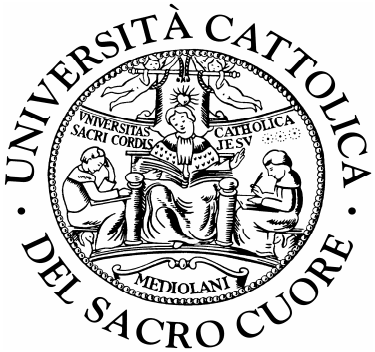

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MAPPING TRADE REMEDY and TECHNICAL BARRIERS to TRADE PROVISIONS in REGIONAL TRADE AGREEMENTS

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1. Introduction

The progressive elimination of tariff barriers has shifted the attention to other forms of barriers to trade, among them, trade remedies and technical barriers to trade (TBT).

When the GATT 1947 was drafted, the Contracting Parties recognized that some form of accommodation would be necessary for customs unions and free trade areas. The concept of a European economic community was already under consideration, and the political and economic advantages of creating a pan-European market were apparent. The GATT incorporated in Article XXIV a mechanism for relieving members of customs unions and free trade areas from the obligation to extend the preferential treatment granted within the CU or FTA to non-members. Hence, this rule derogates general principles of non-discrimination characterizing GATT and particularly the Most Favorite Nation Treatment laid down in Article I.

The number of RTAs in force has varied considerably over the years. Nowadays WTO provides various statistics about agreements which have been notified to the GATT or the WTO, agreements which have not (yet) been notified, and those which remain in force. According to the WTO Secretariat, 380 agreements have been notified to the GATT/WTO at the end of July 2007. This includes 300 agreements covering trade in goods notified under Article XXIV of the GATT 1994, 22 agreements notified under the Enabling Clause, and 58 agreements covering trade in services notified under the GATS. At that same date, 205 agreements were in force. More than half of these agreements have entered into force since 1990, when there were only about 40 agreements in force.

By trade remedies are meant anti-dumping, countervailing and emergency or safeguard measures. Anti-dumping and countervailing duties can be levied on exporters who engage in "unfair" trading practices that cause material injury to domestic producers. These unfair trading practices can take the form of selling products below their "normal" price or of benefiting from government-provided subsidies. Safeguard actions can be taken even if there is no unfair trade practice so long as imports have increased to an extent that serious injury has been suffered by domestic producers. No matter the difference in conditions under which they can be triggered, all these instruments represent internationally agreed means for a country to temporarily increase the level of trade protection received by its injured domestic industry.

Technical barriers to trade consist of standards, technical regulations and conformity assessment procedures. Standards and technical regulations specify the technical characteristics of a product or the conditions under which it is made. Product standards define the requirements of the characteristics of products (such as the level of safety of an electronic devise), while production standards are the conditions under which a product must be made (such as the requirement of limited gas emissions). Conformity assessment procedures define the testing procedures necessary to assess the conformity of products to the norms. Standards, technical regulations and conformity assessment procedures are not openly discriminatory against imports. To the extent that standards, technical regulations and conformity assessment procedures increase costs for foreign

companies relatively more than for domestic firms, they act as a protectionist measure; that is, they reduce the ability of a producer to enter a foreign market.

The idea of this thesis arose during my stay at World Trade Organization from 2004 to 2005. While there I collaborated to a joint research project co-sponsored by WTO and the Inter-American Development Bank focused on proliferation of regionalism. In particular, my original contribution to the study was the setting of two different benchmarking exercises aimed to study the impact of trade remedies and technical barriers to trade in regional trade agreements. Such benchmarking became the core of two articles respectively[1]. The present thesis proposes the same set of templates for analyzing the trade remedy provisions and technical barriers to trade in preferential trade agreements. This is to be done by mapping various provisions in preferential trade agreements and evaluating empirically the trade effects of key PTA rules. Two criteria have been followed to select the RTAs to survey in this study. First, since one of the aims of this thesis is to enhance the understanding of the range of policy options adopted within RTAs to remove TBT and Trade Remedies, I have surveyed a relatively large sample of RTAs and I have selected RTAs for regions that were different in terms of geographical characteristics, level of development and extent of intra-regional trade.

Fifty-eight PTAs have been surveyed for this study. Collectively, they represent roughly a fifth of the total number of PTAs notified to the WTO under Article XXIV of GATT 1994 or the Enabling Clause. The list of the PTAs surveyed appears in Annex 1. But since the PTAs surveyed include the two largest in the world - the EU and NAFTA – they accounted for about 45% of global merchandize import flows in 2003, about $ 3.14 trillion. Intra-PTA trade in 2003 for the surveyed PTAs ranged from a high of $ 1.58 trillion (for the EC-15) to a low of $ 63 million for CEMAC. The share of intra-PTA trade is largest (58%) in the EC while the smallest share (half of a percent) is in US-Bahrain. The list is also geographically diverse with PTAs from North America, the Caribbean, Latin America, Asia and the Pacific, Africa, the Middle East, Western Europe and Central and Eastern Europe. PTAs involving developed countries only, developing countries only and a mixture of the two are included in the survey.

Despite literature on regionalism is quite extensive, there are very few studies about the actual content of many of these RTAs. This is certainly true about the trade remedy provisions and TBT. Thus, a major contribution of this thesis to the literature on regionalism is to provide information about the contents of the trade remedy provisions and TBT in RTAs. How many have been able to phase out these two types of protectionist measures and how many maintain the need for these instruments? What are common features in RTAs? Further, this thesis also attempts to answer a range of other questions. Are there traceable families of trade remedy provisions (for example, according to geographical distribution or the level of integration among the partners)? What role do TBT and trade remedies play in RTAs? Are there economic features of the RTA members which are able to statistically explain some key features of the trade remedy provisions?

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[1] Piermartini R. and Budetta M. (2007). "Mapping of regional rules on technical barriers to trade," chapter prepared for the IADB-WTO project on mapping regionalism.
Teh R. and. Budetta M. (2007) "Trade remedy provisions in regional trade agreements," chapter prepared for the IADB-WTO project on mapping regionalism.

The rest of the thesis is divided into seven chapters, being the first three chapters dedicated respectively to an analysis of theory and literature of RTAs, trade remedies and technical barriers to trade respectively. Chapter 5 focuses on the interaction between trade remedies and technical barriers to trade in regional trade agreements pointing out some common features and differences. Chapter 6 describes the benchmarking exercises explaining which criteria has been used in order to monitor the RTAs and the methodology used to map the information contained in the text of the agreements into a template. Chapter 7 provides descriptive statistics about the different approaches used across RTA to remove TBT as they emerge from the template and an econometric model to deal with those data. First it surveys some approaches that have been used by other authors-typically, through gravity equations. Further in this chapter, an attempt is made to single out the factors that determine which specific provisions are included in an RTA using probit analysis. In addition I attempt to assess whether there are families of RTAs that share common characteristics. The overview is provided by provision and by RTA and a comparison is offered between this thesis and another article analyzing only the technical barriers to trade. It looks at a number of explanations of why we observe the inclusion of specific provisions in preferential trade agreements. Both geographical/political/institutional and income-related factors (the level of development and the similarity in income levels among countries member of RTA) are considered. Chapter 8 concludes.

2. Regional Trade Agreements

a. Preferential liberalization vs. multilateral liberalization

According to the Dictionary of Trade Policy Terms, Regionalism is the "actions by governments to liberalize or facilitate trade on a regional basis, sometimes through free-trade areas or customs unions".

In the WTO context, regional trade agreements (RTAs) have both a more general and a more specific meaning. More general, since RTAs may be agreements concluded between countries not necessarily belonging to the same geographical region. In this case those countries are part to a preferential trade agreement (PTA). More specific, because WTO provides for a number of provisions which relate specifically to conditions of preferential trade liberalization with RTAs.

When the GATT 1947 was drafted, the Contracting Parties recognized that some form of accommodation would be necessary for customs unions and free trade areas. The concept of a European economic union was already under consideration, and the political and economic advantages of creating a pan-European market were apparent. The GATT incorporated in Article XXIV a mechanism for relieving members of customs unions and free trade areas from the obligation to extend the preferential treatment granted within the CU or FTA to non-members. Hence, this rule derogates general principles of non-discrimination characterizing GATT and particularly the Most Favorite Nation Treatment laid down in Article I.

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An important feature of modern RTAs is more extensive product coverage than in earlier agreements. The coverage and depth of preferential treatment varies from one PTA to another. Modern PTAs, and not exclusively those linking the most developed economies, tend to go far beyond tariff-cutting exercises. They provide for increasingly complex regulations governing intra-trade and they often also provide for a preferential regulatory framework for mutual services trade. The most sophisticated RTAs go beyond traditional trade policy mechanisms, to include regional rules on investment, competition, environment and labor. They now may cover services, investment, intellectual property, technical barriers to trade, dispute settlement, supra-national institutional arrangements and so on. Many more agreements today contain disciplines limiting the use of quantitative restrictions and subsidies. In one important development, a number of agreements have provisions for the use of competition policy instruments in place of anti-dumping procedures on trade among the parties: the EU, the EEA, the Australia-

New Zealand Agreement on Closer Economic Relations, and the Canada-Chile FTA.

The trend in the growth of RTAs is difficult to interpret. On the one hand, this scale of trading within regional agreements would have been difficult to imagine by the founders of the GATT. On the other hand, the trend has to be set in the context of two other recent phenomena. First, the 1990s were also a period of rapid growth of accessions to the GATT and the WTO, from some 80 GATT Contracting Parties in 1990 to over 130 WTO Members today. In the accession process, new GATT/WTO Members committed themselves to reduced protection and the implementation of WTO rules, which include the notification of RTAs to which they are party. Second, this was also a period of unilateral liberalization, particularly among developing countries and economies in transition, and this liberalization was largely consolidated in the Uruguay Round. Thus, we have also seen a decline in the use of non-tariff measures as well as considerable rationalization of tariff structures, tariff reductions to moderate average levels and a major expansion in binding coverage.

As matter of fact the proliferation of RTAs has gone along with the deepening of the preferential treatments members to the RTAs grant each-others. The central criterion used by Article XXIV to determine whether a CU or FTA should be allowed to maintain its preferential character is whether its members have agreed to eliminate *substantially* all tariffs and other restrictive regulations of commerce on trade between its members. This criterion was intended as a mechanism for limiting the number of CU/FTAs since it precluded GATT members from using Article XXIV as a cover for eliminating tariffs on a limited number of goods.

The Article contains several paragraphs regulating substantial and procedural issues. First of all, par.4[2] recognizes the possibility of increasing free trade "by the development, through voluntary agreements, of closer integration between the economies of the countries parties to such agreements". Nonetheless, the purpose of these agreements should be to "to facilitate trade between the constituent territories and not to raise barriers to the trade." In a nutshell, the agreements must be trade creating and not trade diverting. As to substantial issues, para.5[3]

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[2]Article XXIV para.4
"The contracting parties recognize the desirability of increasing freedom of trade by the development, through voluntary agreements, of closer integration between the economies of the countries parties to such agreements. They also recognize that the purpose of a customs union or of a free-trade area should be to facilitate trade between the constituent territories and not to raise barriers to the trade of other contracting parties with such territories".

[3]Article XXIV para.5
"Accordingly, the provisions of this Agreement shall not prevent, as between the territories of contracting parties, the formation of a customs union or of a free-trade area or the adoption of an interim agreement necessary for the formation of a customs union or of a free-trade area; *Provided* that:
(*a*) with respect to a customs union, or an interim agreement leading to a formation of a customs union, the duties and other regulations of commerce imposed at the institution of any such union or interim agreement in respect of trade with contracting parties not parties to such union or agreement shall not on the whole be higher or more restrictive than the general incidence of the duties and regulations of commerce applicable in the constituent territories prior to the formation of such union or the adoption of such interim agreement, as the case may be;

provides that the common external tariff "shall not on the whole be higher or more restrictive than the general incidence of the duties and regulations of commerce applicable in the constituent territories prior to the formation of such union or the adoption of such interim agreement". Para.8[4] broadly defines the meaning of customs union and free-trade area. Moreover, it lays down the important "substantiality" criterion according to, all "duties and other *restrictive regulations of commerce* (except, where necessary, those permitted under Articles XI, XII, XIII, XIV, XV and XX) are eliminated with respect to *substantially* all the trade between the constituent territories of the union or at least with respect to substantially all the trade in products originating in such territories".

Procedural issues are laid down in para.7[5]. Particularly, this paragraph provides that: (a) States entering in CU/FTA shall "promptly notify" to other contracting

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(*b*) with respect to a free-trade area, or an interim agreement leading to the formation of a free-trade area, the duties and other regulations of commerce maintained in each of the constituent territories and applicable at the formation of such free–trade area or the adoption of such interim agreement to the trade of contracting parties not included in such area or not parties to such agreement shall not be higher or more restrictive than the corresponding duties and other regulations of commerce existing in the same constituent territories prior to the formation of the free-trade area, or interim agreement as the case may be; and

(*c*) any interim agreement referred to in subparagraphs (*a*) and (*b*) shall include a plan and schedule for the formation of such a customs union or of such a free-trade area within a reasonable length of time".

[4]Article XXIV para.8

For the purposes of this Agreement:

(*a*) A customs union shall be understood to mean the substitution of a single customs territory for two or more customs territories, so that

(i) duties and other restrictive regulations of commerce (except, where necessary, those permitted under Articles XI, XII, XIII, XIV, XV and XX) are eliminated with respect to substantially all the trade between the constituent territories of the union or at least with respect to substantially all the trade in products originating in such territories, and,

(ii) subject to the provisions of paragraph 9, substantially the same duties and other regulations of commerce are applied by each of the members of the union to the trade of territories not included in the union;

(b) A free-trade area shall be understood to mean a group of two or more customs territories in which the duties and other restrictive regulations of commerce (except, where necessary, those permitted under Articles XI, XII, XIII, XIV, XV and XX) are eliminated on substantially all the trade between the constituent territories in products originating in such territories.

[5] Article XXIV para.7

(a) Any contracting party deciding to enter into a customs union or free-trade area, or an interim agreement leading to the formation of such a union or area, shall promptly notify the CONTRACTING PARTIES and shall make available to them such information regarding the proposed union or area as will enable them to make such reports and recommendations to contracting parties as they may deem appropriate.

(b) If, after having studied the plan and schedule included in an interim agreement referred to in paragraph 5 in consultation with the parties to that agreement and taking due account of the information made available in accordance with the provisions of subparagraph (a), the CONTRACTING PARTIES find that such agreement is not likely to result in the formation of a customs union or of a free-trade area within the period contemplated by the parties to the agreement or that such period is not a reasonable one, the CONTRACTING PARTIES shall make recommendations to the parties to the agreement. The parties shall not maintain or put into force, as the case may be, such agreement if they are not prepared to modify it in accordance with these recommendations.

(c) Any substantial change in the plan or schedule referred to in paragraph 5 (c) shall be communicated to the CONTRACTING PARTIES, which may request the contracting parties

parties the formation of such CU/FTA; (b) parties shall formulate recommendations when they believe that the agreement will not result in the formation of the planned CU/FTA.

International trade debate has deeply focused about the issue of whether RTAs are threats to the multilateral trading system and notably to WTO negotiations. In general, RTAs can complement the multilateral trading system, help to build and strengthen it. But, in essence as showed, RTAs are discriminatory since they depart from the MFN (most-favored-nation) principle, a cornerstone of the multilateral trading system. Their effects on global trade liberalization and economic growth are not clear given that the regional economic impact of RTAs is *ex ante* ambiguous. Although RTAs are intended to the advantage of signatory countries, expected benefits may be undercut if distortions in resource allocation, as well as trade and investment diversion, potentially present in any RTA process, are not minimized, if not eliminated altogether. An RTA's net economic impact will certainly depend on its own architecture and the choice of its major internal parameters (in particular, the depth of trade liberalization and industrial coverage). Concurrent MFN trade liberalization by RTA parties, either unilaterally or in the context of multilateral trade negotiations, can play an important role in defusing potential distortions, both at the regional and at the global level.

(i) Building blocks and stumbling blocks

On the other hand, regionalism has been regarded much more as a complement to multilateralism (building blocks rather than stumbling blocks). That is the case for NAFTA that triggered off pressures for such agreements as a kind of domino effect. Accordingly such limited liberalization strengthens the hand of exporters and pro-trade forces. **Ethier (1998)** emphasizes that "the new regionalism is in good part a direct result of the success of multilateral liberalization, as well as being the means by which new countries trying to enter the multilateral system (and small countries already in it) compete among themselves for direct investment". Actually, taking in to account that multilateral negotiations are not aimed to a complete liberalization it seems plausible the following point. The correct comparison is not between a preferential arrangement and complete multilateral liberalization, but between two second-best situations of multilateral liberalization that is only partial with preferential trade liberalization which could be much more complete.

Certainly a point should be made that is the reduction of number of players in the multilateral negotiations. Yet, while it seems plausible to draw this conclusion for EU, the clue for others PTAs is not immediate and curiously it happens that countries parties to the same PTA may play different positions at multilateral table.

The increase in RTAs, coupled with the preference shown for concluding bilateral free-trade agreements, has produced the phenomenon of overlapping

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concerned to consult with them if the change seems likely to jeopardize or delay unduly the formation of the customs union or of the free-trade area.

membership. Because each RTA will tend to develop its own mini-trade regime, the coexistence in a single country of differing trade rules applying to different RTA partners has become a frequent feature. This can hamper trade flows merely by the costs involved for traders in meeting multiple sets of trade rules.

The proliferation of RTAs, especially as their scope broadens to include policy areas not regulated multilaterally, increases the risks of inconsistencies in the rules and procedures among RTAs themselves, and between RTAs and the multilateral framework. This is likely to give rise to regulatory confusion, distortion of regional markets, and severe implementation problems, especially where there are overlapping RTAs.

There has been a rapid growth in the number of regional trade agreements (RTAs) in recent years. In Europe, these are mainly centered on the European Union, spreading to the Central and Eastern European countries, the Baltic States, the Mediterranean and beyond. In the Americas, two agreements – NAFTA and MERCOSUR – have had a significant impact, but these may be overtaken by the Free Trade Area for the Americas. This happens while Geneva negotiation marks the pace. So, why are countries ready to open markets regionally while they are reluctant to do so on multilaterally?

Following **Bhagwati (1993)** and **Bhagwati and Panagariya (1996)**, the implications of regionalism for multilateralism can be addressed along two separate lines. First, assuming regional and multilateral processes do not interact will one or more trade blocs continue to expand until they encompass the entire world? Second, if these processes interact, will the option to form regional blocs make the success of multilateral process more or less likely, i.e., will the two processes act as a catalyst or as a threat. To these, some authors have gone on to add a third question: what is the impact of multilateralism on regionalism?

(ii) Block expansion

Bloc expansion depends on the willingness of the existing members to offer entry and the incentives facing outsiders to seek entry. Actually, this question is hovering international trade debate and economical literature since 90's. **Lawrence (1999)** tends to regard regionalism much more as a complement to multilateralism (building blocks rather than stumbling blocks). He argues that NAFTA triggered off pressures for such agreements as a kind of domino effect. He presents an idiosyncratic shock, such a deeper integration of an existing regional bloc may be, can trigger membership requests from countries that were previously not interested in the membership. The underlying rationale is simple. The position of a country's government concerning membership is the result of a political equilibrium between anti and pro-membership instances. So if the government was previously politically indifferent to membership, a bloc enlargement may lead to an increase in the cost to be non-members. Moreover, this second effect will bring more pro-bloc political activity in non-members leading, in turn, to further enlargement. That is the case of recent EU's enlargement as well as US-Mexico bilateral trade talks opened to Canada.

Lawrence also makes an important point that the correct comparison is not between a referential arrangement and complete multilateral liberalization, but between two second-best situations of multilateral liberalization that is only partial with preferential trade liberalization which could be much more complete.

According to Panagariya, there are two key limitations of this analysis. First, working in the tradition of economic-geography models, he formalizes trade barriers as transport costs. Accordingly, accession to the PTA becomes equivalent to a reduction in transport costs. The revenue aspect of trade barriers, central to traditional models, is completely neglected in his analysis. It is not clear whether his result will remain valid once transport costs are replaced by tariffs and, hence, the revenue-transfer effect of entry into the bloc is taken into account. Second, even if we ignore this problem, **Baldwin (1995)** assumes that "insiders" have no incentive to block entry. It may be conjectured that even within his own model, once the bloc reaches a certain size, insiders will have an incentive to block further entry. This is indeed the message of **Andriamananjara (1999)** who explicitly models the incentives facing outsiders to seek entry and willingness of insiders to give entry.

Andriamananjara (1999) follows the way paved by Baldwin, using a multi-country political economy model. Having established at the outset that global free trade is optimal and that it is initially feasible as a one-shot game, the paper investigates the possibility of achieving it through the regionalism approach. The goal is to determine the likely equilibrium size and number of RTAs and then establish how regionalism can actually be trade liberalizing. The paper first looks at the case where countries move sequentially. In this case, for an outsider country deciding entry into a trading bloc, the choice is a the trade-off between the costs of opening up one's own market to more foreign competition, on the one hand, and the gains from obtaining better access to the bloc's preferential market on the other hand. The author shows that the access gain is always larger, so that an outsider would always want to apply for membership to the existing bloc. Hence, if the bloc had open membership policy, its expansion would result in global free trade. At the other end of the table, if member countries can choose to accept or reject new members, the expansion of the bloc is not likely to yield global free trade. When deciding whether to accept or reject a new member, an insider compares the gains from getting preferential access to the new member's market, on the one hand, with the losses for having to share its original preferential market with the new member on the other hand. At small bloc size, the gains are large enough to offset the losses so that the insiders are willing to accept new members. As the bloc expands, however, the insider's incentives for further bloc expansion decrease and eventually go to zero. If only one RTA were allowed to form, then the insiders would stop accepting new members when the bloc contains about half the world. The paper shows that even in a simultaneous bloc expansion, the process fails to converge to a single bloc except when the external tariff happens to be low enough. Here, we have an example of open regionalism, based on low external tariffs, leading to multilateral free trade. One direct policy implication of this is that global free trade can be achieved through bloc expansion if trading blocs lower their external tariffs when they abolish their internal tariffs. Then the paper shows that there is a real possibility that, left on its own, the current wave of regionalism will not lead to global free trade so vigorous multilateral efforts in

trade liberalization are meanwhile needed to achieve a more liberal global trading system.

Bond and Syropoulos (1996) ask this same question, albeit in slightly circuitous manner, using a Krugman's model. They hypothesize a world that is initially divided into several identical blocs. They then allow one of these blocs to expand by drawing one country at a time from each of the remaining blocs, with Nash-optimum tariffs applied at all times by all blocs. With the help of simulations, they show that as this bloc expands, the welfare of its members peak before it absorbs all members of other blocs.

b. The Impact of Regionalism on Multilateralism

There are several approaches in looking to the relation among regionalism and multilateralism. **Levy (1997)** proposes a median voter model. He addresses two key issues using a political-economy model in which decisions are made by a majority vote: (i) Can the option to form a trade bloc make a previously infeasible multilateral liberalization feasible; and (ii) Can it happen the opposite? The answer to the first of these questions is an anyhow no since the option to form a bloc is exercised only if it makes the median voter better off and, in that case, the median voter's reservation utility rises. If multilateralism was already infeasible, it cannot now become feasible. As far as the second question is concerned, Levy analyses two alternative models: a two-sector, two-factor, multi-country, Heckscher-Ohlin model and a variant of it in which one of the sectors produces a differentiated, monopolistically competitive good. He shows that in the first model, the option of a trade bloc cannot block a previously feasible multilateral accord but, in the second one, it can. Hence, modeling reality in a standard Heckscher-Ohlin framework, regionalism neither pushes not hinder multilateralism.

Another approach can be analyzing the issue in a Cournot oligopoly model. **Krishna (1998)** analyzes the problem whether regionalism may hinder or not multilateralism within an oligopoly model. The question is the same as Levy's: Does an initially feasible multilateral liberalization remain necessarily feasible after two of the three countries have formed an RTA? Krishna's answer is negative. He points out, in particular, that the more the FTA benefits (in terms of the firms' profits) from trade diversion, the more likely it will turn into a stumbling bloc. Through a multilateral liberalization, union members obtain tariff free access to the third country's market in return for offering it access to their own market on equal terms. But if the FTA was heavily trade diverting to begin with, the benefit from the former change is less than the loss due to the latter change.

Of course several scholars look at regionalism as an open threat to multilateralism. An interesting paper by **McLaren (1998)** models regionalism as a coordination failure in a world with sector-specific sunk costs and 'friction' in trade negotiations. Based on the expectation that a regional bloc is likely to form, private agents make investments that make potential bloc members more specialized toward each other but, together, less specialized relative to nonmembers. These investments, assumed to be irreversible, reduce the demand for multilateral free trade ex post.

Thus, the expected supply of regionalism generates its own demand, creating a Pareto-inferior equilibrium.

Nevertheless, the conclusion reached by McLaren may change whether one examines the situation from a dynamic perspective. **Bagwell and Staiger (1997a, 1997b)** investigate how multilateral tariff cooperation is impacted by the formation of FTAs and CUs during the transition period. A differentiating feature of their approach is the assumption that countries cannot make binding commitments to enforce the international bargaining outcomes. They are, therefore, limited to self-enforcing multilateral arrangements that balance short-term gains from deviation against the cost of an ensuing trade war.

The set up chosen by **Bagwell and Staiger (1997a)** is different from the traditional three-country set up. They assume two countries, called Home and Foreign, which cooperate on reciprocal tariffs subject to the abovementioned incentive constraint. The objective is to maximize welfare as represented by the sum of consumers' and producers' surplus and tariff revenue. Trade relations between the two countries have three phases. In phase 1, they trade with tariffs negotiated through a stationary dynamic tariff game. Phase 2 corresponds to a transition phase, in which trade between Home and Foreign goes on but each country has begun discussions about future free trade agreements with other (third un-modeled) countries. In phase 3, the free trade agreements are fully implemented. Home and Foreign countries now trade less with one another since they divert some trade to their respective FTA partners and reset the cooperative tariffs. The new trade models and tariffs are stationary into the infinite future. The authors focus on the impact of the negotiations for the FTA on tariff cooperation during phase 2. The key outcome is that the building of FTAs is associated with temporarily heightened multilateral trade tensions between Home and Foreign. The tension arises because the current trade flows between the two countries have not changed (since FTAs are implemented in phase 3) but expected future flows have declined due to trade diversion. The former fact implies that the benefits from cooperation have not changed but the latter one implies that the costs of deviation have declined. This leads to a temporary rise in the multilateral tariff. In phase 3, as the agreement is implemented fully, cooperation resumes and the tariff declines below the phase 1 tariff partially because of the reduced volume of trade between Home and Foreign. That is to assume that Building Blocks will occur in Transition (short run) but Stumbling Blocks will occur in the Long Run.

In their article **Bagwell and Staiger (1997b)** consider a variation of the model described above and focus on the impact of customs unions on tariff cooperation during transition. Home and Foreign are now interpreted as regions each gathering several customs unions. There are two goods with one exported by Home CUs and the other by Foreign CUs. Acting as independent units, Home CUs negotiate tariffs with Foreign CUs. Starting with phase 1 i.e. cooperative tariffs, the possibility of consolidating each of Home CUs and Foreign CUs into larger CUs is then introduced in phase 2. Once again, the agreement is actually implemented in phase 3. In addition to the trade-diversion effect (which the authors choose not to highlight), there is now a market-power effect. The agreement to consolidate each of Foreign and Home into larger CUs implies that the market power of participants in phase 3 has gone up. In phase 2, this means that the cost of a future

trade war has gone up. This leads to a reduction in the multilateral tariff in phase 2. In phase 3, reflecting increased market power, the multilateral tariff rises above the phase 1 tariff.

c. The Impact of Multilateralism on Regionalism

Literature have also pointed out that multilateral liberalization may itself be the cause of rising trend towards regionalism. It is possible to outline two approaches.

Freund (1998) too uses a Cournot oligopoly model to study the impact of multilateral liberalization on RTAs sustainability. He develops a symmetric, three-country, Cournot oligopoly model in which, initially, each country set the same tariff on the other two countries. The author shows that, in this setting, the welfare increase deriving from entering into a PTA is greater than the gain deriving from a move to free trade when the multilateral tariff is low while the opposite is true when it is high. She goes on to show that this feature makes PTAs more sustainable at low multilateral tariffs. Hence, PTAs may proliferate as a result of multilateral freeing of trade. The *ratio* behind Freund's result can be best understood by considering the case when the initial multilateral tariff is near autarky. In this case, when two countries form an FTA, there is no room for exploiting the third country via better terms of trade: at near zero trade with the latter, the gain from improved terms of trade is also near zero. Thus, under the PTA, the benefits are limited to those deriving from mutual liberalization by partners. But under multilateral liberalization, benefits also accrue from the liberalization of the third country. When the multilateral tariff is initially low, however, the partner countries can benefit from mutual liberalization as well as the improvement in the terms of trade with respect to the third country that accompanies preferential liberalization. Under multilateral liberalization, by contrast, no terms-of-trade benefits accrue: the benefits are limited to the conventional efficiency triangles.

Sometimes also a partial liberalization may drive the set up of RTAs. That is the case for liberalization in the North leading to North-South PTA. **Ethier (1998)** develops a model in which regionalism is an outcome of multilateral liberalization and has a fruitful coexistence with it. The world is divided into two regions, say North and South. Each region consists of several countries. Northern countries are all symmetric with each producing one non-traded good and one variety of a traded, differentiated good. The former uses unskilled and skilled labor while the latter uses human capital and skilled labor. The production of the differentiated good involves two stages: in the first stage, using only skilled labor, an intermediate input is produced and, in the second stage, the input is combined with human capital to produce the final good. A key feature, which drives many of the results, is the presence of an (international) external economy in the production of the intermediate input. The production cost of the input declines with the world-wide employment of skilled labor in it. The intermediate input can be produced anywhere but it must be shipped to the source country for the second stage of production. Initially, each Northern country imposes the Nash optimum tariff on the imports of the differentiated good from other countries. Because the countries are symmetric, the tariff is the same for all of them. Southern countries can benefit by producing the intermediate input (or, in Ethier's terminology,

attracting Northern firms to locate the production of the input inside their borders) and exchanging it for imports of the final good. But they face resistance to liberalization. This resistance varies across countries and is, initially, sufficiently strong even in the least resistant country to rule out a liberal regime. Therefore, all Southern countries are in autarky, producing and consuming a "rudimentary" good that is a (poor) substitute for the Northern traded good. The equilibrium is disturbed by a multilateral negotiation among Northern countries, which leads to a reduction in the tariff they impose on each other. Employment of skilled labor in the intermediate input expands everywhere and, given the externality, confers gains on all Northern countries. With the value of the externality in the intermediate-input production having gone up, some Southern countries may now be able to overcome the resistance to trade liberalization. If such a reform actually takes place, the production of the intermediate input moves partially to the reforming Southern countries. There is a further expansion of the externality effect. Now introduce a regional arrangement. Assume that, under the arrangement, a Northern country gives a small tariff preference to the intermediate input produced in the Southern partner. The preference gives the latter an edge over all other Southern countries in the production of the input; it becomes the sole foreign source of the partner's input. In return, the Southern partner gives the Northern partner's traded variety free access while denying it entirely to nonmember Northern countries (by assumption). The regional arrangement has the following effects. First, the Southern partner becomes the sole foreign supplier of the Northern partner's input. Second, this trade diversion (or investment diversion in Ethier's terminology) may make reforms by other countries more difficult since they lose market access. Third, the externality effect rises due to a net expansion of the input sector. Finally, the arrangement may induce other Northern countries to seek their own arrangements. Under some very strong assumptions, Ethier derives a final equilibrium in which each Northern country forms regional arrangements with all Southern countries able to liberalize successfully.

From a multilateralist perspective, it is possible to take issue with some of Ethier's basic premises. For example, the view that the current wave of regionalism is a friendly response by developing countries to past multilateral liberalization by developed countries is at odds with historical evidence. It was frustration with rather than success of the multilateral process that led the United States to open negotiations with Mexico. The view that regionalism is the central instrument of liberalization in developing countries is also at odds with reality. A considerable liberalization in developing countries, including Mexico, had already taken place before the current wave of regionalism was launched. Indeed, it was this unilateral liberalization, rather than multilateral liberalization among developed countries, that created a favorable environment within Mexico to enter NAFTA. Furthermore, it is the liberalization in developing that has induced developed countries to consider entering into regional arrangements with them. Even today, the country that is on top of the U.S. list for entry into NAFTA is Chile, the most liberal of the Latin American countries. The developing countries that are relatively closed, mainly in South Asia and Africa, are on no developed country's list as potential partners in a PTA.

Finally, a recent paper by **Baldwin (2006)** analyses the role of the World Trade Organization in multilateralising regionalism. In particular, Baldwin mentions two facts describing the role of the WTO in the recent phase of regionalism's resurgence. First, the WTO risks a serious erosion of its relevance if it continues in its spectator role. Second the WTO is probably the only international organization that is in position to ease the attrition of free trade deals at the global level being probably the only international organization that has a clear incentive to do so. Baldwin highlight two examples of efforts to multilateralise RTAs. The first example is the Pan-European Cumulation System (PECS) implemented by EC from 1997. The EU15, the EFTA4 (Iceland, Liechtenstein, Norway and Switzerland), and ten of the then applicant-nations in Central Europe decided to introduce in their various FTAs a common set of rules of origin. Value could thus be cumulated between different European countries without prejudicing the duty-free status of end products. PECS was extended to Turkey in 1999, and the EU promised in 2003 to extend it to the Euro-Med bilateral. PECS's members account for about 40% of world trade. The second example is the 1996 Information Technology Agreement (ITA); this tamed the tangle of preferences and rules of origin governing trade in Information Technology (IT) goods in a very different way. Instead of harmonising rules of origin and cumulating, it made the assortment of trade deals irrelevant by binding MFN tariffs at zero for a set range of IT goods.

The two examples of multilateralising regionalism – PECS and the ITA –contrast the WTO's agreements. **Augier, Lai and Gasiorek (2005)** have demonstrated that PECS harmed the export interests of WTO members excluded from the club. Given this limited mandate, the WTO could not have influenced the PECS talks in any direct manner, but it might have helped in its 'fair broker' role. And the PECS resulted to be a discriminatory practice. The WTO's role in the ITA was very different. The ITA resulted from negotiations conducted under the WTO's aegis. The outcome was non-discriminatory; any nation is free to join the club. This is to say that WTO has an actual chance to drive the regionalism phenomenon by playing its role in the international trade scenario. Baldwin suggests three roles for WTO. First, WTO should provide clearer information and a deeper understanding on the effects of the multilateralisation of regionalism; second it should sets up a negotiating forum for the coordination/standardisation/harmonisation of rules of origin. Third, it could disciplines negotiations toward liberalization. One of the aspects of regionalism is its tendency toward the law of the jungle. In multilateral trade negotiations, the principles of reciprocity and MFN, and the presence of multiple hegemons hold back the power of nations with big markets to force/cajole small-market nations into accepting less-than-fully even-handed deals. For example, it is remarkable to see how developing nations are willing to accept disciplines in FTAs on intellectual property rights, investment measures, government procurement and agricultural that they reject at the WTO level. In a nutshell, on a regional basis, big players take with one hand, what they give with the other at multilateral level. Baldwin concludes that regionalism is here to stay. Arguments over the merits of regionalism versus multilateralism are useful and will continue, but as far as the world trade system is concerned, it seems that regionalism must be taken as a fact of life. One way forward would be to foster the multilateralisation of FTAs. The WTO is well-placed to play a constructive role in

this process. Indeed, it is hard to think of any organisation that could play this role better than the WTO.

3. Technical Barriers to Trade

TBT consist of standards, technical regulations and conformity assessment procedures. Standards and technical regulations specify the technical characteristics of a product or the conditions under which it is made. Product standards define the requirements of the characteristics of products (such as the level of safety of an electronic devise), while production standards are the conditions under which a product must be made (such as the requirement of limited gas emissions). Conformity assessment procedures define the testing procedures necessary to assess the conformity of products to the norms. [6]

Technical regulations and standards define specific characteristics of a product — such as its size, shape, design, functions and performance, or the way it is labeled or packaged before it is sold. In certain cases, the way a product is produced may affect these characteristics, and it may then prove more appropriate to draft technical regulations and standards in terms of a product's process and production methods rather than its characteristics *per se*. The difference between a standard and a technical regulation lies in compliance. While conformity with standards is voluntary, technical regulations are by nature mandatory.

In case of standards, non-complying imported products will be allowed on the market, but then their market share may be affected if consumers prefer products that meet local standards such as quality or color standards for textiles and clothing. Another technical barrier to trade is conformity assessment. Conformity assessment procedures are technical procedures — such as testing, verification, inspection and certification — which confirm that products fulfill the requirements laid down in regulations and standards. Generally, exporters bear the cost, if any, of these procedures. Non-transparent and discriminatory conformity assessment procedures can become effective protectionist tools.

Chart 1

	TBTs		
	Standards	**Technical regulations**	**Conformity assessment**
Product	technical characteristics of a product (voluntary)	technical characteristics of a product (mandatory)	–
Production procedures	production procedures and characteristics (voluntary)	production procedures and characteristics (mandatory)	–
Testing procedures	–	–	testing procedures necessary to assess the conformity of products to the legislation

[6] WTO Agreement on Technical Barriers to Trade (Annex 1) defines a standard a "document approved by a recognised body, that provides, for common and repeated use, rules, guidelines or characteristics for products or related processes and production methods, with which compliance is not mandatory. It may also include or deal exclusively with terminology, symbols, packaging, marking or labelling requirements as they apply to a product, process or production method". The major difference between standards and technical regulations, according to the WTO definition, is that compliance with a technical regulation is mandatory. A conformity assessment procedure is "any procedure used, directly or indirectly, to determine that relevant requirements in technical regulations or standards are fulfilled".

a. Equivalence and Mutual Recognition of standards and technical regulations

Recognition of product standards can be unilateral (equivalence) or reciprocal (mutual recognition). Equivalence implies that a country recognizes that the exporting country's product standard, although characterized by a different technical specification, is effective in pursuing the same objective (e.g. the same level of health protection) as what is achieved by the importing country's technical requirements, and it can therefore enter the domestic market. Mutual recognition implies that countries agree to mutually recognize each other's standards as equivalent, thus granting products that meet any of the two countries' standards unrestricted access to their markets.

Equivalence and mutual recognition are commonly considered as a step toward freer trade because they allow firms to pick any one standard and to sell it in the whole regional market. So, unless consumer preferences are biased toward their domestic specification, a firm located in the region can freely access the whole regional market without additional costs to comply with a specific standard.

Yet, there is a risk associated with equivalence and mutual recognition- that of a race to the bottom. When countries with different optimal standards trade recognize as equivalent each other's standards, there might be an incentive for countries (firms) to set lower standards to provide national firms with a competitive advantage relative to foreign firms, thus compromising quality or safety and triggering a race to the bottom. To avoid the risk of a race to the bottom, policy makers may opt for the harmonization of standards as a way to remove TBTs.

b. Harmonization

There are circumstances in which differences in standards are too large and mutual recognition is neither desirable nor viable. In these circumstances, countries may require a certain degree of harmonization of product standards as a precondition to allow entry into their markets. Harmonization can be full or limited to essential requirements. Full harmonization requires that countries define on a product-by-product basis a common standard, including the design of detailed characteristics of the product. An example of this type of harmonization is the EU "old approach". This approach entails long and tedious negotiations among countries about the specific contents of a product standard.

Harmonization of minimal standards consists of defining common essential requirements among countries that liberalize their trade, while leaving each country (or firm) free to design the specific characteristics of the product in the way they most like. Once minimal standards are met, a product can freely circulate in the country independently of the additional country-specific specifications. The "new approach" of the European Community is an example of this type of harmonization.

First of all a distinction must be made between the ways the EU tries to mitigate the effect of technical barriers. It is possible to identify two approaches used at EU level to avoid the market segmentation effect of the TBT:

- Mutual recognition: this refers to the mutual recognition of the legislation of the EU member countries. If products are produced and tested in accordance to one countries' regulation, that shall be a sufficient guarantee for other countries.
- Harmonization: whenever equivalence between one another's legislation cannot be assumed, the only way to level the differences is to set a common legally binding requirement. To reach this the EU has used two different ways:
  The old approach: harmonization is achieved by means of detailed directives;
  The new approach: harmonization is accomplished by indications for essential requirements. This new approach gives greater freedom to manufacturers.

According to **Baldwin (2000)** in evaluating the EU's "old approach", "this approach to technical harmonization failed completely". Effectively, the adoption of a single standard laid out in detailed technical regulations implemented by unanimously agreed-on Directives of the European Council. It, in turn, provoked the postponement of the detailed timetable. Furthermore, the Council qualified the rules on notification as a mere "Gentlemen's Agreement" so, in practice, Members had full discretion to adopt the new national regulations.

On the opposite, the "new approach" is more pragmatic in assess the way to standardization. The principle of this approach is to distinguish clearly between the goals ("essential safety requirements" in Euro-ese) and the means ("harmonized Standards") of product and process regulation. So two elements must be distinguished: "mutual recognition" and "technical harmonization". Given the present empirical evidence available, it seems difficult to correctly evaluate the "new approach", but in terms of output it has been more effective than the "old approach".

In conclusion, Mutual Recognition teamed with some "new approach" harmonization in sensitive areas, is the standard procedure inside EU. It is also the liberalization route adopted in the bilateral transatlantic trade talks, APEC, and other regional agreement, but, interestingly, the US-EU MRA is limited to MR of conformity assessments and not of norms themselves

Like mutual recognition of product standards, harmonization of product standards is commonly believed to be a step toward freer trade. The advantage of harmonization relative to mutual recognition in terms of its effects on trade is that with harmonization, products produced in different countries are more similar (more homogeneous) and therefore better substitutes from the point of view of producers and consumers. This, in turn, may facilitate trade by improving consumers' confidence in the importing country about quality of the imported good. Also, harmonization will enhance compatibility between imported and domestically produced goods. This would make it easier for consumers to match components, would increase competition, reduce prices and increase trade.

There are two important differences between the effects of full harmonization and harmonization of essential requirements on trade. Full harmonization of product standards imposes a higher cost in terms of reduced variety than harmonization of essential requirements. Insofar as demand for foreign goods is driven by a preference of variety, full harmonization would hamper trade by reducing the degree of product differentiation. In addition, full harmonization to a specific standard may imply a higher cost of compliance for firms in certain countries than harmonization of essential requirements, thus effectively erecting a barrier to trade. This is a particular concern for developing countries whose level of technology may not be sufficient to meet certain standards.

c. Empirical evidence on the impact of harmonization and mutual recognition

Empirical literature on the impact of removing TBT on trade is limited and focuses on two alternative policy options: harmonization and mutual recognition.

One approach to quantifying the impact of standards on trade has been to test whether country-specific standards and internationally harmonized standards have a different impact on trade. One relevant study in this regard is the one by **Moenius (1999)**. The study uses the count of shared international standards as a proxy for the degree of harmonization of standards, and it found a positive and significant effect of shared standards on trade. In particular, a gravity model on sectoral bilateral trade volumes (4-digit SITC) for 12 European countries is used and it finds that shared standards have a positive and significant effect on bilateral trade. Moenius estimates that a 10 per cent increase in the number of shared standards enhances bilateral trade by nearly a third. Interestingly, when the count of country-specific standards is also introduced in the regression he finds that importer-specific standards have a negative impact on imports in the non-manufacturing sectors, but have a positive impact on imports in the manufacturing sector. The theoretical argument is that national standards can facilitate or deter trade depending on whether they decrease information costs more than they increase adaptation costs of foreign suppliers. The information effects dominate in manufacturing sectors, where products are more differentiated and information about market preferences is, therefore, more valuable.

Another approach to quantifying the impact of the removal of technical barriers to trade has been to compare the effects of harmonization as opposed to mutual recognition of product standards on trade. A paper by **Vancauteren and Weiserbs (2003)** provides a somewhat indirect estimate of the impact of harmonization versus mutual recognition on trade by looking at whether those sectors where the EU has sought to remove technical barriers to trade by harmonizing technical regulations or by applying mutual recognition present a lower "home bias"[7] than the average. The study relies on the hypothesis that the large home bias in Europe is induced by technical barriers to trade, such as

[7] The term "home bias" refers to the preference for consuming domestically produced goods rather than imported goods. In Europe, internal trade (consumption of domestically produced goods) has been estimated to be larger than trade with other EU partners by a factor of ten (Nitsch, 2000).

different technical regulations. Hence, to the extent that harmonization and mutual recognition of product standards remove trade distortions they should reduce the home bias.

Using a gravity model for intra-EU bilateral trade for the period 1990-1998, the authors of the study estimate the home bias effect for five groups of sectors, defined according to whether the new approach, old approach, mutual recognition principal, or a combination of these three approaches applies, and whether technical regulations are significant barriers to trade. Their results show that the home bias remains substantial both for sectors where standards have been harmonized and for those where mutual recognition holds according to national laws. Moreover, a significant home bias is also found for products where no significant barriers were deemed to exist.

In other words, the study by Vancauteren and Weiserbs did not find that measures taken to remove technical barriers to trade had a significant impact on the home bias. Although the smallest home bias is found for those sectors characterized by mutual recognition (the coefficient of the home bias is equal to 2.72 for products where mutual recognition applies, while it is above 3 for sectors whose standards have been harmonized), the analysis does not allow us to say whether this is significantly smaller than for harmonization.

A number of reasons can explain the failure of Vancauteren and Weiserbs to find a significant impact from European measures to remove technical barriers to trade on the home bias. First, factors other than technical barriers to trade can explain the home bias. Second, the study groups sectors on the basis of a sectoral classification set up in a study by Atkins for the Single Market Review in 1998. This study reflected the situation in 1998, while the study by Vancauteren and Weiserbs used data for the period 1990-98. Their data therefore only partially captures the impact of a directive introduced in 1997 to harmonize standards. Finally, since the establishment of the "new approach" in 1985, any good that circulates in one country of the EU can "freely" circulate in another EU country (the burden of proving that a standard is not equivalent to that of the importing country falls on the importing country). Therefore, given that some time had elapsed between the adoption of the new approach in 1985 and the period considered in their study (1990-1998), it is understandable why they find it hard to capture the trade-enhancing impact of mutual recognition.

A recent study, **Piermartini (2005)** estimates a standard gravity model[8] for intra-EU sectoral trade[9] over the period 1978-2002. The impact of harmonization on trade is estimated by introducing dummy variables indicating whether, at a certain point in time, the sector was harmonized according to the "old approach" or "new approach". A distinction between horizontal harmonization (including, for example, compatibility standards) and vertical harmonization (covering health, safety and quality) of standards was also made. Moreover, a mutual recognition

[8] Standard explanatory variables include the GDP values of the trading partners, and five dummy variables which take a value of zero or one to denote whether they share a border, a common language or the same currency, and whether one of the trading partners is an island or a landlocked country.

[9] Trade data in ISIC Rev.2 at 4 digit classification from Comtrade are used for the estimation.

dummy was introduced, allowing estimation of the impact of the mutual recognition principle in 1985 for those sectors that have not been harmonized. Mutual recognition of product standards was found to have a positive and significant effect on intra-EU trade. Trade among a randomly chosen country pair and sector was estimated to be 1.2 times higher under mutual recognition. The results regarding the impact of harmonization on trade appeared less robust. Overall, harmonization according to the "old approach" results in enhanced trade more than the "new approach", especially when it concerned horizontal standards.

In a recent paper, **Chen and Mattoo (2004)** find that MRAs of conformity assessment are in general trade promoting for the countries participating in the agreement, while they may hurt third countries if the extent of the application of mutual recognition of conformity assessment is limited by rules of origin.

While it may be too early to draw strong conclusions regarding the relative merits of mutual recognition and harmonization in enhancing trade, given the limited number of studies and their focus on European countries, more robust and significant trade enhancing effects are found in the case of mutual recognition.

d. Transparency

There are cases when neither recognition nor harmonization is feasible or desirable. Such a scenario occurs, for example, when countries' optimal standards are very different. In these cases, countries can still minimize the trade reducing effect of different standards by increasing transparency of their national standards and technical regulations. Notification of standards and technical regulations and the setting up of enquiry points for standards may in fact facilitate trade by reducing the searching costs required for acquiring information about the standards adopted in another country. The theoretical argument is that different national standards may not be detrimental to trade if they provide easy access to information about the preferences of consumers in a country. In addition, transparency at the stage of preparation of standards may provide an effective mechanism to avoid unintentional protectionist outcomes.

e. Mutual Recognition of Conformity Assessments

Another way to partially remove technical barriers to trade is through the recognition of each other's test of conformity assessment. This implies that the importing country recognizes the competence of the exporting country's conformity assessment bodies to testing and certifying that a product complies with the laws of the country where it is sold. Mutual recognition of conformity assessment requires a certain degree of trust between countries and confidence in the quality of the methodologies employed in their conformity tests. But it requires neither recognition nor harmonization of product standards.

The impact of mutual recognition agreements (MRAs) of conformity assessment on the trade of participating countries is clearly positive. MRAs will help reduce exporting firms' overall costs of testing and certification of conformity. They will

eliminate the need of duplicative tests in each destination market and they will help reduce handling time and uncertainty of delivery.
Technical Barriers to Trade are generally aimed to protect consumer while regulating market access and import-export practices. The largest number of technical regulations and standards are adopted to aim at protecting human safety or health. Numerous examples can be given. National regulations that require that motor vehicles be equipped with seat belts to minimize injury in the event of road accidents, or that sockets be manufactured in a way to protect users from electric shocks, fall under the first category. A common example of regulations whose objective is the protection of human health is labeling of cigarettes to indicate that they are harmful to health. Regulations that protect animal and plant life or health are very common as well. Most of these regulations aim to protect consumers through information, mainly in the form of labeling requirements. Other objectives of regulations are quality, technical harmonization, or simply trade facilitation. Quality regulations — e.g. those requiring that vegetables and fruits reach a certain size to be marketable — are very common in certain developed countries. Regulations aimed at harmonizing certain sectors, for example that of telecommunications and terminal equipment, are widespread in economically integrated areas such as the European Union and EFTA.

Nonetheless, at least in the short run, Technical Barriers to Trade are mere costs for the firm and an efficiency-decreasing measure. If a firm must adjust its production facilities to comply with diverse technical requirements in individual markets, production costs per unit are likely to increase. This imposes handicap particularly on small and medium enterprises. Compliance with technical regulations generally needs to be confirmed. This may be done through testing, certification or inspection by laboratories or certification bodies, usually at the company's expense.

Technical barriers to trade generally result from the preparation, adoption and application of different technical regulations and conformity assessment procedures. If a producer in country A wants to export to country B, he will be obliged to satisfy the technical requirements that apply in country B, with all the financial consequences this entails. Differences between one country and another in their technical regulations and conformity assessment procedures may have legitimate origins such as differences in local tastes or levels of income, as well as geographical or other factors. Unnecessary obstacles to trade can result when (i) a regulation is more restrictive than necessary to achieve a given policy objective, or (ii) when it does not fulfill a legitimate objective. A regulation is more restrictive than necessary when the objective pursued can be achieved through alternative measures which have less trade-restricting effects, taking account of the risks non-fulfillment of the objective would create.

In general, harmonization or mutual recognition of customs valuation procedures, of product standards, of test procedure, licensing requirements etc. are commonly regarded as steps toward the removal of technical barriers to trade. However, there are some problems to take into account:

On the one hand products produced in different countries are more similar, more homogeneous and therefore better substitute from the point of view of the

consumer when product standards are harmonized. So markets are more integrated. On the other hand, mutual recognition does allow picking anyone standard and selling it in the whole regional market. So, unless consumer preferences are biased toward their domestic specification, a firm located in the region can freely access the whole regional market without additional costs due to the need to comply with the harmonized standard.

There is a problem of emergence of a two-tier world. Liberalization of TBT takes the form of harmonization or mutual recognition of testing rules and product standards. This requires a certain degree of trust of one country in another country's ability to perform test and safeguard health and safety. This is more likely to happen in RTAs among developed countries than at the multilateral level.

Further there is a problem of whether mutual recognition can confine to conformity assessment procedures or extend to product standards. In the former case, each party commits to recognize the results of tests conducted in the other country, but does not commit to accept its standards or technical regulations. An example is represented by the Mutual Recognition Agreement signed by the US and EU in June 1997. On the basis of this agreement, the results of tests of conformity to EU standards performed by US laboratories are accepted by the EU and vice-versa. Nevertheless, the other party's standards are neither accepted nor harmonized. In the latter case, each party commits to recognize the other party's tests results and accept its standards and technical regulations. An example is represented by the EU. According to this principle, each EU country recognized the conformity assessment test performed in any other EU country. Moreover, products sold in one member state can be sold without restrictions in any other country. However, each EU country can still set its own regulations. Product standards do not need to be harmonized.

Standards need to be designed when they help overcome a market failure (i.e. when the social marginal value of standards exceeds their private marginal value). They may respond to the demand of a public good (clean air, health status) For example emission standard can contribute to clean air. There is a market failure in this case due to a negative externality (i.e. a cost that is not internalized in the price). Producers and consumers may not bear the cost of pollution inflicted to the community. As a consequence too much pollution will be produced.

They help to overcome the problem of asymmetric information about product quality between suppliers and consumers. Standards reduce the cost that consumers need to face to assess the quality of a product, as it provides some common essential characteristics. They can help internalize dynamic externalities. For example sstandards may enhance the compatibility of telecommunication systems of different countries or different telecommunication systems within a country. In this sector the value of any user of connection with the network depends positively on the number of other users. There is a form of dynamic externality that the market may fail to internalize and the service can be under-provided.

Setting some basic essential characteristics as standards may

- Increases the elasticity of substitution in demand between substitute version of the same products, as a certain quality is guaranteed
- Increases complementarily of goods

Technical standards can serve to guarantee compatibility with other components, this will allows users to mix and match components more easily and to promote economies of scale at the cost of lower variety. If a certain standard is adopted, there is lower scope for differentiation and firm can exploit economies of scale.

f. Mutual recognition Agreements

An article by **Mathis (1998)** discuss from a legal point of view, the formation of MRAs for a transatlantic marketplace by describing the evolution of mutual recognition concept within this context. Next, it offers an overview of general GATT and GATS which may apply to MRAs. The conclusion is that GATT expresses compatibility only for bilateral MRAs limited to conformity assessment procedures and without containing product-origin restrictions. Interestingly, **Baldwin (2000)** and **Wilson (1999)** achieve similar results.

Accordingly to **Wilson (1998)**, MRA models offer benefit in those product markets which are subject to relatively high government regulation. The most expensive duplicative testing is, the highest the achievable level of benefit linked to a MRA is. This kind of MRA model focuses on third party testing, inspection, and certification in sectors regulated by governments through product approval systems. In particular, MRA negotiations between the US and the EU included talks in 11 regulated sectors. In the author's opinion, the EU-US MRA negotiations proved to be an extremely time intensive and costly process. Moreover, the US and EU systems differ both in structure and operation, making it difficult to create conditions for exact and reciprocal treatment. Another important point is that the support of industry is critical to success of negotiations. Nevertheless, the impact of such MRAs is potentially far-reaching for others regions and other RTAs. For example, the APEC dialogue has closely examined the EU-US MRA.

In the same US-EU environment drawn in the previous paragraph, a paper by **Jackson L. A. (2002)** bridges the gap that only apparently divide TBT and SPS agreements by setting a model that acquires increasing importance in the light of the 2004 EU-US dispute on GMO. Who benefits from the adoption of GMO labeling regulations and how does the structure of the international trading system affect the impact of these regulations? The answer requires an understanding of the complex economic interactions among consumer preferences, the economic structure of the national agricultural industries, and international trade relationships. Suppose a country that has previously co-mingled GMO and traditional products chooses to enforce segregation of these products. Given information about GMO content, consumers may choose to avoid GMO products because they perceive them to be potential food safety risks. Agricultural producers will face new cost structures, which will in turn alter their use of labor and other factors of production. The trade impacts of this segregation will depend upon whether trading partners are also demanding segregation of GMO from

traditional products. If countries are pursuing opposite strategies (one choosing to require segregation and the other allowing co-mingling) the economic outcomes will differ from the cases when either countries segregate or both countries co-mingle.

g. Overview of modeling attempts to deal with TBT

One main problem recurrent in the economic literature related to TBTs is modeling. **Gaslandt and Markusen (2000)** consider different approaches to modeling standards and technical regulation in applied general-equilibrium models with real data. If we consider different standards as a real trade cost for foreign exports, then they will be particularly harmful for small/poor countries. Next, authors add to their analysis an increased willingness-to-pay by the large /rich country's consumer for the small-country's good. They consider the different levels of welfare associated to the different methods of modeling. Moreover, by supposing that standards may be regarded as fixed more than as a variable cost (i.e. the case of a once-and-for-all redesign cost), they illustrate the increasing role for public policy.
Finally, the paper notes how standards can alter: (i) the substitutability and complementarity between local and foreign products. (ii) The ability of consumer and firm to conduct arbitrage and parallel trade.

The problem of assessing the willingness-to-pay is one of the issues taken in account by **Wallner (1998).** The paper considers domestic product standards that do not raise the willingness-to-pay by consumer but increase the costs for foreign suppliers for serving the market. It is shown in a Cournot Triopoly model that such standards can be used as strategic tool to raise domestic welfare by creating asymmetry between local and foreign producers. Through Mutual Recognition Agreement the larger countries create a cost asymmetry in their markets that raises their profits at the expense of the rival bearing the standard cost; the asymmetry benefits them more in their large home markets than it hurts in the smaller third market. In that case, only larger countries arrange such an agreement for their home standards, to the detriment of smaller countries. For example, the author cites both the cases of the acquis communautaire's impact on the EU Enlargement and the frequent complaint of developing countries that rich countries shut their products using different standards.

Main aspects of European common market are analyzed in paper by **Lutz (1996)** that analyses a two-country model of imperfect competition. Trade takes place, since both industries are present in both markets. Since increased differentiation in terms of quality reduces competition between rival products, even if the firms are identical high-quality and low-quality products coexist together. Without regulation, equilibrium prices and qualities are not optimal due to imperfect competition. Next, the author considers the welfare-gain by analyzing a game theory framework. The results of the one-shot game suggest that standards achieve initial convergence in terms of qualities produced and national welfare. In a N-period game, quality standards will, in fact, lead to convergence in terms of qualities and national welfare.

Accordingly to **Moenius (1999)**, the evidence collected suggests that the trade barriers induced by different standards are prevalent in non-manufacturing industries, but in manufacturing, country-specific standards tend to promote international trade. This evidence is consistent with a transaction costs augment based on incomplete information, since the absence of standards imposes high information costs on trading partners, while standards lower information costs, even if they are specific to one country. If the costs of adapting products to foreign markets are small relative to information costs, a positive effect of local standards of importers results. If we consider that transaction costs are greater in industries that are more technologically sophisticated, country specific standards are more important for manufacturing industries. This prediction is consistent with the findings by **Greszta and Śledziewska (2002)** and **Brenton, Sheehy, Vancauteren (2001).**

Industrial approach is the main driver also in a paper by **Gandal (2000)** that explores the relationship between compatibility standards and international trade flows form an industrial organization perspective. It argues that, despite the fact that many industries characterized by "network effects" are global (i.e. P.C., telecommunications etc.), the economics of compatibility and standardization has almost focused on closed economies. The author observes that, given the lack of literature on the effect of compatibility of standards on international trade, it can be useful to explore some interesting results achieved by the industrial organization literature: (i) due to the network effect, in an oligopoly setting with differentiated products, standardization should increase the market size. (ii) The entry of additional firms due to the standardization process should in general lead to increased price competition.

Telecommunication industry is the topic for an article by **Wilson, J. S. (1998).** Accordingly to the author, MRAs in regulated sectors such as telecommunications offer three potential benefits: (i) Manufacturers would be able to obtain required national certificates rather than pay the higher costs of offshore certification. (ii) This avoids multiplying of the certification, significantly reducing obstacles to international trade. (iii) Streamlined testing and certification will improve time-to-market, which is a significant factor in such sectors.

As far as European trade flows are concerned, a study by **Fontagne and Freudenberg (1999)** looked at trade patterns within the EU between 1980 and 1996, based on Eurostat data for some 10,000 products. The authors classified trade between EU countries into:

- Trade where different countries specialize in different product areas (inter-industry trade)
- Trade between countries in the same product areas (intra-industry trade) but where different countries specialize in different levels of quality within the same product area (vertical differentiation).
- Intra-industry trade at the same levels of quality (horizontal differentiation).

Contrary to traditional economic theory, they found that inter-industry trade had declined within the EU over the period. On the opposite, the increased EU standardization, subsequently to the beginning of the "new approach" led to

increased intra-industry trade. This implies that standards led to the economies of EU Member States becoming more similar than they had been previously in terms of the products they produced. Fontagnre and Freudenberg also show that the EU as a whole tends to specialize in higher quality product areas. As well as facilitating increased intra-EU trade, there is evidence that the move to EU standards also coincided with greater levels of concentration in EU industry and a convergence of prices across the EU.

In a paper by **Brenton, Sheehy, Vancauteren (2001)**, the authors categorize industrial trade along the lines of either not being subjected to TBT, or being subjected to one of the three different approaches to the removal of the barriers, be it mutual recognition (MR), harmonization "old approach" (HOA) or harmonization "new approach" (HNA).
Their first conclusions refer to the EU itself:

- About three quarters of total industrial trade is affected by one of the three approaches, indicating the overall importance of technical regulations;
- There is substantial variation across EU members concerning the share of trade affected by different approaches.

Now, some interesting questions arise:

- To what extent the volume of trade is affected by these regulations?
- Are these "solutions" to the technical barriers successful, or do they still constitute considerable barriers to trade?
- What is the effect of dealing with the TBT on the total volume of trade within the EU?

Next, the authors classify all trade relations with the potential newcomers to the EU. This gives some interesting results:

- In 1998, there should be a considerable diversity among the countries of central and Eastern Europe (CEECs) with respect to the importance of sectors subject to technical regulations.
- In a dynamic sense, the frontrunners in transition and the countries most advanced in the accession negotiations, i.e. Poland and Hungary, reveal a declining share of the sectors where TBT are not significant, while the MR and HNA sectors are rising as a percentage of trade.
- Latecomers to the transition process, like Romania and Bulgaria, show a different picture: the share of trade with no technical barriers is on the rise, as is the share of trade subjected to MR.

Accordingly to a study by **Greszta and Śledziewska (2002)**, even if the entrance to the European Union means reducing numerous non-tariff barriers, it seems that the adjusting process connected with entering the Union have a negative effect on the competitiveness of new members in the first period of membership. However, entering the Union does not cause larger changes at the level of intra-industry. In the article they use three indexes for countries which entered the EU in the 1980's and 1990's:

- An Index that measures percentage differences between export and import.
- An index that is a measures of intra-industry trade.
- An export structure indicator of similarity.
- Moreover observations are based on a period of time which includes 6 years before and after joining the EU. An interesting effect are continuous increasing differences in the new members' trade structure, for which the differences were large, on the opposite, the structure of the countries with strong similarity level become more similar.

Brenton and Manzocchi (2002) have reached some other interesting results. The research considered in this book, demonstrates that the importance and impact of differences in technical regulations vary across sectors and hence, given different patterns of specialization, across countries. Consequently, the studies that consider the enlargement as a common shock across sectors, reducing trade costs by the same amount, will not be able to assess the structural implications of the enlargement. Alike the paper by **Brenton, Sheehy, Vancauteren, (2001)**, the results of the book suggest that those countries that have been more advanced in their accession negotiations are those where technical regulations are more important for their exports to the EU. This suggests that adjustment to the Single Market have been greater in those countries compare to, for example, the Balkan countries, where sectors for which technical barriers are not significant are much more important.

Actually, both **Brenton-Manzocchi (2002)** and **Brenton, Sheehy, Vancauteren, (2001)** have been published previously that Enlargement effectively took place. Given this, what are the most recent developments in the Enlargement process? And, furthermore, what is the impact of the failed entrance for countries such Bulgaria or Romania?
The second major outcome of the volume is the presentation and analysis collected directly from some relevant firms in new-comers members. These results confirm the importance of technical regulations in influencing trade between EU and CEECs. They allow an examination of impact and importance of TB across characteristics like sector of activity, firm size, export intensity etc.
In general, the survey results suggest that technical barriers to trade in the EU cause particular difficulties in exporting to the EU for smaller firms in sectors where there are harmonized EU regulations. Large firms (with foreign participation) appear to face the least problems in overcoming technical barriers to trade in the EU. Similar, albeit more general, outcomes has been reached by **Baldwin (2000).**

4. Trade Remedies

Trade remedies generally refers to actions taken against dumping (selling at an unfairly low price), special "countervailing" duties to offset the subsidies and emergency measures to limit imports temporarily, (designed to "safeguard" domestic industries). In this paper, hereinafter we will refer to trade remedies to mean one of more among anti-dumping, countervailing duties and safeguard measures.

a. Anti-dumping actions

Dumping is, in general, a situation of international price discrimination, where the price of a product when sold in the importing country is less than the price of that product in the market of the exporting country. Thus, in the simplest of cases, one identifies dumping simply by comparing prices in two markets. However, the situation is rarely, if ever, that simple, and in most cases it is necessary to undertake a series of analytical steps in order to determine the appropriate price in the market of the exporting country (known as the "normal value") and the appropriate price in the market of the importing country (known as the "export price") so as to be able to undertake an appropriate comparison. Broadly speaking the WTO agreement allows governments to act against dumping where there is genuine ("material") injury to the competing domestic industry. In order to do that the government has to be able to prove that dumping is taking place, calculate the extent of dumping, and show that the dumping is causing injury or threatening to do so.

The GATT 1994 sets forth a number of basic principles applicable in trade between Members of the WTO, including the "most favored nation" principle. It also states the "national treatment" principle requiring that imported products not be subject to internal taxes or other changes in excess of those imposed on domestic goods, and that imported goods in other respects are accorded treatment no less favorable than domestic goods under domestic laws and regulations. It establishes rules regarding quantitative restrictions, fees and formalities related to importation, and customs valuation. On the one hand members of the WTO also agreed to the establishment of schedules of bound tariff rates. On the other hand Article VI of GATT 1994 explicitly authorizes the imposition of a specific anti-dumping duty on imports from a particular source, in excess of bound rates, in cases where dumping causes or threatens injury to a domestic industry, or materially retards the establishment of a domestic industry.

The Agreement on Implementation of Article VI of GATT 1994, commonly known as the Anti-Dumping Agreement, provides further elaboration on the basic principles set forth in Article VI itself, to govern the investigation, determination, and application, of anti-dumping duties. GATT (Article 6) allows countries to take action against dumping. The Anti-Dumping Agreement clarifies and expands Article 6, and the two operate together. They allow countries to act in a way that would normally break the GATT principles of binding a tariff and not discriminating between trading partners — typically anti-dumping action means charging extra import duty on the particular product from the particular exporting country in order to bring its price closer to the "normal value" or to remove the injury to domestic industry in the importing country.

There are many different ways of calculating whether a particular product is being dumped heavily or only lightly. The agreement narrows down the range of possible options. It provides three methods to calculate a product's "normal value". The main one is based on the price in the exporter's domestic market. When this cannot be used, two alternatives are available — the price charged by the exporter in another country, or a calculation based on the combination of the exporter's production costs, other expenses and normal profit margins. And the agreement also specifies how a fair comparison can be made between the export price and what would be a normal price.

Calculating the extent of dumping on a product is not enough. Anti-dumping measures can only be applied if the dumping is hurting the industry in the importing country. Therefore, a detailed investigation has to be conducted according to specified rules first. The investigation must evaluate all relevant economic factors that have a bearing on the state of the industry in question. If the investigation shows dumping is taking place and domestic industry is being hurt, the exporting company can undertake to raise its price to an agreed level in order to avoid anti-dumping import duty.

Detailed procedures are set out on how anti-dumping cases are to be initiated, how the investigations are to be conducted, and the conditions for ensuring that all interested parties are given an opportunity to present evidence. Anti-dumping measures must expire five years after the date of imposition, unless an investigation shows that ending the measure would lead to injury.

Anti-dumping investigations are to end immediately in cases where the authorities determine that the margin of dumping is insignificantly small (defined as less than 2% of the export price of the product). Other conditions are also set. For example, the investigations also have to end if the volume of dumped imports is negligible (i.e. if the volume from one country is less than 3% of total imports of that product — although investigations can proceed if several countries, each supplying less than 3% of the imports, together account for 7% or more of total imports).

The agreement says member countries must inform the Committee on Anti-Dumping Practices about all preliminary and final anti-dumping actions, promptly and in detail. They must also report on all investigations twice a year. When differences arise, members are encouraged to consult each other. They can also use the WTO's dispute settlement procedure.

b. AD and trade diversion.

Konings, Springael and Vandenbussche (2001) address to the classical problem of trade diversion under the European antidumping. The paper analyses all the 246 cases initiated by EU between 1985 and 1996 stressing empirically the hypothesis of trade diversion from countries "named" in the procedures toward countries "non-named" in the procedures (essentially extra EU) exporters. Antidumping

protection in Europe is imposed for five years[10] if the investigation is concluded positively and in the period surveyed (1985-1996), about 40% of investigation resulted in imposition of AD duties. The results do not show strong import diversion[11] indicating that AD policy in Europe is more effective in protect harmed industries. Those results can be due to a bevy of reasons:

- EU's AD duties are generally lower than US duties[12], such circumstance limits the potential benefits of the "non-named" exporters to EU and therefore reduce the import diversion effect.
- Accordingly to authors, US's AD investigations are more predictable given their technical nature; on the opposite, the outcome of the EU process is uncertain since it is subject to a greater political influence. That can eventually result in a more prudent reaction of "non-named" exporters in increasing their exports.
- FDI tariff jumping is more likely to occur in Europe than in United States. Hence, subject to AD investigation, "named" countries' firms in European market tend to recur more often to local based production that they do in US.
- The fragmentation of EU internal market can be another explanation. Results show that AD duties are more effective in lowly concentrated sectors, while in industries characterised by big and few players AD effect is mostly offset by strategic competition.

c. AD abolition as a result of high level of integration.

Accordingly to **Hoekman (1998),** in the case of EU, the facing down of the AD in EU appears to be linked with the removal of tariffs and quotas. Thus, the effort for boosting the economic integration prompted toward the elimination of AD in intra-EU trade. Unlikely **Tavares de Araujo et al. (2001)** asserts that AD resulted from the implementation of common macro- and micro-economic policies that eased the renounce to antidumping both by reducing social and political cost related to it. That seems to be the case of the "structural funds" in EU that reduced the economic and political costs associated with eliminating AD policies in the EU.

As a result, someone could argue that the abolition of AD is a direct consequence of a high level of integration, nevertheless **Hoekman (1998)** by analysing the EEA and EU-Turkey, shows that this presumption does not seem to be proven. On one side, the abolition of AD in the EEA has been one of the negotiating goals of the former EFTA countries. In turn, since EEA is a free trade area, this suggests that whatever other necessary conditions must be satisfied for elimination of antidumping, a common trade policy is not required. On the other side, EU-Turkey customs union shows that AD may be still applied even in arrangements characterized by high level of coordination.

As argued by **Magnus et al. (2001)** literature generally agrees that AD is easily removable only between countries that reached a high degree of integration in

[10] This rule is also known as "sunset clause"

[11] Unlikely, Prusa (1996) find that, after six years from the initiation of the AD case, the protective effect of imposed duties is largely crowded out by increased imports from "non-named" countries. Therefore, results suggest that US AD is mostly ineffective.

[12] Usually EU duty is based on the injury margin provided it is lower than dumping margin. On the contrary US duty is always equal to the dumping margin.

order to permit a fair competition. Therefore a bevy of elements can be regarded as necessary to attain the level of integration required for AD being eliminated.
In the EU's experience such path of increasing coordination eventually culminated in the creation of an optimal currency area. Nevertheless several other elements show to affect the creation of an integrated market in NAFTA. Freedom from investment restriction as well as a comprehensive liberalization even in those "sensitive" sectors often excluded from agreement's schedules, as agriculture. Similarly, TBT or others administrative barriers can affect the intra-NAFTA trade.
Another alternative view is the one offered by **Wooton et al. (2002)**. Accordingly to authors, the elimination of AD can be interpreted as a necessary step in order to attain the common market, more than the consequences of a supranational antitrust[13] (AT). Therefore while AD abolition seems a critical problem *vis-à-vis* common market completion, AT does not appear to be necessary to the process. However in an ideal world AD and AT should be regarded as complementary tools of competition policy to address price discrimination problem, yet in the real world AD has turned to be a pure defensive mechanism increasing its impact along with the intensification of multilateral liberalization. Differently AT is more focused on encouraging competition -on a national and international basis- more than preserve rent position economically not-justifiable.

d. AD abolition as a result of common competition policy.

Accordingly to **Hoekman (1998)**, all the PTAs that have led to the abolition of antidumping, or are moving toward that goal, go beyond the WTO in some respects (as Canada-Chile or NAFTA did for investments). This seems to offer a clue for the AD/competition relationship, since the implementation of a common competition policies seems to lead to AD elimination.
Nevertheless, the author conclude that is difficult to point out strong evidence of an explicit link between the implementation of competition policies and the suppression of AD; it is, rather, the comprehensive effort towards economic integration that explains both the elimination of AD and the establishment of AT legislation.
However, **Tavares de Araujo et al. (2001)** argue that both in EU and in CER, despite their different approaches to economic integration, the abolition of AD was followed by the application of common competition policies. While accordingly to **Hoekman (1998)**, in CER, elimination of AD, as in the EU, was linked to the transition period for trade liberalization, but there was no effort for gradually increase of competition discipline (although AD had become increasingly difficult to obtain).
In the EU partnership agreements, seems possible to point out a causal link between AT implementation and AD abolition, after a transition period. This situation has been justified by the European Council that declared the Union "should be ready to consider refraining from using commercial defence instruments" conditional upon "satisfactory implementation of competition policy".

[13] Antitrust (AT) is used here as a synonym of Competition Policy as a whole.

In MERCOSUR, the competition will be enforced by national authorities but with a common trade policy. Yet Members have no formal commitment that AD on intra-area trade will be eliminated.
Nevertheless, **Magnus et al. (2001)** highlights that in NAFTA, even with deeper and broader integration, a set of problem linked to the effective implementation of AT could still arise. From "comity"[14] practice to the insurance of fair AT procedures with respect to producers from the other members or the extraterritorial application of antitrust law, several reforms are an underlying premise of AD replacement.
To this regard, EU in order to avoid such problems delegated to the Commission AT procedures in the common market. Alike, Australia and New Zealand allow a mutual enforcement of AT jurisdiction within the territory of the other member.
Aside those political questions, some others legal issues arises that could be simplified in the necessary change in perspective from AD's "injury to competitors" to AT's "injury to competition". Similarly in a welfare perspective, policy aims changes in switching from AD to AT.
The same question is analysed by **Wooton et al. (2002)**. In some RTAs this issue has been taken in consideration with the inclusion of a "national welfare clause" in the AD that should have change the way in which the law is administered. Such line of analysis offers also a rationale for conflicting interests between different groups in the national and supranational political arena (typically consumers and industries' lobbies). Such problem could be solved by implementing a "two-tier" approach accordingly to an AD case would be first judged using an AT criteria and, only in a positive outcome, would it be allowed to proceed in an AD case. In this way AD could be shaped by AT in a pure regulatory perspective. Accordingly to authors, given the present WTO framework, such coordination would be easier in a regional environment than at multilateral level.

e. Subsidies and countervailing measures

In the WTO framework, the Agreement on Subsidies and Countervailing Measures disciplines the use of subsidies, regulates the actions countries can take to counter the effects of subsidies. Accordingly, a country can use the WTO's dispute settlement procedure to seek the withdrawal of the subsidy or the removal of its adverse effects. Or the country can launch its own investigation and ultimately charge extra duty (known as "countervailing duty") on subsidized imports that are found to be hurting domestic producers.

According to the Agreement on Subsidies and Countervailing Measures, there are a number of cases where a subsidy is deemed to exist. That is the case the government supplies a financial contribution through practices involving i) direct transfers or potential direct transfers of funds or liabilities, iii) foregone or not

[14] Principle applied in the field of international Co-operation on competition policy. By negative comity, every country that is party to a co-operation agreement guarantees to take account of the important interests of the other parties of the agreement when applying its own competition law. By positive comity, a country may ask the other parties of the agreement to take appropriate measures, under their competition law, against anti-competitive behaviour taking place on their territory and affecting important interests of the requesting country. (EC Competition glossary- http://europa.eu.int/comm/competition/general_info/c_en.html)

collected government revenue, iv) supply of goods or services other than general infrastructure, or purchases goods, v) one or more of the above mentioned through a private body. It also introduces the concept of a "specific" subsidy — i.e. a subsidy available only to an enterprise, industry, group of enterprises, or group of industries in the country (or state, etc) that gives the subsidy. The disciplines set out in the agreement only apply to specific subsidies. They can be domestic or export subsidies.

The agreement defines two categories of subsidies: *prohibited* and *actionable*.

Prohibited subsidies are those subsidies requiring recipients to meet certain export targets, or to use domestic goods instead of imported goods. They are prohibited because they are specifically designed to distort international trade, and are therefore likely to hurt other countries' trade. They can be challenged in the WTO dispute settlement through a fast-track procedure. If the dispute settlement procedure confirms that the subsidy is prohibited, it must be withdrawn immediately. Otherwise, the complaining country can take counter measures. If domestic producers are hurt by imports of subsidized products, countervailing duty can be imposed.

Actionable subsidies are those whom the complaining country has to show that the subsidy has an adverse effect on its interests. For this category the burden of proof is up to the complaining country. Otherwise the subsidy is permitted. The agreement defines three types of damage they can cause. Subsidies that can hurt (i) a domestic industry in an importing country; (ii) rival exporters from another country when the two compete in third markets; (iii) exporters trying to compete in the subsidizing country's domestic market. If the Dispute Settlement Body rules that the subsidy does have an adverse effect, the subsidy must be withdrawn or its adverse effect must be removed. Again, if domestic producers are hurt by imports of subsidized products, countervailing duty can be imposed.

f. Safeguards

In the WTO framework, member may restrict imports of a product temporarily (taking "safeguard" actions) if its domestic industry is injured or threatened with injury caused by a surge in imports, provided the injury has to be serious. Safeguard measures were available under GATT (Article 19). Anyhow, they were infrequently used, some governments preferring to protect their domestic industries through "grey area" measures — using bilateral negotiations outside GATT's auspices, they persuaded exporting countries to restrain exports "voluntarily" or to agree to other means of sharing markets. Agreements of this kind were reached for a wide range of products: automobiles, steel, and semiconductors, for example.

Once WTO agreements came into force, safeguard regime changed. WTO agreements prohibit "grey-area" measures, and set time limits (a "sunset clause") on all safeguard actions. The agreement says members must not seek, take or maintain any voluntary export restraints, orderly marketing arrangements or any other similar measures on the export or the import side. The bilateral measures

that were not modified to conform to the agreement were phased out at the end of 1998.

An import "surge" justifying safeguard action can be either a real increase in imports (an absolute increase); or it can be an increase in the imports' share of a shrinking market, even if the import quantity has not increased (relative increase).

The agreement sets out criteria for assessing whether "serious injury" is being caused or threatened, and the factors which must be considered in determining the impact of imports on the domestic industry. A safeguard measure, if imposed, should be applied only to the extent necessary to prevent or remedy serious injury and to help the industry concerned to adjust.

In general, safeguard measures cannot be targeted at imports from a particular country. Nevertheless, WTO agreement does describe how quotas can be allocated among supplying countries, including in the exceptional circumstance where imports from certain countries have increased disproportionately quickly. A safeguard measure should not last more than four years, although this can be extended up to eight years, subject to a determination by competent national authorities that the measure is needed and that there is evidence the industry is adjusting. Measures imposed for more than a year must be progressively liberalized.

When a country imposes safeguards, in principle a balancing concession should apply that is the country should give something in return. WTO agreement says the exporting country (or exporting countries) can seek compensation through consultations. In case no agreement is reached the exporting country can retaliate by taking equivalent action. In some circumstances, the exporting country has to wait for three years after the safeguard measure was introduced before it can retaliate in this way — i.e. if the measure conforms with the provisions of the agreement and if it is taken as a result of an increase in the quantity of imports from the exporting country.

The WTO's Safeguards Committee oversees the operation of the agreement and is responsible for the surveillance of members' commitments. Governments have to report each phase of a safeguard investigation and related decision-making, and the committee reviews these reports.

The question of the "desirability" of safeguards in the WTO is well-developed in literature, nevertheless, it seems difficult to find economic justification for safeguards measures as for trade remedies in general.
As **Sykes (2003)** points out there are several attempts of offering a favourable interpretation of safeguards. If it is clear that from a *normative* economic point of view, safeguards measures are undesirable, it is puzzling, from a *positive* point of view, to understand why WTO system provided for them. The author suggests that three types of questions can be taken in consideration in order to point out an economic rationale for safeguard.
One issue is that safeguards measures could be justified as "compensation" for those who loose from trade liberalization. Assuming that liberalization is efficient in the Kaldor-Hicks sense but it is not Pareto efficient; safeguards may be the

mechanism for compensating the group disadvantaged by trade concessions. However Sykes reject such an explanation since safeguards simply postpone the burden of reallocation of resources of the harmed industries. Moreover, looking at the wording of the art.XIX, it does not seem possible to deduce that safeguards were designed as a compensation system but just to be used in case of "unforeseen development".

Another suggestion is that safeguards, in a "second-best" world, may address to the adjustment cost of declining industries. Often safeguards are invoked from industries or from labour unions as a measure to ease the cost of adjustment and revive the competitiveness of affected industries. However from an economic point of view, safeguards do not seems the best available option to face the question of adjustment. Some other policy instruments -as subsidies- could encourage the hiring of unemployed. Alike, the resources necessary to the restoring of competitiveness could be found in the capital market -if the industries is still profitable- differently, an exit of resources is desirable in the case of inefficient industries. In both the cases, safeguards postpone only the problem without offering a concrete solution.

An explanation of the role of safeguards as intended by negotiators that designed it, can be supplied in a contract-theory perspective. In such a perspective, national officers negotiate an ideal trade agreement trying to maximize their welfare (represented by the net political gains related to political costs) in order to reach their Pareto frontier. In this line of analysis, negotiators balance the fact that imports become cheaper with the inevitable long run effects of decline of inefficient industries. Similarly, the rationale for art.XIX, accordingly to the author, is that provisory safeguards provides, in the short run, political solution for the decline of industries (and on parallel of their political-lobbying power) while, in the long run, they allows to reap the benefit deriving from reciprocal trade arrangements.

Lee (2000) and **Sykes (2003)** analyses also questions arising from the relation between art.XIX and Agreement on Safeguards (SA) in the light of the interpretation offered by Appellate Body in some recent cases[15]. As highlighted below in the paper by **Pauwelyn (2004)**, the issues whether art XIX and SA should be applied both to the extent that there is non conflict between their rules, is not redundant[16]. The Appellate Body, in reversing the findings of the Panels in *Korea-Diary* and *Argentina-Footwear*, affirms that petitioning Member must demonstrate the presence of "unforeseen developments". Yet a bevy of issues arise. First, the fact of *foresight* is difficult to assess and is not necessarily objective. Second, was the Appellate Body's interpretation correct, some conditions stated in SA would be incomplete since they do not require complying with art.XIX

[15] Mainly *Safeguards Measures on Imports of Footwear WT/DS121/AB/R; Turkey-Restrictions on Imports of Textiles and Clothing Products WT/DS34/AB/R* and *Korea-Definitive Safeguards Measures on Imports of Certain Dairy Products WT/DS98/AB/R*.

[16] The General Interpretative Note to Annex 1A of the WTO Agreements provides that in the case of conflict between art. XIX and SA the provisions of the latter prevail over the conflicting rules of the former.

provisions[17]. Lee concludes that such requirements have the counter-effect of restrict the application of safeguards by claiming for requirements hardly fulfilling. This eventually can result in an increasing reluctance in allowing the market access in further negotiation. Sykes emphasizes the circumstance that neither art. XIX nor SA offer a coherent rationale for safeguards measures. Therefore more than point out the correctness of the Appellate Body, members should focus on the possible improvements of the current agreement. In the meantime, author, pragmatically, adds that in the present framework a member may nevertheless rely on delays of the dispute settlement procedures combined with the "reasonable period of time" for compliance following a predictable negative sentence.

g. Review by regional or bilateral body

One important avenue through which trade remedy rules in PTAs can affect the probability of trade remedy actions among PTA partners is through a bilateral or regional review mechanism. For example, like the Canada-US FTA (CUSFTA) which preceded it, NAFTA allows a member state to request a review of the final anti-dumping or countervailing duty determination made by the authority of another NAFTA partner. This review, allowed under Chapter 19 of NAFTA, is to be undertaken by a bi-national panel, composed of five experts designated by the concerned NAFTA members. While the scope of the review is limited to determining whether the decision of the trade remedy authority is in accordance with national laws, the panel has the authority to remand it to the concerned authority for action if it judges that the determination has not been in accord with national laws. Chapter 19 also allows NAFTA partners to request a bi-national panel review of a proposed amendment of antidumping or countervailing duty statutes.

If final determinations can be subject to review not only by the courts or tribunals of the country whose authorities imposed the measure but by a regional body as well, it may provide an additional layer of objectivity (**Gagne, 2000**). The existence of regional review bodies might also change the incentives for filing unfair trade petitions by reducing the likelihood of an affirmative finding of injurious unfair trade (**Jones, 2000**). There have been a number of studies to ascertain whether this specific provision in CUSFTA and NAFTA have had a discernible effect on the number of US trade remedy actions against NAFTA partners and on the final determinations of US authorities.

One possible test is to see whether there is a significant difference in outcome of the appeals before bi-national panels as opposed to national tribunals. **Goldstein (1996)** has suggested that prior to CUSFTA, US courts tended to defer to the decisions of the investigating authorities. Reviewing the initial five-year period (1989-94) of the operation of CUSFTA, **Rugman and Anderson (1997)** noted that two thirds of Canadian appeals of US trade remedy actions before bi-national panels were remanded compared with one third for non-NAFTA countries before US tribunals (the Court of International Trade). They interpret this as evidence

[17] For instance SA art.8 requires that, in applying safeguards measures, "such a measure conforms to the provisions of this Agreement" without referencing to art. XIX

that the existence of a regional body to review trade remedy determinations made a difference.

However, both the Goldstein and the Rugman and Anderson papers did not apply any statistical tests to the data. Using anti-dumping and countervailing duty filings of the US from 1980-97 and similar data of Canada for 1985-97, **Jones (2000)** estimated a Poisson regression with macroeconomic variables, imports, industry characteristics and an FTA dummy as regressors. He finds a robust inverse relationship between the introduction of NAFTA Chapter 19 and the number of unfair trade petition filings. He finds that there is a statistically significant reduction in both US anti-dumping filings against Canada and Canadian anti-dumping filings against the US after NAFTA took effect.

Blonigen (2002) extends the study by Jones in a number of ways. First, Mexico is included in the study. Second, instead of representing Chapter 19 as a time dummy, he uses the number of requests for panels and or remands, so more closely measuring the amount of Chapter 19 activity. Third, Blonigen not only examines the possible effect of Chapter 19 on the number of AD/CVD filings but also on the outcome of the reviews. Unlike Jones, he finds no evidence that bi-national reviews under Chapter 19 of NAFTA affected the frequency of U.S. filings or affirmative determinations against Canada and Mexico. However, he does discover some indication that cumulative remands by Chapter 19 dispute panels to review U.S. decisions against Canada have led to fewer affirmative decisions against Canada.

The evidence seems to suggest that the existence of a regional review body in a PTA, which has the power to reverse national determinations, makes national authorities more prudent in making affirmative determinations about unfair trade practice by PTA partners.

h. Law and practice

The purpose of the mapping of trade remedy provisions in PTAs is first of all to understand the nature of these rules. But secondly, it is hoped that one will be able to extract explanatory or predictive power from the mapping which could be used to test empirically what their trade effects are likely to be. For this, one needs to be able to assume that legal provisions in the PTAs coincide with actual practice. But there may be a considerable difference between the language contained in the agreements and how they are implemented. Although the legal provisions controlling trade remedy practice may sometimes be similar across PTAs, there could be large variation in trade remedy practices that in turn generate differences in outcomes.

Blonigen and Prusa (2001) emphasize the importance of the institutional process surrounding the anti-dumping investigation and determinations and argue that these have significant impacts beyond the antidumping duty finally observed. They point to the substantial discretion enjoyed by authorities in their decisions on dumping margins and injury determinations. They identify a number of differences in anti-dumping practices across countries. The level of transparency varies and

seems to be a problem for new users. Price undertakings are common in some countries but not in others. Some countries begin collecting anti-dumping duties only a few days after a petition is filed although most countries wait until a preliminary injury determination is made. Some countries levy an anti-dumping duty equal to the full dumping margin while others levy a lesser amount.

Blonigen (2003) noted that the average dumping margin calculated by the US Department of Commerce (DOC) had risen from an average of 15.5 percent in the early 1980s to an average of 63 percent by 2000. During the same time, the proportion of cases which the US International Trade Commission found material injury rose from 45 percent in the early 1980s to 60 percent by 2000. He concluded that DOC discretionary practices have played the major role in rising dumping margins. Importantly, the evolving effect of discretionary practices is due not only to increasing use of these practices over time, but apparent changes in implementation of these practices that mean a higher increase in the dumping margin whenever they are applied.

The survey by **Horlick and Vermulst (2005)** of the antidumping practices in ten major user countries – Australia, Brazil, China, the EC, India, Indonesia, Mexico, South Africa, Thailand and the US – show that this problem extends to many countries. They identified a number of problem areas: procedural issues, determination of dumping margins, injury determinations and procedural issues. They find that the increasing use of constructed normal values gives too much discretion to antidumping authorities in determining the existence of dumping. They reach a similar conclusion that there is too much administrative discretion in the determination of injury, injury margins and causation.

What these studies imply is that while the legal provisions on trade remedies in PTAs provide important information, they may not be enough. The institutional setting, the administrative procedures and practices will also need to be examined to ascertain what part they play in determining the trade and welfare effects of trade remedy actions. However, we are unable to take these factors into account in this paper. This research also suggests that there may be challenges, beyond the mappings themselves, in extracting information from the mappings to form testable hypotheses about trade remedies in PTAs and trade flows.

i. Trade Remedies and GATT art. XXIV

Accordingly to **Magnus et al. (2001)** a problem related to the abolition of AD in NAFTA would be the fact that third-country dumping in one market could threaten producers of the other NAFTA members. To face this problem AD regime should be stronger than those included in NAFTA and WTO A.A., but multilateral rules are not flexible enough. For instance, it would not be possible to impose duties based on injury to the North American industry taken as a whole. According to art 4.3 of the AD agreement cannot be applied to NAFTA industry since the agreement is notified to WTO under GATT art XXIV: 8(b) (free trade

area) and not under XXIV:8(a)[18] (customs union). Art.4.3 provides that, for customs union, "the industry in the entire area of integration *shall* be taken to be the domestic industry..."
If art. 4.3 were extended to cover FTAs, then parties to free trade would have no choice but to examine injury on an FTA-wide basis in all AD cases[19].
That implies necessarily a loss of control over the initiation of the investigation and NAFTA governments could not be prone to such a renounce.
Closely related is the issue of cumulation in the injury determination, since many industries of one of the NAFTA members would find it harder to have relief if the AD commission could not cumulate shipments from the other two members for injury purpose.

Another issue related to the relation between trade remedies and GATT art. XXIV is the question analysed by **Pauwelyn (2004)**. The article focuses on the puzzle of how WTO Members that are part also of a preferential arrangement should conduct safeguard investigation and implement eventual measure complying with WTO rules. Moreover it shows also which consequences derive from coordinating wording of art. XIX and wording of Safeguard Agreements.
Author's findings about the complex interrelation between WTO system and RTAs as regards safeguards can be summarized in the following points:

- Accordingly to the provision of GATT art. XIX[20] -Pauwelyn says- WTO Members that are also part to a preferential arrangement must exclude imports from the preferential area in calculating the injury for WTO safeguards if such imports are covered also by the regional

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[18] Art. XXIV: "For the purposes of this Agreement: (*a*)A customs union shall be understood to mean the substitution of a single customs territory for two or more customs territories, so that (i)duties and other restrictive regulations of commerce (except, where necessary, those permitted under Articles XI, XII, XIII, XIV, XV and XX) are eliminated with respect to substantially all the trade between the constituent territories of the union or at least with respect to substantially all the trade in products originating in such territories, and, (ii)subject to the provisions of paragraph 9, substantially the same duties and other regulations of commerce are applied by each of the members of the union to the trade of territories not included in the union; (*b*)A free-trade area shall be understood to mean a group of two or more customs territories in which the duties and other restrictive regulations of commerce (except, where necessary, those permitted under Articles XI, XII, XIII, XIV, XV and XX) are eliminated on substantially all the trade between the constituent territories in products originating in such territories."

[19] Although, it could be argued that art 4.3 may be coordinated with wording of art. 4.1(ii) providing that "in exceptional circumstances the territory of a Member may, for the production in question, be divided into two or more competitive markets and the producers within each market may be regarded as a separate industry if *(a)* the producers within such market sell all or almost all of their production of the product in question in that market, and *(b)* the demand in that market is not to any substantial degree supplied by producers of the product in question located elsewhere in the territory. In such circumstances, injury may be found to exist even where a major portion of the total domestic industry is not injured, provided there is a concentration of dumped imports into such an isolated market and provided further that the dumped imports are causing injury to the producers of all or almost all of the production within such market."

[20] Article XIX: Emergency Action on Imports of Particular Products. Particularly, accordingly to *Argentina-Safeguards Measures on Imports of Footwear WT/DS121/AB/R,* AB rules that the requirements must be the following:

- "the developments"....."must have been unexpected"; and
- "it must be demonstrated, as a matter of fact, that the importing Member has incurred obligations under the GATT 1994, including tariff concessions".

liberalization equal to or higher the GATT level of concession. Furthermore, as long as the preferential arrangement explains the increase in imports, such increase should not be considered as "unforeseen".

- The Agreement on Safeguards, on the opposite, is silent on which imports must be taken into account in the injury determination. Therefore all the imports can be considered, but it is possible to exclude regional imports or take in consideration imports from one source. Nevertheless, even if only third-party imports are used in the assessment of the injury, the effects of the regional imports has still to be evaluated in order to not ascribe them to third-party imports. Additionally, only imports considered in the injury determination has to meet the "causal link" requirement with serious injury or threat thereof.
- Based on art. 2.2 of the Agreement on Safeguards, subordinated to the provision of art. XXIV, "Safeguard measures shall be applied to a product being imported irrespective of its source.", while if the injury determination regarded only third-party imports, the resulting measures can only compensate the injury deriving from third-party imports.
- GATT art. XXIV[21] does not exclude the applicability of safeguards measures both are they regional safeguards and WTO measures. Notably, art. XXIV: 8 allows some internal restriction as long as "substantially all the trade" is liberalized. Furthermore, art. XXIV provide justifications also for the Agreement on Safeguards. However AB in *Turkey-Textiles*[22] requires two elements -time (*upon the formation)* and necessity (*necessary*) - in order to justify a violation of art. XXIV (in casu, art. XIX or A.S.)[23]. Therefore, safeguards that exclude regional imports would not be permitted since they are neither i) "introduced upon the information" of the preferential arrangement nor ii) "necessary" for such formation. Nevertheless, this interpretation, accordingly to **Pauwelyn**, would be supported by neither the text nor the spirit of art. XXIV.
- On the contrary, a WTO Appellate Body's interpretation of art. XXIV favourable to safeguards that exclude regional imports would avoid measures in the regional trade and increase the incentive in reaching preferential trade deals especially with countries that are heavy users of safeguards[24]. Finally, it should be recalled that the absence of WTO

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[21] GATT 1994 article XXIV "Territorial Application — Frontier Traffic — Customs Unions and Free-trade Areas"

[22] *Turkey-Restrictions on Imports of Textiles and Clothing Products WT/DS34/AB/R*

[23] AB deduce such conditions from the chapeau of the art XXIV:5 "Accordingly, the provisions of this Agreement shall not prevent, as between the territories of contracting parties, the *formation of a customs union or of a free-trade area* or the adoption of an interim agreement *necessary* for the formation of a customs union or of a free-trade area; *Provided* that...."

[24] To this regard, more attention should be paid to the trade diversion effects as long as they could be contrary to the spirit of art. XXIV:4 "The contracting parties recognize the desirability of increasing freedom of trade by the development, through voluntary agreements, of closer integration between the economies of the countries parties to such agreements. They also recognize that the purpose of a customs union or of a free-trade area should be to facilitate trade

safeguards on regional trade does not preclude the imposition of regional safeguards accordingly to regional agreement's provisions.

The different options could be summed-up in the following table:

Chart 2

INJURY DETERMINATION	SAFEGUARD MEASURE
Option 1 based on ALL IMPORTS	**Option 1.a** applied to ALL IMPORTS are subject to the safeguards
-If the investigated product is covered also by the Customs Union/FTA, there is a violation of art. XIX (regional imports must then be excluded) -The violation of art. XIX cannot be justified under art. XXIV	-Consistent with parallelism[25] requirement -Consistent with Safeguard Agreement art.2.2 (non-discrimination) -Intra-regional safeguards are not *per se* prohibited by art. XXIV
	Option 1.b REGIONAL IMPORTS EXCLUDED
	-Violation of parallelism requirement, not justified under art. XXIV - Violation of Safeguard Agreemet art. 2.2 but justified under art. XXIV (though violation of parallelism and art. XIX remains)
Option 2 REGIONAL IMPORTS EXCLUDED	**Option 2.a** REGIONAL IMPORTS EXCLUDED
-If the investigated product is covered also by the Customs Union/FTA, then regional imports must be excluded under art. XIX -Agreement on Safeguards (arts.2.1 and 4) does not prohibit exclusion of regional imports	- Consistent with parallelism requirement -Violation of Safeguard Agreement art. 2.2 (non discrimination) but justified under art. XXIV
	Option 2.b Applied to ALL IMPORTS
	-Violation of parallelism requirement but justified under Safeguard Agreement art.2.2 -Consistent with Safeguard Agreement art.2.2 non-discrimination) -Intra-regional safeguards are not *per se* prohibited by art XXIV -Potentially in violation of rules in the Customs Union/FTA itself (prohibiting regional safeguards, albeit under certain conditions)

Source: **Pauwelyn (2004)**

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between the constituent territories and not to raise barriers to the trade of other contracting parties with such territories."

[25] The AB's requirement of parallelism –stated for the first time in *Argentina-Footwear* (see note4)- is the equivalence between the imports taken in consideration for the injury determination and those to whom safeguards are applied.

5. Trade Remedies and Technical Barriers to Trade in Regional Trade Agreements

Nowadays RTAs proliferation during the last 15 years is one of the most controversial issues in international trade debate. As we have seen in Chapter 1, RTAs may impact deeply on multilateral liberalization as well as over regional political equilibria.

Recently, economic literature has targeted a number of issues (e.g. Trade Remedies, Competition, TBT, investments etc.) in order to study the impact of the way to deal with integration within a set of RTAs. That is how the inclusion of some particular provisions shapes in a way or in another way the path of to regional integration. Among these issues, trade remedies and technical barriers to trade seems to be a good proxy of the level of integration members to RTA want to attain. At a glance, looking at EU or Mercosur it seems plausible to assume that the inclusion of provision about Trade Remedies and TBT in the wording of a RTA is showing the intention to reach a common market of goods. But, fostering the integration in international trade is not just RTA's goal but WTO's one as well. Consider a group of countries, members of WTO that is part in a RTA. How does this double membership affect the discipline of TBT and trade remedies in the RTA? Of course, as it will be discussed below, the picture is quite intricate and the way a number of country decide to deal with these issue reflect, at least partially, WTO's achievement on the matter. Both trade remedies and TBT are disciplined by covered agreements within WTO framework, hence we will discuss about the relation between TBT and Trade Remedies on one side and RTAs on the other, benchmarking WTO's relevant discipline.

a. Technical Barriers to Trade in RTAs

As showed in Chapter 2, standards, technical regulations and conformity assessment procedures are not openly discriminatory against imports. The same standard may apply to domestically produced and imported goods. Yet they can act as a disguised form of protection. National standards may impose disproportionate costs on foreign producers. They may generate fixed costs from having to interpret the regulation and bring the product into conformity and might also raise marginal cost if the standard results in a decreased scale of operation. Similarly, conformity assessment procedures can also constitute a barrier to trade. Often exporters are requested to test and certify their products in each of the countries where they export. These tests and certifications are costly and duplication of tests exponentially increases costs. Overall costs of conformity assessment also include the risk that the goods are rejected by the importing country after shipment so that they have to be transported back, as well as a cost in terms of time required for complying with administrative requirements and inspections by the importing country's authorities. All these costs may be higher for foreign firms. To the extent that standards, technical regulations and conformity assessment procedures increase costs for foreign companies relatively more than for domestic firms, they act as a protectionist measure; that is, they reduce the ability of a producer to enter a foreign market.

It is clear that governments and industries may even define technical regulations, standards and conformity assessment procedures with the strategic aim of creating a disadvantage for foreign competitors. An illustrative example is the US

requirement of a larger minimum size on vine-ripened tomatoes (mainly imported from Mexico) than on green tomatoes (mainly grown in Florida). Another example is the Chilean system for grading meat quality which is incompatible with that used in Argentina and the US (big meat exporters). The cost of setting up a special system just to export to Chile effectively limits the market access of small Argentinean and American beef producers.

An important difference between technical barriers to trade and conventional barriers – quotas, tariffs, VERs, and trade remedies- is that, although they may inhibit trade, technical regulations and conformity assessment procedures in general are not introduced for the purpose of trade protection. The primary role of government imposed standards (or technical regulations) is to enhance welfare by remedying market failures arising from asymmetry of information between consumers and producers about the quality of a product, negative environmental externalities or failure of producers to cooperate and produce compatible products because of network externalities. Technical regulations are set to protect public health and safety as well as animal and plant life. Alternatively, firms can voluntarily set standards for efficiency reasons. They can set compatibility standards in order to be able to mix and match alternative inputs, thus reducing inventory costs and increasing production flexibility. Firms can also set standards in order to make it possible for them to exploit economies of scale or they can set standards to signal to consumers the quality of their products. In all of the above cases, standards fulfil a legitimate objective and are aimed to help markets operate more efficiently. Conformity assessment is needed to evaluate a product, a process or a service against specified requirements.

Regional agreements between countries on technical barriers to trade are challenging because they have to strike a balance between the legitimate right of a country to use standards to remedy market failures and set appropriate procedures to assess conformity to these standards, and the realization of gains from integrated markets. On the one hand, since countries differ in terms of levels of development, technology, environmental requirements and preferences, it is natural that the optimal national standard (that is, the specific type of standard that solves a market failure) differs across countries. On the other hand, these differences may constitute an obstacle to trade. There are circumstances when the solution to this trade-off is relatively simple. Suppose, for example, that two similar countries have the same policy objective of ensuring a certain level of car safety, but that for some reason they have chosen different standard specifications. One country requires the car to be equipped with seat-belts and a fire extinguisher. The other country requires the presence of airbags and fire-proof materials. Without an agreement between the two countries, car manufacturers that want to export will have to face higher costs in order to adapt their production to the requirements of each destination country or produce cars that simultaneously satisfy both standards (again, probably at a higher cost than only using one standard). Since the desired level of safety is ensured equivalently by the two types of standard specifications, both countries would be better off if they choose a common standard or accept each other's standard. The policy option in which each country chooses one common standard is known as "harmonization," while the policy whereby a country grants unrestricted access to products that meet the standard of another country and vice versa is known as "mutual recognition."

There are other circumstances in which countries' policy objectives are significantly different. In this case, neither harmonization nor mutual recognition is likely to be a viable solution as they may undermine national policy objectives. What can countries do in these cases to ensure that differences in standards, technical regulations or conformity assessment procedures do not constitute an unnecessary obstacle to trade? The WTO Agreements on technical barriers to trade and various regional trade agreements try to provide an answer to this question.

The Agreement in the WTO that deals with technical barriers to trade in goods is the TBT Agreement.[26] The TBT Agreement recognises the right of each country to take measures necessary to pursue national security, to prevent deceptive practices, to protect human health or safety, animal or plant life, or health or the environment. But it requires that these measures be as least disruptive as possible for trade. To this end, the TBT Agreement establishes a set of commitments among WTO Members that may be grouped into five types of complementary policy options. First, the TBT agreement recognizes that one way to remove technical barriers to trade is harmonization. Therefore, it prescribes that WTO Members use existing international standards as a basis for their technical regulations. In addition, with the view of harmonizing technical standards, it states that Members shall play a full part in the preparation of international standards by international standardization bodies. Yet at the same time, the WTO agreement recognises that countries may have different policy objectives. Therefore, it allows for exceptions when these international standards would be ineffective or inappropriate to fulfil their objectives, for instance, "because of fundamental climatic or geographical factors or fundamental technological problems" (TBT Agreement Article 2.4). By the same token, the WTO-TBT Agreement encourages countries to accept as equivalent technical regulations of other Members, if these regulations adequately fulfil the objectives of their own domestic regulations (Article 2.7).

Second, with regard to conformity assessment procedures, the WTO agreement recognizes that one way to avoid duplicative tests and reduce trade costs is through conformity assessment recognition agreements. These imply that a country recognises tests and certifications of another country independently of whether their standards are harmonized or are mutually recognized. Therefore, the TBT Agreement (Article 6) encourages Members to enter into mutual recognition agreements (MRA). But MRAs for testing and certification procedures require confidence in the competence of one another's conformity assessment bodies and in the methods employed to assess conformity. For this reason, the TBT Agreement recognises that prior consultations may be necessary to arrive at a mutually satisfactory understanding regarding the competences of conformity assessment bodies.

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[26] Other agreements containing standard-related provisions are the SPS Agreement and the General Agreement on Trade in Services (GATS). The SPS Agreement applies to sanitary and phytosanitary measures, that is any measure that is applied to protect human or animal or plant life or health. The GATS contains standards related provisions on services, specifically, in Article VI paras. 4 and 5. Note that all WTO provisions deal with product standards and not with production standards.

Third, the WTO agreement acknowledges the importance of transparency of technical regulations for trade liberalization. Indeed, transparency reduces the costs associated with having to learn about the regulations of other countries and makes it more difficult for countries to introduce a discriminatory regulation. Therefore, the TBT agreement requires that, before the adoption of a new technical regulation, Members publish and notify the WTO Secretariat (Article 2.9) and that an enquiry point exist in each country to satisfy reasonable enquiries and provide documents (Article 10). In addition, the TBT agreement establishes the Committee on TBT (Article 13).

Fourth, in the attempt to create a level playing field in the area of technical barriers to trade and avoid the result that some countries, especially developing countries, are excluded from the trade business because of lack of capability for setting standards and assessing conformity, the WTO agreement establishes that countries shall provide technical assistance to other WTO Members (Article 11).

Finally, in order to resolve concerns between countries on TBT-matters, the TBT Agreement explicitly refers to the Dispute Settlement Body for consultations on TBT matters and solutions of disputes (Article 14).

As pointed out at the beginning of this chapter, WTO rules are not the only international norms governing standard-related measures. Many regional trade agreements also include norms for technical barriers to trade. It is clear that, to the extent that regional trade agreements (RTAs) are signed among "similar" countries or countries that trust each other, they could provide rules that ensure that standards and technical regulations are even less disruptive for trade within the region than the rules established at the WTO. Again, one illustrative example is that of the European Union. The EU also recognizes the importance of removing technical barriers to trade in order to achieve a single market, but commitments to remove TBTs among EU countries go beyond WTO rules. For example, the EU has adopted the principle of mutual recognition of both product standards and conformity assessments and actively pursues harmonization of product standards. The process of harmonization of standards and regulations takes place in national and European standardization bodies mutually cooperating in drafting and including amendments to the text. Where technical standards are not harmonized, the principle of mutual recognition applies: that is, if products are produced in accordance with one country's regulations, they are granted access to any other member country.[27] In addition, EU countries mutually recognize each other's conformity assessments. Mutual recognition of conformity assessment is not only limited to accepting conformity assessment results from bodies that are recognised by the parties concerned, but extends to self-certification arrangements such as suppliers' declarations of conformity. Although most regional trade agreements encourage or mandate their members to coordinate their standard-

[27] The principle of mutual recognition was introduced formally in 1985. It followed the EC Court's ruling in the *Cassis de Dijon* case, according to which "any product lawfully produced and marketed in one Member State must, in principle, be admitted to the market of any other Member State". The EU's "old approach" (1969) consisted of negotiating technical norms on a case-by-case basis and emanating directives. Once adopted, such directives would replace national laws, regulations, and standards.

related measures, the approach chosen for liberalizing technical barriers to trade vary across RTAs.

Standardization in RTA: trade creation versus trade diversion

There has been a significant amount of efforts in negotiations of regional trade agreements on the use of mutual recognition of testing and certification and harmonization of product standards. However, questions such as what is the impact of harmonization in intra and extra trade, and cost and benefits to the RTA Members remain open.
WTO agreement on TBT encourages members to enter into MRA (mutual recognition agreements), however there is little evidence on the net benefit of these MRA for member and third countries. Theoretical considerations on the effects of harmonization and MR of product standard do not provide a definite answer about the direction of this effect. Harmonization and mutual recognition of product standards can be shown to be discriminatory or not toward non-members, may benefit relatively more non-members than member countries, or may decrease intra-trade volumes. In other words, harmonization of product standards can expect to have positive or negative effects on intra-trade volumes, a positive or negative effect on extra-trade volumes.

Mutual Recognition of product standards can have trade diverting effect

The extent of the consequences of trade diversion depends on the effect that harmonization or MR of product standards has on firms' costs: whether it reduces fixed or variable costs for example. Let's look at the following cases:

MR lowers fixed cost and is confined to RTA's member countries
As an example, consider the EU-Swiss Bilateral Trade Agreement. According to this agreement, only goods made in Switzerland (satisfying specific rules of origin criteria) can circulate freely in the EU after being tested and certified in Switzerland. This implies that a Swiss producer, say, will have access to both the Swiss and the EU market, by only paying costs of testing and learning about the regulations in Switzerland. This privilege however does not extend to products originated in Korea, for example. Therefore, a Korean firm that wants to access the EU-Switzerland market will have two pay tests of certification and learning about regulations of both the EU and Switzerland. In this case mutual recognition of product standards and conformity assessment procedure between the EU and Switzerland actually raises costs for producers located in a third country with respect to costs of producers located either in the EU or Switzerland, thus diverting trade.

MR lowers fixed cost and is extended to countries outside the RTA (open TBT liberalization)
A pact of mutual recognition of product standards on trade with non-member countries does not need, at least under the circumstances describe above, to be trade diverting. If mutual recognition was extended to third countries (i.e. in the case of open TBT liberalization), this arrangement would no longer be trade-diverting. This is for instance what happens among EU countries. A product that complies with product standards in one of the EU countries has got free access to all EU countries. Therefore, in this case mutual recognition does not increase non-

member countries firms' costs relative to firms located in the free-trade area. When harmonization of product standards reduces fixed costs, extending mutual recognition to third countries (the so called open TBT liberalization) is a remedy to trade-diverting effects of this arrangement. Open TBT liberalization is however not always a remedy to trade diverting effects of harmonization of product standards. Indeed, when harmonization of product standards also reduces variable cost, it may have trade diverting effects even in the case of open TBT liberalization.

MR reduces variable costs
The case made above for the EU-Switzerland agreement assumes that harmonization of product standards reduces fixed costs. However, harmonization of product standards may not only reduce fixed costs of TBT's, but it may also reduce variable costs. In this case, open TBT's liberalization (i.e. when mutual recognition of product standards and tests of conformity assessment also apply to non-member countries) does not remedy to the possibility of trade-diverting effects of harmonization of product standards.
Suppose for example that the EU introduces a common set of norms for the production of computer hardware, but these norms require the use a certain component for which Europe has a technological advantage. Then, it will result systematically cheaper for EU-firms to comply with the new product standards than for non-EU producers. This will divert trade from non-EU to EU countries.

Harmonization or MR of product standards can improve the market access of third countries.
Consider again the example of the EU. Suppose that each EU country had a different standard and that mutual recognition did not apply. Then, each country had to comply to 15 different standards in order to access the whole EU market. It is likely that the market share in each of the 15 EU country of a firm located in a non-EU country is small compared to a domestic firm. As a consequence, firms located outside the EU will systematically face higher costs because of the lower scale of production. Harmonized product standard (likewise mutual recognition, which is the applied norm in the EU) permit non-EU and EU countries to produce goods that have to comply with only one norm and can be sold in the whole EU area. Therefore, they can better exploit economies of scale and improve their penetration in the EU market.

b. Trade remedies in RTAs

As showed, trade remedies are anti-dumping, countervailing and emergency or safeguard measures. Anti-dumping and countervailing duties can be levied on exporters who exercise in "unfair" trading practices that cause material injury to domestic producers. These unfair trading practices can be the selling of products below their "normal" price or of being subsidized from government policies. Safeguard actions can be taken even if there is no unfair trade practice so long as imports have increased to an extent that serious injury has been suffered by domestic producers. No matter the difference in conditions under which they can be triggered, it is clear that all these instruments represent internationally agreed means for a country to temporarily increase the level of trade protection received by its injured domestic industry. This feature is one main difference to TBT. At

least in principle, the latter may be seen as a way a country adopt in order to protect human health (e.g. GMO's ban) or to improve safety conditions of products (safety requirements of vehicles). The former, instead, are merely a new way to temporary protectionism after tariff-liberalization.

If so, why a RTA that is aimed to increase integration among its members does allow for domestic protectionism? In fact, there are those who see the elimination of trade remedies, in particular anti-dumping actions, as required under Article XXIV of GATT 1994, which deals with customs unions and free trade areas. Paragraph 8(b) of GATT Article XXIV requires WTO members, who form a preferential trade area, to "eliminate duties and other regulations restricting trade". Some have interpreted the reference to "other regulations restricting trade" to include trade remedies, and to antidumping actions in particular. This view is strengthened by the fact that paragraph 8(b) of GATT Article XXIV allows, where necessary, RTA members to exclude certain GATT articles from the general requirement to "eliminate other regulations restricting trade"[28]. Were it the intention of the GATT founders to include GATT Articles VI (Anti-dumping and Countervailing Duties) and XIX (Emergency Action on Imports of Particular Products) to the excluded GATT articles, it would have been done. That they did not would suggest that some of RTAs which retain the use of trade remedy instruments are inconsistent with GATT Covered Agreements.

Still the elimination of intra-regional tariffs may push new demands for the protective effects of trade remedies (e.g. the often safeguarding between Argentina and Brazil, both members to Mercosur). For a government entering into a free trade agreement, import-competing sectors need to be given assurance that they have the means to protect themselves from the unanticipated consequences of the regional liberalization path. Retaining trade remedies in the regional trade agreement may serve the purpose of appeasing the discontents of the liberalization.

In such a scenario, trade remedies may resemble long transition periods, inextricable rules of origin, and sensitive sectors in regional trade agreements, all of which result in a slower process of liberalization for sensitive import-competing sectors. Instead of directly easing the effects of the RTA by excluding the process of tariff elimination, trade remedies achieve a different cushioning effect by specifying a set of conditions – injury to the domestic industry – under which the regional liberalization program may be temporarily suspended or partially reversed.

While trade remedies abolishment on RTA partners' imports most likely increase intra-bloc trade, this does not necessarily mean that it is welfare-enhancing. The ambiguity of the welfare impact arises from the well-known fact that preferential trade arrangements have both trade creation and trade diversion. The preference given to intra-regional trade by the abolition of trade remedies actions on RTA partners' trade may be at the expense of cheaper sources of imports coming from

[28] The GATT articles not covered by the requirement to eliminate "other regulations restricting trade" include Article XI (General Elimination of Quantitative Restrictions), XII (Restrictions to Safeguard the Balance of Payments), XIII (Non-discriminatory Administration of Quantitative Restrictions), XIV (Exceptions to the Rule of Non-discrimination), XV (Exchange Arrangements) and XX (General Exceptions).

non-members. The danger in fact is that as intra-regional trade expands because of falling intra-regional tariffs, administered protection becomes increasingly directed at the imports of non-members. Bhagwati (1993) and Bhagwati and Panagariya (1996) have argued that due to the "elastic" and selective nature of administered protection, they can increase the risk of trade diversion from RTAs. Administered protection is elastic because it is "subject to serious arbitrariness and manipulation". So apart from discrimination introduced by preferential tariffs, the establishment of regional trade agreements can lead to more discrimination against non-members of the RTA though more frequent trade remedy actions. Thus, one key conclusion they deliver is that in a world teeming with RTAs, there is greater need for stronger multilateral disciplines on trade remedies. It appears that both Bhagwati (1993) and Bhagwati and Panagariya (1996) envisioned that this increase in discrimination against non-members can take place without necessarily requiring the adoption of special RTA rules on trade remedies. The elastic and selective nature of trade remedy protection allows non-members to be targeted more frequently.

But to the extent that RTAs adopt special or additional rules on trade remedy actions on members' trade, they can effectively increase the level of discrimination against non-members. This increase in discrimination can occur when RTA members abolish trade remedy actions against the trade of RTA members but not against non-members' trade. It could occur when RTA members adopt rules that strengthen disciplines on trade remedy actions against the trade of RTA members but not against the trade of nonmembers. While moves to strengthen disciplines on trade remedy actions against RTA partners or to abolish trade remedy actions against RTA partners outright appear good for trade, the welfare effects are ambiguous. They may simply lead to intra-regional imports substituting for cheaper sources of imports from non-members (trade diversion). Since regional trade agreements thrust us into the world of the second best, actions that look like they will lead to an increase in economic efficiency may achieve exactly the opposite effect.
As we have seen, most part of the relevant regulation of RTAs within WTO framework is described in article XXIV of GATT. One of the controversial issues regarding the interpretation of Article XXIV is how to administer trade remedies in RTAs. The question of how to deal with them is debated, since para.8[29] (a) i) of

[29] Art XXIV 8. For the purposes of this Agreement:

(a) A customs union shall be understood to mean the substitution of a single customs territory for two or more customs territories, so that

(i) duties and other restrictive regulations of commerce (except, where necessary, those permitted under Articles XI, XII, XIII, XIV, XV and XX) are eliminated with respect to substantially all the trade between the constituent territories of the union or at least with respect to substantially all the trade in products originating in such territories, and,

(ii) subject to the provisions of paragraph 9, substantially the same duties and other regulations of commerce are applied by each of the members of the union to the trade of territories not included in the union;

(b) A free-trade area shall be understood to mean a group of two or more customs territories in which the duties and other restrictive regulations of commerce (except, where necessary, those

Article XXIV does not expressly create an exception for Article VI of the GATT 1994 (covering AD and CVD) nor for Article XIX (covering safeguards measures). In particular, the key issue is about the nature of the list laid down in para.8: whether it is exhaustive or illustrative.

The expression "*other restrictive regulations of commerce* ", present both in para.5 and para.8 has never been defined in GATT/WTO. In fact, while it seems that in para.8 such expression should refer to restrictive measures of the intra-regional trade and that, therefore, should be eliminated, the same expression in para.5 addresses to measures that, albeit restrictive, should be applied in extra-regional trade. Hence, in this case, restrictive measures could be still applied toward the Contracting Parties other than members to CU/FTA, provided that they are not sharpened.

Strictly related to this issue it is the question whether the expression "*other restrictive regulations of commerce"* includes quantitative restrictions. In a negative sense, it has been pointed out that Articles XI and XII prohibit such restrictions. Nevertheless, Article XIX about safeguard measures partially derogates the discipline laid down in those articles. To solve the problem whether the inclusion of safeguards measures in RTAs provision is a breach of Article XXIV, it is worth to briefly analyze the meaning of expression "*other restrictive regulations of commerce* " in para.8 (a) i) and b).

Article XIX is not included in the listed exceptions of para.8 (a) i). Members of RTA have interpreted this provision verbatim in order to justify a selective -or sometimes discriminatory- application of discipline laid down in Article XIX in favor of the other partners to RTA. On the opposite side, third parties have objected that the list is purely illustrative and not exhaustive. Hence, according to the latter interpretation, Article XXIV para.8 does not exempt members to CU/FTAs from the obligation to apply safeguards measures on a non-discriminatory basis. With regard to the relation between Articles XIX and XXIV, the Appellate Body has established in *Argentina-Footwear* [30] a *principle of parallelism*[31]. According to this principle, symmetry should be respected between the imports considered in the calculation of the injury determination and those whom safeguard measures are applied. Therefore, a member to an RTA may selectively exclude imports coming from others members of the RTA from the safeguard measures provided that they were not used for the calculation of the "*serious injury*" to domestic industry.

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permitted under Articles XI, XII, XIII, XIV, XV and XX) are eliminated on substantially all the trade between the constituent territories in products originating in such territories.

[30] Particularly, accordingly to *Argentina-Safeguards Measures on Imports of Footwear WT/DS121/AB/R,* AB rules that the requirements for the application of safeguards measures must be the following:

- "the developments"....."must have been unexpected"; and
- "it must be demonstrated, as a matter of fact, that the importing Member has incurred obligations under the GATT 1994, including tariff concessions".

See also *United States-Definitive Safeguard Measures on Imports of Wheat Gluten from the European Communities; United States-Definitive Safeguards Measures on Imports of Circular Welded Carbon Quality Pipe From Korea*

[31] For extensive analysis of parallelism and art. XIX, see also Pauwelyn (2004) and the analysis of literature in section

If *parallelism* seems to imply, at least, the possibility to recourse to restrictive measure in CU/FTAs under Article XIX, nevertheless it is not clear whether *other* quantitative restrictions (and between those, Antidumping and Countervailing Duties) must be eliminated with regard to intra-regional trade according to Article XXIV para.8 (a) i) and (b).

In the absence of univocal interpretation and agreed understanding of the discipline, States address differently the issue of how to deal with trade remedies in RTAs. Sometimes regional provisions diverge from the WTO Covered Agreements. In those cases, what happens when one or more provisions of a RTA conflict with the WTO Agreements? Moreover, the disciplines laid down in RTAs may affect third States or one of the parties to an RTA may not be party to WTO. In those cases, which agreement prevails over the other?

a) Lex Posterior and the Article 30 of the Vienna Convention on the Law of Treaties

To answer this question, we refer to public international law as codified in the Vienna Convention on the Law of Treaties. Article 30 of Vienna Convention provides for the application of successive[32] treaties relating to the same subject-matter[33]. As a preliminary note, it should be recalled that Article 30 provides for priority rules between specific provisions of successive treaties. Therefore it does not invalidate or terminate norms nor does it give priority to entire treaties. Theoretically, two situations can arise: i) identical or increasing membership (AB:ABC); ii) decreasing membership (ABC:AB).

- Identical or Increasing Membership

The Vienna Convention disciplines this situation in paragraph 3 of Article 30 which provides that "When all the parties to the earlier treaty are parties also to the later treaty (…), the earlier treaty applies only to the extent that its provisions are compatible with those of the latter treaty." This paragraph lays down the general rules for cases where all the parties to the RTA/WTO Agreements subsequently concluded WTO Agreements/RTA. This is the general principle that *lex posterior derogat priori*, namely, the later expression of intention is presumed to prevail over an earlier. Accordingly, trade remedies provision contained in Covered Agreements/RTA are presumed to prevail over those laid down in RTA/Covered Agreements.

- Decreasing Membership

This case is addressed in the paragraph 4 of Article 30: "When the parties to the later treaty do not include all the parties to the earlier one: (a) as between States parties to both treaties the same rule applies as in paragraph 3; (b) as between a State party to both treaties and a State party to only one of the treaties, the treaty

[32] It is difficult to assess the time-label of a treaty. For example, in the case of EC, which treaties should be taken in consideration? The Treaty of Rome of 1957 or rather Maastricht Treaty of 1992. Furthermore, another issue to be taken into account is that EC treaties or WTO Agreements evolve continuously, making it difficult to pin the exact date down.

[33] In the literature, it is not clear whether the expression "the same subject-matter" has to be interpreted strictly or not.

to which both States are parties governs their mutual rights and obligations." As to the sub-paragraph (a), it lays down the same general principle that *lex posterior derogat priori* provided in paragraph 3. Sub-paragraph (b) disciplines two situations. With regard to relations applied between a State party to both RTA and WTO and a State party only to the later of them, the later applies. As to relations between a State party to both RTA and WTO and a State party only to the earlier of them, the earlier applies. That is the general principle that *pacta tertiis nec nocent nec prosunt.*

The different possibilities are summarized in the Figure I. Nonetheless reality proves to be much more complex than theory and several "combinations" other than those outlined above can arise. For example in case of *decreasing membership* where WTO is the earlier treaty, the conflict has to be solved by recurring first to Article 41 of Vienna Convention[34]. The article provides for cases in which one or more parties want to conclude an agreement modifying the multilateral treaty. This possibility should be provided by the multilateral treaty or at least must be not prohibited. Moreover the modification must not: i) affect the rights of others parties and ii) be incompatible with the execution of the object and the purpose of the treaty. Finally members deciding to enter in a RTA must notify the other parties of their intention. In the case of WTO and RTAs, such requirements may be found in Article XXIV paras.4 and 5 respectively. As to para.4, the obligation to not "raise barriers to the trade of other contracting parties" seems to address the same concern expressed in letter b) i) of Vienna Convention Article 41. With regard to para.5, it appears clearly that the requirement to not increase the general level of duties and other regulations of commerce is in line with WTO's purpose. As consequence the notification and the approval of other contracting parties, as described in para.7, should be *condicio sine qua non* for the conclusion of a RTA partially amending WTO Covered Agreements.

[34] Article 41 Agreements to modify multilateral treaties between certain of the parties only
1. Two or more of the parties to a multilateral treaty may conclude an agreement to modify the treaty as between themselves alone if:
(a) the possibility of such a modification is provided for by the treaty; or
(b) the modification in question is not prohibited by the treaty and:
(i) does not affect the enjoyment by the other parties of their rights under the treaty or the performance of their obligations;
(ii) does not relate to a provision, derogation from which is incompatible with the effective execution of the object and purpose of the treaty as a whole.
2. Unless in a case falling under paragraph 1(a) the treaty otherwise provides, the parties in question shall notify the other parties of their intention to conclude the agreement and of the modification to the treaty for which it provides.

Chart 3: Article 30 Vienna Convention on the Law of Treaties

	BOTH WTO and RTA about the SAME SUBJECT	
	Earlier Treaty	*Later Treaty*
Identical or Increasing Membership		Later treaty (RTA/WTO) prevails over earlier treaty (WTO/RTA).
Decreasing Membership	Later treaty applies in relations between a State party to both treaties (WTO/RTA) and a third State party only to earlier treaty (WTO or RTA).	Later treaty (RTA/WTO) prevails over earlier treaty (WTO/RTA) as to State parties to both treaties; it applies as well in relations between a State party to both treaties (WTO/RTA) and a third State party only to later treaty (WTO or RTA).

b) Lex Specialis derogat legi generali

In the case that the *lex posterior* rules mentioned earlier do not solve the conflict between treaties, resort may be made to the l*ex specialis derogat legi generali* principle. Albeit such principle is often referred by doctrine and jurisprudence, some doubts about its real existence as a customary rule have arisen. According to this principle, in case of conflict, the more special rule prevails over the more general.

As pointed out for the *lex posterior* principle, also the *lex specialis* principle derives directly from the principle of contractual freedom of States. Hence, both principles are subjective, in the sense that, at the end of the day is the intention of the States that most matters. Therefore, it is inappropriate to refer to these principles as absolute legal rules. The assessment relies on interpretation. That said, in the case of the specialty, it is possible to distinguish two cases: i) subject matter and, ii) membership.

- Subject-matter

Firstly, a rule may be more special than another since, although regarding the same subject, it deals with a specific subject more precisely or more directly. For instance, the possibility to restrict trade regardless the product involved is less specific that the permission to restrict the trade in a specific product: that is the case of some RTAs governing the application of safeguards for some specific sector (e.g. agriculture, textiles etc.)

- Membership

A rule may also be more specific than another with regard to its membership. Therefore some treaty may be seen as *lex specialis* respect another since, albeit both of them deal with the same subject, the former describes it more accurately or more in detail. That is the case, for instance, of WTO and EC treaties. Both they

deal with trade liberalization. Nevertheless, EC does so more in detail and with the aim of a greater liberalization between its members.

Once we outlined how a rule can be special, it is worth trying to distinguish some cases in which the *lex specialis* principle prevails over the *lex posterior* principle or provides for some alternative way of solving conflicts between treaties. As we recalled before, unlikely respect the *lex posterior* principle, *lex specialis* was not codified in the Vienna Convention on the Law of the Treaties. Thus, it is more difficult to cut clearly some cases as we did before. Nonetheless, looking back to some international jurisprudence[35], it is possible to trace out some exampling cases.

- *Lex specialis* prevails but at the same time it is *lex posterior*

This is the case of *Jurisdiction of the European Commission of the Danube*. In this case the Permanent Court of International Justice, required to assessing the prevalence between the Treaty of Versailles of 1919 and the Statute of the Danube of 1923, ruled that the latter applied. Hence it applied the *lex specialis*, but in the meantime the *lex posterior*.

- *Lex specialis* amongst treaties concluded at the same period of time.

This case, although quite difficult to occur, is the occurrence that two treaties were concluded at the same period of time. That is the case of WTO and Group of 3 (Colombia Mexico and Venezuela). If we take in consideration, as time criterion, the date of entry into force (for both agreements 1 January 2005), it seems possible to argue that in case of conflict between those two agreements, Group of 3 should prevail as *lex specialis* respect WTO Covered Agreements.

It appears clear that the *lex specialis* criterion is difficult to be used as a principle to solve conflict between RTAs and WTO. Likely, it seems plausible that *lex posterior* principle will apply in all those cases covered by Article 30 of Vienna Convention. Yet *lex specialis* can be still decisive in all the other cases or as an integrative principle to *lex posterior*.

In conclusion, in the event of conflict between a RTA and a WTO Covered Agreement, it is quite difficult to assess *ex ante*, which one must prevail. As pointed out, the final argument relies on the effective intention of States. Therefore, two or more States can decide to apply one treaty instead of the other to questions arising in their commercial relations. It seems to us that the only decisive argument to settle possible conflicts between contrasting provisions in RTAs and WTO Covered Agreements is the GATT 1994 Article XXIV. Yet the interpretation and the application of this Article are still quite controversial. Thus, it is difficult to plot the possible outcome of a dispute concerning these issues.

[35] See Pauwelyn 2003 pages 395-ss

6. The Templates

a. Anti-dumping

The template adopted for the comparative analysis of anti-dumping provisions is a two-level template, reflecting in the first place whether specific anti-dumping provisions are spelled out or not in the PTA (see Table 1 below).

(a) Level 1 element for anti-dumping

The first and more important level classifies anti-dumping provisions in PTAs into three mutually-exclusive categories.

The first category includes PTAs with no specific anti-dumping provisions. In this paper, in the light of section 4, we take the view that the members of PTAs with no specific language on antidumping adopt multilateral rules to guide anti-dumping activity.
The second category of PTAs includes those with specific anti-dumping provisions but which disallow anti-dumping actions. In Section 8, we explore what features of the PTA may make them more likely to abolish anti-dumping actions against partners.

The third category is made up of PTAs with specific anti-dumping provisions and which allow anti-dumping actions. The key question with respect to this third category of PTAs is what value added comes from the specific language on anti-dumping that is introduced in the PTA? To help in providing some answers to this question, we apply the second level of the template to the anti-dumping provisions of the PTA. The second level of the template is mainly patterned after the Anti-Dumping Agreement of the WTO and captures important features of multilateral rules on anti-dumping. The use of such a template in effect assumes that the intention of the specific provisions in the PTA is to loosen/tighten the multilateral rules that otherwise would apply to the anti-dumping practice of PTA members.

The use of a two-level template for anti-dumping (as well as for countervailing and safeguards in Sections 6 and 7) is motivated by the significantly more important implications for intra-PTA trade of the three-fold categorization of PTAs at the first level than the subsequent differentiation of trade remedy rules at the second level. It is likely to make more of a difference to intra-PTA trade whether anti-dumping is prohibited or not among the members than what specific rules are adopted for example on the calculation of dumping margins.

(b) Level 2 elements for anti-dumping

The second level template contains the following elements:

(i) Determination of dumping: On what basis – price, cost or either/or - is dumping determined?

(ii) Determination of injury: Is there a need to show "material" injury to domestic industry and to prove causality?

(iii) Definition of domestic industry: How is domestic industry defined?

(iv) Pre-judicial solution: This element in the template reflects observed provisions particularly in EU-centered PTAs, where consultations are held by members (normally in a regional body) with the objective of arriving at a mutually satisfactory solution. This can take place either before or during an anti-dumping investigation.

(v) Initiation and conduct of investigation: In the case of the WTO Anti-dumping Agreement, the collective output of the petitioners must be 50% of the total production to act on behalf of domestic industry. Also the *de minimis* dumping margin and the *de minimis* volume below which no investigation goes forward are 2% and 3% respectively.

(vi) Evidence: Are there provisions requiring evidence or characterizing the nature of the evidence to be brought forward?

(vii) Provisional Measures: Does the PTA allow the use of provisional measures?

(viii) Price undertakings: Does the PTA allow price undertakings?

(ix) Retroactivity: Can duties be collected retroactively during the period when provisional measures were applied? Can retroactive duties be applied during a period prior to the date of application of the provisional measures?

(x) Duration and review of anti-dumping duties and price undertakings: How long can anti-dumping duties be applied? In the WTO Anti-dumping Agreement, definitive anti-dumping duties can be applied for up to five years.

(xi) Existence of a regional body: Does a regional body exist which can deal with antidumping matters? Does it have the authority to review final dumping determinations and reverse those determinations?

(xii) Consultation and dispute settlement: Are there provisions for dispute settlement and is this different from the general dispute settlement system of the PTA?. A more detailed mapping of the anti-dumping provisions using the second level of the antidumping template is then performed on these 30 PTAs. The results are presented in detail in Table 5.

Figure 2 shows the distribution of the 51 PTAs using the first level classification. Only a small number (7) of PTAs have disallowed anti-dumping. These are Canada-Chile, China- Hong Kong, CER (Australia-New Zealand), the European Communities (EC), European Economic Area (EEA), European Free Trade Association (EFTA) and EFTA-Singapore. Thirteen have no specific anti-dumping provisions. The large majority (33) contains specific language or further elaboration of anti-dumping rules that will apply to partners in the PTA.

With the big exception of NAFTA, the PTAs entered into by the US (Australia-US, US-Bahrain, US-CAFTA & Dominican Republic, US-Chile, US-Jordan, US-Israel, US-Morocco, US-Singapore) have no specific provisions on antidumping.

The bulk of these have been negotiated after NAFTA. One interpretation that can be put on this is that the US wants to preserve its autonomy in applying its national anti-dumping procedures against PTA partners.

There is some evidence that PTAs which write additional provisions on anti-dumping intend to tighten the conditions under which anti-dumping can be invoked.

Almost all of the PTAs entered into by the EC have involved writing specific language on anti-dumping. These provisions have a number of common characteristics. There is a joint body that is established to oversee the whole PTA. When (or even before) an anti-dumping action is initiated, the joint body is informed and attempts are made by the partners to arrive at a mutually agreed solution. In the template, this is referred to as pre-judicial solution. If no mutually acceptable solution is found, the action (investigation or final determination) proceeds. Provisional anti-dumping measures can be taken if delay will lead to material injury.

Some of the specific language in the PTAs increases the threshold required to apply antidumping duties or shortens its duration. The Andean Community requires a higher *de minimis* volume (6%) and mandates a shorter period (3 years) for applying anti-dumping duties than the WTO Anti-Dumping Agreement. The New Zealand-Singapore FTA has a higher *de minimis* dumping margin (5%) and a higher *de minimis* volume requirement (5%) than the WTO benchmark. MERCOSUR also limits the duration of anti-dumping duties to 3 years (compared to 5 years in the WTO agreement).

But apart from NAFTA, there is no Chapter 19-type provision in any of the PTAs surveyed. So NAFTA is unique in allowing a bi-national panel to rule on final determinations of national investigating authorities and on the conformity of amendments to national legislation on antidumping. No other PTA surveyed cedes that much authority on anti-dumping to a PTA body.

b. Subsidies and Countervailing Duties

The template adopted for the comparative analysis is again a two-level template (see Table 2 below).

(a) Level 1 elements for countervailing measures

The first level classifies CVD provisions in PTAs into three mutually-exclusive categories. The first are PTAS with no specific CVD provisions. The second are those with specific CVD provisions but which disallow CVD actions. And the third are those with specific CVD provisions and which allow CVD actions to be taken. The second and more detailed level of the template involves a classification of the provisions contained in the third category of PTAs and is basically patterned after the Subsidies and Countervailing Duties Agreement of the WTO.

(b) Level 2 elements for countervailing measures

We have focused on the following key provisions of the second level template:

(i) Definition of a subsidy

(ii) Specificity: In the WTO, specificity is a requirement for a subsidy to be potentially the subject of an action.

(iii) Prohibited subsidies: Does the list of prohibited subsidies extend only to export subsidies and to support that is contingent on the use of domestic over imported goods as in the WTO Agreement?

(iv) Actionable subsidies: The allowable reasons for taking action on subsidies in the WTO are that subsidies cause material injury, or nullification or impairment of benefits or serious prejudice.

(v) Determination of injury: Is there a need to show "material" injury to domestic industry and to prove causality as in the CVD Agreement of the WTO?

(vi) Provisional measures: Are provisional countervailing measures allowed?

(vii) Undertakings: Does the agreement allow for undertakings?

(viii) Retroactivity: Is there a rule allowing countervailing duties to be collected retroactively during the period when provisional measures was applied? Can countervailing duties be applied retroactively prior to the date of application of the provisional measures?

(ix) Duration and review of countervailing duties and undertakings: Are there provisions limiting the duration of a definitive countervailing duty? What is the duration?

(x) Regional body: Does a regional body exist which has authority to review CVD determinations?

(xi) Dispute settlement: Are there provisions for dispute settlement and is this different from the general dispute settlement system of the PTA?

The detailed mapping of the CVD provisions in the PTAs is shown in Table 5.

Figure 3 below provides an overall picture of how the PTAs are grouped together using the first-level classification. The great majority (39) of the surveyed PTAs have no specific countervailing measures provisions. Only 5 PTAs have abolished countervailing measures. These PTAs are China-Hong Kong, China-Macao, European Communities, EEA and EFTA. Only seven PTAs (Andean Community, CACM, CARICOM, CER, COMESA, NAFTA and US-Israel) have specific provisions on CVDs and allow the use of such measures.

This can be interpreted as a heavier reliance on the existing multilateral rules and disciplines governing the application of countervailing duties then we saw with anti-dumping. Of the seven PTAs which have specific provision on CVDs, and apart from NAFTA which provides for bi-national reviews of final CVD determinations, we are unable to discern any significant difference between their provisions and the Subsidies and Countervailing Duties Agreement of the WTO.

c. Safeguards

Like the previous two templates, the one chosen for the analysis of safeguard provisions in PTAs is a two-level template (see Table 3 below).

(a) Level 1 elements for safeguards

The first level classifies safeguard provisions in PTAs into three mutually-exclusive categories. The first are PTAS with no specific safeguard provisions. The second are those with specific safeguard provisions but which disallow safeguard actions. The third category has specific safeguard provisions and allows such actions to be taken. The second and more detailed level of the template involves a classification of the provisions contained in the third category of PTAs and is patterned after the Safeguards Agreement of the WTO.

(b) Level 2 elements for safeguards

We have focused on the following key provisions of the second level template:

(i) Conditions for application of safeguard: What events can trigger safeguard actions: increasing imports? Reduction in tariffs? Other causes?

(ii) Determination of injury or threat thereof: Is there a need to show "serious" injury to domestic industry and to prove causality as in the Safeguards Agreement of the WTO?

(iii) Pre-judicial solution: Is there language in the PTA that explicitly refer to consultations and notification that aim at arriving at a mutually acceptable solution before or during a safeguard investigation?

(iv) Application of safeguard measures: Is the safeguard measure applied only to the extent necessary to prevent or remedy serious injury and to facilitate adjustment? Are remedies confined only to a halt in tariff reduction/ return to MFN level?

(v) Provisional measures: Does the agreement allow for provisional measures?

(vi) Duration: Does the agreement limit safeguard measures only to the transition period of the PTA?

(vii) Level of concession: When a country takes a safeguard action, under WTO rules it is required to maintain the same level of concession as before the action. But if it does not, then affected trade partners have the right to suspend an equivalent level of concessions. However, under WTO rules this retaliation is not allowed during the first three years that a safeguard measure is in effect which lessens its deterrent effect.

(viii) Regional body: Does a regional body exist which has authority to review safeguard determinations?

(ix) Dispute Settlement: Are there provisions for dispute settlement and is this different from the general dispute settlement system of the PTA?

(x) Exceptions: Does the PTA take exceptions to certain provisions in the WTO Agreement on Safeguards?

(xi) Special safeguards: Are there products or sectors which are given additional safeguard protection from import surges or price declines?

The results of the mapping are shown in Table 6.

(c) Characterizing safeguards measures in PTAs

Figure 4 below shows how the PTAs are grouped together using the first-level template. Only five PTAs (Australia-Singapore, Canada-Israel, European Communities, MERCOSUR and New-Zealand-Singapore) have ruled out the use of safeguard measures against a partner's trade. In the case of MERCOSUR, Annex IV of the Treaty of Asuncion only allowed the application of safeguard clauses to imports of products benefiting from the trade liberalization programme established under the Treaty up to 31 December 1994. A very large number of the PTAs (44) surveyed have specific provisions on safeguards and allow such actions. Finally, only two (CEMAC and GCC) have no specific safeguards provisions.

A number of the specific safeguard provisions seem to tighten the discipline on their use. Thirteen PTAs (slightly less than a third of those with specific provisions) allow safeguard measures to be imposed only during the transition period, when intra-PTA tariffs are being lowered. For the most part, the safeguard action allowed is a suspension of the process of tariff reduction or, at worst, an increase of the preferential rate to the MFN level. Sixteen of the PTAs limit the duration of the safeguard measure to between one to three years, which is shorter than the prescribed limit of four years under the Safeguards Agreement. When a country imposes a safeguard measure, it is required to maintain an equivalent level of concession. If no mutually acceptable solution is reached between the parties, immediate retaliation is allowed in 15 of the PTAs. This is a stronger provision (and for that reason is a stronger deterrent) than that contained in the Safeguards Agreement, where retaliation is not allowed during the first three years of the safeguard action.

Similar to what we saw with the anti-dumping provisions, the EC-centred PTAs have a number of common characteristics. There is a joint body that is established to oversee the whole PTA. When (or even before) a safeguard investigation is initiated, the joint body is informed and attempts are made by the partners to arrive at a mutually agreed solution. If no mutually acceptable solution is found, the action (investigation or final determination) proceeds. Provisional safeguard measures can be taken if delay will lead to material injury.

But other provisions in the PTAs suggest a lowered threshold with respect to sensitive sectors. Fourteen PTAs (a third of those with specific provisions) have special safeguard measures that typically allow a PTA partner to impose additional

duties on sensitive imports once these cross either a volume or price threshold. The sensitive sectors are usually agriculture and textiles and apparel.

Thirteen PTAs make reference to the WTO's Agreement of Safeguards. For the most part, they merely state that the PTA members retain their rights under the multilateral agreement. But seven of the PTAs (US-Singapore, US-CAFTA & Dominican Republic, NAFTA, EC-Chile, Canada-Chile, Australia-US, Australia-Thailand) have exceptions to that Agreement. These exceptions, in some cases, allow but in other cases mandate a PTA member to exclude goods of PTA partners from safeguard actions, unless the imports account for a substantial share of total imports and they contribute importantly to the serious injury, or threat thereof.

The exclusion of PTA partners from a safeguard action became a question in the *Argentina- Footwear* dispute case. Argentina had included MERCOSUR imports in the analysis of factors contributing to injury to its domestic industry and of a causal link between increased imports and the alleged threat of serious injury. But it also wanted to exclude MERCOSUR countries from the application of the safeguard measure. The WTO panel that looked at the dispute ruled that there was a parallelism between the scope of a safeguard investigation and the scope of the application of safeguard measures. Argentina's investigation, which evaluated imports from all sources, should lead to the imposition of safeguard measures on imports from all sources. Thus, the panel ruled, Argentina could not exclude imports from
MERCOSUR members from the safeguard measures. When this case was appealed, the Appellate Body concurred with the panel's decision on the principle of parallelism. But the Appellate Body also stated that in agreeing with the panel, it was not ruling on the principle of whether a member of a customs union can exclude other members of that customs union from the application of a safeguard measure. Given these decisions, it is not clear whether the exception clauses in PTAs are safe from a challenge in the WTO dispute settlement system.

d. Technical Barriers to Trade

The template used for the comparative analysis of TBT provisions in regional agreements is structured after the WTO TBT Agreement. The advantage of this approach is that it facilitates comparison between provisions in RTAs and those in the WTO Agreement. Therefore, it helps in examining of the extent to which the removal of technical barriers within regional preferential areas has progressed beyond the WTO rules in terms of the specific language of the agreement.

The template is divided into five sections (see Table 1) containing the following elements:

Section I reports whether there are references to the WTO TBT Agreement. One may assume that the intention of the specific TBT-related provisions in an RTA is to loosen or tighten the multilateral rules that otherwise would apply. Therefore, gaining an understanding of the parties' intended relationship between the WTO and the RTA rules is a priority. The information I collected concerns the following questions:

- Are the definitions of standards and technical regulations in the RTAs the same as those of the WTO? For the purpose of the WTO TBT Agreement, technical regulations are mandatory documents, while standards are voluntary documents that may be based on consensus or not. Some RTAs, however, may refer to the ISO/IEC Guide 2 definition. According to this definition, standards may be mandatory or not, and are based on international consensus.

- Is there a general reference to the rights and obligations of the WTO TBT Agreement?

- Does the reference to TBT Agreement include specific provisions of the agreement, such as transparency rules or a dispute settlement mechanism for the resolutions of disputes?

Section II describes what is the type of approach –equivalence/mutual recognition or harmonization -to remove TBT that has been adopted or is being encouraged in RTAs. An essential issue in this regard is whether the commitment to recognize as equivalent, negotiate mutual recognition agreement or harmonize standards, technical regulations or conformity assessment procedures of RTA-member countries is "hard" or "soft". This is very difficult to assess on the basis of the legal text of the agreement. However, legal practice suggests some elements may play an important role in determining whether a law is hard or soft. These refer in general to the specification of a timeline within which a certain commitment needs to be implemented, a description of the target of the commitment (e.g., what is the standard to which countries commit to harmonize), and an explanation of how a certain commitment will be implemented. To this end, we have adopted the following approaches for equivalence/mutual recognition and harmonization, respectively:

a. In the case of a commitment to (mutually) recognise as equivalent the standard, technical regulation or conformity assessment of a regional partner, the template contains information on the following key issues:

i. whether the importing country needs to provide reasons for not accepting a standard as equivalent. For example, the Australia-US FTA states that "where a Party does not accept a technical regulation of the other Party as equivalent to its own, it shall, at the request of the other Party, explain its reasons. The Parties will, if they so agree, give further consideration to whether a Party should accept a particular regulation as equivalent to its own and consider establishing an ad hoc working group". This is clearly a much stronger commitment to recognize each other's standard than in the TBT agreement Article 2.7, that states that countries" shall give positive consideration to accepting as equivalent" technical regulations of another country "provided that they are satisfied that these regulations adequately fulfil the objectives of their own regulation.

ii. whether mutual recognition is in force. In this case we include information beyond the mere text of the agreement on preferential trade.

iii. whether countries commit to negotiate mutual recognition within a certain time;

iv. Do RTA member countries participate in international accreditation agencies?

b. In the case of harmonization, the template includes information about whether:

a) the agreement defines the standard to which parties shall harmonize;

b) the agreement promotes the use of regional standards – for example, many agreements between the EU and developing countries encourage developing countries to use EU standards;

c) the agreement promotes the use of international standards. We consider that the policy adopted is harmonization also in all those cases in which the language of the agreement state that parties should "bridge the gap", "reduce divergence" or "make compatible" their standards, technical regulations or conformity assessment procedures.

Section III of the template focuses on transparency requirements. These include provisions related to notification requirements as well as provisions establishing whether the regional agreement requires enquiry points for this purpose or establishes regional consultations for the dissemination of information. With regard to notification requirements, since we structure the template on TBT rules taking the WTO rules and practices as benchmarks, the template will not only indicate whether the regional rules on TBTs include notification requirements, but it will also focus in particular on whether regional rules specify the time period allowed for notification and whether this period is longer than 60 days. In fact, WTO rules require notification before the adoption of a new technical regulation if an international standard does not exist or the content of the proposed regulation is not in accordance ("substantially the same" in the SPS agreement) with the international standard and if the technical regulation may have a significant effect on their trade. In particular, Members must publish and *notify* to

WTO Secretariat *at an early stage* (when amendments can still be introduced) and *discuss* with other Members their comments upon request whenever a technical regulation is proposed. In addition, all technical regulations which have been adopted should be *promptly published* or made available. A reasonable time interval between the publication of technical regulations and their entry into force should be allowed. The WTO agreements do not set a specific time period. However, the TBT Committee "has recommended that the normal time-limit for presentation of comments on notified technical regulations and conformity assessment procedures should be 60 days. Moreover, it was recommended that any Member able to provide a time limit beyond 60 days, such as 90 days, was encouraged to do so".[36] In 2005, Members allowed an average of 60.5 days for comments (see WTO Secretariat document G/TBT/18).

WTO rules also require that countries set up enquiry points to facilitate the flow of information among Members. Relying on the WTO rules as a benchmark, the template on regional rules on TBTs contains information on whether the regional agreements include provisions for the dissemination of information. This may consist of requirements for setting up contact points but also simply regional arrangements for exchanging information.

Section IV concerns the institutional and administrative structure set up by the RTA to deal with TBTs. In order to establish the degree of liberalization of technical barriers to trade, one would need to know to what extent legal provisions on TBT matters in the RTAs coincide with actual practice. There may be a considerable difference between the language of the agreement and the extent to which commitments are implemented; hence similar provisions in two different RTAs may correspond to extremely different practices. In general, the gap between the law and the practice is likely to depend on the institutional setting and administrative procedures. Acknowledging the importance of these factors, the template includes information about whether RTAs establish regional committees or bodies or regional consultations for the administration of the agreement. In addition, the template includes information about how TBT-related disputes are solved within RTAs. Five elements are contained in the template: a) is there a dispute settlement body? b) Do RTAs foresee consultations among conflicting parties to solve disputes; c) is there a mechanism to issue recommendations; d) are recommendations mandatory decisions? And, finally, e) is the recourse to dispute settlement in the context of TBT-related matters denied?

Section V of the Template contains information on those provisions that envisage a form of common policy making in the field of standards beyond trade-related objectives. In addition, it covers provisions related to metrology and contains information on specific commitments for technical assistance. Technical assistance may cover assistance for the preparation of technical regulations and the establishment of the relevant bodies or institutions. Technical assistance also covers the areas of processing technologies, search of expertise, training and equipment, including adequate laboratory capabilities for testing and certification

[36] "Decisions and Recommendations adopted by the Committee since 1 January 1995", Note by the Secretariat, 23 May 2002, G/TBT/1/Rev.8, page 17.

to allow assisted countries to adjust to achieve the appropriate level standard required in their exporting countries.

7. Modeling TBT and Trade Remedies in Regional Trade Agreements

The idea of this thesis was born while my staying at WTO. While there I collaborated to a broader research-project on rules in preferential trade agreements, including competition rules as well as services trade liberalization regulations. In order to allow an overall assessment of integration reached within a certain RTA, the set of RTAs surveyed is common across all these studies.

The benchmarking created to study RTAs compared to multilateral rules (that is WTO's rules) has been developed during my permanence at WTO in collaboration with Robert Teh and Roberta Piermartini both officers at World Trade Organization. As shown in the following chapter there a two different benchmarking exercises (templates). One was created to overview the impact of TBT disciplines in RTAs over the architecture and the intra-regional trade flow over a set of 53 RTAs. The other is a survey of the disciplines in anti-dumping measures, subsidies and countervailing duties and safeguards.

The two different templates have been used separately to develop two different topics within the mentioned research-projects. They delivered two different papers deemed to be included as two separate chapters in a volume gathering all the research's outcomes. I collaborated with Roberta Piermartini in drafting a paper[37] studying the TBT's side of the story and one other with Robert Teh analysing the trade remedies-related issues[38].

The template used in this thesis is a development of the mapping exercises developed for the papers. The original contribution is gathering the information regarding TBT with those regarding Trade Remedies and Competition. Still some differences arise both in the mapping modalities and in the modelling approach. Both **Piermartini and Budetta (2007),** and **Teh and M. Budetta (2007)** and myself develop a Probit model to determine what are the factors that affect the probability that the RTAs includes provisions regarding TBT, Trade Remedies and Trade Remedies and TBT respectively.

Nonetheless Probit model is not the only possible approach to study the impact of TBT in RTA. Next three sections will be dedicated to the analysis of: a. gravity equations including TBT; b. Probit model determining the probability of the inclusion in RTAs of TBT provisions and; c. of trade remedies provisions.

a. Gravity models and TBT liberalization.

The way of modeling the gravity models to assess the impact of TBT liberalization on trade is not univocal. In reviewing some literature, at least three different approaches emerge:

Number-of-shared standards.
A study by **Moenius (1999)** is probably one of the first direct attempts to assess the trade impact of TBT using a gravity model based on bilateral trade volumes. His analysis specifies the gravity relationship as a panel and assesses the effects of

[37]Piermartini, R. and M. Budetta (2007). "Mapping of regional rules on technical barriers to trade," chapter prepared for the IADB-WTO project on mapping regionalism
[38] Teh, R. and M. Budetta (2007). "Trade remedy provisions in regional trade agreements," chapter prepared for the IADB-WTO project on mapping regionalism.

standards (voluntary norms) on trade volumes. Moenius's panel covers 471 industries in 12 western European countries from 1980 to 1995. The panel takes in account global inflation and growth, which are contained in the fixed effects.
First he esteems the effect of shared standards (SST) on trade volumes. The equation in logs is:

$$ln(Vijkt) = a + \beta ln(SSTijkt) + Fijt + \varepsilon ijkt \quad (1)$$

where *V* is the bilateral dollar trade flow of trade between country *i* and j, *t* is the time-period, *k* is a four-digit SITC industry, *SSTijkt* is the number of shared standards in the year *t*, industry *k* between countries *i* and *j*, *Fijt* represents the country-pair-year fixed effect that absorbs all factors affecting trade on a bilateral basis per year that are not industry-specific, such as the GNP and distance, *εijkt* is an error term.

Since the omitted industry-specific relative price effects could bias the estimates of *β*, the country-pair-year fixed effects are replaced by country-pair-year-aggregate industry fixed effects. In this specification, every two-digit SITC industry has a separate fixed effect for each year and country-pair. An endogeneity bias may result from the fact that large industries simply have large numbers of standards. Industry-year dummy variables control for size of industries and therefore eliminate that potential source of bias. So the second specification becomes:

$$ln(Vijkt) = a + \beta ln(SSTijkt) + Dkt + Fij(2k)t + \varepsilon ijkt \quad (2)$$

Dkt is an industry-year fixed effect, and *Fij(2k)t* is the fixed effect per country-pair-year and two-digit industry, where the latter is represented by *(2k)*.
Next, Moenius offers another specification to examine the relationship between shared standards, country specific standards of exporters and importers and the volume of imports. This is similar to (1) and can be written as:

$$ln(IMijkt) = a + \beta 1 ln(SSTijkt) + \beta\ 2ln(CSTEjkt) + \beta 3ln(CSTIikt) + Fijt + \varepsilon ijkt \quad (3)$$

IMijkt are the imports from country *j* to country *i* in industry *k* at time *t*. *CSTE* is the country-specific stock of standards in the exporting country, and *CSTI* is the country-specific stock of standards in the importing country, again counted per industry and year. All influences on imports that vary across country-pairs and years but not across industries are compounded in the fixed effects *Fijt*. These are, as before, GDPs of the exporting and importing country, distance, and other factors that can promote or reduce imports.
Since the same concerns about bias are present in (3) then the fourth specification is analogous to (2):

$$ln(IMijkt) = a + \beta 1 ln(SSTijkt) + \beta 2ln(CSTEjkt) + \beta 3ln(CSTIikt) + Dkt + Fij(2k)t + \varepsilon ijkt \quad (4)$$

again, *Dkt* is an industry-year fixed effect, and *Fij(2k)t* is the fixed effect per country-pair-year and two-digit industry, where the latter is represented by *(2k)*.
Accordingly to Moenius the main effort involved gathering data on standards and forming a concordance with the industries trade flow. The data set is based on the

German Deutsches Institut für Normung (DIN) together with the French Association Française de Normalisation (AFNOR) and the British Standards Institution (BSI).
The empirical results partly reject the common literature finding. First, the competitive advantage theory correctly predicts a positive coefficient on the number of country-specific standards of exporters. Its second prediction is that the coefficient on the country-specific standards of importers should be negative. The econometric results indicate that this is only true for non-manufacturing industries, though, accordingly to the author; one would expect that the competitive advantage theory would be most relevant for manufacturing industries. In manufacturing, however, the analyses find a positive coefficient on the country-specific standards of importers.

Secondly, the loss of variety approach seems to have some explanatory power for specific non-manufacturing industries. Recall though that it also predicts that country-specific standards of both importers and exporters are trade-promoting, which is not the case in the industries where esteem finds negative coefficients on shared standards.

In conclusion, the evidence suggests that trade barriers induced by dissimilar standards are prevalent in non-manufacturing industries, but in manufacturing, country-specific standards tend to promote international trade. This evidence is consistent with the following theoretical framework. If we consider the existence of transaction costs based on incomplete information, then the absence of standards imposes high information costs on trading partners, while standards lower information costs, even if they are specific to one country. If the costs of adapting products to foreign markets are small relative to information costs, a positive effect of local standards of importers results. Under the assumption that transaction costs are greater in industries that are more technologically sophisticated, country-specific standards seem to be more important for manufacturing industries.

Cost-based approach.
A paper by **Mantovani and Vancauteren (2003)**, focus on two different issues. First of all, they investigate the relationship between innovation, the harmonization of regulations and export performance. The analysis presents evidence by pooling data of 21 European countries, for the period 1995-1998, employing different specification of the gravity equation. They pool the cross-section data over time because the extra time-series observations result in more accurate estimates compared to the use of cross-section data to estimate gravity models. Moreover, in accordance with the empirical literature on innovation the authors also capture systematic deviations of trade patterns by controlling for domestic and international spillovers. Next, due to the nature of data (harmonization of EU environmental regulations), they check out the differences between EU membership and 6 CEEC applicant countries (Czech Republic, Hungary, Poland, Slovenia, Slovakia and Romania).

Secondly, the focus is moved on the existence of differences or similarities in the technology intensity between countries by focusing on the relationship between R&D subsidies and the level of R&D expenditure by industry (firm). In order to

analyze whether this relationship varies from country to country authors employ aggregate level time series observations in panel form for two different samples consisting of 6 EU and 6 CEEC countries for the period of 1991-2000 and control for individual country-specific effect.
The gravity model considered here takes the following form:

$$lnXij,t = ai + \beta 1,t\ ln\ Yi + \beta 2,t\ ln\ Yj + \beta 3,t\ lnDij + \beta 4,t\ lnADAPTi + \beta 5,t\ lnR\&Di + \beta 6,t\ ln(wR\&Dj) + \delta k,tDUMij + \varepsilon ij,t \quad (5)$$

where *Xij* are exports from country *i* to country *j* at time *t*; *Yi* and *Yj* are the total production from country *i* and *j*; *DUMij* are a set of *n* dummy variables (separate dummy variables are included to reflect the effects of adjacency between *i* and *j*, the case when *i* and *j* share the same language, (interacting) dummies for the exporting CEEC and EU countries and time dummies); *Dij* is the distance between the trading centers of the two countries; *ADAPTi* is the total cost of compliance with the EU environmental standards; *R&Di* is the R&D intensity of country *i*, and is given by the amount of R&D expenditure per unit of output produced; *w*R&*Dj* denotes the R&D intensity of country *j*, weighted by a coefficient *w*, which is measured by country *j*'s share in country *i*'s aggregate imports;
ADAPTi represents an additional trade cost arising when exporting countries comply with the harmonization process of EU environmental standards (through mandated directives). In the view of author, it is reasonable to assume that the compliance process in the area of environmental protection will have a significant impact of the overall trade performance of EU countries.

Supported by the empirical results, it emerges that, being an EU member appears to allow countries to significantly overcome the compliance cost that is generated by the harmonization of environmental standards. But, substantial problems remain within the EU in completing the environmental *acquis communautaire* since the results suggest that the negative impact of the compliance cost on EU trade is significant.

Another important issue concerns with the impact of *acquis communautaire* on the R&D sector of new Members. The empirical evidence suggest that increasing the stringency of environmental regulations can stimulate incentive for firms to develop new and less costly ways of reducing pollution. This study found a negative relationship between R&D spillovers and the compliance cost supporting this hypothesis; however, an increasing concern is the economic inequity between the CEEC and current EU countries stemming from the capacity of complying with environmental regulations.

Qualitative approach
A paper by **Vancauteren Weiserbs (2003)** examines how the harmonization of technical regulations across EU countries have affected the pattern of bilateral trade flows of individual EU countries taking into account the downward impact of national border on trade flows (home bias).
The estimating equation, modeled such as the one estimated in **Nitsch (2000)**, is the following:

$mij,t=a+\ \beta1\ yi,t+\ \beta2\ yi,t+\ \beta3\ (yi,c\ -\ \ i,90)\ yi+\ \ \beta4dij+\ \ \beta5remij,t+\ +\ \beta6rulcij,t\ +\ \beta7HOMEi,t+\ \ \gamma nDUMij\ +\ \varepsilon ij,t$ (6)

where *i* and *j* refer to the importing and exporting country respectively, *t* denotes time, and the variables (expressed in logs) are defined as:

mij is the value of imports by country *i* from country *j*;

yi is the level of income (GDP) in country *i*;

yj is the level of income (GDP) in country *j*;

dij is the distance between the trading centers of the two countries.

DUMij is a set of n dummy variables. Separate dummy variables are included to reflect the effects of adjacency between *i* and *j*, the case when *i* and *j* share the same language;

HOME reflects home bias in the level of internal trade (j = i)

remi is defined by:

$$remi = log\left(\frac{D_{ij}/Y_j}{\sum_{k\neq j} D_{ik}/Y_k}\right)$$

where *D* is the average distance between country *i* and all trading partners other than *j*.

rulcij is defined as the ratio of unit labor costs of the importing divided by a weighted average of unit labor costs for all exporting countries taken in account.

Finally, $(y_{i,c} - \bar{y}_{i,90})\ yi$ gives an empirical validation of an hypothesis of non-linearity of the income-elasticity, where the per capita income of country *i* is represented by y_i and $y_{i,90}$ is an average GDPC of all importing countries in the year 1990.

This equation is esteemed for each approach: new approach; old approach; mutual recognition; any combination of the new approach, mutual recognition principle and the old approach; technical and non-technical barriers to trade.

The trade data set comes from the 8-digit level of the European Combined Nomenclature trade classification, and it comprises bilateral trade flows during 1990 and 1998 between each of the following EU countries: Denmark, France, Germany, Greece, Italy, Ireland, the Netherlands, Portugal, Spain, United Kingdom, Finland, Sweden, Austria and with Belgium and Luxembourg treated as one. The analysis utilizes information on the incidence of technical barriers by sector and the particular approach adopted by the EU to their removal, accordingly to the NACE classification which covers around 100 manufacturing industries. So trade in each sector is aggregated into our five groups:

- new approach sectors,
- old approach sectors,
- mutual recognition sectors,
- sectors where a multiple combination of approaches is identified
- sectors where differences in national technical regulations do not constrain
- trade flows, according to the classification in CEC (1996).

Next, the technical regulations data set is created using the Commission's review on the Single Market CEC (1998), providing information at the 3-digit level of

NACE classification. The study classifies sectors accordingly the way in which technical barriers are overcome:

- using mutual recognition (MR)
- using either the old approach (OA) or the new approach (NA) since the mutual recognition is insufficient or unsuitable.
- using a combination of the previous approaches.

Two difficulties arise:
1. aggregation in characterizing the regulations across countries and sector. It is solved considering EU regulations uniformly spread across the EU. This, in turn, allows us to make a comparable EU analysis.
2. assessment of the effectiveness of the different measures undertaken. Accordingly to the CEC (1998) study these are assessed on a five-point scale:

- no solution has been adopted
- measures are proposed and implemented but not effective or with operating problems,
- measures are adopted and functioning well, but with implementation or transitional problems still to overcome
- measures are implemented, but some barriers remain
- measures are successful and all significant barriers are removed.

A first general conclusion is that data suggests that there are clearly still some obstacles with the application of the harmonization of TBT's that prevent full benefit of the Single Market.
To apply the gravity model to the different approach to TBT's liberalization, authors create 6 different variables:

- TBT: represents an aggregate of sectors subject to NA, OA, Mutual Recognition Principle (MRP) and a small number of sectors where multiple harmonization approaches work together.
- NTB: sectors in which, technical regulations do not cause barriers to trade
- NA: sectors where TBT are removed by setting essential requirements and by leaving freedom to the producers on how satisfy these requirements
- MRP: sectors where products are new and specialized (i.e. above all for equipment goods and consumer durables)
- OA: sectors where TBT are removed with a single detailed standard agreed unanimously for a single or a group of products.
- OTBT: multiple approaches apply

According to the analysis, there is a substantial home bias for sectors where differences in technical regulations are not thought to be important. On the opposite, where technical barriers to trade are supposed to be present it seems that mutual recognition sectors exhibit the smallest home bias; nevertheless sectors where there are regulatory barriers still reflect a large home bias.
In conclusion, based upon the analysis on the evolution of home bias in the EU, authors find no evidence that the Single Market has increased the intensity of intra-EU trade relative to domestic trade for products where differences in technical regulations are important.

b. Results in modeling Technical Barriers to Trade in RTAs

The results showed in the section above show that gravity model may be a powerful instrument to assess the impact of TBT liberalization within a RTA. Further it can be helpful in selecting those industries where TBT liberalization is most likely to deliver trade-enhancing effects. Still the proposed analyses are based on a set of countries and not of RTAs. They do not offer any insight about the inclusion of TBT provision in RTAs structure. They rather focus on the next steps. That is the impact of existing TBT provision on trade. TBT existence is a *de facto* scenario. But what are the motivations leading to discipline of TBT? To study this issue I found Probit model may be an easier way to deal with. Indeed, both **Piermartini and Budetta (2007)** and myself approached the issues through a Probit equation. The former to asses TBT, the latter to asses trade remedies.

As to **Piermartini and Budetta (2007)**, economic theory suggests that the method and the extent to which TBTs are removed within an RTA are likely to depend on the level of development of countries in the agreement (**Baldwin, 2000**)[39]. When liberalisation of technical barriers to trade takes the form of mutual recognition of testing rules and product standards, one country must have a certain degree of trust in another country's ability to perform tests and adequately safeguard health and safety. This is more likely to occur in regional agreements among developed countries than in regional agreements between developed and developing countries. Similarly, as far as harmonization of standards and technical regulations is concerned, although a certain degree of coordination of standards is desirable, there are natural limits to the extent of international harmonization due to countries' different levels of development, technological advancement, endowments and preferences. Therefore, harmonization is more easily and efficiently achieved among similar countries, rather than at the multilateral level.

In particular, they focus on four classes of provisions that encourage: a) harmonization of technical regulations, b) mutual recognition of product standards, c) transparency and d) establishment of a dispute settlement body for the solution of controversies related to standard-related matters. For each of these four classes of provisions, they estimate a Probit model to determine what are the factors that affect the probability that the agreement includes such provisions. In particular, they test four hypotheses:

1. Whether the likelihood of the inclusion of the provision depends on the level of development of country members to the RTA;
2. Whether the likelihood of a certain provision is determined by the extent of prior integration among the partner countries;
3. Whether the inclusion of a provision is determined by the characteristics of the family of RTAs to which partner countries belong; and

[39] Baldwin (2000) points out at a problem of emergence in a two-tier world associated with harmonization and mutual recognition when liberalization takes place through regional agreements.

4. If the characteristics of the provisions are affected by the existence of overlapping RTAs.

The variables we used as explanatory variables to test each of these hypotheses are the following:

1. Variables measuring the level of development and similarity
GDPpcAV is the average per capita GDP
GDPpcGAP is the difference between the highest and the lowest per capita GDP among the countries in the RTA
GDPpcSimil is the ratio between *GDPpcGAP* and *GDPpcAV*
GDPpcCV is the coefficient of variation of GDP per capita in the region.
d_similar is a dummy variable that takes the value 1 if RTAs are among developed countries (North-North RTAs) or among developing countries (South-South RTAs) and 0 if RTAs are between developed and developing countries (North-South). Hong Kong and Singapore are considered to be developed.
d_northnorth, *d_southsouth*, *d_northsouth* are three dummies that denote whether the RTA is North-North (between developed countries), South-South (between developing countries), or North-South (between developed and developing countries).

2. Variables measuring the level of integration
sharerta is the average share of intra-regional trade during the 5-year period preceding implementation
sharerta04 is the share of intraregional trade in 2004
cet is a dummy variable used to indicate the presence of a common external tariff
integpol is a dummy variable used to indicate a common political system
integmon is a dummy variable used to indicate monetary union
integfac is a dummy variable used to indicate freedom of movement in capital, labour
integ is a dummy variable that takes on a value of 1 if *integpol* = 1 or *integmon* = 1 or *integfac* = 1
intrarta04 is the value of intraregional trade in 2004 ($ 000)
intrarta is the average value of intra-RTA trade during the 5-year period preceding implementation
geo is a dummy variable that takes the value 1 if countries belong to the same geographical area. The variable distinguishes four geographical areas: South-Central and North America; Europe- Mediterranean Sea-Africa; Middle East-Central Asia; South Asia-Oceania.

3. Family characteristics
d_EU, *d_US*, *d_EFTA*, and *d_Mexico* are four dummy variables that denote whether the RTA belongs to the EU, US, EFTA, or Mexico family of RTAs, respectively.

4. Overlapping RTAs
rtaoverlap is the count of the total number of RTAs that parties to a regional agreement have signed with third countries.
d_rtaoverlap is a dummy that denotes whether any party to a RTA is also party to other RTAs.

The results of the analysis carried out using a probit model are reported in Tables 1 through 4. For each dependent variable, only estimations where explanatory variables are significant have been reported. When, for a certain hypothesis, all variables were insignificant one of them (randomly chosen), was reported. The tables report the results for each of the four hypotheses tested introducing one explanatory variable at time, as listed in Columns 1 through 4. Column 5 reports the results when all variables are considered simultaneously.

The results show that the likelihood that provisions encouraging harmonization in technical regulations are introduced in a regional agreement is higher the more similar member countries are in terms of the level of development, the deeper their degree of integration as measured by the share of trade within the region, and if RTAs belong to the family of RTAs to which the EU is a partner. On the contrary, partnerships including the US and partnerships among countries that have entered into multiple regional agreements are less likely to include provisions for the harmonization of technical regulations. The results are not surprising if we note that a major difference between the EU and US standardization system is that the EU has a European Standard setting body whose standards are presumed to be in line with EU regulations, while the US does not have a single standard-setting body. As we noticed in the section above, there is a tendency for agreements into which the EU has entered to include provisions for the harmonization of standards to the EU. The estimations do not appear to detect a lower propensity of countries belonging to multiple RTAs to introduce provisions of harmonization in their regional agreements. However, when regressions are run on the requirement to harmonize to regional standards the participation to multiple RTA presents a negative and significant coefficient. This is also quite an intuitive result as it would be hard to ensure compatibility across different agreements.

Chart 4: The likelihood of provisions encouraging the harmonization of technical regulation

	(1)	(2.a)	(2.b)	(2.c)	(3)	(4)	(5)
GDPpcSimil	0.25*						0.10
Sharerta		2.39**					4.16*
Sharerta04			2.27***				
Geo				0.89***			0.53
d_EC					0.58*		0.46
d_US					-1.01**		-1.17***
d_EFTA					drops out		drops out
d_mexico					0.38		0.76
rtaoverlap						-0.05	-0.06

Note: *,**,*** significant at 15,10,5 percent significance level, respectively

Turning to the results for mutual recognition of conformity assessment, Table 2 shows that in this case the similarity of countries in terms of their levels of development is very important. In particular, provisions of mutual recognition are more likely to be introduced in agreements among developed countries. In

contrast, there does not appear to be strong evidence that the level of integration of countries or the participation in multiple RTAs has a significant effect on the likelihood of provisions encouraging mutual recognition of conformity assessment. This is not surprising since, unlike harmonization provisions, mutual recognition agreements are clearly compatible across different trade agreements. The results also clearly show that mutual recognition of conformity assessment characterise the agreements signed by the US.

Chart 5: The likelihood of provisions encouraging mutual recognition of conformity assessment

	(1.a)	(1.b)	(1.c)	(2)	(3)	(4)	(5)
d_similar	0.66***						1.85***
d_northnorth		1.48***					
d_northsouth			-0.66***				
Cet				0.86			
d_EC					0.46		1.68***
d_US					0.91**		2.23***
d_EFTA					-0.44		0.44
d_mexico					0.20		0.58
rtaoverlap						-0.05	-0.07

Note: *,**,*** significant at 15,10,5 percent significance level, respectively

The results of our estimations for transparency provisions are reported in Table 3. A first result is that the relationship between the level of development of partner countries and the likelihood of including transparency provisions does not appear significant. The most important factor in determining the probability of including transparency provision is the extent of integration, but there also appears to be some evidence that the greater the number of RTAs that countries sign, the more likely is the inclusion of transparency provisions in these agreements. Partnership with EFTA and Mexico appears to increase the likelihood of transparency provisions too.

Chart 6: The likelihood of provisions encouraging notification of standards and procedures

	(1)	(2.a)	(2.b)	(2.c)	(2.d)	(3)	(4)	(5)
d_similar	0.28							
Sharerta		5.57***						5.22**
sharerta04			3.21**					
Geo				0.93***				
Cet					1.21**			1.25**
d_EC						0.41		0.55
d_US						-0.31		-0.10
d_EFTA						0.63		1.27***
d_mexico						0.88**		1.37**
Rtaoverlap							0.06§	-0.05

Note: *,**,*** significant at 15,10,5 percent significance level, respectively

Finally, the results of the probit estimations reported in Table 4 suggest that the likelihood of the establishment of a body to settle disputes increases if the regional agreement is between developed countries and the more regional partners are integrated. Regional agreements with one of the hub countries are also more likely to contain provisions to settle disputes.

Chart 7: The likelihood of provisions establishing a dispute settlement body

	(1.a)	(1.b)	(1.c)	(1.d)	(2.a)	(3)	(4)	(5)
GDPpcSimil	-0.58***							-0.57
d_similar		0.54***						4.79***
d_northnorth			1.32***					
d_northsouth				-0.54***				
Sharerta					4.5**			17.9*
d_EC						-0.08		1.46**
d_US						0.74*		6.20***
d_EFTA						1.59***		10.6***
d_mexico						0.86**		7.89***
Rtaoverlap							0.05	

Note: *,**,*** significant at 15,10,5 percent significance level, respectively

c. Using TBT data in modeling Trade Remedies in RTAs

When countries enter a PTA and agree to liberalize their trade with one another, they face a number of options with regards to trade remedies and technical barriers to trade. Presumably real integration would require removal of these measures or greater discipline on their use. Alternatively, if domestic industry is cautious or apprehensive about the PTA, governments might need to demonstrate that they still have available weapons to combat "unfair trade". In which case, no changes are made to the existing trade remedy provisions or additional protection is written into the agreement.

There is only a handful of PTAs that have decided to abolish trade remedies in one form or another. And only one PTA – the European Communities - has succeeded in abolishing all three trade remedies on members' trade. This is a first remarkable difference respect to TBT. As showed in the sections above almost a significant share of the RTAs taken into account in the survey include some form of discipline about TBT. The picture about trade remedies is radically different. Very few RTAs decided to renounce to this alternative protectionist measure.

In the case of TBT there is a set of stylized facts that seems to be correlated with TBT regulation. First of all, the level of integration suggests that the higher the integration, the more probable is to have a TBT chapter. Alike, the level of development of the members is more likely to predict the regulation of TBT. It is also possible to highlight a regional characterization affecting the discipline of TBT. That is the hub-and-spoke path within the set of RTAs. Accordingly, it seems that the propensity to regulate TBT varies if we take into account EU-centered RTAs or US-hub RTAs characterizing respectively high and low probability to include TBT provisions.

These results seem to confirm some intuitive thinking about RTAs. The more a RTA is integrated or the more its members are developed, the more it is likely to regulate TBT. Similarly, it is plausible that those RTAs having among its member EU are TBT-regulating. EU spent a lot of effort in liberalizing RTAs. The opposite would be for US-hub RTAs whereas US has no unique standardizing body. Further, those findings seems to be in line too with the literature predicting that trade-regulating practices such as TBT are most likely to be observed in those RTAs aiming for higher integration. As said in over-viewing measure to gap TBT, at least in principle TBT are designed to protect and to help overcoming some market failure. No wonder, then, if a more integrated regional market seeks for RTA discipline.

The clue is not so straightforward for trade remedies. They are trade-disruptive measures. They affect trade flows since their very essence is to be protectionist actions. RTAs which seek for the inclusion of trade remedies in their structures are essentially looking for an alternative resort to tariff-cutting. Unlike TBT, lobby pushing for trade remedies are representing inefficient industries that are afraid of tariff liberalization. Instead pro TBT-regulation lobby are generally representing industries that are interested in cost-cutting and markets' broadening. Nonetheless, some of the stylized facts we mentioned may be also helpful in explaining trade remedies abolishment.

Perhaps the depth of market integration envisioned in the RTA is most likely to explain the abolition of such measures. RTAs that aim at deeper integration, going beyond the elimination of border measures, and harmonizing or even in some cases adopting common internal regulations, are more likely to do away with trade remedy measures.

A first explanation is the creation of a common market. **De Araujo, et al. (2001)** argued that the implementation of common macro- and microeconomic policies in the EU reduced the social and political cost related to the removal of antidumping. They point in particular to the role that "structural funds" played in easing the need for antidumping as a trade adjustment measure. **Wooton, et al. (2002)** claimed that a PTA's objective of creating a single market is the critical element that triggers the phasing out of anti-dumping, pointing as examples to the experience of the European Communities and the European Economic Area. The elimination of antidumping can be interpreted as a necessary step to achieving a common market.

A second explanation that is sometimes also raised is the adoption of a common competition policy by members of the PTA. PTAs that adopt a common competition policy may find anti-dumping to be redundant. Of course, the two explanations are not mutually exclusive since a common competition policy may not make sense until a sufficiently high level of integration is achieved. However, **Hoekman (1998)** dismisses the notion of a link between the adoption of a common competition policy and the abolition of anti-dumping in a PTA. He argues that the adoption of a common competition policy in a PTA is often

motivated by the need to manage the result of "deeper" integration[40] Its purpose is not to provide a substitute policy instrument so that anti-dumping measures can be abolished (although of course this could be one of the consequences of having a common competition policy).

Another argument against this link is that there are important differences between competition policy and anti-dumping, e.g. competition policy is often concerned with consumer protection but anti-dumping is not, which may make one instrument rather than the other more likely to be hostage to protectionist interests. So to the extent for example that anti-dumping is being used as a shield against imports, the adoption of a common competition policy need not automatically lead to the abolition of anti-dumping.

Table 9 brings together background data that can help shed some light on these questions. The information includes intra-PTA imports, share of intra-PTA imports in total imports, whether the PTA is integrated, whether the RTA include a competition policies' chapter, whether the RTA has a common external tariff. A formal test of which possible variable may affect the abolishment of trade remedies is the equation (1). It takes into account the share of intra-RTA trade respect to trade with other countries and average volume, the presence of a common external tariff, the inclusion of a competition chapter, the level of integration, the development level of RTA members and the RTAs' year of implementation. Integration gathers a number of information that bridges from the presence of a common market to the existence of harmonization measures.

(1)

$$\Pr(y=1) = \Phi(\beta_0 + \beta_1 sharerta + \beta_2 cu + \beta_3 comp + \beta_4 \text{int}\, eg + \beta_5 dev + \beta_6 year)$$

Where:

y is a dummy variable that takes on a value of 1 whether the RTA has abolished Antidumping and/or Safeguards and/or Countervailing Duties and 0 otherwise;

Pr(*y*=1) is the probability that *y* takes on the value 1 that is the RTA abolished a particular trade remedy;

Φ () indicates the cumulative normal distribution function

share is the share of intra-RTA imports during the 5 years preceding the implementation of the RTA

cet is a dummy variable that means whether or not the RTA has a common external tariff

[40] 4 Hoekman (1998) defines deep integration as consisting of explicit actions by governments to reduce the market segmenting effect of differences in national regulatory policies that pertain to products, production processes, producers and natural persons. In practice this will require decisions:

(i) that a partner's policies are equivalent (mutual recognition); or
(ii) To adopt a common regulatory stance in specific areas (harmonization).

comp is a dummy variable that indicates the presence of a competition chapter in the RTA

integ is a dummy variable that takes value 1 if the members have established a monetary union or have a common market or have harmonized standards or technical regulation or conformity assessment procedures.

dev is an index elaborated after the World Bank indicators to indicate the development level of RTA members (1 for RTAs among members that are developing countries; 2 for those RTAs whose members are a mixture of developing and developed countries; 3 for those RTAs whose members are all developed countries)

year is the year of RTA's coming into force.

Results are shown in the table below separately for each trade remedy instruments.

Chart 8

Explanatory variables	Anti-dumping	Countervailing	Safeguards
cet			1,64**
integ	2,52*	2,25*	
constant	-1.68*	-1.99*	-1,49**
	Prob > χ^2=0.0003	Prob > χ^2=0.0015	Prob > χ^2=0.13
Number of observation = 53			
*/** indicate significance at 1% and 5% respectively			

For antidumping and countervailing duties the *integ* is the variable that best explains the abolishing path in RTAs. The level of integration matters in the decision of RTA's members to revoke the use of trade remedies. That is the presence of either a monetary union or common market or harmonization is likely to deliver the abolishment of countervailing duties and antidumping. Among the RTAs that abolished trade remedies, deeper integration characterizes CER, China-Hong Kong, the EC, and the EFTA and the EEA. The EC has a single market and monetary union. There is an *acquis communautaire* and a range of supranational institutions. CER has harmonized business regulations, including competition policy, standards, customs and quarantine. Hong Kong is still formally a separate country but it is ruled by a Chinese Governor within the political framework of "one country, two systems". The EEA has abolished restrictions on movement of goods, people, services and capital. It has adopted EU legislation around these four freedoms covering social policy, consumer and environmental protection. Also in **Piermartini and Budetta 2007** the level of integration is linked with the inclusion of two provision that are strictly related with antidumping and countervailing duties' abolishment. Those are the provisions related to transparency and the articles providing for the establishment of dispute settlement body. As we said, trade remedies are essentially protectionist measure whose "social function" is to ease the discontent of tariff reduction process. So, next step,

abolishment of trade remedies requires a further increase in institutional architecture of the RTAs. Most part of the RTAs ruling out trade remedies (e.g. EU, EEA, EFTA) are equipped with supranational court (e.g. European Court of Justice) who are in charge to settle dispute arising among members to the RTAs and, increasingly, among members and private subjects, such as firms and citizens. EU member's firms or citizens may stand in the Court of Justice if they believe some of the rights laid down in EU's treaties are not respected. Similarly transparency requirements usually enforced through the establishment of enquiry points are a way to deal with incompliance of members with TBT provision included in the treaty. A private, either citizen or firm, may check the status of implementation of RTAs provision regarding TBT and in case of non compliance may request Court's assistance.

Drawing such conclusion one would argue, that the inclusion of competition policy within RTA's structure may be an alternative way to appease the negative effects deriving from trade remedies abolishment. The Probit, on the contrary, seems to dismiss such hypothesis. Competition's dummy was not statistically significant in explaining the ruling out of trade remedies. This seems to confirm the hypothesis that competition policy is rather a way to deal with an increasing integration that an alternative to trade remedies in itself.

As to safeguards, the variable that best explains, albeit with a lower level of significance, the abolishment of safeguards measure is the existence of a common external tariff. It is not surprising. Safeguards can be levied in case of a sudden surge in the level of import determining serious injury in the importing countries. The existence of a common external tariff would imply that a high level of market liberalization within the RTA has been achieved and members do not expect unforeseen increase in the level of import. Such an effect is most like to happen soon after the liberalization of tariff as to internal trade. But the linkage between common external tariff and safeguards suggests some less intuitive consideration but it is not related to intra-trade. On the opposite it is linked to the possibility to levy safeguard toward imports coming form third-countries. As we have seen in the survey of the legal issues related to safeguards, according to the provision of GATT art. XIX, WTO Members that are also part to a preferential arrangement must exclude imports from the preferential area in calculating the injury for WTO safeguards if such imports are covered also by the regional liberalization equal to or higher the GATT level of concession. Accordingly it seems plausible to assume that the existence a common external tariff makes easier to enlarge the share of imports used to calculate the injury. The largest a common market having a common external tariff is the easiest is to prove an injury to the domestic market.

As to the level of development, it has been showed that it is a powerful explanatory variable for TBT disciplines. That is the higher the level of development is the most probable is to find discipline for harmonization and mutual recognition. It seems plausible, as we said TBT largely depends on the level of technological development within the RTA. Accordingly TBT discipline among developed countries is usually trade-enhancing since is a way to integrate the common market. The same it is not necessary true as far as a RTA between developed and developing countries is under consideration. In this case TBT-related provision may easily be an alternative protectionist barrier. That said one

would expect that the same would happen in trade remedies case. It is indeed not so. Trade remedies nature make it quite easy to levy duties even for developing or less developed countries.

According to WTO secretariat, those shown below are the AD initiations reported to WTO by exporting countries from January 1st 1995 to June 6th 2007.

Chart 9

No.	Country	No of AD initiations	No.	Country	No of AD initiations
1	**China, P.R.**	551	**8**	**Thailand**	121
2	**Korea, Rep. of**	235	**9**	**Russia**	102
3	**Chinese Taipei**	178	**10**	**Brazil**	93
4	**United States**	176	**11**	**Germany**	79
5	**Japan**	138	**12**	**Malaysia**	75
6	**Indonesia**	132	**13**	**EU**	65
7	**India**	129			

Those data suggest that within the first 13 countries heavy AD-users, developed, developing and less developed countries share the burden with an out-performing China scoring 551. Evidently, development level does not affect the decision by a country or a RTA to renounce to trade remedies. Almost all the countries in the table above are part to a RTA surveyed in this work, still just two of them, EU and China, decided to rule out trade remedies as to internal trade with third countries. Furthermore, if we look at EU, it abolished trade remedies within its common market but it did not as to those RTAs it signed with third countries regardless they are developed or developing.

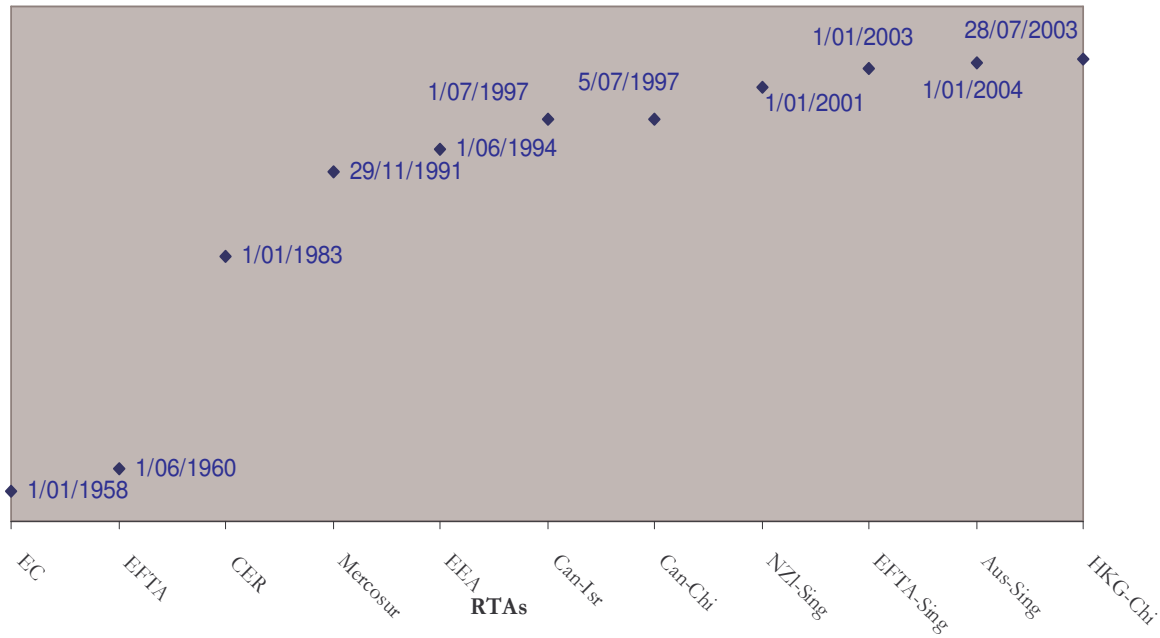
As to the share of intra-trade within the RTA, we have seen that as to TBT it matters at least as a proxy of higher integration. In this Probit model, share of intra-trade is a separate explanatory variable since, as we have seen, *integration* is elaborated taking into account others aspects. In fact for trade remedies it is not statistically significant. That is regardless the weight of the RTA in terms of trade as percentage of world trade, trade remedies abolition is not affected by this variable. It may seem quite curious but the decision to rule out trade remedies seems rather affected by political matters as we explained with regard to integration variable.

Finally, as far as the variable *year* is concerned, one would have been argued that it matters. As matter of fact it does not. From an historic perspective one would expect that the most recent the year of the implementation of the RTA is the most probable is to occur the ruling out of trade remedies. Looking at Charts 10 and 11 below it appears clear that 9 out of 11 RTAs that ruled out one or more trade remedies were implemented from 90s on. Furthermore, EC and EFTA despite their early implementation ruled out trade remedies just in the 90s. Still such en effect is not highlighted in the probit results regarding the whole set of RTAs since more than 40 RTAs out of 53 have been implemented in 90s.

Chart 10

Preferential Trade Agreement	Intra RTA Imports		Disallowed			Date of Entry into Force
	Intra-PTA Imports (US$ Billions)	Intra-PTA Share (%)	AD	CVD	Safeguard	
Australia-Singapore	5,0	2,4			1	28-Jul-03
Canada-Chile	1,0	0,2	1			05-Jul-97
Canada-Israel	1,0	0,2			1	01-Jul-97
CER	7,0	6,4	1			01-Jan-83
China-Hong Kong, China	137,0	23,3	1	1		01-Jan-04
European Community	1585,0	51,7	1	1	1	01-Jan-58
EEA	1389,0	1,1	1	1		01-May-94
EFTA	1,0	1,1	1	1		01-May-60
EFTA-Singapore	4,0	1,5	1			01-Jan-03
Mercosur	13,0	13,2			1	29-nov-91
New Zealand-Singapore	1,0	0,2			1	01-Jan-01

Chart 11



8. Conclusions

Trade remedies seem to be permanent features in international trade agreements. One plausible explanation for such a presence is that they provide governments entering into a trade agreement a useful policy tool to ease trade liberalization and the political pressure for protection that is created. They help the task to obtain political support for the agreement.

On the one hand the trade agreement, in turn, makes possible a more liberal trade regime although this will be at the cost of episodic recourse to protection during economic crisis. On the other hand, there is an added layer of complexity to the role of trade remedies introduced by preferential trade agreement, which by nature discriminates between members and non-members. Even without modifications to the rules governing trade remedies, their elastic and selective nature may increase the more discrimination against non-members through greater frequency of trade remedy actions against them. The adoption of RTA-specific trade remedy rules increases this risk of discrimination, with trade remedies against RTA members being abolished outright or being subjected to greater discipline. As in much of theory of customs unions, the welfare effects of this increased discrimination are unclear. Any increase in intra-regional trade brought about by greater discipline on trade remedy action against RTA members may simply be substituting for cheaper sources of imports from non-members. Based on the result of the mapping, about a sixth of the RTAs surveyed have abolished at least one type of trade remedy.

What these RTAs seem to share in common is a deeper level of integration as evidenced either by the adoption of common or harmonized behind-the-border policies, such as technical barriers to trade, and high shares of intra-regional trade. There appears to be a large number of RTAs that have adopted RTA-specific rules that have tightened discipline on the application of these remedies on RTA members. In the case of anti-dumping for example, it has been noted that some specific provisions tightened discipline by increasing *de minimis* volume and dumping margin requirements, and shortening the duration for applying anti-dumping duties relative to the WTO Anti-dumping Agreement. It has also been highlighted the possible contribution by regional bodies to reducing action against RTA members. In the EC-hub and EFTA-hub RTAs, members acting though a regional body notify and consult one another to arrive at a mutually acceptable outcome short of applying the measure. In the Andean Community, CACM, CARICOM, NAFTA and UEMOA, regional bodies have the authority to conduct their own investigations or to review conclusions reached by national bodies.

Similarly, most part of the provisions on bilateral safeguards leads to tightened discipline or reduce the incentives to take safeguard actions. Safeguard measures can be imposed only during the transition period, have shorter duration periods and require compensation if put in place. Further, retaliation is allowed if there is no agreement on compensation. A final concern is with the exclusion of RTA partners in safeguard actions triggered under GATT Article XIX and the Agreement on Safeguards, the so called "parallelism principle" ruled by WTO Appellate Body.

This puts RTA rules on safeguards in conflict with the non-discriminatory principle that underlies multilateral rules on safeguard action and squarely raises the problem of trade diversion. Although WTO panels have ruled against such exclusions so far, it is not clear that future panels will do so consistently given the particular ground of parallelism on which previous decisions have been made.

In the case of CVDs, we are unable to find major innovations in CVD rules and practice by past and present RTAs. It may be due to the absence of agreements in the RTA on meaningful or significant curbs on subsidies or state aid. We have emphasized the possible role of regional bodies in mitigating any abuse of countervailing duties. However, only four RTAs provide a role for regional institutions as investigating bodies or give it the power to review determinations of national authorities.

The results of the mappings suggest the need to be vigilant about increased discrimination arising from trade remedy rules in RTAs. Discrimination against non-RTA partners through more frequent trade remedy actions can arise from the elastic and selective nature of already existing rules on trade remedies. Designing specific trade remedy rules that apply only to RTA partners increases the likelihood of discrimination. This takes place when an RTA abolishes trade remedy actions against the trade of RTA members but not against non-members' trade. It can take place when RTA members adopt rules that strengthen disciplines on trade remedy actions against the trade of RTA members but not against the trade of non-members.

As far as the technical barriers to trade are concerned, the data reported in the template primarily rely on the legal texts of the agreements. A first point should be highlighted that is in general it is difficult to evaluate the extent to which these rules are implemented. Additional information has been collected only to single out the agreements that have also concluded MRAs and RTAs among countries that are all members of international accreditation bodies (IAF and ILAC).

Despite these limitations, the mapping of regional rules on technical barriers to trade allows to gain some insight into the range of policy options to remove technical barriers to trade that have been adopted within regional trade agreements. It also allows examining the extent of liberalization that countries have achieved on TBT matters through regional integration. In addition, it is possible to identify some of the major factors that affect the probability of choosing one approach relative to another one.

Overall, there appears to be a tendency for regional agreements to favour harmonization of standards and technical regulations over mutual recognition of product standards. This, of course, varies across the group of RTAs. Harmonization seems to be preferred in those RTAs whom members are developing and developed countries. On the contrary developed countries, in their respective RTAs seems to choice MRAs as an easier way to overcome TBT. Still those RTAs such European Union adopted two different approaches to the complete harmonization and harmonization of essential requirements respectively.

Equivalence and mutual recognition appear to be the preferred options to deal with TBT of conformity assessment procedures for testing, certification and accreditation. But, harmonization of certification standards is often a precondition for considering mutual recognition of conformity assessments. Again the level of development and notably the technological development matters. EC-hub RTAs displays an interesting example. Most part of them deals with conformity assessment procedure through mutual recognition but harmonization to EC standards is requested in order to export to Europe.

A common feature of RTAs signed by the US and Mexico seems to be the tendency to include provisions on transparency and the establishment of institutions to deal with the administration of the agreement and with the resolution of disputes. While a major difference between the agreements signed by the US and the EU appears to be that while the family of RTAs signed by the US tends to simply encourage mutual recognition of conformity assessment, the family of RTAs signed by the EU also includes provisions in favour of harmonization of technical regulations. In particular, as showed, EU agreements with developing countries tend to promote harmonization to European standards.

The degree of integration of trade is an important factor in determining the likelihood of harmonization and transparency provisions. Mutual recognition provisions are more likely to be introduced among similar countries. Moreover an important feature to foster integration, dispute settlement mechanisms are most likely among developed countries. More than what highlighted as to trade remedies, the level of real implementation of TBT-related provision is *condicio sine qua non* any real integration is deemed to fail. Alike the possibility to effectively recourse to a dispute settlement body encourages the enterprise to comply with new commonly set standards.

Finally a remark should be paid to the political scenario. Domino-effect is a common path across the group RTAs. Main hub-and-spoke group, EC, EFTA, US and Mexico increase the incentive to join a particular TBT-related architecture. On the other hand, the existence of overlapping RTAs plays an important role in designing the rules for TBT.

This thesis offers an original contribution for future research on the impact of removing TBTs and trade remedies on trade. Existing empirical literature mainly focuses on the number of harmonized standards between a country pair as a measure for the degree of TBT integration across countries. Alike most part of literature about trade remedies has focused on the number of bilateral AD initiations in order to investigate the impact of trade remedies on trade flows, while neglecting a multilateral approach. However, these measures are available only for a very limited number of countries and they are unreliable. As to TBT, it is based on the number of harmonised standards declared by countries, but some countries have a higher propensity to declare than others, so large gaps exist among countries that do not in any way reflect the actual situation. In addition, the number of harmonized standards is not necessarily correlated with the extent of the removal of TBTs, as the propensity to standardize varies across countries and sectors. Finally, harmonization is only one way to remove technical barriers to trade. The data available form the template constructed in this thesis will allow

exploiting differences in the type of approach to remove TBT adopted across RTAs to test for their impact on trade. As to trade remedies, the mapping exercise is an important attempt to widen the focus on trade remedies beyond those countries that are trade-remedies heavy users. Moreover looking just at initiation on a national level does allow just an overview of national legislation and effectiveness of national court. The mapping provided in this thesis casts new light on the regional effort to administer trade remedies.

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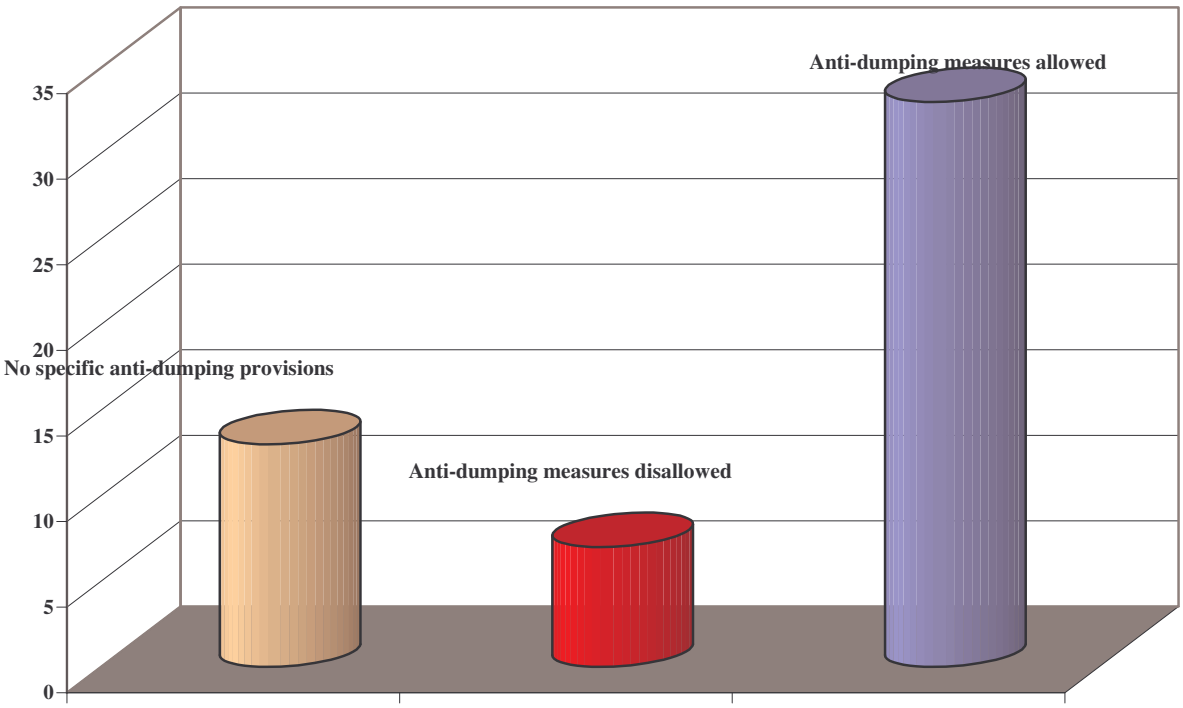
Table 1: Antidumping Template

1	**No specific anti-dumping provisions**
2	**Anti-dumping actions disallowed**
3	**Anti-dumping actions allowed**
a	**Determination of Dumping**
	- export price less than comparable price when destined for consumption in the exporting country
	- if there are no sales in the normal course of trade in the domestic market of the exporting country,
	: a comparable price of the like product when exported to an appropriate third country
	: cost of production in the country of origin plus a reasonable amount.
	- non-market economies
b	**Determination of Injury**
	- volume of dumped imports
	- price effects of dumped imports
	- the consequent impact of dumped imports on the domestic industry: material injury
	- causality
	-material injury
c	**Definition of Domestic Industry**
d	**Prejudicial solution**
e	**Initiation and conduct of investigations**
	- "on behalf of the domestic industry" if collective output constitutes more than 50 % of total.
	- no initiation if the collective output is less than 25% of total
	- de minimis dumping margin
	- de minimis dumped volume
f	**Evidence**
g	**Provisional Measures**
h	**Price Undertakings**
i	**Imposition and Collection of Anti-Dumping Duties**
	- duty shall not exceed the margin of dumping
	-lesser duty rule
	- collection on a non-discriminatory basis
j	**Retroactivity**
k	**Duration and Review of Anti-Dumping Duties and Price Undertakings**
	- duration: established period
	- review
l	**Public notice and Explanation of Determinations**
m	**Anti-Dumping Action on Behalf of a Third Country**
n	**Regional Body/Committee**
	-review/remand final determinations
	-other
o	**Notification/Consultation**
p	**Dispute Settlement**
q	**In accordance with Art. VI AD Agreement**

Figure 2: AD provisions in selected PTAs

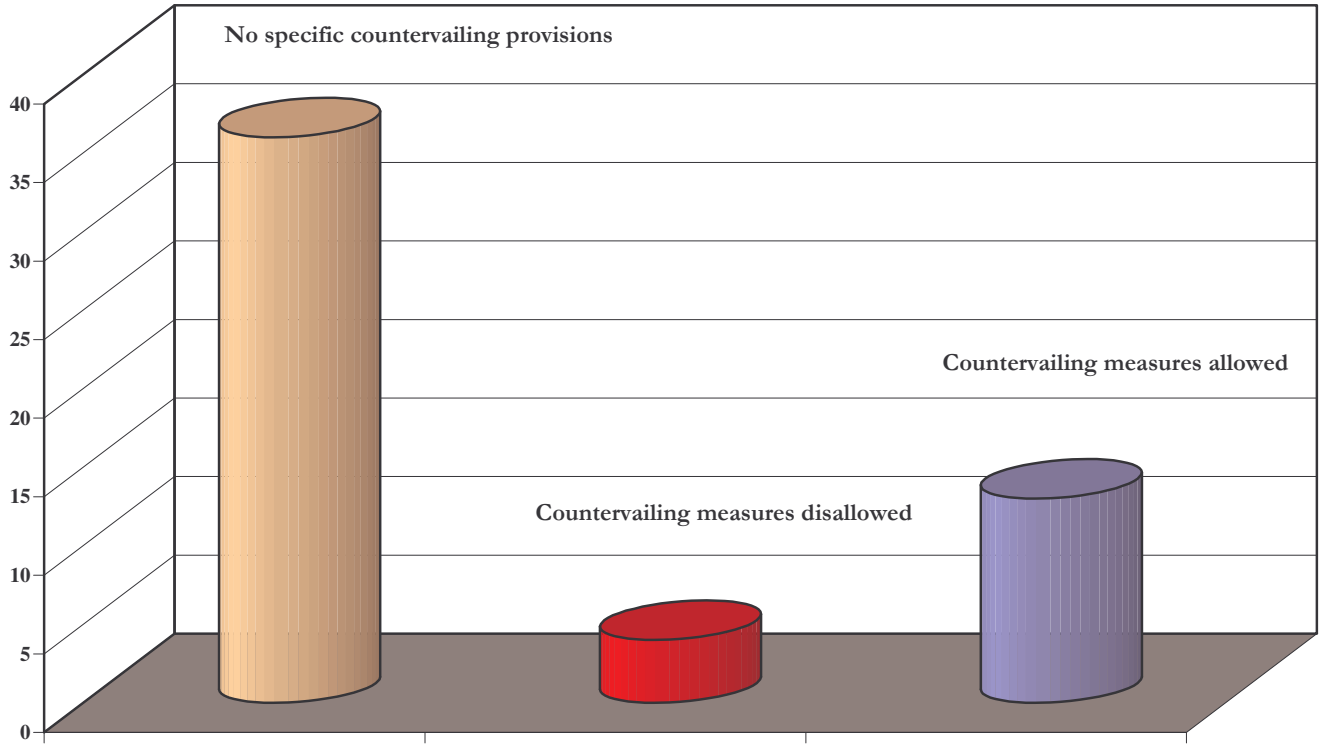


No Specific AD Provisions	AD measures disallowed	AD measures allowed	
AFTA	Canada-Chile	Andean Community	EC-Syria
ALADI	CER	Australia-Singapore	EC-Tunisia
Australia-US	China-Hong Kong	Australia-Thailand	EFTA-Bulgaria
Canada-Israel	European Community	Caricom	EFTA-Israel
CEMAC	EEA	CEFTA	EFTA-Morocco
GCC	EFTA	COMESA	EFTA-Romania
Japan-Singapore	EFTA-Singapore	EC-Algeria	EFTA-Turkey
US-CAFTA & Dom. Rep.		EC-Bulgaria	Group of 3
US-Chile		EC-Chile	Mercosur
US-Jordan		EC-Egypt	NAFTA
US-Israel		EC-Israel	New Zealand-Singapore
US-Morocco		EC-Jordan	SAFTA
US-Singapore		EC-Lebanon	Turkey-Israel
		EC-Mexico	Turkey-Romania
		EC-Morocco	SPARTECA
		EC-Romania	UEMOA
		EC-South Africa	

Table 2: Countervailing Measures Template

1	**No specific countervailing provisions**
2	**Countervailing measures disallowed**
3	**Countervailing measures allowed**
	Subsidies
a	**Definition of subsidy**
	- *financial contribution*
	- *income or price support*
	- *benefit*
b	**Specificity**
	- *limited access*
	- *objective criteria*
c	**Prohibited subsidies**
	- *contingent on exports*
	- *contingent upon the use of domestic over imported goods*
d	**Remedies for prohibited subsidies**
e	**Actionable subsidies**
	- *injury to the domestic industry*
	- *nullification or impairment*
	- *serious prejudice*
	- *distort competition*
	Countervailing measures
f	**Initiation and investigation**
	- *the domestic industry whose collective output constitutes more than 50 % of total.*
	- *de minimis*
	- *consultation*
g	**Evidence**
h	**Calculation of the Amount of a Subsidy in Terms of the Benefit to the Recipient**
i	**Determination of Injury**
	- *volume of the subsidized imports*
	- *effect of the subsidized imports on prices in the domestic market for like products*
	- *consequent impact of imports on domestic producers of such products*
	- *causality*
	determination of a threat of material injury
j	**Domestic industry**
k	**Provisional Measures**
l	**Undertakings**
	- *allowed in case of preliminary and affirmative determination of subsidization and injury*
m	**Imposition and Collection of Countervailing Duties**
	- *duty shall not exceed the margin of the subsidy found to exist*
	- *collection on a non-discriminatory basis*
n	**Retroactivity**
o	**Duration and Review of Countervailing Duties and Undertakings**
	- *duration: established period*
	- *review*
p	**Special and Differential Treatment of Developing Country Members**
q	**Consultation**
r	**Subsidization by third countries**
s	**Regional Body/Committee**
	- *review/remand final determinations*
	- *other*
t	**Dispute Settlement**

Figure 3: CVD provisions in selected PTAs

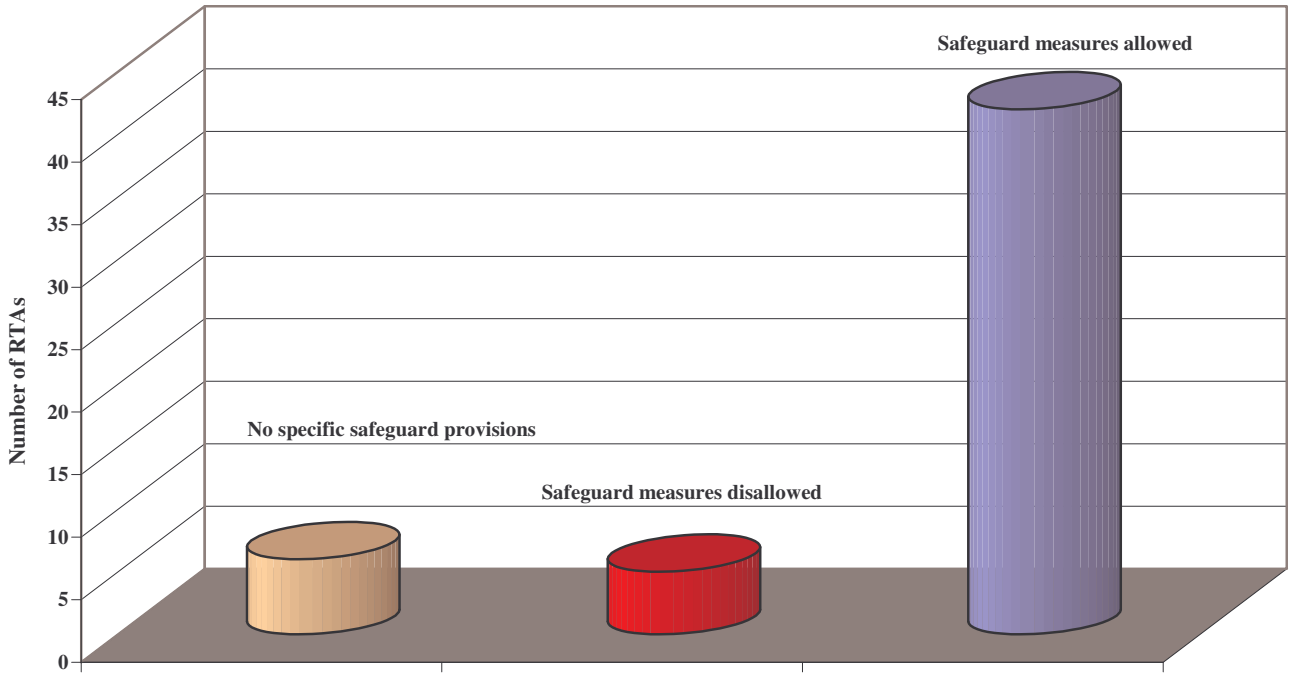


No Specific CVD Provisions		CVD measures disallowed	CVD measures allowed
AFTA	EC-Syria	China-Hong Kong	Andean Community
Aladi	EC-Tunisia	European Community	CARICOM
Australia-Singapore	EFTA-Singapore	EEA	CER
Australia-Thailand	GCC	EFTA	COMESA
Australia-US	Japan-Singapore		EFTA-Bulgaria
Canada-Chile	Mercosur		EFTA-Israel
Canada-Israel	New Zealand-Singapore		EFTA-Romania
CEFTA	US-Bahrain		EFTA-Morocco
CEMAC	US-CAFTA & Dom. Rep.		EFTA-Turkey
EC-Algeria	US-Chile		Group of 3
EC-Bulgaria	US-Jordan		Nafta
EC-Chile	US-Israel		SAFTA
EC-Egypt	US-Morocco		SPARTECA
EC-Israel	US-Singapore		
EC-Iceland	UEMOA		
EC-Jordan			
EC-Lebanon			
EC-Mexico			
EC-Morocco			
EC-Romania			
EC-South Africa			

Table 3: Safeguard Measures Template

1	**No specific safeguard provisions**
2	**Safeguard measures disallowed**
3	**Safeguard measures allowed**
a	**Conditions for application of safeguard**
	- increasing imports
	- reduction in tariffs
	- other
b	**Investigation**
d	**Prejudicial solution**
c	**Determination of Injury or Threat Thereof**
	- serious injury
	- domestic industry
	- causality
e	**Application of Safeguards Measures**
	- only to the extent necessary to remedy serious injury and facilitate adjustment
	- suspend concessions, tariff reduction or revert to MFN
	- other
f	**Provisional Measures**
g	**Duration and Review of Safeguards Measures**
	- period of measures/review
	- transition period only
h	**Level of concession/compensation**
	-maintain equivalent concessions/compensations
	- suspension of equivalent concessions
i	**Developing/LDC Members**
j	**Regional Council/Committee in charge for safeguards**
	- review/remand final determinations
	- other
k	**Notification and Consultation**
l	**Dispute Settlement**
m	**Relationship to Art. XIX of GATT 1994/Safeguards Agreement**
	- retains rights and obligations under Art. XIX/Safeguards Agreement
	- exceptions
n	**Special safeguards**

Figure 4: Safeguards provisions in selected PTAs



No Specific Safeguard Provisions	Safeguard measures disallowed	Safeguard measures allowed	
CEMAC	Australia-Singapore	AFTA	EC-South Africa
GCC	Canada-Israel	Aladi	EC-Syria
Japan-Singapore	European Community	Andean Community	EC-Tunisia
NAFTA	Mercosur	Australia-US	EEA
SPARTECA	New Zealand-Singapore	Australia-Thailand	EFTA
US-Jordan		Canada-Chile	EFTA-Bulgaria
		CARICOM	EFTA-Israel
		CEFTA	EFTA-Morocco
		CER	EFTA-Romania
		China-Hong Kong	EFTA-Singapore
		COMESA	EFTA-Turkey
		EC-Algeria	Group of 3
		EC-Bulgaria	SAFTA
		EC-Chile	Turkey-Israel
		EC-Egypt	US-Bahrain
		EC-Israel	US-CAFTA & Dom. Rep
		EC-Jordan	US-Chile
		EC-Lebanon	US-Israel
		EC-Mexico	US-Morocco
		EC-Morocco	US-Singapore
		EC-Romania	UEMOA

Table 4: Technical Barriers to Trade Template

I. Reference to WTO-TBT Agreement
definitions
rules
specific provisions
II. Integration Approach
A. Standards:
(i) Mutual Recognition
- Is mutual recognition in force?
- Is there a time schedule for achieving mutual recognition?
- Is the burden of justifying non-equivalence on the importing country?
(ii) Harmonization
- Are there specified existing standards to which countries shall harmonize?
- Is the use or creation of regional standards promoted?
- Is the use of international standards promoted?
B. Technical Regulations
(i) Mutual Recognition
- Is mutual recognition in force?
- Is there a time schedule for achieving mutual recognition?
- Is the burden of justifying non-equivalence on the importing country?
(ii) Harmonization
- Are there specified existing standards to which countries shall harmonize?
- Is the use or creation of regional standards promoted?
- Is the use of international standards promoted?
C. Conformity Assessment
(i) Mutual Recognition
- Is mutual recognition in force?
- Is there a time schedule for achieving mutual recognition?
- Do parties participate in international or regional accreditation agencies?
- Is the burden of justifying non-equivalence on the importing country?
(ii) Harmonization
- Are there specified existing standards to which countries shall harmonize?
- Is the use or creation of regional standards promoted?
- Is the use of international standards promoted?
III. Transparency Requirements
(i) Notification
- Is the time period allowed for comments specified?
- Is the time period allowed for comments longer than 60 days?
(ii) Contact points/consultations for exchange of information
IV. Institutions
(i) Administrative Bodies
- Is a regional body established?
(ii) Dispute Settlement Mechanism
- Is there a regional dispute settlement body?
- Are there regional consultations foreseen to resolve disputes?
- Is there a mechanism to issue recommendations?
- Are recommendations mandatory?
- Is the recourse to the DS for technical regulations disallowed?
V. Further Cooperation Among Members
(i) Common policy/standardization programme (beyond trade-related objectives)
(ii) Technical Assistance
(iii) Metrology

Table 5: Antidumping Index

Elements		AFTA	Aladi	Andean Community	Australia-Singapore	Australia-Thailand	Australia-US	Canada-Chile	Canada-Israel	Caricom	CEFTA	CEMAC
1	**No specific anti-dumping provisions**	**1**	**1**	**0**	**0**	**0**	**1**	**0**	**1**	**0**	**0**	**1**
2	**Anti-dumping actions disallowed**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**
3	**Anti-dumping actions allowed**	**0**	**0**	**1**	**1**	**1**	**0**	**0**	**0**	**1**	**1**	**0**
a	**Determination of Dumping**											
	- export price less than comparable price when destined for consumption in the exporting country	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*1*	*0*	*0*
	- if there are no sales in the normal course of trade in the domestic market of the exporting country,											
	: a comparable price of the like product when exported to an appropriate third country	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*1*	*0*	*0*
	: cost of production in the country of origin plus a reasonable amount.	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*1*	*0*	*0*
	- non-market economies	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
b	**Determination of Injury**											
	- volume of dumped imports	*0*	*0*	*1*	*1*	*1*	*0*	*0*	*0*	*1*	*0*	*0*
	- price effects of dumped imports	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*1*	*0*	*0*
	- the consequent impact of dumped imports on the domestic industry: material injury	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*1*	*0*	*0*
	- causality	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*1*	*0*	*0*
	-material injury	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*1*	*0*	*0*
c	**Definition of Domestic Industry**	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*1*	*0*	*0*
d	**Prejudicial solution**	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	***0***	*1*	*0*
e	**Initiation and conduct of investigations**											
	- "on behalf of the domestic industry" if collective output constitutes more than 50 % of total.	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*1*	*0*	*0*
	- no initiation if the collective output is less than 25% of total	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1*	*0*	*0*
	- de minimis dumping margin	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	- de minimis dumped volume	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
f	**Evidence**	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*1*	*0*	*0*
g	**Provisional Measures**	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*1*	*1*	*0*
h	**Price Undertakings**	*0*	*0*	*1*	*1*	*1*	*0*	*0*	*0*	*0*	*0*	*0*
i	**Imposition and Collection of Anti-Dumping Duties**											
	- duty shall not exceed the margin of dumping	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	-lesser duty rule	*0*	*0*	*0*	*1*	*1*	*0*	*0*	*0*	*0*	*0*	*0*
	- collection on a non-discriminatory basis	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1*	*0*	*0*
j	**Retroactivity**	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1*	*0*	*0*
k	**Duration and Review of Anti-Dumping Duties and Price Undertakings**											
	- duration: established period	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	- review	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*1*	*0*	*0*
l	**Public notice and Explanation of Determinations**	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
m	**Anti-Dumping Action on Behalf of a Third Country**	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
n	**Regional Body/Committee**											
	-review/remand final determinations	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	-other	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*1*	*1*	*0*
o	**Notification/Consultation**	*0*	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*1*	*1*	*0*
p	**Dispute Settlement**	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
q	**In accordance with Art. VI AD Agreement**	*0*	*0*	*1*	*1*	*1*	*0*	*0*	*0*	*0*	*1*	*0*

Elements		CER	China-Hong Kong	COMESA	European Community	EC-Algeria	EC-Bulgaria	EC-Chile	EC-Egypt	EC-Israel	EC-Jordan	EC-Lebanon	EC-Mexico	EC-Morocco
1	**No specific anti-dumping provisions**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
2	**Anti-dumping actions disallowed**	**1**	**1**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
3	**Anti-dumping actions allowed**	**0**	**0**	**1**	**0**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
a	**Determination of Dumping**													
	- export price less than comparable price when destined for consumption in the exporting country	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	- if there are no sales in the normal course of trade in the domestic market of the exporting country,													
	: a comparable price of the like product when exported to an appropriate third country	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	: cost of production in the country of origin plus a reasonable amount.	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	- non-market economies	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
b	**Determination of Injury**													
	- volume of dumped imports	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	- price effects of dumped imports	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	- the consequent impact of dumped imports on the domestic industry: material injury	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	- causality	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	-material injury	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
c	**Definition of Domestic Industry**	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
d	**Prejudicial solution**	*0*	*0*	*0*	*0*	*1*	*1*	*0*	*1*	*1*	*1*	*0*	*0*	*1*
e	**Initiation and conduct of investigations**													
	- "on behalf of the domestic industry" if collective output constitutes more than 50 % of total.	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	- no initiation if the collective output is less than 25% of total	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	- de minimis dumping margin	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	- de minimis dumped volume	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
f	**Evidence**	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
g	**Provisional Measures**	*0*	*0*	*0*	*0*	*1*	*1*	*0*	*1*	*1*	*1*	*0*	*0*	*1*
h	**Price Undertakings**	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
i	**Imposition and Collection of Anti-Dumping Duties**													
	- duty shall not exceed the margin of dumping	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	-lesser duty rule	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	- collection on a non-discriminatory basis	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
j	**Retroactivity**	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
k	**Duration and Review of Anti-Dumping Duties and Price Undertakings**													
	- duration: established period	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	- review	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
l	**Public notice and Explanation of Determinations**	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
m	**Anti-Dumping Action on Behalf of a Third Country**	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
n	**Regional Body/Committee**													
	-review/remand final determinations	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	-other	*0*	*0*	*1*	*0*	*1*	*1*	*0*	*1*	*1*	*1*	*0*	*0*	*1*
o	**Notification/Consultation**	*0*	*0*	*0*	*0*	*1*	*1*	*0*	*1*	*1*	*1*	*0*	*0*	*1*
p	**Dispute Settlement**	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
q	**In accordance with Art. VI AD Agreement**	*0*	*0*	*0*	*0*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*

Elements		EC-Romania	EC-South Africa	EC-Syria	EC-Tunisia	EEA	EFTA	EFTA-Bulgaria	EFTA-Israel	EFTA-Morocco	EFTA-Romania	EFTA-Singapore	EFTA-Turkey	GCC
1	**No specific anti-dumping provisions**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**
2	**Anti-dumping actions disallowed**	**0**	**0**	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**0**	**1**	**0**	**0**
3	**Anti-dumping actions allowed**	**1**	**1**	**1**	**1**	**0**	**0**	**1**	**1**	**1**	**1**	**0**	**1**	**0**
a	**Determination of Dumping**													
	- export price less than comparable price when destined for consumption in the exporting country	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	- if there are no sales in the normal course of trade in the domestic market of the exporting country,													
	: a comparable price of the like product when exported to an appropriate third country	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	: cost of production in the country of origin plus a reasonable amount.	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	- non-market economies	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
b	**Determination of Injury**													
	- volume of dumped imports	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	- price effects of dumped imports	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	- the consequent impact of dumped imports on the domestic industry: material injury	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	- causality	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	-material injury	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
c	**Definition of Domestic Industry**	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
d	**Prejudicial solution**	*1*	*0*	*1*	*1*	*0*	*0*	*1*	*1*	*1*	*1*	*0*	*1*	*0*
e	**Initiation and conduct of investigations**													
	- "on behalf of the domestic industry" if collective output constitutes more than 50 % of total.	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	- no initiation if the collective output is less than 25% of total	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	- de minimis dumping margin	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	- de minimis dumped volume	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
f	**Evidence**	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
g	**Provisional Measures**	*1*	*0*	*1*	*1*	*0*	*0*	*1*	*1*	*1*	*1*	*0*	*1*	*0*
h	**Price Undertakings**	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
i	**Imposition and Collection of Anti-Dumping Duties**													
	- duty shall not exceed the margin of dumping	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	-lesser duty rule	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	- collection on a non-discriminatory basis	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
j	**Retroactivity**	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
k	**Duration and Review of Anti-Dumping Duties and Price Undertakings**													
	- duration: established period	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	- review	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
l	**Public notice and Explanation of Determinations**	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
m	**Anti-Dumping Action on Behalf of a Third Country**	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
n	**Regional Body/Committee**													
	-review/remand final determinations	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	-other	*1*	*0*	*1*	*1*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
o	**Notification/Consultation**	*1*	*0*	*1*	*1*	*0*	*0*	*1*	*1*	*1*	*1*	*0*	*1*	*0*
p	**Dispute Settlement**	*0*	*0*	*0*	*0*	*0*	*0*	*1*	*1*	*1*	*1*	*0*	*1*	*0*
q	**In accordance with Art. VI AD Agreement**	*1*	*1*	*1*	*1*	*0*	*0*	*1*	*1*	*1*	*1*	*0*	*1*	*0*

	Elements	Group of 3	Japan-Singapore	Mercosur	NAFTA	New Zealand-Singapore	SAFTA	SPARTECA	Turkey-Israel	Turkey-Romania	US-CAFTA Dom. Rep.	US-Chile	US-Jordan	US-Israel	US-Morocco	US-Singapore	UEMOA
1	**No specific anti-dumping provisions**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**1**	**1**	**1**	**1**	**0**
2	**Anti-dumping actions disallowed**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
3	**Anti-dumping actions allowed**	**1**	**0**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**1**
a	**Determination of Dumping**																
	- export price less than comparable price when destined for consumption in the exporting country	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1*
	- if there are no sales in the normal course of trade in the domestic market of the exporting country,																
	: a comparable price of the like product when exported to an appropriate third country	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1*
	: cost of production in the country of origin plus a reasonable amount.	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1*
	- non-market economies	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1*
b	**Determination of Injury**																
	- volume of dumped imports	*0*	*0*	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1*
	- price effects of dumped imports	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1*
	- the consequent impact of dumped imports on the domestic industry: material injury	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1*
	- causality	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1*
	-material injury	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1*
c	**Definition of Domestic Industry**	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1*
d	**Prejudicial solution**	*1*	*0*	*0*	*0*	*0*	*0*	*1*	*1*	*1*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
e	**Initiation and conduct of investigations**																
	- "on behalf of the domestic industry" if collective output constitutes more than 50 % of total.	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1*
	- no initiation if the collective output is less than 25% of total	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1*
	- de minimis dumping margin	*1*	*0*	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1*
	- de minimis dumped volume	*1*	*0*	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1*
f	**Evidence**	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1*
g	**Provisional Measures**	*1*	*0*	*0*	*0*	*0*	*0*	*1*	*1*	*1*	*0*	*0*	*0*	*0*	*0*	*0*	*1*
h	**Price Undertakings**	*0*	*0*	*1*	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1*
i	**Imposition and Collection of Anti-Dumping Duties**																
	- duty shall not exceed the margin of dumping	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1*
	-lesser duty rule	*0*	*0*	*0*		*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	- collection on a non-discriminatory basis	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1*
j	**Retroactivity**	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
k	**Duration and Review of Anti-Dumping Duties and Price Undertakings**																
	- duration: established period	*1*	*0*	*1*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1*
	- review	*1*	*0*	*1*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1*
l	**Public notice and Explanation of Determinations**	*1*	*0*	*1*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
m	**Anti-Dumping Action on Behalf of a Third Country**	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
n	**Regional Body/Committee**																
	-review/remand final determinations	*0*	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	-other	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*1*	*1*	*0*	*0*	*0*	*0*	*0*	*0*	*1*
o	**Notification/Consultation**	*0*	*0*	*1*	*1*	*1*	*0*	*1*	*1*	*1*	*0*	*0*	*0*	*0*	*0*	*0*	*1*
p	**Dispute Settlement**	*1*	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
q	**In accordance with Art. VI AD Agreement**	*1*	*0*	*0*	*1*	*0*	*0*	*0*	*1*	*1*	*0*	*0*	*0*	*0*	*0*	*0*	*1*

Table 6: Countervailing Index

		Elements	AFTA	Aladi	Andean Community	Australia-Singapore	Australia-Thailand	Australia-US	Canada-Chile	Canada-Israel	Caricom	CEFTA	CEMAC	CER	China-Hong Kong	COMESA	European Community	EC-Algeria
1		**No specific countervailing provisions**	**1**	**1**	**0**	**1**	**1**	**1**	**1**	**1**	**0**	**1**	**1**	**0**	**0**	**0**	**0**	**1**
2		**Countervailing measures disallowed**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**1**	**0**
3		**Countervailing measures allowed**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**1**	**0**	**1**	**0**	**0**
		Subsidies																
	a	**Definition of subsidy**																
		- financial contribution	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
		- income or price support	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
		- benefit	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	b	**Specificity**																
		- limited access	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
		- objective criteria	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	c	**Prohibited subsidies**																
		- contingent on exports	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
		- contingent upon the use of domestic over imported goods	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	d	**Remedies for prohibited subsidies**	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	e	**Actionable subsidies**																
		- injury to the domestic industry	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1*	*0*	*0*	*1*	*0*	*0*	*0*	*0*
		- nullification or impairement	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
		- serious prejudice	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
		- distort competition	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1*	*0*	*0*
		Countervailing measures																
	f	**Initiation and investigation**																
		- the domestic industry whose collective output constitutes more than 50 % of total.	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
		- de minimis	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
		- consultation	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	g	**Evidence**	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	h	**Calculation of the Amount of a Subsidy in Terms of the Benefit to the Recipient**	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	i	**Determination of Injury**																
		- volume of the subsidized imports	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
		- effect of the subsidized imports on prices in the domestic market for like products	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
		- consequent impact of imports on domestic producers of such products	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
		- causality	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*1*	*0*	*0*
		-determination of a threat of material injury	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1*	*0*	*0*
	j	**Domestic industry**	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*1*	*0*	*0*
	k	**Provisional Measures**	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*1*	*0*	*0*	*1*	*0*	*0*	*0*	*0*
	l	**Undertakings**																
		- allowed in case of preliminary and affirmative determination of subsidization and injury	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	m	**Imposition and Collection of Countervailing Duties**																
		- duty shall not exceed the margin of the subsidy found to exist	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
		- collection on a non-discriminatory basis	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	n	**Retroactivity**	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	o	**Duration and Review of Countervailing Duties and Undertakings**																
		- duration: established period	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
		- review	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	p	**Special and Differential Treatment of Developing Country Members**	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	q	**Consultation**	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1*	*0*	*0*	*0*	*0*
	r	**Subsidization by third countries**	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1*	*0*	*1*	*0*	*0*
	s	**Regional Body/Committee**																
		- review/remand final determinations	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
		- other	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	t	**Dispute Settlement**	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*0*	*0*

		Elements	EC-Bulgaria	EC-Chile	EC-Egypt	EC-Israel	EC-Jordan	EC-Lebanon	EC-Mexico	EC-Morocco	EC-Romania	EC-South Africa	EC-Syria	EC-Tunisia	EEA	EFTA
1		**No specific countervailing provisions**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**0**	**0**
2		**Countervailing measures disallowed**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**
3		**Countervailing measures allowed**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
		Subsidies														
	a	**Definition of subsidy**														
		- financial contribution	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
		- income or price support	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
		- benefit	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	b	**Specificity**														
		- limited access	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
		- objective criteria	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	c	**Prohibited subsidies**														
		- contingent on exports	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
		- contingent upon the use of domestic over imported goods	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	d	**Remedies for prohibited subsidies**	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	e	**Actionable subsidies**														
		- injury to the domestic industry	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
		- nullification or impairement	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
		- serious prejudice	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
		- distort competition	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
		Countervailing measures														
	f	**Initiation and investigation**														
		- the domestic industry whose collective output constitutes more than 50 % of total.	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
		- de minimis	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
		- consultation	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	g	**Evidence**	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	h	**Calculation of the Amount of a Subsidy in Terms of the Benefit to the Recipient**	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	i	**Determination of Injury**														
		- volume of the subsidized imports	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
		- effect of the subsidized imports on prices in the domestic market for like products	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
		- consequent impact of imports on domestic producers of such products	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
		- causality	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
		-determination of a threat of material injury	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	j	**Domestic industry**	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	k	**Provisional Measures**	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	l	**Undertakings**														
		- allowed in case of preliminary and affirmative determination of subsidization and injury	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	m	**Imposition and Collection of Countervailing Duties**														
		- duty shall not exceed the margin of the subsidy found to exist	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
		- collection on a non-discriminatory basis	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	n	**Retroactivity**	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	o	**Duration and Review of Countervailing Duties and Undertakings**														
		- duration: established period	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
		- review	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	p	**Special and Differential Treatment of Developing Country Members**	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	q	**Consultation**	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	r	**Subsidization by third countries**	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	s	**Regional Body/Committee**														
		- review/remand final determinations	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
		- other	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	t	**Dispute Settlement**	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*

		Elements	EFTA-Bulgaria	EFTA-Israel	EFTA-Morocco	EFTA-Romania	EFTA-Singapore	EFTA-Turkey	GCC	Group of 3	Japan-Singapore	Mercosur	NAFTA
1		**No specific countervailing provisions**	**0**	**0**	**0**	**0**	**1**	**0**	**1**	**0**	**1**	**1**	**0**
2		**Countervailing measures disallowed**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
3		**Countervailing measures allowed**	**1**	**1**	**1**	**1**	**0**	**1**	**0**	**1**	**0**	**0**	**1**
		Subsidies											
	a	**Definition of subsidy**											
		- financial contribution	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
		- income or price support	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
		- benefit	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	b	**Specificity**											
		- limited access	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
		- objective criteria	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	c	**Prohibited subsidies**											
		- contingent on exports	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
		- contingent upon the use of domestic over imported goods	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	d	**Remedies for prohibited subsidies**	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	e	**Actionable subsidies**											
		- injury to the domestic industry	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
		- nullification or impairement	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
		- serious prejudice	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
		- distort competition	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
		Countervailing measures											
	f	**Initiation and investigation**											
		- the domestic industry whose collective output constitutes more than 50 % of total.	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
		- de minimis	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
		- consultation	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	g	**Evidence**	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1*	*0*	*0*	*0*
	h	**Calculation of the Amount of a Subsidy in Terms of the Benefit to the Recipient**	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	i	**Determination of Injury**											
		- volume of the subsidized imports	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
		- effect of the subsidized imports on prices in the domestic market for like products	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
		- consequent impact of imports on domestic producers of such products	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
		- causality	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
		-determination of a threat of material injury	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	j	**Domestic industry**	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	k	**Provisional Measures**	*1*	*1*	*1*	*1*	*0*	*1*	*0*	*1*	*0*	*0*	*0*
	l	**Undertakings**											
		- allowed in case of preliminary and affirmative determination of subsidization and injury	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	m	**Imposition and Collection of Countervailing Duties**											
		- duty shall not exceed the margin of the subsidy found to exist	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
		- collection on a non-discriminatory basis	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	n	**Retroactivity**	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	o	**Duration and Review of Countervailing Duties and Undertakings**											
		- duration: established period	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
		- review	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	p	**Special and Differential Treatment of Developing Country Members**	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	q	**Consultation**	*1*	*1*	*1*	*1*	*0*	*1*	*0*	*1*	*0*	*0*	*1*
	r	**Subsidization by third countries**	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	s	**Regional Body/Committee**											
		- review/remand final determinations	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1*
		- other	*1*	*1*	*1*	*1*	*0*	*1*	*0*	*0*	*0*	*0*	*0*
	t	**Dispute Settlement**	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1*

		Elements	New Zealand-Singapore	SAFTA	SPARTECA	Turkey-Israel	US-Bahrain	US-CAFTA Dom. Rep.	US-Chile	US-Jordan	US-Israel	US-Morocco	US-Singapore	UEMOA
1		**No specific countervailing provisions**	**1**	**0**	**0**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
2		**Countervailing measures disallowed**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
3		**Countervailing measures allowed**	**0**	**1**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
		Subsidies												
	a	**Definition of subsidy**												
		- financial contribution	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
		- income or price support	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
		- benefit	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	b	**Specificity**												
		- limited access	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
		- objective criteria	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	c	**Prohibited subsidies**												
		- contingent on exports	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
		- contingent upon the use of domestic over imported goods	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	d	**Remedies for prohibited subsidies**	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	e	**Actionable subsidies**												
		- injury to the domestic industry	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
		- nullification or impairement	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
		- serious prejudice	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
		- distort competition	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
		Countervailing measures												
	f	**Initiation and investigation**												
		- the domestic industry whose collective output constitutes more than 50 % of total.	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
		- de minimis	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
		- consultation	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	g	**Evidence**	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	h	**Calculation of the Amount of a Subsidy in Terms of the Benefit to the Recipient**	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	i	**Determination of Injury**												
		- volume of the subsidized imports	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
		- effect of the subsidized imports on prices in the domestic market for like products	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
		- consequent impact of imports on domestic producers of such products	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
		- causality	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
		-determination of a threat of material injury	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	j	**Domestic industry**	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	k	**Provisional Measures**	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	l	**Undertakings**												
		- allowed in case of preliminary and affirmative determination of subsidization and injury	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	m	**Imposition and Collection of Countervailing Duties**												
		- duty shall not exceed the margin of the subsidy found to exist	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
		- collection on a non-discriminatory basis	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	n	**Retroactivity**	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	o	**Duration and Review of Countervailing Duties and Undertakings**												
		- duration: established period	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
		- review	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	p	**Special and Differential Treatment of Developing Country Members**	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	q	**Consultation**	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	r	**Subsidization by third countries**	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	s	**Regional Body/Committee**												
		- review/remand final determinations	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
		- other	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	t	**Dispute Settlement**	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*

Table 7: Safeguard Index

Elements		AFTA	Aladi	Andean Community	Australia-Singapore	Australia-Thailand	Australia-US	Canada-Chile	Canada-Israel	Caricom	CEFTA	CEMAC	CER	China-Hong Kong	COMESA	European Community
1	**No specific safeguard provisions**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**
2	**Safeguard measures disallowed**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**1**
3	**Safeguard measures allowed**	**1**	**1**	**1**	**0**	**1**	**1**	**1**	**0**	**1**	**1**	**0**	**1**	**1**	**1**	**0**
a	**Conditions for application of safeguard**															
	- increasing imports	*1*	*1*	*1*	*0*	*1*	*1*	*0*	*0*	***0***	*1*	*0*	*0*	*1*	*0*	*0*
	- reduction in tariffs	*0*	*0*	*0*	*0*	*1*	*1*	*0*	*0*	***0***	*0*	*0*	*0*	*0*	*0*	*0*
	- transition period only	*0*	*0*	*0*	*0*	*1*	*1*	*0*	*0*	***0***	*0*	*0*	*1*	*0*	*0*	*0*
b	**Investigation**	*0*	*0*	*0*	*0*	*1*	*1*	*0*	*0*	***0***	*0*	*0*	*0*	*0*	*0*	*0*
c	**Prejudicial solution**	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	***0***	*1*	*0*	*0*	*0*	*0*	*0*
d	**Determination of Injury or Threat Thereof**															
	- serious injury	*1*	*0*	*1*	*0*	*0*	*1*	*1*	*0*	***1***	*0*	*0*	*1*	*0*	*0*	*0*
	- domestic industry	*0*	*0*	*0*	*0*	*0*	*1*	*1*	*0*	***1***	*0*	*0*	*1*	*1*	*0*	*0*
	- causality	*0*	*0*	*0*	*0*	*0*	*0*	*1*	*0*	***1***	*0*	*0*	*1*	*0*	*0*	*0*
e	**Application of Safeguards Measures**	*0*	*0*	*1*	*0*	*0*	*1*	*0*	*0*	***1***	*1*	*0*	*1*	*1*	*0*	*0*
f	**Provisional Measures**	*0*	*0*	*0*	*0*	*1*	*1*	*0*	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*
g	**Duration and Review of Safeguards Measures**	*0*	*1*	*0*	*0*	*0*	*1*	*0*	*0*	*1*	*1*	*0*	*1*	*0*	*1*	*0*
h	**Level of concession**	*0*	*0*	*0*	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
i	**Developing Country Members**	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
j	**Regional Council/Committee in charge for safeguards**	*1*	*1*	*1*	*0*	*1*	*1*	*0*	*0*	*1*	*0*	*0*	*0*	*1*	*1*	*0*
k	**Notification and Consultation**	*1*	*1*	*1*	*0*	*1*	*1*	*1*	*0*	*1*	*1*	*0*	*1*	*1*	*0*	*0*
l	**Dispute Settlement**	*0*	*0*	*1*	*0*	*1*	*0*	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*0*
m	**Special safeguards**	*0*	*1*	*1*	*0*	*1*	*1*	*0*	*0*	*1*	*1*	*0*	*0*	*0*	*0*	*0*

Elements		EC-Algeria	EC-Bulgaria	EC-Chile	EC-Egypt	EC-Israel	EC-Jordan	EC-Lebanon	EC-Mexico	EC-Morocco	EC-Romania	EC-South Africa	EC-Syria	EC-Tunisia	EEA	EFTA	EFTA-Bulgaria	EFTA-Israel
1	**No specific safeguard provisions**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
2	**Safeguard measures disallowed**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
3	**Safeguard measures allowed**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
a	**Conditions for application of safeguard**																	
	- increasing imports	*0*	*1*	*1*	*0*	*0*	*1*	*1*	*1*	*1*	*1*	*1*	*0*	*1*	*0*	*0*	*1*	*1*
	- reduction in tariffs	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	- transition period only	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*1*	*1*
b	**Investigation**	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
c	**Prejudicial solution**	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*0*	*0*
d	**Determination of Injury or Threat Thereof**																	
	- serious injury	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*1*	*1*	*1*	*1*	*1*	*1*	*0*	*0*	*0*	*0*
	- domestic industry	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	- causality	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
e	**Application of Safeguards Measures**	*0*	*0*	*1*	*1*	*0*	*1*	*0*	*0*	*0*	*0*	*1*	*1*	*1*	*1*	*1*	*1*	*1*
f	**Provisional Measures**	*1*	*1*	*0*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*0*	*0*	*1*	*1*
g	**Duration and Review of Safeguards Measures**	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*0*	*0*
h	**Level of concession**	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*1*	*1*	*0*	*0*
i	**Developing Country Members**	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
j	**Regional Council/Committee in charge for safeguards**	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*0*	*0*
k	**Notification and Consultation**	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*
l	**Dispute Settlement**	*1*	*1*	*0*	*0*	*0*	*1*	*1*	*1*	*1*	*1*	*1*	*0*	*1*	*1*	*0*	*0*	*0*
m	**Special safeguards**	*1*	*1*	*1*	*0*	*1*	*0*	*0*	*0*	*0*	*1*	*1*	*1*	*0*	*0*	*1*	*0*	*0*

Elements		EFTA-Morocco	EFTA-Romania	EFTA-Singapore	EFTA-Turkey	GCC	Group of 3	Japan-Singapore	Mercosur	NAFTA	New Zealand-Singapore	SAFTA	SPARTECA
1	**No specific safeguard provisions**	**0**	**0**	**0**	**0**	**1**	**0**	**1**	**0**	**1**	**0**	**0**	**1**
2	**Safeguard measures disallowed**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**1**	**0**	**0**
3	**Safeguard measures allowed**	**1**	**1**	**1**	**1**	**0**	**1**	**0**	**0**	**0**	**0**	**1**	**0**
a	**Conditions for application of safeguard**												
	- increasing imports	*1*	*1*	*1*	*1*	*0*	*0*	*0*	*0*	*0*	*0*	*1*	*0*
	- reduction in tariffs	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	- transition period only	*1*	*1*	*0*	*1*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*0*
b	**Investigation**	*0*	*0*	*0*	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*1*	*0*
c	**Prejudicial solution**	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
d	**Determination of Injury or Threat Thereof**												
	- serious injury	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	- domestic industry	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	- causality	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1*	*0*
e	**Application of Safeguards Measures**	*1*	*1*	*1*	*1*	*0*	*1*	*0*	*0*	*0*	*0*	*1*	*0*
f	**Provisional Measures**	*1*	*1*	*1*	*1*	*0*	*0*	*0*	*0*	*0*	*0*	*1*	*0*
g	**Duration and Review of Safeguards Measures**	*0*	*0*	*1*	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*1*	*0*
h	**Level of concession**	*0*	*0*	*0*	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*0*
i	**Developing Country Members**	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
j	**Regional Council/Committee in charge for safeguards**	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1*	*0*
k	**Notification and Consultation**	*1*	*1*	*1*	*1*	*0*	*1*	*0*	*0*	*0*	*0*	*1*	*0*
l	**Dispute Settlement**	*0*	*0*	*1*	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*0*
m	**Special safeguards**	*0*	*0*	*0*	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*0*

Elements		Turkey-Israel	US-Bahrain	US-CAFTA Dom. Rep.	US-Chile	US-Jordan	US-Israel	US-Morocco	US-Singapore	UEMOA
1	**No specific safeguard provisions**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**
2	**Safeguard measures disallowed**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
3	**Safeguard measures allowed**	**1**	**1**	**1**	**1**	**0**	**1**	**1**	**1**	**1**
a	**Conditions for application of safeguard**									
	- increasing imports	*1*	*1*	*1*	*0*	*0*	*1*	*1*	*1*	*0*
	- reduction in tariffs	*0*	*1*	*1*	*0*	*0*	*1*	*1*	*1*	*0*
	- transition period only	*1*	*1*	*1*	*1*	*0*	*1*	*1*	*1*	*0*
b	**Investigation**	*1*	*1*	*1*	*1*	*0*	*1*	*1*	*1*	*0*
c	**Prejudicial solution**	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
d	**Determination of Injury or Threat Thereof**									
	- serious injury	*0*	*1*	*1*	*1*	*0*	*1*	*1*	*1*	*1*
	- domestic industry	*0*	*1*	*1*	*1*	*0*	*1*	*1*	*1*	*1*
	- causality	*0*	*0*	*0*	*0*	*0*	*0*		*0*	*0*
e	**Application of Safeguards Measures**	*1*	*1*	*1*	*0*	*0*	*1*	*1*	*1*	*1*
f	**Provisional Measures**	*0*	*0*	*0*	*1*	*0*	*1*	*1*	*1*	*1*
g	**Duration and Review of Safeguards Measures**	*0*	*1*	*1*	*1*	*0*	*1*	*1*	*1*	*1*
h	**Level of concession**	*0*	*1*	*1*	*1*	*0*	*1*	*1*	*1*	*0*
i	**Developing Country Members**	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
j	**Regional Council/Committee in charge for safeguards**	*1*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1*
k	**Notification and Consultation**	*1*	*1*	*1*	*1*	*0*	*1*	*1*	*1*	*1*
l	**Dispute Settlement**	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
m	**Special safeguards**	*0*	*1*	*1*	*1*	*0*	*0*	*1*	*1*	*0*

Table 8: Technical Barriers to Trade Index

	AFTA (road vehicles)	Aladi	Andean Community	Australia-Singapore	Australia-Thailand	Australia-US	CACM	Canada-Chile (telecommunication)	Canada-Costa Rica	Canada-Israel
I. Reference to WTO-TBT Agreement	0	1	0	1	1	1	0	0	1	1
definitions	0	1	0	1	1	1	0	0	0	0
rules	0	0	0	0	1	1	0	0	1	1
specific provisions	0	0	0	0	0	0	0	0	1	0
II. Integration Approach										
A. Standards:										
(i) Mutual Recognition	0	0	0	0	0	0	0	0	0	0
- Is mutual recognition in force?	0	0	0	0	0	0	0	0	0	0
- Is there a time schedule for achieving mutual recognition?	0	0	0	0	0	0	0	0	0	0
- Is the burden of justifying non-equivalence on the importing country?	0	0	0	0	0	0	0	0	0	0
(ii) Harmonization	0	1	1	0	0	0	0	1	0	0
- Are there specified existing standards to which countries shall harmonize?	0	0	0	0	0	0	0	0	0	0
- Is the use or creation of regional standards promoted?	0	1	1	0	0	0	0	0	0	0
- Is the use of international standards promoted?	0	1	0	0	0	0	0	1	0	0
B. Technical Regulations										
(i) Mutual Recognition	0	0	0	1	1	1	1	0	0	0
- Is mutual recognition in force?	0	0	0	0	0	0	0	0	0	0
- Is there a time schedule for achieving mutual recognition?	0	0	0	0	0	0	0	0	0	0
- Is the burden of justifying non-equivalence on the importing country?	0	0	0	0	0	1	0	0	0	0
(ii) Harmonization	1	1	1	1	1	0	1	1	0	0
- Are there specified existing standards to which countries shall harmonize?	1	0	0	0	0	0	0	0	0	0
- Is the use or creation of regional standards promoted?	0	1	1	0	0	0	0	0	0	0
- Is the use of international standards promoted?	0	1	0	1	1	0	1	0	0	0
C. Conformity Assessment										
(i) Mutual Recognition	1	1	0	1	1	1	1	0	0	1
- Is mutual recognition in force?	1	0	0	1	0	0	0	0	0	0
- Is there a time schedule for achieving mutual recognition?	0	0	0	0	0	0	0	0	0	0
- Do parties participate in international or regional accreditation agencies?	0	0	0	1	1	1	0	0	0	0
- Is the burden of justifying non-equivalence on the importing country?	0	0	0	0	0	1	0	0	0	0
(ii) Harmonization	0	1	1	0	1	0	1	1	0	0
- Are there specified existing standards to which countries shall harmonize?	0	0	0	0	0	0	0	0	0	0
- Is the use or creation of regional standards promoted?	0	0	1	0	1	0	0	0	0	0
- Is the use of international standards promoted?	0	1	0	0	0	0	0	0	0	0
III. Transparency Requirements	1	1	1	1	1	1	1	0	0	0
(i) Notification	1	1	1	1	0	1	1	0	0	0
- Is the time period allowed for comments specified?	0	0	1	0	0	1	0	0	0	0
- Is the time period allowed for comments longer than 60 days?	0	0	1	0	0	1	0	0	0	0
(ii) Contact points/ consultations for exchange of information	0	1	1	1	1	1	0	0	0	0
IV. Institutions	0	1	1	1	0	1	1	1	0	0
(i) Administrative Bodies	0	1	1	1	0	1	1	1	0	0
- Is a regional body established?	0	1	1	1	0	1	1	1	0	0
(ii) Dispute Settlement Mechanism	0	1	1	1	0	1	0	0	0	0
- Is there a regional dispute settlement body?	0	1	1	1	0	1	0	0	0	0
- Are there regional consultations foreseen to resolve disputes?	0	1	1	1	0	1	0	0	0	0
- Is there a mechanism to issue recommendations?	0	1	1	0	0	0	0	0	0	0
- Are recommendations mandatory?	0	0	1	0	0	0	0	0	0	0
- Is the recourse to the DS for technical regulations disallowed?	0	0	0	0	0	1	0	0	0	0
V. Further Cooperation Among Members	0	1	1	1	1	0	1	0	1	0
(i) Common policy/ standardization programme (beyond trade-related objectives)	0	0	0	1	1	0	0	0	0	0
(ii) Technical Assistance	0	1	1	0	1	0	1	0	1	0
(iii) Metrology	0	1	1	0	0	0	1	0	1	0

	Caricom	CEFTA	CER	COMESA	EC	EC-Algeria	EC-Bulgaria	EC-Chile	EC-Egypt	EC-Jordan	EC-Lebanon	EC-Mexico	EC-Morocco	EC-PLO	EC-Romania	EC-South Africa
I. Reference to WTO-TBT Agreement	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
definitions	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
rules	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
specific provisions	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
II. Integration Approach																
A. Standards:																
(i) Mutual Recognition	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0
- Is mutual recognition in force?	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
- Is there a time schedule for achieving mutual recognition?	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- Is the burden of justifying non-equivalence on the importing country?	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(ii) Harmonization	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1
- Are there specified existing standards to which countries shall harmonize?	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
- Is the use or creation of regional standards promoted?	0	0	0	1	1	1	1	0	0	1	0	0	1	1	1	0
- Is the use of international standards promoted?	1	0	0	1	0	0	0	0	0	0	0	1	0	0	0	1
B. Technical Regulations																
(i) Mutual Recognition	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0
- Is mutual recognition in force?	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
- Is there a time schedule for achieving mutual recognition?	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- Is the burden of justifying non-equivalence on the importing country?	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(ii) Harmonization	1	0	1	1	1	0	1	1	0	1	1	1	1	1	1	1
- Are there specified existing standards to which countries shall harmonize?	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
- Is the use or creation of regional standards promoted?	0	0	0	1	1	0	1	1	0	1	0	0	1	1	1	0
- Is the use of international standards promoted?	1	0	0	1	0	0	0	1	0	0	0	1	0	0	0	1
C. Conformity Assessment																
(i) Mutual Recognition	1	0	0	1	1	1	1	1	1	0	1	0	1	0	0	1
- Is mutual recognition in force?	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
- Is there a time schedule for achieving mutual recognition?	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- Do parties participate in international or regional accreditation agencies?	0	0	1	0	1	0	0	0	0	1	1	1	1	0	1	1
- Is the burden of justifying non-equivalence on the importing country?	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(ii) Harmonization	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1
- Are there specified existing standards to which countries shall harmonize?	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
- Is the use or creation of regional standards promoted?	0	0	0	1	1	1	1	0	0	1	0	0	1	1	1	0
- Is the use of international standards promoted?	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	1
III. Transparency Requirements	1	1	0	0	1	0	0	0	0	0	0	1	0	0	0	0
(i) Notification	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0
- Is the time period allowed for comments specified?	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
- Is the time period allowed for comments longer than 60 days?	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
(ii) Contact points/ consultations for exchange of information	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
IV. Institutions	1	1	1	1	1	0	0	1	0	1	0	1	0	0	0	0
(i) Administrative Bodies	1	1	0	1	1	0	0	1	0	1	0	1	0	0	0	0
- Is a regional body established?	1	1	0	1	1	0	0	0	0	0	0	1	0	0	0	0
(ii) Dispute Settlement Mechanism	1	0	1	0	1	0	0	0	0	0	0	1	0	0	0	0
- Is there a regional dispute settlement body?	1	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0
- Are there regional consultations foreseen to resolve disputes?	1	0	1	0	1	0	0	0	0	0	0	1	0	0	0	0
- Is there a mechanism to issue recommendations?	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
- Are recommendations mandatory?	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
- Is the recourse to the DS for technical regulations disallowed?	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
V. Further Cooperation Among Members	1	1	0	1	0	1	1	1	1	1	1	1	1	0	1	1
(i) Common policy/ standardization programme (beyond trade-related objectives)	1	0	0	1	0	0	1	0	0	0	0	0	0	0	1	0
(ii) Technical Assistance	1	0	0	1	0	0	1	1	0	1	1	1	1	0	1	1
(iii) Metrology	1	1	0	1	0	1	0	0	1	0	1	0	1	0	0	1

	EC-Switz. & Liech.	EC-Tunisia	EC-Turkey	EEA	EFTA	EFTA-Bulgaria	EFTA-Israel	EFTA-Morocco	EFTA-Pal. Auth	EFTA-Romania	EFTA-Singapore	EFTA-Turkey	Group of 3	Japan-Singapore
I. Reference to WTO-TBT Agreement	0	0	0	0	0	1	1	1	0	1	1	1	1	1
definitions	0	0	0	0	0	0	0	0	0	0	0	0	0	0
rules	0	0	0	0	0	0	1	0	0	0	1	0	1	1
specific provisions	0	0	0	0	0	1	0	1	0	1	1	1	0	0
II. Integration Approach														
A. Standards:														
(i) Mutual Recognition	0	0	0	1	0	0	0	0	0	0	0	0	0	0
- Is mutual recognition in force?	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- Is there a time schedule for achieving mutual recognition?	0	0	0	1	0	0	0	0	0	0	0	0	0	0
- Is the burden of justifying non-equivalence on the importing country?	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(ii) Harmonization	0	1	1	0	0	0	0	0	0	0	0	0	1	0
- Are there specified existing standards to which countries shall harmonize?	0	0	1	0	0	0	0	0	0	0	0	0	0	0
- Is the use or creation of regional standards promoted?	0	1	1	0	0	0	0	0	0	0	0	0	0	0
- Is the use of international standards promoted?	0	0	0	0	0	0	0	0	0	0	0	0	1	0
B. Technical Regulations														
(i) Mutual Recognition	0	0	0	1	0	0	0	0	0	0	0	0	1	0
- Is mutual recognition in force?	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- Is there a time schedule for achieving mutual recognition?	0	0	0	1	0	0	0	0	0	0	0	0	0	0
- Is the burden of justifying non-equivalence on the importing country?	0	0	0	0	0	0	0	0	0	0	0	0	1	0
(ii) Harmonization	0	1	1	0	0	0	0	0	0	0	0	0	1	0
- Are there specified existing standards to which countries shall harmonize?	0	0	1	0	0	0	0	0	0	0	0	0	0	0
- Is the use or creation of regional standards promoted?	0	1	1	0	0	0	0	0	0	0	0	0	0	0
- Is the use of international standards promoted?	0	0	0	0	0	0	0	0	0	0	0	0	1	0
C. Conformity Assessment														
(i) Mutual Recognition	1	1	0	1	1	0	0	0	0	0	1	0	1	1
- Is mutual recognition in force?	1	0	0	0	1	0	0	0	0	0	0	0	0	0
- Is there a time schedule for achieving mutual recognition?	0	0	0	1	0	0	0	0	0	0	0	0	0	0
- Do parties participate in international or regional accreditation agencies?	0	1	1	0	0	0	0	0	0	0	0	0	0	1
- Is the burden of justifying non-equivalence on the importing country?	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(ii) Harmonization	0	1	1	0	0	0	0	0	0	0	0	0	1	0
- Are there specified existing standards to which countries shall harmonize?	0	0	1	0	0	0	0	0	0	0	0	0	0	0
- Is the use or creation of regional standards promoted?	0	1	1	0	0	0	0	0	0	0	0	0	0	0
- Is the use of international standards promoted?	0	0	0	0	0	0	0	0	0	0	0	0	1	0
III. Transparency Requirements	0	0	0	1	1	1	0	1	0	1	0	1	1	1
(i) Notification	0	0	0	1	1	1	0	1	0	1	0	1	1	1
- Is the time period allowed for comments specified?	0	0	0	1	1	0	0	0	0	0	0	0	1	0
- Is the time period allowed for comments longer than 60 days?	0	0	0	1	0	0	0	0	0	0	0	0	1	0
(ii) Contact points/consultations for exchange of information	0	0	0	1	0	0	0	0	0	0	0	0	1	1
IV. Institutions	0	0	0	1	1	1	1	1	0	1	1	1	1	1
(i) Administrative Bodies	0	0	0	1	1	1	1	1	0	1	1	1	1	1
- Is a regional body established?	0	0	0	1	1	1	1	1	0	1	1	1	1	1
(ii) Dispute Settlement Mechanism	0	0	0	1	1	1	1	1	0	1	1	1	1	1
- Is there a regional dispute settlement body?	0	0	0	1	1	1	1	1	0	1	1	1	1	1
- Are there regional consultations foreseen to resolve disputes?	0	0	0	1	1	1	1	1	0	1	1	1	1	1
- Is there a mechanism to issue recommendations?	0	0	0	1	1	0	0	0	0	0	0	0	1	0
- Are recommendations mandatory?	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- Is the recourse to the DS for technical regulations disallowed?	0	0	0	0	0	0	0	0	0	0	0	0	0	0
V. Further Cooperation Among Members	0	1	1	0	0	0	0	0	0	0	0	0	1	0
(i) Common policy/standardization programme (beyond trade-related objectives)	0	0	1	0	0	0	0	0	0	0	0	0	0	0
(ii) Technical Assistance	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(iii) Metrology	0	1	1	0	0	0	0	0	0	0	0	0	1	0

	Korea-Chile	MERCOSUR	Mexico-Chile	Mexico-EFTA	Mexico-Japan	Mexico-Nicaragua	Mexico - Northern Triangle	Mexico-Uruguay	NAFTA
I. Reference to WTO-TBT Agreement	1	1	1	1	1	0	1	1	1
definitions	0	0	1	0	0	0	0	1	0
rules	1	1	0	1	1	0	1	0	1
specific provisions	0	0	0	0	0	0	0	0	0
II. Integration Approach									
A. Standards:									
(i) Mutual Recognition	1	0	0	0	0	0	0	0	1
- Is mutual recognition in force?	0	0	0	0	0	0	0	0	0
- Is there a time schedule for achieving mutual recognition?	0	0	0	0	0	0	0	0	0
- Is the burden of justifying non-equivalence on the importing country?	1	0	0	0	0	0	0	0	1
(ii) Harmonization	1	0	1	0	0	0	0	0	1
- Are there specified existing standards to which countries shall harmonize?	0	0	0	0	0	0	0	0	0
- Is the use or creation of regional standards promoted?	0	0	0	0	0	0	0	0	0
- Is the use of international standards promoted?	1	0	1	0	0	0	0	0	1
B. Technical Regulations									
(i) Mutual Recognition	0	0	1	0	0	1	1	1	1
- Is mutual recognition in force?	0	0	0	0	0	0	0	0	0
- Is there a time schedule for achieving mutual recognition?	0	0	0	0	0	0	0	0	0
- Is the burden of justifying non-equivalence on the importing country?	0	0	1	0	0	1	1	0	1
(ii) Harmonization	0	1	1	0	0	0	0	1	1
- Are there specified existing standards to which countries shall harmonize?	0	0	0	0	0	0	0	0	0
- Is the use or creation of regional standards promoted?	0	0	0	0	0	0	0	0	0
- Is the use of international standards promoted?	0	0	1	0	0	0	0	1	1
C. Conformity Assessment									
(i) Mutual Recognition	1	1	1	0	0	1	1	1	1
- Is mutual recognition in force?	0	0	0	0	0	0	0	0	0
- Is there a time schedule for achieving mutual recognition?	0	0	0	0	0	0	0	0	0
- Do parties participate in international or regional accreditation agencies?	0	0	0	0	1	0	0	0	1
- Is the burden of justifying non-equivalence on the importing country?	0	0	0	0	0	0	0	0	1
(ii) Harmonization	0	1	0	0	0	0	0	1	1
- Are there specified existing standards to which countries shall harmonize?	0	0	0	0	0	0	0	0	0
- Is the use or creation of regional standards promoted?	0	0	0	0	0	0	0	0	0
- Is the use of international standards promoted?	0	0	0	0	0	0	0	1	1
III. Transparency Requirements	0	1	1	0	1	1	1	0	1
(i) Notification	0	1	1	0	0	1	1	0	1
- Is the time period allowed for comments specified?	0	0	1	0	0	1	1	0	1
- Is the time period allowed for comments longer than 60 days?	0	0	1	0	0	1	1	0	1
(ii) Contact points/ consultations for exchange of information	0	1	0	0	1	1	1	0	1
IV. Institutions	1	1	0	1	1	1	1	0	1
(i) Administrative Bodies	1	1	0	0	1	1	1	0	1
- Is a regional body established?	1	1	0	0	1	1	1	0	1
(ii) Dispute Settlement Mechanism	0	0	0	1	0	1	1	0	1
- Is there a regional dispute settlement body?	0	0	0	0	0	1	1	0	1
- Are there regional consultations foreseen to resolve disputes?	0	0	0	1	0	1	1	0	1
- Is there a mechanism to issue recommendations?	0	0	0	0	0	1	0	0	1
- Are recommendations mandatory?	0	0	0	0	0	0	0	0	0
- Is the recourse to the DS for technical regulations disallowed?	0	0	0	0	0			0	0
V. Further Cooperation Among Members	1	1	1	0	0	1	1	1	1
(i) Common policy/ standardization programme (beyond trade-related objectives)	0	0	0	0	0	0	0	0	0
(ii) Technical Assistance	1	0	1	0	0	1	1	1	1
(iii) Metrology	0	1	0	0	0	1	0	0	0

	New Zealand-Singapore	SADC	SAFTA	Turkey-Israel	US-Bahrain	US-CAFTA Dom. Rep.	United States-Chile	US-Morocco	United States-Singapore
I. Reference to WTO-TBT Agreement	0	0	0	1	1	1	1	1	1
definitions	0	0	0	0	1	1	1	1	1
rules	0	0	0	1	1	1	1	1	0
specific provisions	0	0	0	0	0	0	0	0	0
II. Integration Approach									
A. Standards:									
(i) Mutual Recognition	0	0	0	0	0	0	0	0	0
- Is mutual recognition in force?	0	0	0	0	0	0	0	0	0
- Is there a time schedule for achieving mutual recognition?	0	0	0	0	0	0	0	0	0
- Is the burden of justifying non-equivalence on the importing country?	0	0	0	0	0	0	0	0	0
(ii) Harmonization	0	0	1	0	0	0	0	0	0
- Are there specified existing standards to which countries shall harmonize?	0	0	0	0	0	0	0	0	0
- Is the use or creation of regional standards promoted?	0	0	0	0	0	0	0	0	0
- Is the use of international standards promoted?	0	0	0	0	0	0	0	0	0
B. Technical Regulations									
(i) Mutual Recognition	1	0	0	0	0	0	1	0	0
- Is mutual recognition in force?	0	0	0	0	0	0	0	0	0
- Is there a time schedule for achieving mutual recognition?	0	0	0	0	0	0	0	0	0
- Is the burden of justifying non-equivalence on the importing country?	0	0	0	0	0	0	1	0	0
(ii) Harmonization	1	0	0	0	0	0	0	0	0
- Are there specified existing standards to which countries shall harmonize?	0	0	0	0	0	0	0	0	0
- Is the use or creation of regional standards promoted?	0	0	0	0	0	0	0	0	0
- Is the use of international standards promoted?	0	0	0	0	0	0	0	0	0
C. Conformity Assessment									
(i) Mutual Recognition	1	0	1	1	1	1	1	1	1
- Is mutual recognition in force?	1	0	0	0	0	0	0	0	0
- Is there a time schedule for achieving mutual recognition?	0	0	0	0	0	0	0	0	1
- Do parties participate in international or regional accreditation agencies?	0	0	0	0	0	0	0	0	1
- Is the burden of justifying non-equivalence on the importing country?	0	0	0	0	1	1	1	1	0
(ii) Harmonization	0	0	0	0	0	0	0	0	0
- Are there specified existing standards to which countries shall harmonize?	0	0	0	0	0	0	0	0	0
- Is the use or creation of regional standards promoted?	0	0	0	0	0	0	0	0	0
- Is the use of international standards promoted?	0	0	0	0	0	0	0	0	0
III. Transparency Requirements	0	0	0	0	1	1	1	1	1
(i) Notification	0	0	0	0	0	0	0	0	0
- Is the time period allowed for comments specified?	0	0	0	0	0	0	0	0	0
- Is the time period allowed for comments longer than 60 days?	0	0	0	0	0	0	0	0	0
(ii) Contact points/consultations for exchange of information	0	0	0	0	1	1	1	1	1
IV. Institutions	0	0	0	0	1	1	1	1	1
(i) Administrative Bodies	0	0	0	0	1	1	1	1	1
- Is a regional body established?	0	0	0	0	1	1	1	1	1
(ii) Dispute Settlement Mechanism	0	0	0	0	0	0	1	0	1
- Is there a regional dispute settlement body?	0	0	0	0	0	0	1	0	1
- Are there regional consultations foreseen to resolve disputes?	0	0	0	0	0	0	1	0	1
- Is there a mechanism to issue recommendations?	0	0	0	0	0	0	0	0	0
- Are recommendations mandatory?	0	0	0	0	0	0	0	0	0
- Is the recourse to the DS for technical regulations disallowed?	0	0	0	0	0	0	0	0	0
V. Further Cooperation Among Members	0	1	0	0	0	0	0	0	0
(i) Common policy/standardization programme (beyond trade-related objectives)	0	1	0	0	0	0	0	0	0
(ii) Technical Assistance	0	0	0	0	0	0	0	0	0
(iii) Metrology	0	0	0	0	0	0	0	0	0

Table 9: Deeper Integration FTAs

Preferential Trade Agreement	Development Level	Intra RTA Imports		Disallowed			Common external tariff	Competition provisions	Integration
		Intra-PTA Imports (US$ Billions)	Intra-PTA Share (%)	AD	CVD	Safeguard			
Australia-Singapore	Mixed	5,0	2,4			1	0	1	0
Canada-Chile	Mixed	1,0	0,2	1			0	1	0
Canada-Israel	Mixed	1,0	0,2			1	0	1	0
CER	Developed	7,0	6,4	1			0	1	1
China-Hong Kong, China	Developing	137,0	23,3	1	1		0	0	1
European Community	Developed	1585,0	51,7	1	1	1	1	1	1
EEA	Developed	1389,0	1,1	1	1		0	1	1
EFTA	Developed	1,0	1,1	1	1		0	1	1
EFTA-Singapore	Mixed	4,0	1,5	1			0	1	0
Mercosur	Developing	13,0	13,2			1	1	1	0
New Zealand-Singapore	Mixed	1,0	0,2			1	0	1	0
Group Average		285,8	9,2				18%	91%	45%

ANNEX I: List of surveyed PTAs

Preferential Trading Arrangement	Members	Level of integration	Date of entry into force	Intra-RTA Imports 2003 (Billions US$)
AFTA	Brunei (84)., Cambodia. (99), Indonesia, Laos (97), Malaysia, Myanmar (97), Philippines, Singapore, Thailand, Vietnam (95)	Free Trade Agreement	01-Jan-94	79
Aladi	Argentina, Colombia, Paraguay, Bolivia, Cuba, Peru, Brazil, Ecuador, Uruguay, Chile, Mexico,Venezuela	Free Trade Agreement	01-Jan-81	43
Andean Community	Bolivia, Colombia, Ecuador, Perú, Venezuela (73)	Customs Union	26-May-69	6
Australia-Singapore		Free Trade Agreement	28-Jul-03	5
Australia-Thailand		Free Trade Agreement	01-Jan-95	4
Australia-US		Free Trade Agreement	1-Jan-05	20
Canada-Chile		Free Trade Agreement	05-Jul-97	1
Canad-Israel		Free Trade Agreement	01-Sep-97	1
Caricom	Antigua and Barbuda, The Bahamas, Barbados, Belize, Dominica, Grenada, Guyana, Haiti, Jamaica, Montserrat, Saint Lucia, St. Kitts and Nevis, St. Vincent and the Grenadines, Suriname, Trinidad and Tobago	Customs Union	22-Aug-98	1
CEFTA	Bulgaria (99), Czech Rep., Hungary, Poland, Romania (97), Slovakia, Slovenia (96)	Free Trade Agreement	01-Mar-93	26
CEMAC	Cameroun, Centrafrique, Congo, Gabon, Equatorial Guinea (84), Chad		24-Jun-99	0
CER	Australia, New-Zealand	Free Trade Agreement	01-Jan-83	7
China-Hong Kong, China		Free Trade Agreement	01-Jan-04	137
COMESA	Angola, Burundi, Comoros, Congo-Dem.Rep., Djibouti, Eritrea, Ethiopia, Kenya, Madagascar, Malawi, Mauritius, Namibia, Rwanda, Seychelles, Sudan, Swaziland, Tanzania, Uganda, Zambia, Zimbabwe	Free Trade Agreement	08-Dec-94	2
EC (Treaty of Rome)	Austria (95), Belgium, Denmark (73), Finland (95), France, Germany, Greece(81), Ireland (73), Italy, Luxembourg, The Netherlands, Portugal (86), Spain (86), Sweden (95), U.K (73); as 04 Cyprus, Czech Rep., Estonia, Hungary, Latvia, Lithuania, Malta, Polan	Customs Union	01-Jan-58	1.585
EC-Algeria		Free Trade Agreement	01-Jul-76	1.050
EC-Bulgaria		Free Trade Agreement	31-Dec-93	1.389
EC-Chile		Free Trade Agreement	01-Feb-03	1.593
EC-Egypt		Free Trade Agreement	01-Jul-77	1.040
EC-Israel		Free Trade Agreement	01-Jun-00	1.607

Preferential Trading Arrangement	Members	Level of integration	Date of entry into force	Intra-RTA Imports 2003 (Billions US$)
EC-Jordan		Free Trade Agreement	01-May-02	1.586
EC-Lebanon		Free Trade Agreement	01-Mar-03	1.588
EC-Mexico		Free Trade Agreement	01-Jul-00	1.610
EC-Morocco		Free Trade Agreement	01-Mar-00	1.532
EC-Romania		Free Trade Agreement	01-May-93	1.288
EC-South Africa		Free Trade Agreement	01-Jan-00	1.545
EC-Syria		Free Trade Agreement	01-Jul-77	1.039
EC-Tunisia		Free Trade Agreement	01-Mar-98	1.531
EEA	EC, Iceland, Liechtenstein, Norway	Free Trade Agreement	01-May-94	1.389
EFTA	Iceland, Liechtenstein, Norway, Switzerland	Free Trade Agreement	01-May-60	1
EFTA-Bulgaria		Free Trade Agreement	01-Jul-93	1
EFTA-Israel		Free Trade Agreement	01-Jan-93	4
EFTA-Morocco		Free Trade Agreement	01-Jan-99	1
EFTA-Romania		Free Trade Agreement	01-May-93	2
EFTA-Singapore		Free Trade Agreement	01-Jan-03	4
EFTA-Turkey		Free Trade Agreement	01-Jan-92	3
GCC	Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, UAE	Free Trade Agreement	25-May-81	5
Group of 3		Free Trade Agreement	13-Jun-94	4
Japan-Singapore		Free Trade Agreement	30-Nov-02	21
MERCOSUR	Argentina, Brazil, Paraguay, Uruguay	Customs Union	29-Nov-91	13
NAFTA	Canada, Mexico, USA	Free Trade Agreement	01-Jan-94	629
New Zealand-Singapore		Free Trade Agreement	01-Jan-01	1
SAFTA	Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, Sri Lanka	Free Trade Agreement	07-Dec-95	5
SPARTECA	Australia, Cook Island, Fiji, Kiribati, Nauru, New Zealand, Niue, Papua New Guinea, Solomon Island, Tonga, Tuvalu, Samoa	Free Trade Agreement	01-Jan-81	9
Turkey-Israel		Free Trade Agreement	01-Jan-97	1
Turkey-Rom.		Free Trade Agreement	01-Jan-98	2
US-CAFTA Dom. Rep.		Free Trade Agreement	01-Jan-05	30
United States-Chile		Free Trade Agreement	01-Jan-04	7
United States-Israel		Free Trade Agreement	19-Aug-85	18
United States-Jordan		Free Trade Agreement	17-Dec-01	1
US-Morocco		Free Trade Agreement	01-Jan-05	1
United States-Singapore			01-Jan-04	33
WAEMU/UEMOA	Benin, Burkina Faso, Cote d'Ivoire, Guinea Bissau, Mali, Niger, Senegal, Togo	Customs Union	01-Jan-00	1
Note: Trade data based on UN Comtrade. EU's Imports are			Tot	22.499