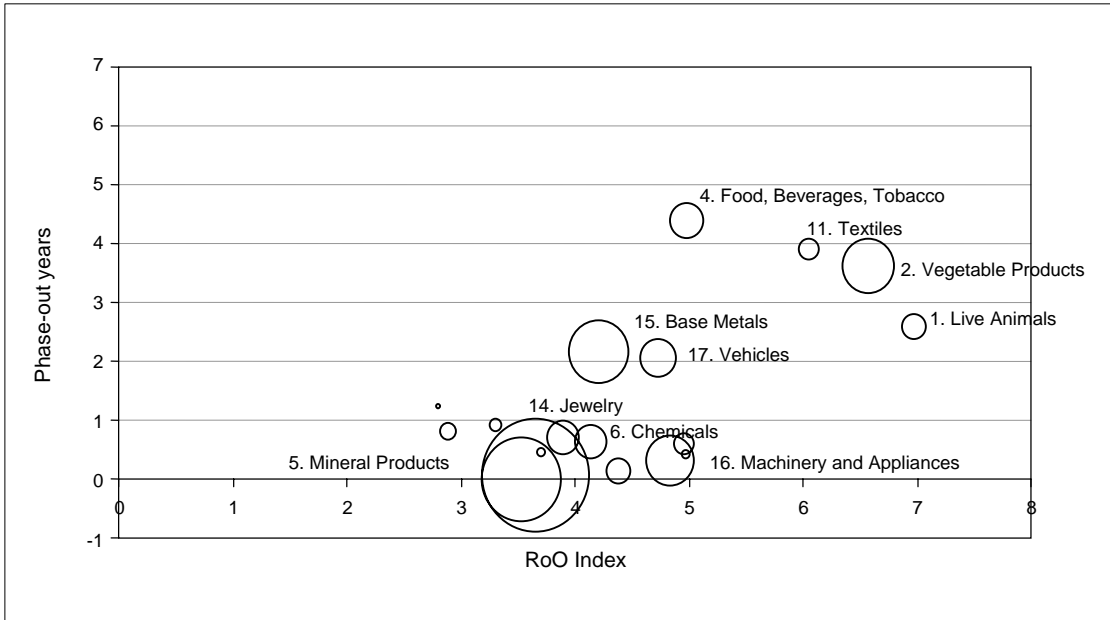
Source: Authors' calculations based on the FTA texts and UNCTAD data.

The table appears to reaffirm the notion that Chile may have obtained the most favorable market access provisions of the three of EU's recent extra-European FTA partners, that is, a substantial immediate tariff lowering and the fastest phase-out of tariffs.

Figures 7(a)-7(c) liken figures 6(a)-6(c) above, but plot the RoO index against the EU's phase-out schedule in the three FTAs.

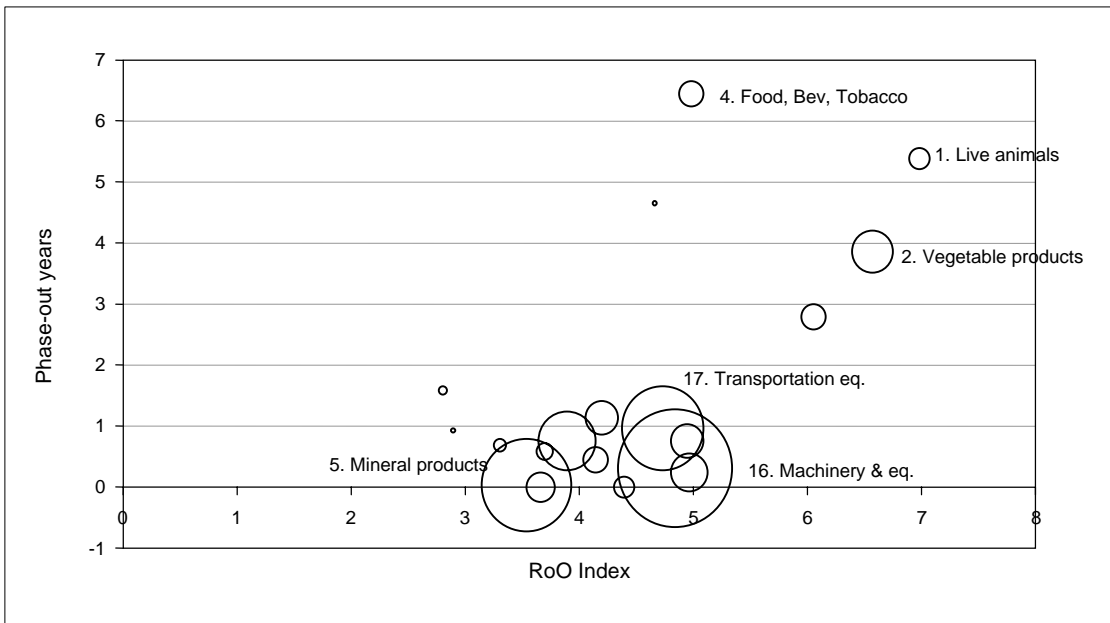
In these figures, sectors located in the Southwest part of the picture can be considered winners in terms of improved market access: they face least stringent RoO and fastest phase-out of EU's preferential tariffs. Sectors in the Northeast, meanwhile, face stringent RoO and a long waiting period prior to accessing the EU market free of duty. In the cases of Mexico and Chile, tariff phase-out for industrial products takes a maximum of only three years. Moreover, in the vast majority of sectors, tariffs were brought to zero upon the FTA's entry into force. In the agricultural sector, meanwhile, phase-outs are longer, with duty-free treatment provided for some tariff lines only ten years into the agreement.

FIGURE 7(A)
SOUTH AFRICA: EXPORTS TO THE EU IN PHASE-OUT/RoO SPACE, 2000



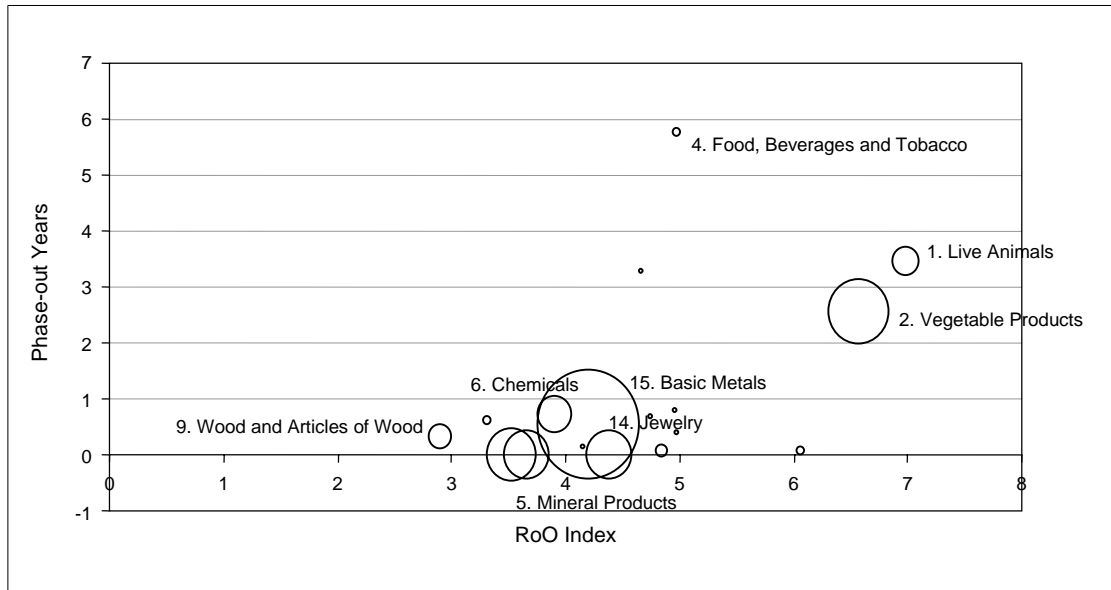
Source: Author's calculations based on Cadot, *et al.* [2002] methodology.

FIGURE 7(B)
MEXICO: EXPORTS TO THE EU IN PHASE-OUT/RoO SPACE, 2000



Source: Author's calculations based on Cadot, *et al.* [2002] methodology.

FIGURE 7(C)
CHILE: EXPORTS TO THE EU IN PHASE-OUT/RoO SPACE, 2000



Source: Author's calculations based on Cadot, *et al.* [2002] methodology.

In the case of South Africa, the phase-out schedules for industrial and agricultural products alike are more complex and phase-outs longer. In industrial goods, some sectors are liberalized only after seven years into the agreement. However, some of South Africa's main exports to the EU, jewelry and mineral products, do enjoy relatively quick phase-outs. On the agricultural side, South Africa's situation likens that of Mexico, which continues hampering an unfettered market access of some of its most important exports to the EU -vegetable products and food, beverages and tobacco products-.

The restrictiveness of RoO and the extent of tariff phase-out appear to be directly related. The fastest tariff lowering will likely occur in sectors with the least restrictive RoO. Again, the sectors with the fastest liberalization schedules will likely be those with the lowest tariffs *ex ante*, and, as such, least political economy pressure for the perpetuation of protection -or for stringent RoO-. Similar dynamic operates in NAFTA; Estevadeordal [2000] shows that the length of phase-outs offered by the United States to Mexico is directly related to the restrictiveness of NAFTA RoO.

IV. MERCOSUR-EU MARKET ACCESS NEGOTIATIONS: TARIFFS AND RULES OF ORIGIN

This section examines the implications of the above findings to the EU-Mercosur negotiations, focusing in particular on the prospects of Mercosur's access to the EU market. The first part presents some stylized facts about bilateral trade and tariffs. The second part examines the prospects for Mercosur to enhance its access to the EU market in light of the lessons presented by the two Latin American countries, Mexico and Chile that have negotiated FTAs with the EU. The third part extends the analysis further into the future to discuss the implications for Mercosur of its simultaneous operation in the European and FTAA RoO theaters.

A. Basic Stylized Facts on Trade and Tariffs

Trade Flows and Patterns

The EU is Mercosur's most important trading partner. In 2001, 22.6 percent of Mercosur's total exports (intra-bloc exports included) were destined to the EU market, while the EU was the source of 24.7 percent of Mercosur's imports. In contrast, 19.8 percent of Mercosur exports went to and 21.12 percent of its imports came from the United States (Table 12). For the EU, trade with Mercosur constitutes just over a percent of the total extra-EU commerce.

TABLE 12
MERCOSUR'S TRADE PATTERNS, 1999-2001
(US\$ millions)

Exports	1999	2000	2001
Total	74,321.60	84,878.10	88,314.20
EU	19,168.40	19,872.30	19,944.00
US	13,700.70	16,716.90	17,487.60
% EU	25.79	23.41	22.58
% US	18.43	19.70	19.80
Imports	1999	2000	2001
Total	80,438.60	87,134.00	81,496.20
EU	22,978.40	20,688.90	20,157.78
US	17,478.50	18,261.50	17,208.30
% EU	28.57	23.74	24.73
% US	21.73	20.96	21.12

Source: Authors' calculations based on Mercosur Secretariat data.

The importance of the EU market for Mercosur is accentuated in agricultural products. Table 13 shows that the EU is the market for a third of Mercosur's animal and vegetable product exports, as well as for nearly one half of Mercosur's leather exports. The importance of EU products in the Mercosur's import basket is most marked in the manufacturing sector; over a quarter of Mercosur's imports of machinery and transportation equipment comes from the EU market.

TABLE 13
THE SHARE OF THE EU MARKET OF MERCOSUR'S TOTAL TRADE, 2000

HS Section	% of Exports	% of Imports
1. Live Animals	34.53	11.56
2. Vegetable Products	31.05	16.03
3. Fats and Oils	5.41	25.29
4. Food, Bev. and Tobacco	23.06	20.45
5. Mineral Products	25.85	3.70
6. Chemicals	9.13	27.60
7. Plastics	9.31	22.57
8. Leather Goods	47.73	6.22
9. Wood Products	12.19	39.25
10. Pulp and Paper	17.20	23.27
11. Textile and Apparel	15.65	16.52
12. Footwear	4.87	7.24
13. Stone and Glass	14.10	37.30
14. Jewelry	31.35	30.76
15. Base Metals	16.21	19.41
16. Machinery and Electrical Equipment	10.94	27.28
17. Transportation Equipment	9.39	27.05
18. Optics	10.00	13.09
19. Arms and Ammunition	5.57	81.49
20. Works of Art, Misc.	10.71	23.69

Source: Authors' calculations based on the Hemispheric Trade and Tariff Database.

TABLE 14(A)
COMPOSITION OF MERCOSUR'S EXPORTS TO THE EU, 2000

HS Section	% of Total Exports to the EU	
1. Live Animals	8.62	
2. Vegetable Products	17.75	
	<i>of which</i>	
	Oil Seed, Misc. Grain, Seed, Fruit	50.91
	Coffee and Tea	27.21
3. Fats and Oils	0.67	
4. Food, Bev. and Tobacco	22.58	
	<i>of which</i>	
	Animal Fodder, Residues and Waste from Food Industry	67.76
	Preparations of Vegetables, Fruit and Nuts	17.77
	Tobacco and Substitutes	7.76
5. Mineral Products	8.28	
6. Chemicals	3.28	
7. Plastics	1.24	
8. Leather Goods	3.40	
9. Wood Products	2.50	
10. Pulp and Paper	4.01	
11. Textile and Apparel	1.65	
12. Footwear	0.49	
13. Stone and Glass	0.75	
14. Jewelry	0.71	
15. Base Metals	8.77	
	<i>of which</i>	
	Iron and Steel	50.02
	Aluminum and Aluminum Articles	38.36
16. Machinery and Electrical Equipment	5.67	
17. Transportation Equipment	8.19	
18. Optics	0.37	
19. Arms and Ammunition	0.02	
20. Works of Art, Misc.	1.03	

Source: Authors' calculations based on the Hemispheric Trade and Tariff Database.

TABLE 14(B)
COMPOSITION OF MERCOSUR'S IMPORTS FROM THE EU, 2000

HS Section	% of Total Imports from EU	
1. Live Animals	0.67	
2. Vegetable Products	1.00	
3. Fats and Oils	0.38	
4. Food, Bev. and Tobacco	1.91	
5. Mineral Products	1.37	
6. Chemicals	19.63	
	<i>of which</i>	
	Organic Chemicals	34.93
	Pharmaceutical Products	24.10
7. Plastics	5.69	
8. Leather Goods	0.21	
9. Wood Products	0.35	
10. Pulp and Paper	3.71	
11. Textile and Apparel	2.00	
12. Footwear	0.08	
13. Stone and Glass	1.34	
14. Jewelry	0.42	
15. Base Metals	5.23	
16. Machinery and Electrical Equipment	38.15	
	<i>of which</i>	
	Nuclear Reactors, Boilers, Machinery	93.54
17. Transportation Equipment	12.42	
	<i>of which</i>	
	Vehicles, Parts and Accessories	69.68
	Aircraft and Parts	28.40
18. Optics	3.72	
19. Arms and Ammunition	0.39	
20. Works of Art, Misc.	1.32	

Source: Authors' calculations based on the Hemispheric Trade and Tariff Database.

The composition of EU-Mercosur trade flows also reveals the importance of agriculture for Mercosur. About one half of Mercosur's exports to the EU market consist of agricultural products (Table 14a). This contrast sharply with Mexico, for instance, whose trade with the EU was dominated by industrial products upon the EU-Mexico FTA's entry into force. Mercosur's imports from the EU, meanwhile, consist mainly of manufactured goods (Table 14b).

Tariffs

External tariffs of the EU have been declining as a result of the implementation of the Uruguay Round commitments. The EU's average unweighted MFN tariff stood at 5.4 percent in 2000, while the unweighted average GSP duty was at 2.9 percent. However, although about a fifth of agricultural and a quarter of industrial goods enter the EU with tariffs below two percent (Table 15), tariff peaks continue to apply to a number of sensitive sectors such as food products, tobacco, beverages, agricultural products and textiles (Table 16).

In the case of Mercosur, tariffs are notably higher across the board, with the unweighted average MFN tariff of the region approximating ten percent. However, the current tariff levels in the

region must be viewed against the three- to four times higher rates just over a decade ago. In another positive trend, the use of peak tariffs is moderate in Mercosur: only some five percent of agricultural and seven percent of industrial products are governed by tariffs at or above 15 percent. This indicates that the liberalization accomplished in the 1990s was extended across the board.

TABLE 15
NUISANCE TARIFFS AND TARIFF PEAKS IN EU AND MERCOSUR, 2000
(Percent of tariff items)

	Agricultural Products			Industrial Products		
	EU MFN	EU GSP	MERCOSUR	EU MFN	EU GSP	MERCOSUR
Percentage of items with zero tariff	16.6	4.9	--	18.6	50.2	0.02
<i>Percentage of items with nuisance tariff</i>						
2 percent or less	18.3	2.3	9.5	27.6	58.7	5.8
3 percent or less	22.7	19.6	9.5	45.8	64.1	7.9
Percentage of items with peak tariffs (≥ 15%)	21.3	9.0	4.8	0.7	0.2	7.4

Source: Authors' calculations based on UNCTAD data.

TABLE 16
EU AND MERCOSUR TARIFFS BY SECTION, 2000
(Simple averages)

HS Section	EU GSP	Mercosur MFN
1. Live Animals	4.26	8.25
2. Vegetable Products	6.50	7.35
3. Fats and Oils	4.93	8.71
4. Food, Bev. and Tobacco	11.05	12.23
5. Mineral Products	0.00	3.77
6. Chemicals	1.30	7.18
7. Plastics	2.57	10.01
8. Leather Goods	1.42	9.58
9. Wood Products	2.37	7.66
10. Pulp and Paper	0.10	9.29
11. Textile and Apparel	7.73	13.57
12. Footwear	5.48	15.19
13. Stone and Glass	1.97	9.55
14. Jewelry	0.54	8.75
15. Base Metals	0.90	10.53
16. Machinery and Electrical Equipment	0.92	8.45
17. Transportation Equipment	3.22	9.97
18. Optics	0.80	9.74
19. Arms and Ammunition	0.00	14.30
20. Works of Art, Misc.	0.95	14.40
<i>Average</i>	2.85	9.92

Source: Authors' calculations based on UNCTAD data.

B. Rules of Origin and Market Access Negotiations: Lessons for Mercosur from EU Inter-Regional Agreements on Negotiations

What are the implications of the tariffs and RoO employed in EU's prior FTAs to Mercosur's access to the EU market -and in light of Mercosur's exports patterns to the EU market?-.

Tariff Lowering: What Effect?

In terms of tariffs, the first cut is to examine Mercosur's comparative advantages. Table 17 shows that there is a correlation between sectors where Mercosur has comparative advantages -agriculture and livestock- on the one hand, and that are both the sectors where the EU is an important market to Mercosur, and sectors that are among the most tightly protected by the EU.

TABLE 17
REVEALED COMPARATIVE ADVANTAGE, EU AND MERCOSUR

Sector (ISIC 3 digit)	EU	Argentina	Brazil	Paraguay	Uruguay
111 Agriculture and Livestock	0.4	7.6	4.2	20.10	3.1
113 Agriculture Services	1.5	0.7	0.6	0.20	5.2
121 Forestry	1.0	1.2	1.1	1.80	0.1
122 Logging	0.4	0.8	1.6	0.10	7.4
130 Fishing	0.3	4.8	0.3	0.01	6.2
210 Coal	0.0	0.0	0.0	0.00	0.0
220 Petroleum and Gas	0.1	2.3	0.0	0.00	0.0
230 Metal Ore	0.1	4.3	17.7	0.00	0.0
290 Other Mining	0.8	0.5	1.4	0.20	0.7
311-12 Food Products	0.9	5.7	3.2	5.00	7.1
313 Beverages	2.0	1.4	0.2	0.10	3.0
314 Tobacco	0.9	0.3	3.7	0.10	6.0
321 Textiles	1.1	0.4	0.6	0.70	3.2
322 Wearing Apparel	0.7	0.1	0.1	0.40	1.6
323 Leather Products	1.6	5.7	2.6	6.30	12.1
324 Footwear	1.2	0.3	4.6	0.10	0.9
331 Wood Products	0.6	0.1	1.4	4.90	0.3
332 Furniture and Fixtures	1.2	0.4	0.7	0.10	0.6
341 Paper Products	1.0	0.5	1.8	0.10	0.9
342 Printing and Publishing	1.5	0.9	0.2	0.20	0.7
351 Industrial Chemicals	0.9	0.6	0.8	0.10	0.5
352 Other Chemicals	1.8	0.7	0.5	0.30	0.6
353 Petroleum Refineries	1.1	1.5	0.5	0.01	0.3
354 Petroleum and Coal Products	1.1	0.3	0.3	0.00	0.001
355 Rubber Products	0.8	0.7	1.5	0.10	1.7
356 Plastic Products	1.1	0.3	0.4	0.20	0.5
361 Pottery, China, Etc	1.5	0.1	0.5	0.00	0.9
362 Glass and Products	1.1	0.2	0.5	0.00	0.1
369 Other Non-Metallic Products	1.8	0.4	1.7	0.10	1.5
371 Iron and Steel	0.7	0.6	2.1	0.10	0.2
372 Non-Ferrous Metals	0.6	0.4	1.3	0.10	0.5
381 Metal Products	1.2	0.2	0.5	0.10	0.1
382 Machinery excl. Electrical	1.2	0.2	0.5	0.00	0.1
383 Electrical Machinery	0.7	0.1	0.2	0.10	0.1
384 Transport Equipment	1.1	0.8	0.9	0.00	0.4
385 Professional Equipment	1.2	0.1	0.2	0.00	0.1
390 Other Industries	1.3	0.1	0.2	0.10	0.0

Notes: RCA equals the share of a country's exports of a given product in the world's exports of that product divided by the share of the country's total exports in the world trade.

Source: Estevadeordal and Krivonos [2000].

Figure 8 takes a different angle, contrasting Mercosur's export patterns to the EU against the EU's GSP rate and EU RoO based on the single list. Again, the bulk of Mercosur trade depicted by the bars is concentrated in sectors where EU's GSP tariff is high and also where the RoO are most restrictive, including raw and processed agricultural products, base metals, and transportation equipment. As such, tariff lowering by EU in its currently most protected sectors to Mercosur could have an important impact on Mercosur's exports to the EU, particularly in industrial products if the FTA comes to approximate the EU's FTAs with Chile and Mexico that cap phase-outs in industrial goods to three years. In a CGE approach, Monteagudo and Watanuki [2002] find that the greatest impact of an FTA with the EU would be precisely on Mercosur's light manufactures.

FIGURE 8
EU RoO AND TARIFF AND DISTRIBUTION OF MERCOSUR'S EXPORTS TO EU

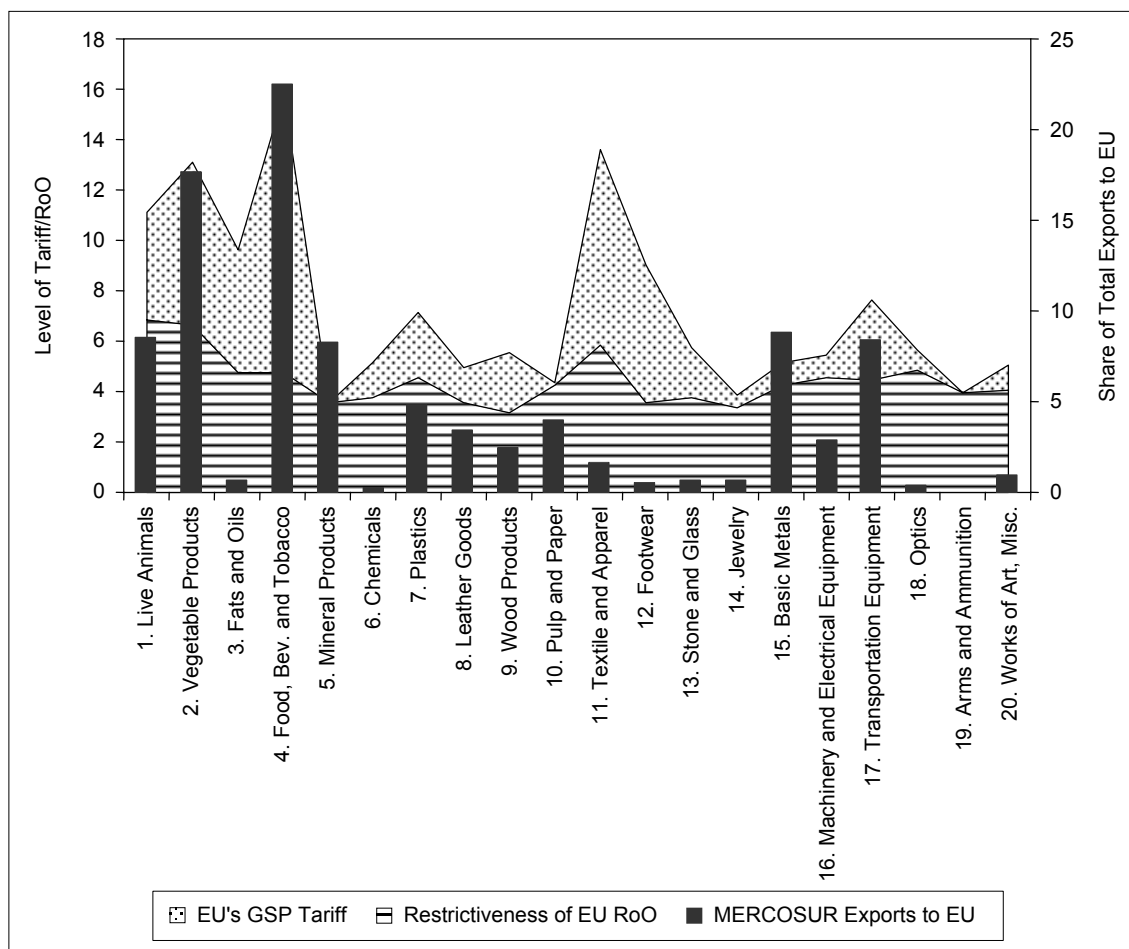


Table 18 predicts the trade and welfare effects of the EU-Mercosur FTA on the EU, Argentina, Brazil, and the United States. The estimations are based on a CGE model. The partial EU-Mercosur FTA excludes trade in agriculture.

The results indicate the potential that liberalization of agricultural trade represents for Mercosur. For Argentina and Brazil, a full liberalization would boost economic growth and exports markedly. The simulation on partial liberalization indicates that these gains would be diminished in the

absence of liberalization in agricultural goods.²⁰ For the EU, the main gains could come from niche processed food products (not shown here).

TABLE 18
ECONOMY-WIDE EFFECTS OF TRADE LIBERALIZATION
 (% change from benchmark)

	Real GDP				Exports				Imports			
	EU-Merc FTA	FTAA	Partial EU-Merc FTA	EU-Merc FTA+ FTAA	EU-Merc FTA	FTAA	Partial EU-Merc FTA	EU-Merc FTA+ FTAA	EU-Merc FTA	FTAA	Partial EU-Merc FTA	EU-Merc FTA+ FTAA
EU	0.11	-0.01	0.10	0.10	1.14	-0.07	0.98	1.06	1.16	-0.02	0.97	1.13
Argentina	4.13	2.47	2.05	6.44	12.6	6.67	5.49	19.05	10.05	5.75	4.98	15.58
Brazil	4.89	3.36	2.89	8.03	12.93	8.5	6.44	21.29	9.78	7.13	5.60	16.79
US	0.03	0.22	0.02	0.25	0.12	1.92	0.05	2.05	0.12	1.13	0.01	1.24

Source: Integration and Regional Programs Department, IDB.

RoO and Tariff Preferences

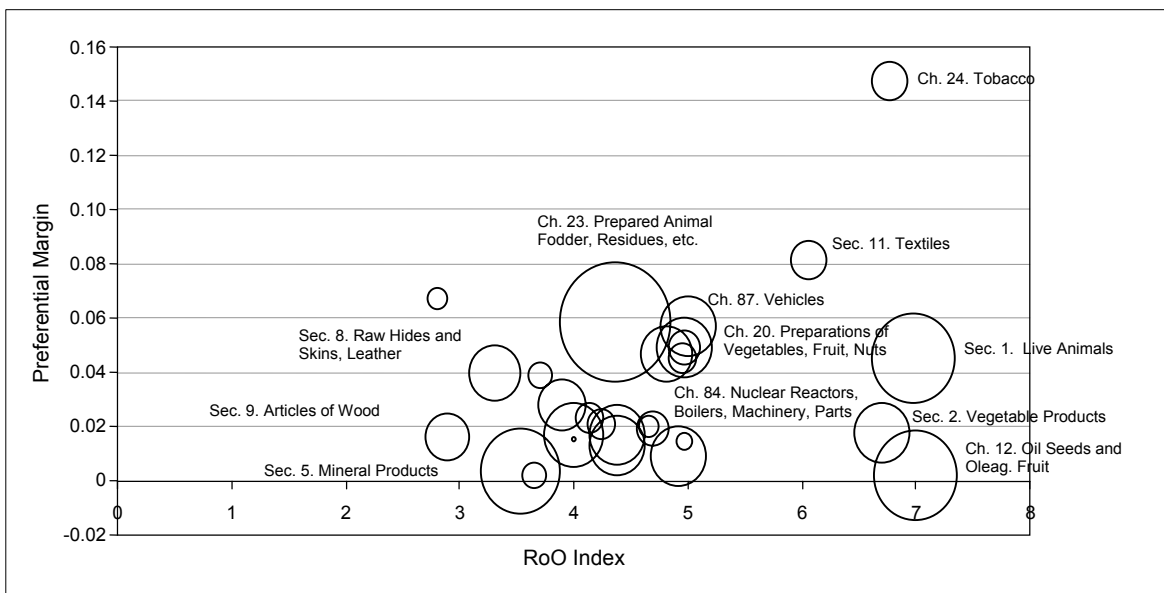
On the RoO front, the EU's single list will undoubtedly play a major role in shaping the structure of the EU-Mercosur RoO regime. Indeed, the fact that the newer RoO protocols mirror not only each other but also the single list suggests that the EU has consistently obtained its preferred outcome in the RoO negotiations. The EU's RoO bargaining power has several sources. These include the EU's flexibility in allowing for some (albeit very few) product-specific exceptions and for RoO and drawback phase-outs, and the potential for the partner countries to access the Pan-European system of cumulation. Furthermore, the EU in general draws bargaining leverage from the overall attractiveness of its huge internal market, and the manifold FTAs it has already concluded -which provide added incentives for countries not part of the EU network of agreements to complete agreements with the EU-. Indeed, it is arguably not the enhanced access to the EU's market *per se* that drives partner countries to conclude agreements with the EU, but, rather, the costs of remaining outside the EU's FTA network *vis-à-vis* the other spoke countries. In other words, the greater the number of FTAs the EU concludes, the higher the incentives for non-members to become members -even at the costs of adopting EU's preferred market access RoO-. Besides, concluding an FTA with the EU carries numerous side payments particularly for a smaller countries, which, as a consequence, may be more willing to accept EU's market access rules: EU's FTAs span well beyond market access matters to other economic areas such as investment and also political dialogue, cooperation, and technical assistance, including to implement the RoO regime.

Assuming that the RoO-tariff package of the EU-Mercosur FTA will liken those of the recent FTAs signed by the EU with the extra-European partners, these prior agreements can be drawn on to predict the extent of preferences that Mercosur will gain through the FTA with the EU. Figure 9 is equivalent to Figures 6(a)-(c) above but focuses on Mercosur. The location of the sectoral dots

²⁰ The simulations consider the elimination of *ad valorem* tariffs, domestic support in agriculture, and export subsidies. The welfare effects would likely be accentuated should liberalization in services be included in the model.

is determined by the EU's single list RoO and the average of tariff preferences in the EU-Mexico and EU-Chile FTAs, while the size of the dots is proportional to Mercosur's exports to the EU. Some of the chapters of the Harmonized System that are particularly large sources of Mercosur's exports to the EU are separated from their respective sectors to be displayed independently in the figure.

FIGURE 9
MERCOSUR: EXPORTS TO THE EU IN MEXICO/CHILE PRAF/RoO SPACE, 2000



Source: Author's calculations based on Cadot, *et al.* [2002] methodology.

The figure suggests that Mercosur's main industrial exports would likely enjoy relatively deep preferences, yet also face some of the most stringent of EU RoO; this would particularly be the case of base metals, transportation equipment, and machinery and electronic equipment. Textiles, a less important export for Mercosur, would enjoy the deep preferences, yet also face very stringent RoO. Tending toward the Northwest section of the graph are leather products, a modest item in Mercosur's export basket to the EU.

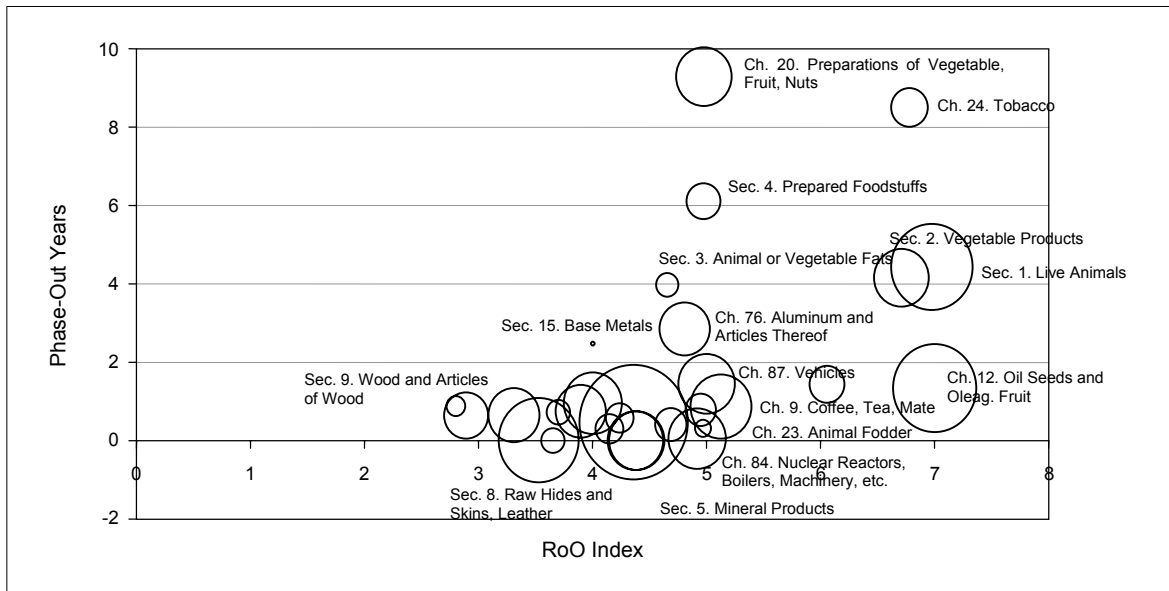
The situation for agriculture is mixed. Preferences can be rather deep, such as for animal fodder; however, given the high base rate, the actual tariff will still be substantial. For example, the unweighted GSP tariff for food, beverages, and tobacco is above 11 percent, so that the preferential tariff will remain high despite the rather deep, 3.5 percent preferential margin. Moreover, the graphs have an optimistic bias in that they do not display the several agricultural sectors that were exempted from the coverage of the EU-Chile and EU-Mexico FTAs or that are covered by specific rates. RoO in agriculture are tight; however, the wholly-obtained criterion is often relatively uncomplicated to meet in agricultural goods, particularly in unprocessed items.

In sum, should the preferential tariff-RoO package mirror those offered by the EU to Mexico and Chile, Mercosur's main industrial exports would obtain rather deep preferences already in the first year of the FTA, yet at the expense of meeting the rather restrictive RoO governing these

sectors. Agricultural products, meanwhile, would continue facing EU's high tariffs. As such, the preference/RoO-package for Mercosur likens that of Mexico in its FTA with the EU.

Figure 10 displays Mercosur's export in the phase-out/RoO space, again using the average of phase-outs of the EU-Mexico and EU-Chile FTAs as benchmarks.

FIGURE 10
MERCOSUR: EXPORTS TO THE EU IN MEXICO/CHILE PHASE-OUT/RoO SPACE, 2000



Source: Author's calculations based on Cadot, *et al.* [2002] methodology.

Should the tariff lowering mirror that of the EU-Mexico FTA and EU-Chile FTA, with a maximum of three years to zero tariffs, Mercosur's main industrial exports would likely enjoy a relatively quick access to the EU market -particularly mineral products, leather products, pulp and paper, and machinery and electrical equipment-. Also the bulk of base metals and transportation equipment would likely enjoy immediate market access given the average phase-out of only a year in these sectors. Meanwhile, the situation is less encouraging on the agricultural front. Mercosur's main exports to the EU -food, beverages, and tobacco, live animals, and vegetable products, feature slow phase-outs-. However, coffee and tea and prepared animal fodder, some important chapters in the agricultural export basket, would fare notably better.

Market Access Prospects for Mercosur

What are the prospects for Mercosur to enhance its access to the EU market -to what extent could the parameters set by the Mexican and Chilean RoO/tariff package be altered to meet the particular needs of Mercosur?

On the RoO side, the uniformity across EU's RoO regimes suggests that the EU model will heavily affect also the EU-Mercosur agreement. This would in essence imply the continuation of

the RoO regime governing economic exchange between EU and Mercosur in the framework of the GSP. However, there are four considerations that could presage added leniency to the RoO regime and augur well for Mercosur's access to the EU market.

First, even if the overall model was to approximate those of the existing EU RoO regimes, there are a number of ways that provide leniency to the product-specific RoO, such as RoO "phase-ins" or more permanent deviation from the single list baseline. These in turn, would imply that the FTA talks open the possibility for Mercosur to obtain a less restrictive RoO regime than applied in the context of the GSP.

Second, nearly a third of Mercosur's exports to the EU market is composed of live animal and vegetable products, whereby meeting the ostensibly stringent "wholly obtained"-RoO is often relatively automatic. Indeed, the negotiations of the RoO for products falling in the chapters 1-24 of the Harmonized System pertaining to agricultural products is deemed as rather uncomplicated by many officials involved in the talks.

Third, the FTA could open the possibility for diagonal cumulation within Mercosur, which the EU's GSP scheme, as provided by the Commission regulation 46 of 1999, extends only to the members of the Association of Southeast Asian Nations (ASEAN). This, in turn, would encourage truly regional, "made in Mercosur" exports to the EU, and, as such, also help boost intra-regional trade within Mercosur.

Fourth, Mercosur could obtain a similar drawback phase-in scheme as Mexico and Chile in their FTAs with the EU. This would allow for added competitiveness of Mercosur exports in the EU market.

The tariff package will provide further means for Mercosur to improve its access to the EU market.

First, the Mexico/Chile parameters indicate that Mercosur can augment its trade with the EU in industrial goods, provided that the RoO are met. This could augur well particularly for Brazil that features an important manufacturing base.

Second, the EU's preferential margins have been eroding over the past few years due to the implementation of the Uruguay Round preferences. However, the EU's agricultural tariffs, quotas, and subsidies constitute a formidable barrier to imports. Penetrating this barrier through an FTA with substantial and fast liberalization and few exceptions would not only place Mercosur at an advantage *vis-à-vis* the EU's other extra-European trading partners, but also entail a major departure from the *status quo*, resulting in important gains in exports and welfare alike. The impact would be all the more significant given that the GSP leaves many Argentine and Brazilian exports uncovered due to the EU's graduation mechanism, which determines the sectors and countries excluded from GSP. The criteria for exclusion are based on a development index and index of export specialization (Estevadeordal and Krivonos [2000]). In the case of Argentina, Chapters 1, 2, 4, and 16-23 (except for codes 1604, 1605 and 1902 2010 and 1902 2041) do not obtain GSP treatment. In the case of Brazil, Chapters 1, 2, 9, 13, and 16-23 (except for codes 1604, 1605 and 1902 2010, 24, 41, 47-49, 64-67, 86, 88, 89, and some specific products) are excluded (*Ibidem* [2000]). Periodic reviews by the EU may entail further curtailments of the GSP preferences.

Opening the EU's agricultural sector seems implausible in light of the EU-Mexico and EU-Chile FTAs with meager liberalization on the agricultural front. However, it could also be argued that Chile and Mexico may have focused their bargaining energies on gaining market access for industrial rather than agricultural products, so that Mercosur could score greater gains on agriculture by placing heavier demands on the EU than Chile and Mexico did. Moreover, the multilateral negotiations in agriculture could facilitate the EU-Mercosur talks; indeed, the Doha Development Agenda opens a window of opportunity for EU and Mercosur to swap market access concessions on the agricultural front (Giordano [2003]).

C. Future Prospects: Operating in Multiple RoO Theatres

Assuming that the RoO in the EU-Mercosur model become tailored after the EU's 1999 single list, and that the burgeoning NAFTA family plays a major role in the construction of RoO in the FTAA process, what are the implications for economic agents and governments in the Mercosur countries engaged in integration processes in both FTA theaters *simultaneously*?

In general terms, it can be expected that adjusting and adhering to two or three RoO regimes has implications to firms': (1) supply relations; (2) specialization to production for one of the two or several partner markets; and (3) costs of divergent forms certification. Moreover, for customs, membership in manifold RoO regimes poses a need for human and financial resources to verify the origin of goods. However, these assertions beg the question of the divergence between the EU and NAFTA RoO regimes. Do these regimes clash -feature layers of divergent RoO and administrative procedures?-. Or do they bear resemblance to each other and, as such, not only provide opportunities for streamlining the process of applying RoO, but also pave the way to a globally harmonized RoO?

Two useful dimensions in which the potential clash or compatibility of regimes can be examined are: (1) the degree of divergence in sector-specific RoO; and (2) the degree of difference between the administrative requirements of complying with a given type of a RoO regime. As seen above, the product-specific RoO in the NAFTA and EU RoO regimes, when examined through the lens of restrictiveness, are not wide; as such, the two regimes will likely condition the behavior of Mercosur-based economic agents in a given sector in similar ways. Most simply, downstream producers intent on qualifying EU-Mercosur or FTAA preferences in the sectors with the most restrictive RoO will be those that will need to be particularly flexible in adjusting to supply relations encouraged by the RoO. One way for them to reducing the costs of stringent RoO on two fronts is specializing in producing to either the European or the Western Hemisphere market.

The differences in certification between the EU and NAFTA RoO regimes, however, could present administrative questions -such as balancing the costs of certifying should the movement certificate system be applied and verifying the origin of goods in a system of self-certification-. Although self-certification lowers transaction costs while complex certification procedures are likely to augment them, a process relying on self-certification can arguably heighten the *ex-post* verification costs if the certification mechanisms are loosely defined and void of transparency. However, verifying whether a given good is qualified to enter a market is a daunting task particularly for governments with scarce resources. A potential way of retaining a low-cost certification mechanism while reducing the costs of verification and enforcement is establishing a firm, credible dispute settlement mechanism in the framework of the FTA.

V. CONCLUSIONS

The EU-Mercosur negotiations offer substantial opportunities for trade and investment for both regions, as well as a framework for consolidating the already strong bi-regional economic and political relationship. Market access negotiations will be an important part of the agreement. The degree to which the parties can enhance mutual market access will be determined by two factors: (1) the timetables for eliminating tariffs (as well as non-tariff barriers); and (2) rules of origin, which determine the basket of goods eligible for preferential tariff treatment. Rules of origin present often one of the most contentious issues of FTA negotiations due to their lack of transparency, the difficulties of assessing their impact on trade and investment flows, their potential use for protectionist purposes by powerful economic lobbies, and the complexity associated with their administration.

This paper has sought to provide a detailed mapping of the different rules of origin regimes in FTAs in the Americas and Europe, and to draw lessons from these existing regimes to the EU-Mercosur RoO negotiations. We reach four main conclusions.

First, as in the case of the EU-Mexico and EU-Chile FTAs, the EU's standardized RoO regime will play a central role in the EU-Mercosur RoO negotiations. It is quite unlikely that the FTA's RoO will be tailor-made to correspond to the idiosyncrasies of the EU-Mercosur economic relations rather than by and large following the EU's pre-established model. However, the analysis of the EU's prior negotiations also indicates that Mercosur does have room for maneuver in order to obtain its preferred rules for specific products, even if these rules deviated somewhat from the EU's baseline. Moreover, the importance of agricultural products in Mercosur's exports to the EU will somewhat mitigate the issue of rules of origin in the bi-regional talks. Much like in the case of mining and fishery products, RoO in the agricultural sector tend to be simple and straightforward, and also relatively uncomplicated to meet. This means that the access for Mercosur's agricultural products will depend primarily on the EU's tariffs and non-tariff barriers. To be sure, negotiations of RoO governing processed agricultural products as well as industrial products will be more complex, particularly in sectors that continue to be protected by the EU. Nonetheless, the asymmetric trade-tariff structures of the EU and Mercosur enhance the pay-off structure of the market access negotiations: there is, in short, plenty of room for mutual concessions. At the minimum, the EU's tariff preferences for Mercosur should approximate those provided to Chile, particularly in order to foster Mercosur's chances to augment its industrial exports to the European market. The need for a generous tariff package is all the more compelling given that many industrial products from Chile, Mexico, and South Africa are already entering the EU market free of duty.

Second, the EU-Mercosur FTA could incorporate provisions allowing for drawback and RoO phase-ins. Such provisions would enable Mercosur to better utilize the preferential treatment provided by the EU -as well as to keep Mercosur at a par with Mexico and Chile that enjoy both general and sector-specific adjustment mechanisms in their FTAs with the EU-.

Third, the EU-Mercosur agreement will be the first major FTA to be signed between two formal customs unions. A potentially positive outcome of this bloc-to-bloc negotiation from Mercosur's point of view is that the RoO regime will likely allow for diagonal cumulation among Mercosur members. Such an outcome would likely not have been possible had each Mercosur member

entered a bilateral agreement with the EU, as Mexico and Chile have done. The existing bilateral treaties between the EU and Latin American countries are in this sense structurally different from the Pan-European agreements (or the FTAA for that matter), where cumulation is pursued in part in order to boost trade among EU's FTA partners. Cumulation will, however, be likely possible to introduce only when Mercosur members further consolidate their common market. To be sure, also the benefits of cumulation can be fully harnessed only when Mercosur becomes a genuine customs union. Fostering intra-regional integration is pertinent not only to the aftermath of the bi-regional FTA, but also to the bargaining process with the EU, as it would allow Mercosur to present a clear common stance in the market access negotiations.

Fourth and more generally, the sequence of trade talks may play an important role in the RoO negotiations. Mercosur's trade flows are divided roughly between hemispheric partners and extra-hemispheric ones, with the EU being the most notable one. This contrasts with the case of Mexico, which has followed a logic of sequential negotiations -first with its main export and import partner, the United States, followed by negotiations with the EU and now likely also with Japan, given Mexico's strategic interest in becoming a truly global manufacturing hub. Mercosur, in contrast, is conducting simultaneous rather than sequential negotiations with the United States and the EU under the auspices of the FTAA process and the EU-Mercosur talks, respectively. This strategy opens avenues for Mercosur to ensure a high degree of compatibility between the two major future agreements, particularly for the specific products of central importance to the region.

That Mercosur is integrating into the two major, widely employed rules of origin regimes -those of the EU and the FTAA, respectively- helps avert a situation where Mercosur was part of manifold bilateral FTAs with distinct RoO regimes. Indeed and more generally, the expanding geographical reach of the EU RoO regimes and the future coverage of the Western Hemisphere by a single RoO regime can be considered a global move toward the application of two relatively similar RoO regimes. This dynamic, along with the fact that many RoO regimes particularly in the Asia-Pacific and African PTA theaters are relatively simple, with the same RoO often applying across-the-board, should facilitate eventual convergence toward a single global preferential RoO regime. Globally harmonized RoO would be particularly beneficial to the "spoke" countries that implement divergent RoO regimes across their FTA partners, rather than applying a single, uniform RoO regime in operations across partners, as is done by the EU hub and, within the Americas, by the US and Mexico hubs. The WTO has advanced in harmonizing non-preferential rules of origin at the global level. The Doha Trade Round should provide it further momentum to complete this task -and also propel multilateral agreements to start the process of harmonizing preferential rules of origin-. A further, albeit perhaps more distant, possibility would be to devise a multilateral mechanism to monitor the application of preferential RoO in order to guarantee transparency of RoO and to minimize their uses for distributional purposes. Multilateral approaches to RoO are all the more pressing in the face of PTA proliferation and the potential breach by the various RoO regimes of the tacit prohibition of "other restrictive regulations of commerce" put forth by Article XXIV of the GATT.

APPENDIX I

Estevadeordal's [2000] observation rule yields a RoO index as follows:

$$y = 1 \text{ if } y^* \leq CI$$

$$y = 2 \text{ if } CI < y^* \leq CS$$

$$y = 3 \text{ if } CS < y^* \leq CS \text{ and } VC$$

$$y = 4 \text{ if } CS \text{ and } VC < y^* \leq CH$$

$$y = 5 \text{ if } CH < y^* \leq CH \text{ and } VC$$

$$y = 6 \text{ if } CH \text{ and } VC < y^* \leq CC$$

$$y = 7 \text{ if } CC < y^* \leq CC \text{ and } TECH$$

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

There are a number of modifications to the observation rule in the case of those EU RoO for which no CTC is specified. First, RoO based on the import content rule are equated to a change in heading (value 4) if the content requirement allows up to 50 percent of non-originating inputs of the ex-works price of the product. Value 5 is assigned when the share of non-originating inputs is below 50 percent, as well as when an import content criterion is combined with a technical requirement. Second, RoO featuring an exception alone is assigned value 1 if exception concerns a heading or a number of headings, and 2 if the exception concerns a chapter or a number of chapters. Third, RoO based on the wholly-obtained criterion are assigned value 7.

The observation rule is admittedly somewhat crude for accounting for the subtleties of the EU RoO as it does not account for the "soft" CTC criterion used by the EU. However, it does allow for comparing the EU and NAFTA RoO regimes.

BIBLIOGRAPHY

- APPIAH, ALEX JAMESON. "Applied General Equilibrium Model of North American Integration with Rules of Origin", PhD Dissertation. Simon Fraser University (Canada). 1999.
- AUGIER, PATRICIA AND MICHAEL GASIOREK. "The EU and the Southern Mediterranean: The Impact of Rules of Origin", preliminary draft. May, 2002.
- BERGSTEN, C. FRED. "Open Regionalism", in C. Fred Bergsten (ed.), *Whither APEC: The Progress to Date and Agenda for the Future*. Washington: Institute of International Economics. 1997.
- BRENTON, PAUL AND MIRIAM MANCHIN. "Making EU Trade Agreements Work: The Role of Rules of Origin", CEPS Working Document N° 183. Brussels: Centre for European Policy Studies. March, 2002.
- CADOT, OLIVER; JAIME DE MELO; ANTONI ESTEVADEORDAL; AKIKO SUWA-EISENMANN AND BOLORMAA TUMURCHUDUR. "Assessing the Effect of NAFTA's Rules of Origin", (mimeo). 2002.
- DE MELO, JAIME; OLIVER CADOT AND MARCELO OLARREAGA. "Can Duty Drawbacks Have a Protectionist Bias? Evidence from Mercosur", World Bank Working Paper 2523. Washington, D.C.: The World Bank. 2001.
- DEVLIN, ROBERT AND ANTONI ESTEVADEORDAL. "What's New in the New Regionalism in the Americas?", in Victor Bulmer-Thomas (ed.), *Regional Integration in Latin America and the Caribbean: The Political Economy of Open Regionalism*. London: ILAS. 2001. Also published in INTAL-ITD-STA Working Paper 6. Buenos Aires: IDB-INTAL. May, 2001.
- DRIESSEN, BART AND FOLKERT GRAAFSMA. "The EC's Wonderland: An Overview of the Pan-European Harmonised Origin Protocols", *Journal of World Trade* 33, 4. 1999.
- DUTTAGUPTA, RUPA. "Intermediate Inputs and Rules of Origin: Implications for Welfare and Viability of Free Trade Agreements", PhD Dissertation, University of Maryland, College Park. 2000.
- DUTTAGUPTA, RUPA AND ARVIND PANAGARIYA. "Free Trade Areas and Rules of Origin: Economics and Politics", Seminar Paper. 2001.
- ESTEVADEORDAL, ANTONI. "Negotiating Preferential Market Access: The Case of the North American Free Trade Agreement", *Journal of World Trade* 34, 1. February, 2000.
- _____ AND EKATERINA KRIVONOS. "Negotiating Market Access between the European Union and MERCOSUR: Issues and Prospects", INTAL-ITD Occasional Paper 7. Buenos Aires: IDB-INTAL. 2000.

- ESTEVADEORDAL, ANTONI AND ERIC MILLER. "Rules of Origin and the Pattern of Trade between U.S. and Canada". Washington, D.C.: Integration, Trade and Hemispheric Issues Division, Inter-American Development Bank. 2002.
- FALVEY ROD AND GEOFF REED. "Rules of Origin as Commercial Policy Instruments", Research Paper N° 2000/18. Centre for Research on Globalization and Labor Markets, University of Nottingham. 2000.
- FLATTERS, FRANK. "SADC Rules of Origin: Undermining Regional Free Trade", paper prepared for the TIPS Forum, Johannesburg, 9-11 September, 2002.
- GARAY, LUIS AND RAFAEL CORNEJO. "Metodología para el Análisis de Régimenes de Origen: Aplicación en el Caso de las Américas", INTAL-ITD-STA Documento de Trabajo 8. Buenos Aires: BID-INTAL. 2002.
- GARAY, LUIS JORGE AND ANTONI ESTEVADEORDAL. "Protection, Preferential Tariff Elimination and Rules of Origin in the Americas", *Integration & Trade* 0. Buenos Aires: IDB-INTAL. 1996.
- GIORDANO, PAOLO. "The External Dimension of Mercosur: Prospects for North-South Integration with the European Union", INTAL-ITD-STA Occasional Paper 19. Buenos Aires: IDB-INTAL. January, 2003.
- GRAHAM, EDWARD M. AND CHRISTOPHER WILKIE. "Regional Economic Agreements and Multinational Firms: The Investment Provisions of the NAFTA", in Hafiz Mirza (ed.), *Global Competitive Strategies in the New World Economy*. Cheltenham, UK; Northampton, MA: Edward Elgar. 1998.
- GROSSMAN, GENE M. AND ELHANAN HELPMAN. "The Politics of Free-Trade Agreements", *American Economic Review* 85, 667-90. 1995.
- HERIN, JAN. "Rules of Origin and Differences between Tariff Levels in EFTA and in the EC", EFTA Occasional Paper N° 13. Geneva. February, 1986.
- HIRSCH, MOSHE. "International Trade Law, Political Economy and Rules of Origin: A Plea for a Reform of the WTO Regime on Rules of Origin", *Journal of World Trade* 36, 2. April, 2002.
- HOLBEIN, JAMES R.; LUIS OMAR GUERRERO RODRIGUEZ AND JUAN FRANCISCO TORRES-LANDA R. "The Mexico-European Community and Member States Economic Partnership, Political Coordination and Cooperation Agreement", in James R. Holbein and Nick W. Ranieri (eds.), *The EU-Mexico Free Trade Agreement*. Ardsley, NY: Transnational Publishers. 2002.
- HOLMES, PETER AND G. SHEPHARD. "Protectionism in the Economic Community", International Economics Study Group, 8th Annual Conference. 1983.
- JENSEN-MORAN, JERI. "Trade Battles as Investment Wars: The Coming Rules of Origin Debate", *The Washington Quarterly* 19, 1. Winter, 1996.

- JU, JIANDONG AND KALA KRISHNA. "Firm Behavior and Market Access in a Free Trade Area With Rules of Origin", NBER Working Paper N° 6.857. Cambridge, MA: NBER. 1998.
- KOSKINEN, MATTI. "Excess Documentation Costs as a Non-Tariff Measure: An Empirical Analysis of the Effects of Documentation Costs", Working Paper. Swedish School of Economics and Business Administration. 1983.
- KRISHNA, KALA AND ANNE O. KRUEGER. "Implementing Free Trade Areas: Rules of Origin and Hidden protection", in Alan Deardorff, James Levinsohn and Robert Stern (eds.), *New Directions in Trade Theory*. Ann Arbor: University of Michigan Press. 1995.
- KRISHNA, KALA. "Understanding Rule of Origin", (mimeo). 15 December, 2002.
- KRUEGER, ANNE O. "Free Trade Agreements as Protectionist Devices: Rules of Origin", NBER Working Paper N° 4.352. Cambridge, MA: NBER. 1993.
- _____. "Free Trade Agreements versus Customs Unions", NBER Working Paper N° W5084. Cambridge, MA: NBER. 1995.
- MONTEAGUDO JOSEFINA AND M. WATANUKI. "Evaluation of the Potential Effects of Agricultural Reform in Regional Negotiations: FTAA and Mercosur Agreement" (mimeo). Washington, DC: Inter-American Development Bank. 2002.
- ORGANIZATION FOR ECONOMIC COOPERATION AND DEVELOPMENT - OECD. "The Relationship between Regional Trade Agreements and Multilateral Trading System: The Role of Rules of Origin", Working Party of the Trade Committee. 19 June, 2002.
- REYNA, JIMMIE V. *Passport to North American Trade: Rules of Origin and Customs Procedures under NAFTA*. Colorado Springs: Shepard's/ McGraw-Hill, Inc. 1995.
- ROOS, ALFRED. "Rules of Origin in the EC Context: The Origin(al) Approach of the EC Commission", in Kees Jan Kuilwijk and Robert Wright (eds.), *European Trade and Industry in the 21st Century: Future Directions in EC Law and Policy*. Beuningen, the Netherlands: Nexed Editions. 1996.
- WONNACOTT, PAUL. "Beyond NAFTA-The Design of a Free Trade Agreement of the Americas", in J. Bhagwati and A. Panagariya (eds.), *The Economics of Preferential Trading Agreements*, pp. 79-107. Washington, D.C.: the AEI Press. 1996.
- WORLD TRADE ORGANIZATION - WTO. "Rules of Origin Regimes in Regional Trade Agreements", Committee on Regional Trade Agreements. 5 April, 2002.

INTAL PUBLICATIONS

REGULAR PUBLICATIONS

Integration & Trade. Two journal issues (English and Spanish) by subscription or individual issue purchase.

INTAL Monthly Newsletter (English, Portuguese and Spanish - Internet).

SUB-REGIONAL INTEGRATION REPORTS

ANDEAN Report. Annual publication (Spanish). English version: Internet.

CARICOM Report. Annual publication (English).

CENTRAL AMERICAN Report. Annual publication (Spanish). English version: Internet.

MERCOSUR Report. Annual publication (English, Portuguese and Spanish).

SPECIAL REPORTS

Tributación en el MERCOSUR: Evolución, comparación y posibilidades de coordinación (Spanish). Alberto Barreix and Luiz Villela. 2003.

MERCOSUR: Impacto Fiscal de la Integración Económica (Spanish and Portuguese). Luiz Villela, Alberto Barreix and Juan José Taccone (eds.). 2003.

Perspectivas y Desafíos del Proceso de Integración Argentino-Chileno a Diez Años del ACE 16 (Spanish). 2002.

América Latina a principios del Siglo XXI: Integración, Identidad y Globalización. Actitudes y expectativas de las élites latinoamericanas. Spanish (Internet).

INTAL: 35 años de Compromiso con la Integración Regional. Spanish.

Impacto del TLCAN en las exportaciones de prendas de vestir de los países de América Central y República Dominicana. Spanish (Internet).

El impacto sectorial de la integración en el MERCOSUR (Spanish and Portuguese). Juan José Taccone and Luis Jorge Garay (Eds.) 1999.

Integración en el Sector Transporte en el Cono Sur (Spanish):

Transporte Terrestre. José Alex Sant'Anna. 1997.

Puertos y vías navegables. Martín Sgut. 1997.

Los ferrocarriles y su contribución al comercio internacional. Ian Thomson. 1997.

Integración energética en el Cono Sur (Spanish). Mario A. Wieggers. 1996.

WORKING PAPERS

Las relaciones de comercio e inversión entre Colombia y Venezuela (Spanish). Eglé Iturbe de Blanco. INTAL DT-03. 1997.

MERCOSUL e Comércio Agropecuario (Portuguese). Ives Chaloult and Guillermo Hillcoat. INTAL DT-02. 1997.

The Integration Movement in the Caribbean at Crossroads: Towards a New Approach of Integration (English). Uziel Nogueira. INTAL WP-01. 1997.

DISSEMINATION PAPERS

El Tratado de Libre Comercio entre el Istmo Centroamericano y los Estados Unidos de América. Oportunidades, desafíos y riesgos (Spanish). Eduardo Lizano and Anabel González. INTAL DD-09. 2003.

Los países pequeños: Su rol en los procesos de integración (Spanish). Lincoln Bizzozero - Sergio Abreu. INTAL DD-08. 2000.

Capital social y cultura. Claves olvidadas del desarrollo (Spanish). Bernardo Kliksberg. INTAL DD-07. 2000.

La dimensión cultural: base para el desarrollo de América Latina y el Caribe: desde la solidaridad hacia la integración. (Spanish) Alejandra Radl. INTAL DD-06. 2000.

Cómo expandir las exportaciones de los países dentro de una economía globalizada (Spanish). Rubens Lopes Braga. INTAL DD-05. 1999.

Comercio Electrónico: conceptos y reflexiones básicas (Spanish). Gerardo Gariboldi. INTAL DD-04. 1999.

Evolución institucional y jurídica del MERCOSUR (Spanish). Vicente Garnelo. INTAL DD-03. 1998.

Estado de evolución en la elaboración e implementación de las Normas ISO 14.000 y CODEX Alimentarius (Spanish). Laura Berón. INTAL DD-02. 1997.

Integración y democracia en América Latina y el Caribe (Spanish). Alvaro Tirado Mejía. INTAL DD-01. 1997.

DATABASES - SOFTWARE

DATAINTAL (CD-ROM) Sistema de estadísticas de comercio de América

Base INTAL MERCOSUR (BIM)

Base de datos bibliográficos (INTEG)

Directorio de las Relaciones Económicas de América Latina y el Caribe con Asia-Pacífico (CD-ROM)

Instrumentos básicos de integración económica en América Latina y el Caribe. Updated to March, 2003.

Rueda de Negocios

INTAL/ITD PUBLICATIONS

WORKING PAPERS - SPECIAL INITIATIVE ON TRADE AND INTEGRATION (SITI)

MERCOSUR: EN BUSCA DE UNA NUEVA AGENDA. Agenda de institucionalización del MERCOSUR: Los desafíos de un proyecto en crisis (Spanish). Pedro da Motta Veiga. INTAL-ITD DT-IECI-06E. 2003.

MERCOSUR: EN BUSCA DE UNA NUEVA AGENDA. La inestabilidad cambiaria en el MERCOSUR: Causas, problemas y posibles soluciones (Spanish). José Luis Machinea. INTAL-ITD DT-IECI-06D. 2003.

MERCOSUR: EN BUSCA DE UNA NUEVA AGENDA. MERCOSUR: Dilemas y alternativas de la agenda comercial (español). Sandra Polónia Rios. INTAL-ITD DT-IECI-06C. 2003.

MERCOSUR: EN BUSCA DE UNA NUEVA AGENDA. La inserción del MERCOSUR al mundo globalizado (Spanish). Juan Ignacio García Pelufo. INTAL-ITD DT-IECI-06B. 2003.

Estudio sobre las condiciones y posibilidades políticas de la integración hemisférica (Spanish). Adalberto Rodríguez Giavarini. INTAL-ITD DT-IECI-05. 2003.

Agricultural and Trade Policy on Trade Liberalization and Integration via a US-Central American Free Trade Agreement (English). Dale Hathaway. INTAL-ITD WP-SITI-04. 2003.

Agricultural Liberalization in Multilateral and Regional Trade Negotiations (English). Marcos Sawaya Jank, Ian Fuchsloch and Géraldine Kutas. INTAL-ITD-STA WP-SITI-03. 2003.

Reciprocity in the FTAA: The Roles of Market Access, Institutions and Negotiating Capacity (English). Julio J. Nogués. INTAL-ITD-STA WP-SITI-02. 2003.

Free Trade Area of the Americas: The Scope of the Negotiations (English and Spanish). Herminio Blanco M. and Jaime Zabludovsky K. INTAL-ITD-STA WP-SITI-01. 2003.

WORKING PAPERS

Rules of Origin in FTAs in Europe and in the Americas: Issues and Implications for the EU-Mercosur Inter-Regional Association Agreement (English). Antoni Esteveordal and Kati Suominen. INTAL-ITD WP-15. 2004.

Regional Integration and Productivity: The Experiences of Brazil and Mexico (English). Ernesto López-Córdova and Mauricio Mesquita Moreira. INTAL-ITD-STA WP-14. 2003.

Regional Banks and Regionalism: A New Frontier for Development Financing (English). Robert Devlin and Lucio Castro. INTAL-ITD-STA WP-13. 2002.

Métodos casuísticos de evaluación de impacto para negociaciones comerciales internacionales (Spanish). Antonio Bonet Madurga. INTAL-ITD-STA DT-12. 2002.

Las trabas no arancelarias en el comercio bilateral agroalimentario entre Venezuela y Colombia (Spanish). Alejandro Gutiérrez S. INTAL-ITD-STA DT-11. 2002.

The Outlier Sectors: Areas of Non-Free Trade in the North American Free Trade Agreement (English). Eric Miller. INTAL-ITD-STA WP-10. 2002.

A ALCA no limiar do século XXI: Brasil e EUA na negociação comercial hemisférica (Portuguese). Antonio José Ferreira Simões. INTAL-ITD-STA DT-09. 2002.

Metodología para el análisis de regímenes de origen. Aplicación en el caso de las Américas (Spanish). Luis J. Garay S. y Rafael Cornejo. INTAL-ITD-STA DT-08. 2001.

Qué hay de Nuevo en el Nuevo Regionalismo de las Américas? (Spanish). Robert Devlin and Antoni Esteveordal. INTAL-ITD-STA DT-07. 2001.

What's New in the New Regionalism in the Americas? (English and Spanish). Robert Devlin and Antoni Esteveordal. INTAL-ITD-STA WP-06. 2001.

The New Regionalism in the Americas: The Case of MERCOSUR. (English). Antoni Esteveordal, Junichi Goto and Raúl Saez. INTAL-ITD WP-05. 2000.

El ALCA y la OMC: Especulaciones en torno a su interacción (Spanish). Jaime Granados. INTAL-ITD DT-04. 1999.

Negotiating Preferential Market Access: The Case of NAFTA (English). Antoni Esteveordal. INTAL-ITD WP-03. 1999.

Towards an Evaluation of Regional Integration in Latin America in the 1990s (English). Robert Devlin and Ricardo Ffrench-Davis. INTAL-ITD WP-02. 1998.

Una evaluación de la homogeneidad macroeconómica y del desarrollo de la región centroamericana (Spanish). Florencio Ballester. INTAL-ITD DT-01. 1998.

OCCASIONAL PAPERS

The Trade and Cooperation Nexus: How Does Mercosur-EU Process Measure Up? (English). Robert Devlin, Antoni Esteveordal and Ekaterina Krivonos. INTAL-ITD-STA OP-22. 2003.

Desigualdad regional y gasto público en México (Spanish). Rafael Gamboa and Miguel Messmacher. INTAL-ITD-STA DD-21. 2003.

Zonas Francas y otros regímenes especiales en un contexto de negociaciones comerciales multilaterales y regionales (Spanish). Jaime Granados. INTAL-ITD-STA DD-20. 2003.

The External Dimension of MERCOSUR: Prospects for North-South Integration with the European Union (English). Paolo Giordano. INTAL-ITD-STA OP-19. 2003.

Regional Aspects of Brazil's Trade Policy (English). Eduardo A. Haddad (coord.), Edson P. Domínguez and Fernando S. Perobelli. INTAL-ITD-STA OP-18. 2002.

El proceso de integración Argentina-Brasil en perspectiva: El ciclo cambiario y la relación público-privada en Argentina (Spanish). Ricardo Rozemberg and Gustavo Svarzman. INTAL-ITD-STA DD-17. 2002.

A Study on the Activities of IFIs in the Area of Export Credit Insurance and Export Finance (English). Malcom Stephens and Diana Smallridge. INTAL-ITD-STA OP-16. 2002.

Diseños institucionales y gestión de la política comercial exterior en América Latina (Spanish). Jacint Jordana and Carles Ramió. INTAL-ITD-STA DD-15. 2002.

Mercosul em sua primeira década (1991-2001): Uma avaliação política a partir do Brasil (Portuguese). Paulo Roberto de Almeida. INTAL-ITD-STA DD-14. 2002.

The Trade Policy-Making Process Level One of the Two Level Game: Country Studies in the Western Hemisphere (English and Spanish). INTAL-ITD-STA OP-13. 2002.

Search for a New Partnership in Trade and Investment between Latin America and Asia-Pacific (English). Mikio Kuwayama. INTAL-ITD-STA OP-12. 2001. Spanish version: Internet.

Regional Public Goods in Official Development Assistance (English). Marco Ferroni. INTAL-ITD-STA OP-11. 2001.
Breaking from Isolation: Suriname's Participation in Regional Integration Initiatives (English).

Anneke Jessen and Andrew Katona. INTAL-ITD-STA OP-10. 2001.

NAFTA and the Mexican Economy: Analytical Issues and Lessons for the FTAA (English). J. Ernesto López-Córdova. INTAL-ITD-STA OP-09. 2001.

La integración comercial centroamericana: Un marco interpretativo y cursos de acción plausible (Spanish). Jaime Granados. INTAL-ITD DD-08. 2001.

Negotiating Market Access between the European Union and MERCOSUR: Issues and Prospects (English). Antoni Esteveordal and Ekaterina Krivonos. INTAL-ITD OP-07. 2000.

The Free Trade Area of the Americas and MERCOSUR-European Union Free Trade Processes: Can they Learn from Each Other? (English). Robert Devlin. INTAL-ITD OP-06. 2000.

The FTAA: Some Longer Term Issues (English). Robert Devlin, Antoni Esteveordal and Luis Jorge Garay. INTAL-ITD OP-05. 1999.

Financial Services in the Trading System: Progress and Prospects (English). Eric Miller. INTAL-ITD OP-04. 1999.

Government Procurement and Free Trade in the Americas (English). Jorge Claro de la Maza and Roberto Cambor. INTAL-ITD OP-03. 1999.

The Caribbean Community: Facing the Challenges of Regional and Global Integration (English). Anneke Jessen and Ennio Rodríguez. INTAL-ITD OP-02. 1999.

ALCA: Un proceso en marcha (Spanish). Nohra Rey de Marulanda. INTAL-ITD DD-01. 1998.

INT/ITD PUBLICATIONS

WORKING PAPERS

MERCOSUR: Achievements and Challenges. Carlos Sepúlveda and Arturo Vera Aguirre. Working Paper # 222. September 1997 (also available in Spanish).

Transport Infrastructure in Latin America. Arturo Vera Aguirre. Working Paper # 221. July 1997 (also available in Spanish).

Convergence and Divergence Between NAFTA, Chile, and MERCOSUR: Overcoming Dilemmas of North and South American Economic Integration. Raúl A. Hinojosa-Ojeda, Jeffrey D. Lewis and Sherman Robinson. Working Paper # 219. May 1997.

Towards Free Trade in the Western Hemisphere: The FTAA Process and the Technical Support of the Inter-American Development Bank. Enrique V. Iglesias. Working Paper # 217. July 1997 (also available in Spanish)

Economic Integration and Equal Distribution. Willem Molle. Working Paper # 216. May 1997.

What can European Experience Teach Latin America About Integration. L. Alan Winters. Working Paper # 215. May 1997.

Facts, Fallacies and Free Trade: A Note on Linking Trade Integration to Labor Standards. Donald J. Robbins. Working Paper # 214. May 1997.

From Miami to Cartagena: Nine Lessons and Nine Challenges of the FTAA. Robert Devlin and Luis Jorge Garay. Working Paper # 211. July 1996 (also available in Spanish).

Common Market of the Southern Cone: MERCOSUR. Martin Arocena. Working Paper # 204. September 1995 (also available in Spanish).

SPECIAL PUBLICATIONS

Periodic Note on Integration and Trade in the Americas, July 1995; February, August and December 1996; July and December 1997; August and December 1998; February and October 1999; October and December 2000; May 2002; December 2002; December 2003. (also available in Spanish and 1997 versions are available in Portuguese).

The Euro and its Effect on the Economy and the Integration of Latin America and the Caribbean. Roberto Zahler. Paper presented at the Seminar "Euro and its International Impact" on occasion of the Annual Meetings of the Boards of Governors. France, March 16, 1999 (also available in Spanish).

Extract from the Bank's 1996 Report on Economic and Social Progress in Latin America, Part II, Chapter 2: Trade Liberalization, 1996 (also available in Spanish).

European Economic and Monetary Union: Recent Progress and Possible Implications for Latin America and the Caribbean. March 1997 (also available in Spanish).

Globalization and Regional Integration: Consequences for Latin America. Speech delivered by Enrique V. Iglesias at the Seminar on "A Critical View of Globality". Mexico City, November 1997 (also available in Spanish).

Protection, Preferential Tariff Elimination and Rules of Origin in the Americas - An Overview. Luis Jorge Garay and Antoni Estevadeordal. June 1995 (also available in Spanish).

The New Face of Regional Integration in Latin America and the Caribbean. Speech delivered by Enrique V. Iglesias at The Annual World Bank Conference on Development in Latin America and the Caribbean. Montevideo, July 1997 (also available in Spanish).

Free Trade Area of the Americas: From Miami to Belo Horizonte. Speech delivered by Enrique V. Iglesias at the III Business Forum of the Americas. Belo Horizonte, May 1997 (English, Portuguese and Spanish).

Transpacific Partnership: Latin America's Role. Speech delivered by Enrique V. Iglesias at the XII International General Meeting of the Pacific Economic Cooperation Council (PECC XII). Santiago, September, 1997 (also available in Spanish).