

## E. International cooperation on non-tariff measures in a globalized world

The focus of this section is international cooperation on non-tariff measures (NTMs) and services measures. The section first reviews the economic rationale for such cooperation in the context of trade agreements. It then looks at the practice of cooperation in the areas of technical barriers to trade (TBT), sanitary and phytosanitary (SPS) measures and domestic regulation in services. The third part deals with the legal analysis of the treatment of NTMs in the GATT/WTO system and the interpretation of the rules that has emerged in recent international trade disputes. The section concludes with a discussion of the challenges of adapting the WTO to a world where NTMs are a growing concern.

## Contents

1	The regulation of NTMs in trade agreements	162
2	Cooperation in specific policy areas: TBT/SPS and services measures	176
3	GATT/WTO disciplines on NTMs as interpreted in dispute settlement	187
4	Adapting the WTO to a world beyond tariffs	203
5	Conclusions	216

### Some key facts and findings

- WTO rules help to deal with the problem of countries replacing tariffs with non-tariff measures, but the changing nature of trade creates new complexities that call for deeper forms of institutional integration.
- Countries cooperate on TBT/SPS measures and domestic regulation in services to address information problems and to complement market access commitments.
- Distinguishing legitimate NTMs from measures designed for protectionist purposes has been the key issue in GATT/WTO dispute settlement concerning NTMs and in establishing new disciplines for domestic regulation in services.
- The tension between economic analysis and legal practice can inform future efforts to address NTMs in the WTO system in an evolving trading environment.

This section begins by reviewing the economic reasons for international cooperation on non-tariff measures in the context of trade agreements. This theoretical approach provides a framework for considering the efficient design of rules on NTMs in a trade agreement and how they may be affected by diverse factors, such as the development of global production chains and the opaque nature of various NTMs. The second part looks at how cooperation on NTMs has taken place in the multilateral trading system and within other international fora and institutions. Specifically, the focus is on technical barriers to trade (TBT), sanitary and phytosanitary (SPS) measures (regarding food safety and animal and plant health) and services regulation, stressing the similarities and the peculiarities of the underlying problems and of the ways in which cooperation has taken place.

The third part of the section deals with the legal analysis of the treatment of non-tariff measures in the GATT/WTO system and the interpretation of the rules that have emerged in recent international trade disputes. Special attention is given to how the agreements and the dispute settlement system have dealt with the distinction between legitimate and protectionist NTMs. The section concludes with a discussion of the challenges of adapting the WTO to a world where non-tariff measures are a growing concern. This brings together the main insights of the preceding analysis of the theory, evidence and evolving practices of NTMs contained in the different sections of the Report, and offers some policy observations.

## 1. The regulation of NTMs in trade agreements

Why do countries cooperate on trade? Why is there a need for cooperation on non-tariff measures? How should NTMs be regulated in a trade agreement? This section anchors the discussion of international cooperation on NTMs in a theoretical framework. The following section provides a specific focus on three relevant policy areas: TBT measures, SPS measures and services measures, particularly with respect to domestic regulation.

Section E.1 first reviews the two main theories of trade agreements: the terms-of-trade approach and the commitment approach (see below). These theories provide a rationale for trade cooperation and offer a framework for considering the role and design of NTM regulation in a trade agreement, such as the WTO's agreements.

As discussed in more detail below, the terms-of-trade approach has a simple and powerful result. If governments set policy to meet their objectives in the most efficient way possible, they would not choose non-tariff measures to distort international trade in their favour. Tariffs would be the only policy instrument

involved. In this basic theoretical setting, governments set NTMs to address legitimate public policy concerns, and rules on NTMs in a trade agreement only need to address potential "policy substitution" between tariffs and non-tariff measures (see Section B). Efficiency can be obtained with a simple set of rules, such as national treatment and non-violation (see Section E.1(b) below). This set of rules leaves substantial autonomy to national governments in setting NTMs ("shallow" integration).

While certain features of trade agreements correspond to the basic prediction of the terms-of-trade approach, actual cooperation on non-tariff measures in the WTO and other arrangements (particularly preferential trade agreements) goes generally beyond a "shallow" level, encompassing "deep" forms of integration. This suggests that governments may be trying to address problems beyond substitution between tariffs and NTMs. What are these problems?

Section E.1 reviews some of these additional rationales for cooperation on non-tariff measures. A first explanation may be provided by the commitment approach. In that framework, it can be shown that certain features of WTO rules on NTMs can be justified when governments suffer credibility problems *vis-à-vis* domestic constituencies, such as special-interest groups. Another issue is that the changing nature of international trade and the rise in offshoring creates new policy externalities that may also prompt deeper forms of institutional integration beyond simple market preservation rules. Finally, cooperation on NTMs in trade agreements can be motivated by some additional complexities that are not captured by the basic model, but that may be relevant in practice. A first issue is that several NTMs are highly opaque. This suggests that member countries need to cooperate to identify what constitute an efficient and legitimate use of NTMs. Another issue is that market actors, rather than governments, can set *de facto* NTMs by adopting voluntary private standards.

Finally, this analysis turns to a consideration of the efficient design of a trade agreement that deals with non-tariff measures. Specifically, using the terms-of-trade approach as a benchmark, the last sub-section evaluates the efficiency of certain GATT/WTO principles. While this analysis is by necessity speculative, it may be useful to inform a discussion on institutional strengths and weaknesses. The section concludes with a discussion of the trade-offs implied by different forms of deep integration, such as harmonization of standards.

### (a) Why do countries cooperate on NTMs?

Recent economic literature has developed two main economic theories regarding trade agreements: the terms-of-trade theory and the commitment theory. The ensuing discussion considers what each theory has to

say about the treatment of non-tariff measures in trade agreements. The terms-of-trade approach and the commitment approach argue that governments negotiate international treaties to address certain international and domestic externalities associated with trade policy. These effects were also touched upon in Section B. While the two economic theories were developed primarily for explaining the use of tariffs, similar motives might apply for cooperation on the use of NTMs.

The logic of the terms-of-trade and commitment approaches does not provide a satisfactory explanation of the economic rationale for services trade agreements. While some of the insights from these theories are relevant to explain certain features of the General Agreement on Trade in Services (GATS), economists recognize that there are important differences between trade in goods and trade in services. A discussion of the current debate on international cooperation on services trade is contained in Box E.1.

### (i) *The terms-of-trade approach*

According to the terms-of-trade (or traditional) theory, governments are attracted to trade agreements as a means of escaping from a terms-of-trade driven Prisoners' Dilemma (Bagwell and Staiger, 1999, 2002), i.e. a non-cooperative situation in international trade policy. The "problem" that arises in the absence of a trade agreement can be expressed as follows.

When a government chooses the level of a tariff unilaterally, or a non-tariff measure that takes the place of a tariff, it will not consider the welfare consequences for foreign exporters in its decision. Section B describes how the incentive to use trade policy in ways that benefit domestic producers at the expense of foreign exporters causes governments to impose high trade restrictions that alter the terms of trade (i.e. the price of exports relative to imports) to the advantage of the domestic economy. However, as this logic applies to all countries and each one seeks to raise tariffs, the result – known as Nash equilibrium – is that the terms of trade are unaffected overall, but the volume of trade is inefficiently low. This outcome is the well-known Prisoners' Dilemma.

According to the terms-of-trade theory, the purpose of a trade agreement is to give foreign exporters a "voice" in the tariff choices of their trading partners, so that through negotiations they can make their trading partners responsive to the costs that these trade restrictions impose on foreign exporters. In accomplishing this, a trade agreement based on reciprocity and non-discrimination (the most-favoured nation – MFN – clause) naturally leads to lower tariffs and an expansion of market access to internationally efficient levels.

Governments can use non-tariff measures instead of tariffs to alter trading partners' market access and thereby manipulate the terms of trade (see Section B). This indicates that the principal design features of tariff agreements, reciprocity and MFN, can facilitate cooperation on NTMs. However, even in the context of a complex policy environment, there is no need for governments to negotiate directly over the levels of their NTMs. Rather, in the traditional approach, the main purpose of a trade agreement is to raise trade volumes without introducing distortions into the unilateral choices of NTMs, such as domestic regulatory and tax policies, as a result of the negotiated constraints on tariffs (Bagwell and Staiger, 2001; Staiger and Sykes, 2011). Intuitively, a tariff is the first-best instrument for manipulating the terms of trade: if governments have both tariffs and NTMs at their disposal, they have no reason to use the latter to restrict trade (Staiger, 2012).

The terms-of-trade theory of trade agreements provides strong support for "shallow" integration as the most direct means to solve the policy inefficiencies that would arise in the absence of a trade agreement. Negotiations over tariffs alone, coupled with a set of rules that address the policy substitution problem between tariffs and non-tariff measures (e.g. a "market access preservation rule"), can bring governments to a higher efficiency level (the efficiency frontier). At a conceptual level, this resonates with the approach of the General Agreement on Tariffs and Trade (GATT) to domestic NTMs, whereby negotiations focus on tariff reductions as a means to expand market access. Under this approach, various GATT provisions are meant to protect the value of negotiated market access agreements against erosion by NTMs. In addition, WTO members are required to forgo the use of quotas and other quantitative restrictions in favour of tariffs. This institutional solution allows WTO members to achieve the efficient combination of trade policy and domestic NTMs, even when governments face the incentive of using these measures to undo the market access granted to trading partners through tariff reductions (Bagwell and Staiger, 2001).

Notwithstanding this important result, two related questions remain open. Are there features of the treatment of non-tariff measures in trade agreements that the basic version of the terms-of-trade approach fails to explain? Why do governments often cooperate specifically on NTMs in the context of trade agreements? These questions are addressed in two steps. First, we introduce an alternative rationale for trade agreements, the commitment approach, and argue that the treatment of NTMs in treaties may respond to the need to "buy" credible commitments to efficient policies. In the following sub-section, we discuss additional concerns relating to cooperation on NTMs that are not captured by the basic version of the terms-of-trade approach discussed above.

## Box E.1: Economic theories of the GATS

Economic analysis of the GATS tends either to emphasize the economic advantages of efficient and liberalized services markets or to use the theories borrowed from trade in goods to explore the logic of services trade opening. While these approaches have gone some way towards exploring the role of services trade in the broader economy and identifying the parallels between trade in goods and trade in services, neither approach speaks directly to the question of international cooperation on services.

This box first outlines the reasons why the frameworks laid out in Section E.1 are unsatisfactory for cooperation in services, and summarizes two approaches to explaining international cooperation on services trade. The first argues that services commitments in international trade agreements provide a credible instrument for anchoring unilateral policy reforms and limiting policy substitution. The second sees the process of services trade opening as part of government responses to changes in the nature of production towards international supply chains.

The principal argument for applying theories developed for trade policy cooperation in goods to services trade is the recognition that policy-makers can suffer from the same incentive problems in both sectors. In particular, the international terms-of-trade theory and the domestic commitment theory may extend to services measures (Copeland and Mattoo, 2008). However, the distinctive features of services may mean that the theories used to explain the GATT may not be sufficient to explain cooperation under the GATS. For example, one of the main modes of services provision is through local establishment or foreign direct investment. This mitigates the incentive to manipulate international terms of trade because with vertical integration, international firms partially internalize the foreign costs of trade policy (Blanchard, 2007). In addition, Marchetti and Mavroidis (2011) suggest that the GATS is flexible to the point that it is hard to argue persuasively that commitment theory explains its advent.

Copeland and Mattoo (2008) point to another challenge of applying the terms-of-trade and commitment theories to trade agreements in services. Services play an important role in the broader economy by complementing outcomes in other markets. For example, a well-functioning financial sector transforms savings into investment and can allocate capital towards higher returns. Transport services reduce the frictions in exchange, facilitating both domestic and international trade. Finally, communications technology does not just facilitate transactions but may lead to the dissemination and creation of knowledge (Copeland and Mattoo, 2008). These potential efficiency gains would motivate a government to open up services markets unilaterally, without the need for international cooperation or a services agreement.

In addition to unilateral incentives to open up services markets, technological changes have led to an expansion in services trade, which itself leads governments to seek multilateral commitments. According to Marchetti and Mavroidis (2011), some countries worried that while the opening of service markets was progressing through the 1980s, barriers loomed on the horizon. Specifically, the concern was that services trade that was enabled by technological change would lead governments to replace the lost technological barriers with new policy barriers to services trade, akin to policy substitution discussed with regards to goods. The threat of policy substitution led these countries to advocate a mechanism to open international services trade, including the GATS.

On the other hand, Hoekman and Kostecki (2001) argue that changes in the fragmentation of the production led firms to require more access to efficient services inputs, which in turn encouraged governments to put services trade opening on the agenda. Similarly, Deardorff (2001) finds that because services play an important role in facilitating international production, opening trade in services increases the returns to trade opening in goods. Because global production chains play an important role in international trade, enacting protectionist policies in services and investment may end up restricting trade in goods. Recent work on the effects associated with international production (discussed in Section E.1(b)) may therefore provide useful insights.

In brief, current economic theories of the GATS provide only a partial picture of the complex world of services negotiations. This is somehow in contrast to the more developed framework that economists use to analyse international cooperation on trade in goods. This is an area where more economic research would have important pay-offs.

*(ii) The commitment approach*

Thus far, we have described a theory of trade agreements that emphasizes the control of the beggar-thy-neighbour motives associated with terms-of-trade manipulation. A distinct, though possibly complementary, theory of trade agreements posits that the purpose of a trade agreement is to tie the hands of its member governments, and thereby offer an external commitment device. Governments might benefit from a trade agreement that could help them commit to a policy of open trade as tariffs benefit the protected sector, but create distortions that lower aggregate welfare (see Maggi and Rodríguez-Clare, 1998, 2007; Matsuyama, 1990; Staiger and Tabellini, 1987).<sup>1</sup>

Most research adopting the commitment approach to trade agreements has focused on tariffs only, and the implications of the commitment approach for the treatment of non-tariff measures in trade agreements is less well understood than in the case of the terms-of-trade theory. Two recent papers, however, use the commitment approach to offer insights into features of the treatment of NTMs in the GATT/WTO system that cannot be understood through the terms-of-trade approach. Brou and Ruta (2009) show that an agreement that allows tariffs to be constrained, but leaves other NTMs such as domestic subsidies unbound or open to manipulation, will not provide an effective commitment device. This would allow policy-makers to simply use NTMs more intensively once tariff bindings (i.e. ceilings) have been negotiated (a clear example of policy substitution). In this context, a government is better off under an agreement that imposes rules on NTMs because only under a more complete trade agreement can policy credibility be achieved. This approach, therefore, provides insights into policy prerequisites for handling domestic NTMs, such as domestic subsidies or regulations, in the WTO system.

In a similar modelling environment, Potipiti (2006) offers an explanation for the different treatment of tariffs and export subsidies in the WTO. Both tariffs and export subsidies may distort the allocation of investment, which generates a social welfare loss. On the other hand, the government may benefit from the lobbying contributions from the protected import and export sectors. The rules that the policy-maker will chose to sign in a trade treaty reflect this trade-off. Potipiti (2006) shows that, because of the different growth perspectives of the import and the export sectors, a government finds it efficient to commit to different rules on export and import policy. Specifically, a higher growth prospect of the export sector relative to the import sector makes lobbying contributions from exporters less attractive, while increasing the social cost of export subsidy. Hence, WTO rules that ban the latter but only limit the use of tariffs, which is difficult to explain in the terms-of-trade approach, can be understood from the perspective of the commitment theory.

*(b) Why do countries cooperate on NTMs? Beyond policy substitution*

The previous section emphasized the similarities between tariffs and non-tariff measures and argued that NTMs can be used by governments to take the place of tariffs. This provided a first rationale for the regulation of non-tariff measures in trade agreements. The replacement of tariffs with NTMs, however, is not the only problem that the regulation of NTMs in trade agreements attempts to address. This section focuses on these additional concerns.

Non-tariff measures differ from tariffs in several ways; these differences and the changing nature of international trade may provide additional reasons for cooperation on non-tariff measures within trade agreements. NTMs often address vital domestic and international public policy concerns. They may be directed at protecting broad consumer interests more than narrow producer concerns. Protecting plant, animal and human health, food safety, and the environment, or establishing the standards necessary for fair market exchange are public policy objectives. These objectives, while broadly shared by WTO members, often present a wide spectrum of policy preferences. In addition, non-tariff measures and tariffs are different in terms of their longevity. NTMs are subject to change because regulatory needs vary in line with changes in the economic and social environment. What is the role of the WTO in this context?

This section provides two sets of reasons for incorporating disciplines on non-tariff measures into the trade system beyond the disciplines necessary to prevent policy substitution between tariffs and NTMs (the next section offers specific examples based on TBT/SPS measures and services measures).

The first explanation focuses on the differences between tariffs and non-tariff measures and the rationale for the regulation of NTMs that relate to these differences. From this point of view, there are three additional concerns in the regulation of NTMs. The first is the opacity of certain NTMs in terms of intent and effect. Secondly, NTMs and tariffs affect competition in different ways, as an NTM regulation may increase fixed costs and therefore deter market entry. Finally, not all NTMs are imposed by governments, and may take the form of private standards.

The second explanation concerns the changing nature of international trade. The rise in global production chains may create new forms of policy spillovers that also require direct cooperation on non-tariff measures. The toolbox to deal with NTMs also depends on whether the problem that the trade agreement is trying to solve is tariffs being replaced by NTMs or these additional dimensions of cooperation. This issue is addressed in Section E.1(c).

*(i) Opaque instruments*

Sections B and C document the rise in the use of non-tariff measures. As concerns about food safety, financial stability and environmental issues increase, governments will rely more on NTMs to achieve domestic policy objectives. The wider use of NTMs, along with the complexity and opacity of several non-tariff measures, pose three new and related challenges for domestic regulators and international trade negotiators. First, there can be uncertainty on what constitutes the efficient level of a non-tariff measure. Secondly, cooperation on NTMs can suffer because enforcement of agreements requires observing the compliance of each government, whereas some NTMs are not easily observable. Finally, if NTMs are opaque, they may be only of limited use as a mechanism for securing commitments by governments under an international agreement.

Shallow integration is efficient in a setting where there are no information problems, as shown in the work by Bagwell and Staiger (2001). However, the lack of perfect information can itself be a reason for deeper cooperation on non-tariff measures in trade agreements. Specifically, the complexity of NTMs can create inefficiencies even if governments are perfectly informed about their own regulatory needs and the effects of their own policy choices, but do not know the efficient level of NTMs for their trading partners. This is because governments may mislead their partners about their policy intentions, making even mutually beneficial communication difficult. This information asymmetry (i.e. where one party has more or better information than the other) poses problems for many areas of international cooperation, but is particularly important in the context of domestic regulation, as disagreement over public policy goals can mask fundamentally uncooperative behaviour.

In addition, the efficient level of a non-tariff measure may change over time. For instance, regulatory targets depend on factors such as the state of technology, awareness of the effects of market failures, industry practices and societal needs (see Section B). When new situations arise, either governments remain unconstrained by their international commitments or they may seek new regulatory provisions by renegotiating their trade agreements with their partners.

Updating commitments to reflect the new regulatory needs may affect the agreement's existing balance. For example, suppose two governments come to an agreement on health and environment inspection certificates for dairy product imports and chicken exports. If there is a discovery of a new pollutant in cheese products that is not covered in the agreement, the dairy-consuming state may seek to impose regulations not covered in the inspection agreement. If the dairy producer seeks to renegotiate, they do so having already made concessions on chicken exports. In expectation of renegotiation, both governments may

seek to avoid efficient agreements for fear that their position would be eroded. Without some mechanism to address these new contingencies, governments' inability to put all future contingencies into a contract precludes writing an efficient agreement for the long run (Battigalli and Maggi, 2003).<sup>2</sup>

Another concern is that the opacity of non-tariff measures often makes it difficult to enforce agreements. A government can theoretically threaten to withhold future cooperation if a partner reneges on a deal. This threat, however, depends on the ability of each government to observe how the other is respecting the agreement. In the case of trade, this requires monitoring of the level of market access. While laws are generally published for the public, the actual application of the law may be opaque and vary according to the choices of regulatory agencies and prevailing economic conditions.

In an uncertain economic environment, governments may have difficulty distinguishing whether a drop in imports is due to higher productivity of the import-competing sector or due to help from the government through hidden protection (Bajona and Ederington, 2009). This makes enforcement challenging; retaliation may be triggered without cause, or agreement violations may go unpunished. Moreover, the potential for mistaken retaliatory actions may make parties hesitant to agree to more liberal commitments, thus harming the prospects for international cooperation.

The opacity intrinsic to the application of non-tariff measures and the challenge of identifying their effects may also exacerbate commitment problems between governments and domestic investors. Trade agreements are generally thought to help governments make policy commitments to investors and voters. However, international agreements may lose their binding power if domestic actors are unclear about policy choices. Firms must decide to make costly and irreversible investments in order to sell new goods or enter new markets. Uncertainty over trade policy creates an incentive for firms to wait and evaluate the effects of regulations before investing. This delay reduces the positive effects of trade opening and reduces the commitment effects of a trade agreement.

Handley (2011) finds that uncertainty over the application of trade policy in Australia reduced the level of firm market entry after trade opening by 30 per cent. In a related study, Handley and Limao (2011) show that uncertainty over trade policy significantly suppressed Portuguese firms' access to EC markets prior to the accession of Portugal in 1986. These results indicate that the complexity and opacity of non-tariff measures may limit the efficacy of trade agreements in solving commitment problems.

*(ii) Private standards*

The majority of this report focuses on measures imposed by governments to address behaviour by

private actors in the market, but the emphasis on government policy somewhat obscures the capacity for collective action on the part of non-governmental agents. Private standards adopted by economic agents can serve as non-tariff measures, affecting trade and world welfare in the same way as government measures (Robert E. Baldwin, 1970). Therefore, the same type of problems that characterize the use of NTMs, and that have been discussed so far, may arise for private standards. To address these impacts, governments can sign trade agreements in which they commit to regulate private standards and standard-setters. Box E.2 provides examples of commonly used private standards. This sub-section evaluates the conditions under which governments would develop trade agreements that cover private standards in various market conditions.

When trade is in final goods and standards remain voluntary, private standards primarily address market failures. Section B describes conditions under which these standards can serve as a signal to the market regarding the particular characteristics of the product. Such voluntary standards can enhance trade by allowing firms to establish systems that provide consumers with information about their products without the need for a trade agreement. Consider an economy with a single standard that opens up trade. Even without government intervention, coalitions of firms may alter standards to match the needs of different consumers in each market. Trade opening may produce harmonization “from the bottom” (initiated by private industry groups) that avoids wasteful replication of national standards and a larger number of specialized international-standard groups (Casella, 2001).

#### Box E.2: Examples of private standards

Private voluntary standards are developed by a number of different types of entities, including companies, non-governmental standardizing bodies (including regional or international bodies), certification and/or labelling schemes (e.g. the Forest Stewardship Council and the Marine Stewardship Council schemes), sectoral trade associations (Florverde for flowers; the Better Cotton Initiative for cotton), and other non-governmental organizations. Some bodies may be both sectoral in nature (e.g. covering forestry products) and international.<sup>3</sup> Among the very many examples of private voluntary standards, we consider the three areas described below for illustrative purposes.

##### Forests and certification

The Forest Stewardship Council (FSC), established in 1993 as a response to concerns about deforestation, is an international non-profit organization aimed at providing forest management certification.<sup>4</sup> The FSC has ten principles and associated criteria for responsible forest management; these describe, among other things, how forests have to be managed to meet social, economic, ecological and cultural needs – they include managerial aspects as well as environmental and social requirements.<sup>5</sup> Another example is the Programme for the Endorsement of Forest Certification (PEFC), an umbrella organization that has endorsed some 30 national forestry certification systems.

These two organizations represent the largest standard schemes in terms of certified forest area, with some 15 per cent of the world's productive forests. Apart from forest management certification, standard schemes in the area of forestry commonly offer chain-of-custody certification to manufacturers and traders who do not grow and harvest trees. This type of certification is based on requirements to ensure that the wood contained in products originates from certified forests. Chain-of-custody certifications have risen rapidly in recent years, reflecting growing consumer demand.<sup>6</sup>

##### Carbon labelling

Carbon footprint labelling schemes and their related standards aim to reflect the total amount of greenhouse gases emitted during a product's lifecycle, including its production, transportation, sale, use and disposal. Existing initiatives differ in rationale, context, information display, and assessment methodology. While some labelling schemes indicate the amount of carbon emitted during a product's lifecycle, others mention that the producer has committed to reducing or offsetting its carbon footprint, or that the product is more carbon-efficient than a comparable product.

The first carbon-labelling initiative was launched in 2007 by the Carbon Trust, an independent, not-for-profit company created by the UK government; it was followed by several other initiatives. Efforts to harmonize the underlying methodology of carbon footprint labelling schemes are on-going at the international level.<sup>7</sup> An increasing number of governments have adopted, or are in the process of developing, carbon-labelling schemes. To date, however, these are all voluntary in nature (Brenton et al., 2009; Bolwig and Gibbon, 2009).

### Food safety standards

In response to evolving economic conditions, including increased consumer demand for quality, safety and process attributes and increased concentration in the agro-food retail sector, private firms have been developing a growing number of food safety standards (Henson and Reardon, 2005). These standards are typically higher than public mandatory standards and are integral to the contracting obligations of firms along a supply chain.

Private standards can contribute to the governance of food safety across regions and sectors but when there is a multitude of competing standards, compliance costs for suppliers also increase (Fulponi, 2006). Thus, another recent trend in the area of private food safety standards is the emergence of global coalitions for setting standards. These coalitions represent an attempt to harmonize efforts to achieve food safety and mutual recognition of national and/or regional standards among food retailers. For example, the Global Food Safety Initiative (GFSI) was launched in 2000 to encourage convergence between food safety management systems through maintaining a benchmarking process for such systems.

Through the benchmarking process, the GFSI seeks to identify food safety schemes that produce consistent food safety results. Retailers guided by GFSI recommendations should be able to identify suppliers that meet the requirements of relevant standards without requiring an audit. This type of initiative could provide retailers with flexibility to source across the world and contribute to enhanced efficiency of the global food system.

On the other hand, once production expands beyond borders, governance between and within firms requires increased coordination and monitoring. In this environment, firms increasingly employ private standards to address these challenges in governing their supply chains, with implications for market access. For example, in a world of local production, private food safety and quality standards were predominantly business-to-business requirements and not a significant challenge to trade, but with the rise of offshoring, these private standards have evolved into collective standards as leading firms have made efforts to manage the transaction costs associated with their global supply chains (Henson, 2008). As these supply chains have begun to span national borders, private standards have become increasingly prevalent (Hussey and Kenyon, 2011).

The establishment and adoption of a private standard entails costs that have different effects across firms and countries. For example, the global adoption of a standard used in the domestic market entails costs for foreign firms that domestic counterparts do not face (Büthe and Mattli, 2011). When private standards have distributional consequences, governments may use trade agreements to limit the negative trade consequences of international and domestic standard-setting bodies.

Even without a trade agreement, firms may limit the influence of a particular standard by creating a competing private regulator to develop more favourable rules. For example, the World Wide Fund for Nature helped create a private standard-setting body, the Forest Stewardship Council (FSC) to promote sustainable forestry. In response, producers developed competing standard-setting programmes to satisfy consumers without undertaking the costly measures promoted by the FSC (Cashore, 2002).

Depending on the needs of citizens and firms, governments may sign agreements to promote or constrain competition among standard-setting bodies. Such an agreement can significantly alter the regulatory environment. For instance, Büthe (2010) points out that in the electronics sector, the International Electrotechnical Commission (IEC) managed to leverage WTO recognition and its own incumbent position to play a central role in international regulation. Besides this example, the experience of the European Union shows that the designation or subsequent recognition of a particular private rule-maker affected competition (Cafaggi and Janczuk, 2010).

Moreover, a "private" standard that becomes widely used may be a precursor to government regulation (whether in the form of a technical regulation, conformity assessment procedure or an SPS measure). One recent example, relevant to the issue of carbon footprint labelling, is France's Grenelle 2 Law.<sup>8</sup> This law includes provisions on product carbon footprint labelling and environmental lifecycle analysis. Some delegations at the WTO have expressed concern (in the TBT Committee) that carbon-labelling requirements could become mandatory in the future; in fact, an earlier draft of the measure had foreseen mandatory carbon footprint labelling. The European Union has clarified that the law is not compulsory: it was designed to introduce consumers to additional environmental information provided on products.

The analysis above examines voluntary standard-setting and the role of agreements in regulating standard-setting bodies when production is localized in a single country. However, when production networks are global and tasks are traded across countries, firms may set standards for their input suppliers, establishing an additional reason for

international agreements on voluntary standards. As mentioned above, firms choose standards to ensure a level of quality or to make the input compatible with other stages of the production process, often requiring input manufacturers to purchase or license standards from private firms. However, in industries with only a few input purchasers, these firms may be able to set standards in ways that leverage their market power.

For example, suppose that a number of firms produce oranges for sale to one large orange juice manufacturer. The manufacturer can set standards in a way that extract profits from the orange farmers, for example by requiring oranges selected by a patented orange-grading machine, or that orange growers obtain a licensed management certification. If the firm is vertically integrated, the standard can be set to ensure that profits remain in house, effectively shutting out competition for the input. Imperfect competition creates conditions under which governments can profitably sign agreements to limit the extent to which private standards affect trade. If the standard-setter is in a different country than the input suppliers, the use of that private standard could inefficiently decrease trade. In this environment, the government of the input suppliers would prefer to limit the ability for the downstream firm to set standards.

Because both incumbent firms and their governments have an incentive to influence private standards so that they can capture markets at the expense of competing firms and economies, reciprocal negotiation of private standardizing organization regulations may improve efficiency. However, while there are significant potential welfare gains for improving market access for non-incumbent firms, foreign exporters and their respective governments, each of whom lack influence in private standard-setting, these gains may come at the expense of some domestic regulatory interests. For example, while some governments require private standardizing bodies to include consumer representatives in the development of a standard, in an international cooperative environment, consumer interests would compete with foreign firms or governments whose interests are to open markets.

In many cases, market access considerations are not aligned with consumer concerns, such as environmental and safety protection. Moreover, because producer interests generally face lower collective action costs, they tend to be more politically organized than diffuse consumer interests. Because of these political forces, it is possible that international cooperation on private standard-setting may affect the representation of consumer interests in the development and goals of standards.

### *(iii) Compatibility standards, technical regulations and fixed costs*

As discussed in Section B, several non-tariff measures may differ from tariffs in their effects in imperfectly

competitive markets. This sub-section argues that governments may cooperate to limit the strategic competitive effects of NTMs under three different market conditions. Specifically, a rationale for NTM cooperation emerges in markets with horizontally differentiated goods and services, when products exhibit quality differences, and when NTMs create fixed costs that alter firm entry and industry composition.

When goods and services are not consumed in isolation and there are differences in compatibility across types of products, it may be necessary to set up rules to reduce unnecessary conflicts between formats. In perfectly competitive markets, goods and services are assumed to be economically identical, but in many markets consumers exhibit preferences for one or another variety of goods. These consumer preferences induce firms to alter the features of their product to distinguish it from those of competitors, producing what the economic literature calls horizontally differentiated products.

Moreover, each variety can exhibit higher or lower levels of compatibility with complementary products in the market. To encourage compatibility across products, firms and occasionally governments may appeal to a compatibility standard. Because these standards can affect trade, international cooperation on such standards can promote both market efficiency and consumer welfare (World Trade Organization (WTO), 2005b). For example, while there may be no objective quality differences between two possible computer ports, one of the two may interface better with a popular portable music device. A compatibility standard would ensure that the port set-up increases the compatibility with the other devices available on the market. International cooperation on that standard can ensure that foreign devices do not need to be refitted to meet local demand specifications.

One consideration to bear in mind is that while compatibility standards improve welfare, the beneficiary of this policy reform may depend on who sets the standard. To the extent that promoters of competing standards can come from different countries and the winner can claim profits from the adoption of its standard, strategic trade policy considerations can come into play (World Trade Organization (WTO), 2005b). Governments may refrain from eliminating certain non-tariff measures in an effort to promote the standards adopted by their domestic firms. However, when production involves purchasing parts from foreign affiliates or unrelated parties, promoting standards reduces search costs and production costs. As production becomes increasingly reliant on global production chains, the need for deeper policy integration becomes more pressing, lowering the attractiveness of strategic standard-setting.

A second rationale for cooperation over non-tariff measures is the need to address governments' strategic behaviour in setting these measures. For example, in markets with quality differentiation, consumers take the quality of a product into account when making purchasing decisions. If consumers can observe quality, economic theory indicates that firms that produce a good of higher quality replace the previous vintage of goods on the market, taking market share from competing firms' product lines. In the short run, the technology leader can behave as a monopolist, raising prices and profits, but not raising the price so high as to allow competitors to enter. Lagging firms would have to overcome the costs of innovation as well as the monopolist's prices to sell any products (Motta et al., 1997). This process generates a ladder effect, with each new incumbent selling a higher-quality good at a high price and all other firms exiting, a phenomenon Schumpeter termed "Creative Destruction".

The main danger in such a scenario is that governments may strategically adopt technical regulations to favour domestic firms.<sup>9</sup> Whatever firm ends up producing, the higher-quality good receives higher profits, benefiting the host country and government (Lehmann-Grube, 1997). This potential advantage has important implications for domestic welfare, and creates powerful incentives for lagging industries as well as their national governments to set policies that allow domestic firms to leapfrog leading firms and take over the market in high-quality goods (Herguera and Lutz, 1998). Boccard and Wauthy (2005) describe how governments may use non-tariff measures in this process to ensure that the domestic firm comes out as the quality leader. For example, a technical measure that has the effect of restricting the quantity of imports may allow the domestic firm to develop products in the high-quality range while forcing the foreign firm to produce lower-quality products. Because the foreign firm loses its leadership status, the advantages of "leapfrogging" come at the cost of lowering foreign profits. Because both governments face this incentive, each may seek to mutually tie their hands to avoid this sort of competition by entering into an international agreement on NTMs.

A third rationale for cooperation on non-tariff measures relates to the fact that these measures create a fixed cost for the entry of foreign firms (see Sections B and D). The above discussion assumes that technology or some other factor causes imperfect competition, but NTMs can also determine the extent of competition. Every firm that enters a foreign market would have to file paperwork, familiarize itself with customs procedures, and pay licensing fees, thus incurring fixed costs of doing business rather than a per unit charge. While adding fixed costs affects the international terms of trade in the same way as a tariff, NTMs would have an additional effect on market entry decisions in the foreign country. The larger the NTM, the more firms will have to be able to produce to

engage in trade. If firms are not identical and NTMs impose fixed costs, trade will be concentrated in larger and more productive firms, while at the same time increasing the number of small, less productive firms (Nocke and Yeaple, 2008).

Countries have several reasons to cooperate on reducing fixed costs of market entry. For instance, governments may limit non-tariff measures to prevent the over-reliance of the domestic economy on a few large firms that are able to overcome the fixed costs. Policy-makers may be wary of the effects of economic shocks, which can propagate faster and be more difficult to absorb when there are too few large firms. In particular, if an industry is highly concentrated, capital misallocations that would be reduced in a more competitive market may reverberate, increasing the frequency and cost of economic shocks. These effects would not only depend on regulations in the goods sector; as discussed in Section E.4(e), pro-competitive regulation in the context of domestic regulation in services is an important area of active cooperation.

#### *(iv) Offshoring*

The proliferation of global production chains increases international interdependency and may provide a rationale for deep cooperation on non-tariff measures within trade agreements. As discussed in Section E.1(a), theories of international trade until recently identified one main international spillover associated with trade policy: how it affects terms of trade. The break-up of the production process across different countries creates new forms of cross-border policy spillovers. Antràs and Staiger (2008), for instance, build a model where prices are determined by bilateral bargaining because international production involves exclusive contracts with input suppliers. In this environment, the gains from trade are divided between the two or more firms involved, and the prices of traded goods and services reflect the relative contribution of each node of the supply chain. Because production is international, some of the costs of trade frictions are borne by firms in foreign states. An international externality occurs because governments do not take into account the full value of the international production chain, but only of its domestic component.

Specifically, when prices are set by bargaining, the input producers experience rent-shifting (i.e. shifting profits from the input supplier to the domestic producer), while downstream products experience the traditional terms-of-trade effects. To address the new concern, a trade agreement should ensure that trade policies over the later stages of production do not distort bargaining between producers and input suppliers. When prices are set in a competitive market, it is sufficient for an input-exporting country to negotiate over the tariff directly tied to the input product. However if prices are set via bargaining, in addition to obtaining market access, or a lower tariff

on the imports of the input, governments must additionally negotiate the tariffs and domestic policies which affect the *final product*. For example, suppose country A is seeking to export auto parts to country B. Country A's interest is no longer only to seek reductions in tariffs on auto parts, but also the domestic regulations and standards in country B for the sale of completed automobiles. Without such a commitment, country B may inefficiently regulate, tax or protect the final good market, knowing that part of the pain is suffered by auto parts manufacturers in country A. With a rise in offshoring, these deeper commitments may become increasingly important.

The internationalization of production exemplifies why the traditional trade opening toolbox (i.e. tariff reductions) fails to offer a satisfactory solution in the case of non-tariff measures. Consider the concept of reciprocity. In the current system, this principle is intended as reciprocal market access opening for final goods. It is not hard to see why this concept fails to provide a useful guiding principle for trade negotiators in the context of non-tariff measures and global value chains. More broadly, existing trade rules were originally drafted for a world of international trade in final goods. The extent to which this institutional framework can address the new forms of interdependency associated with global production networks is a complex matter. This issue is discussed in Section E.4.

### (c) Different approaches to the regulation of NTMs in trade agreements

This section reviews the recent economic literature on the design of disciplines on non-tariff measures. First, it argues that shallow integration can ensure that governments have the ability to efficiently employ NTMs, so long as they do not replace bound tariffs with non-tariff measures. In particular, the section examines two rules that enable the legitimate use of NTMs – national treatment and non-violation provisions – and highlights their institutional strengths and weaknesses. These rules rely on well-informed governments, which is at odds with the complexity and opacity of many NTMs. In light of this, the role of disciplines to improve transparency in trade agreements is discussed.

Secondly, the section maintains that the differences between non-tariff measures and tariffs require a new set of institutional tools that go beyond shallow integration. Specifically, we review the literature on deep integration and discuss the trade-offs implied by mutual recognition of domestic regulatory requirements, the joint negotiation of tariff and non-tariff measures in trade agreements, and the harmonization of NTMs at the multilateral and regional level.

#### (i) *Shallow integration*

Shallow agreements are those that directly regulate tariffs and other border measures, but stop short of

intervening in domestic measures beyond the requirement of non-discrimination of foreign goods and services. As seen in previous sections, the fundamental goal of a shallow trade agreement is to guard against the possibility that governments may replace policy measures explicitly bound in a schedule of commitments with unconstrained policy in order to discriminate against their trade partners. In the following, we discuss two rules which aim at limiting this sort of non-cooperative behaviour, assuming perfectly informed governments. When governments are not perfectly informed, there is a role for transparency provisions which will be taken up further in Section E.2 as well as in Section E.4.

#### **National treatment**

According to economists, trade agreements are incomplete contracts. By this, it is meant that no trade agreement can possibly cover the myriad ways that governments may wish to regulate economic life and, therefore, agreements have gaps. However, if not bound by agreement, governments may be tempted to set non-tariff measures without regard to the implications for foreign market access. This poses an obvious challenge in the design of trade treaties. Adding specific provisions to the agreement may partially address some of its gaps, but each new rule adds to the complexity and enforcement costs of the agreement. For this reason, trade treaties sometimes include explicit and rigid limitations on NTMs (Battigalli and Maggi, 2003). Horn et al. (2010) show that simple and broad rules, even if occasionally inappropriate in certain circumstances, may generally be more efficient.

One of the principal constraints on discrimination via non-tariff measures is the obligation to treat foreign products at least as favorably as “like” domestic products. This obligation for national treatment appears in Article III of the General Agreement on Tariffs and Trade (GATT), Article 2.1 of the TBT Agreement, is implied in Article XVII of the General Agreement on Trade in Services (GATS) as well as Article 3 in the Trade-related Aspects of Intellectual Property Rights (TRIPS) Agreement.<sup>10</sup>

Agreements including national treatment obligations limit the use of internal measures that affect the economic conditions of imported products. National treatment requires that any internal tax or regulation must not discriminate between domestic and foreign sources of supply and is therefore deemed not to be protectionist. Suppose that a country wanted to use a health warning label to limit the import of foreign paint, increasing the sales of domestic paint manufacturers. A national treatment provision requires that the label on foreign products would have to be applied to domestic products as well. Because the label would no longer distribute competitive benefits, the government may be dissuaded from using the health measure for protectionist reasons. As a result, only tariffs are left

to restrict trade, and under the most-favoured nation (MFN) clause, those tariffs must be non-discriminatory.

While national treatment limits the use of non-tariff measures for discriminatory purposes, some authors have argued that in certain cases the rule can be too blunt to meet the legitimate policy objective of countries.<sup>11</sup> Horn (2006) describes ways in which national treatment can be insufficient to limit the protectionist use of NTMs (in this case a Pigouvian domestic tax). First, a national treatment provision is only effective when there is a “like” domestic product. If there are no domestic paint manufacturers, the government will not be in violation of national treatment whatever the motives or severity of the NTM, despite the fact that such NTMs would still confer an advantage to a country’s terms of trade.

Secondly, when a negative externality is associated with the consumption of a foreign product – for instance, if foreign paints are more harmful to human health than the domestically produced ones, and yet are “like” products from the perspective of the rule – a national treatment provision constrains the government’s ability to limit the scope of a costly regulation to just the goods that produce the externality.<sup>12</sup> This limitation on regulation requires trade negotiators to set their tariff commitments carefully. Note, however, that while national treatment rules set a blanket requirement that may constrain regulatory authority, rigid rules decrease contracting costs and may facilitate agreements in uncertain regulatory environments (Horn et al., 2010).

Recent research has suggested that the WTO’s dispute settlement mechanism can lower the costs of using rigid national treatment rules while still addressing potential policy substitution by WTO members. Battigalli and Maggi (2003) characterize the work of the WTO panels and Appellate Body as providing arbitration that improves the efficiency of previously bargained agreements when the explicit terms of the agreement are insufficient. The authors argue that, while panellists and Appellate Body members may be less informed about the optimal obligations of member states than the members themselves, the presence of an arbitrator corrects the misuse of a non-tariff measure caused by the rigid application of a national treatment rule.

For example, suppose that governments negotiated market access while assuming that all computer monitors have equal, and environmentally acceptable, amounts of mercury. If foreign production of computer monitors switches to a more mercury-intensive manufacturing process, a rigidly applied national treatment provision may not allow governments to respond to the change. Because each WTO member can have recourse to dispute settlement, governments can efficiently fulfil the obligations of the agreement on the new product while maintaining national treatment.

So far, it has been assumed that the mechanism through which WTO panels and the Appellate Body improve the efficiency of trade agreements when national treatment is too rigid or incomplete has not been analysed. However, what practical role do WTO panels and the Appellate Body play in reaching a jointly efficient outcome?

Maggi and Staiger (2011) argue that the dispute settlement mechanism can play an important role in the interpretation of trade agreements when the rules are incomplete and it is difficult to write efficient agreements. The authors consider a variety of potential roles of WTO panels and the Appellate Body that range from fairly conservative, applying the existing obligations to ensure enforcement, to more “activist”, in which they may fill gaps in the obligations of WTO members, or even going as far as to modify existing obligations. The authors evaluate the ideal scope and specificity of the rules embodied in trade agreements, such as national treatment, under each of these hypothetical degrees of court involvement. They find that more flexible disciplines are preferable to rigid rules when it is difficult for WTO panels and the Appellate Body to correctly identify the efficient policy.

### Non-violation

The framers of the GATT sought to assuage fears that contracting parties might act in ways that, while not in violation of the agreement, could undermine commitments made in the course of negotiations. Article XXIII of the GATT and Article XXIII:3 of the GATS permit governments to seek dispute settlement through a “non-violation” complaint. Such a complaint is allowed if one government can show that it has been deprived of an expected benefit because of another government’s action, or because of any other situation that exists. The aim is to help preserve the balance of benefits struck during multilateral negotiations. For example, a country may have agreed to reduce its tariff on a product as part of a market access deal, but later altered its regulatory stance so that the effect on the conditions of competition are the same as the original tariff. A non-violation case against this country would be allowed to restore the conditions of competition implied in the original deal. This sub-section illustrates how non-violation complaints address the problem of tariffs being replaced by NTMs and the limitations of this approach.

As described in Section B, in a setting where the only cross-border spillover of a policy is how it affects terms of trade and where there are no institutions to facilitate international cooperation, governments would efficiently regulate the domestic market but would have an incentive to set inefficiently high trade restrictions (Bagwell and Staiger, 2001). The reason for this is that the only inefficiency associated with unilateral policy choices derives from the desire to obtain a terms-of-trade gain at the expense of trading partners. Because the externality

addressed by the domestic regulation does not affect the welfare of foreign citizens, the government has no incentive to under- (or over-) regulate from a global welfare perspective.

On the contrary, when tariffs are committed in a trade agreement, governments may be tempted to inefficiently use domestic regulatory policy to affect the terms of trade, altering non-tariff measures to take the place of tariff measures. In this context, Bagwell and Staiger (2001) show that the existence of a non-violation rule in a trade agreement discourages policy substitution. Specifically, in the presence of a non-violation remedy, governments understand that they risk a legal challenge if they manipulate their regulations for protectionist purposes after agreeing to a tariff binding. If a government does need to alter its regulation to address a new domestic market failure, the non-violation rule allows that government to lower its tariff to compensate trading partners for any trade-restrictive effect of the new measure.

A separate issue is the extent to which the economic view of the non-violation rule is reflected in the practice of the GATT/WTO system. For instance, Staiger and Sykes (2011) argue that non-violation claims are unlikely to be used to limit non-discriminatory regulations even if they distort trade. The three successful cases of non-violation claims address discriminatory border measures. According to the authors, under the *Japan – Film* panel's interpretation of the non-violation rules, discrimination is a prerequisite for a claim, which prevents the use of non-violation claims to address many of the regulatory balance concerns described above. This interpretation would suggest that non-discriminatory changes in regulatory policy appear to fall outside the scope of the GATT, a subject discussed in more detail in Section E.3 and E.4.

Another issue, which was discussed in the World Trade Report 2010 (World Trade Organization (WTO), 2010), is whether the non-violation doctrine could be extended to cover other situations where the use of non-tariff measures grants more (and not less) market access to trading partners. Under these circumstances, should governments be allowed to adjust (bound) tariffs upwards once regulatory needs have changed? If such a possibility is not allowed, it could be argued that governments may hesitate to enact efficient regulations whenever such a policy change differentially impacts domestic producers.

Consider a specific example. Suppose there is a negative externality, such as pollution, generated by a domestically produced good. If the government addresses the externality by tightening environmental regulations, its domestic producers bear a production cost that foreign producers do not, shifting market share away from domestic firms. In terms of economic efficiency, an increase in a tariff that preserves the level of market access of foreign producers at the level

implied by the previous regulatory stance may be justified in these circumstances. The change in policy mix in the domestic economy improves welfare, because it allows government to address the pollution problem, while preserving the level of market access granted to foreign exporters.

### Transparency

As discussed above, transparency on non-tariff measures is a necessary condition to achieve (and enforce) trade policy cooperation. This explains why the multilateral trading system aims at improving transparency of NTMs. The GATT, the GATS, and the SPS and TBT agreements include various obligations – requiring publication and notification of NTMs and services measures – that seek to improve transparency. These transparency obligations have been the subject of important discussions in the relevant WTO committees, and several actions have been taken to further improve transparency. For instance, during the Fourth Triennial Review of the TBT Agreement, the TBT Committee agreed to share experiences on good regulatory practices. A report by the Swedish National Board of Trade goes as far as to argue that “good regulatory practice at national level is the single most important aspect in the efforts to avoid unnecessary TBT” (Kommerskollegium, 2010). These efforts, as well as similar efforts on services measures and SPS measures, are discussed further in Section E.2.

The principal idea behind these efforts is that governments can benefit from the technical know-how and experiences of other governments' efforts in promoting efficient and transparent policy. Cadot et al. (2011) argue that documenting and understanding non-tariff measures and their effects is the first stage in an effort to make NTMs more efficient, particularly in countries that are struggling with legacies of complicated and penalizing regulations. Governments may pursue sub-optimal policies because they are not fully aware of their effects and of the existence of better alternatives.

This said, economic reasoning in Section E.1(b) indicates that governments also have an incentive to use opaque instruments to gain advantage at the expense of other governments. As will be discussed in Section E.4(b), governments may lack the incentive to adopt transparency measures because they are successful in lowering barriers to trade. Through government commitments to notify domestic measures and engage in good faith discussions about reducing the trade impact of non-tariff measures, the WTO Secretariat may be able to play an important role in illuminating opaque measures (Collins-Williams and Wolfe, 2010). The economic role of the notification process and the efficient design of rules to address governments' incentive problems to offer information are areas of research where more work would be highly desirable.

## (ii) Deep integration

As argued in the historical overview in Section A, the treatment of non-tariff measures in the multilateral trading system has evolved over time. Initial emphasis was on the need to assure that tariff reductions were not offset by NTMs. The shallow integration approach built into rules such as national treatment and non-violation discussed above follows precisely this logic.

Over time, trade relations have evolved in response to a number of factors, including the increasing importance of international production, the expanding regulatory needs to protect consumers and other broad societal interests, such as public health and the environment. These changes have put pressures on the institutions governing trade, and governments have looked for ways to go beyond shallow integration arrangements into deeper forms of cooperation (at the multilateral or regional level). The design of deep trade agreements to regulate non-tariff measures is the topic of this sub-section.

There is no generally agreed definition of “deep” integration. According to Lawrence (1996), who first used this term, trade agreements that include rules on domestic policies that “fall inside the border” are deep agreements. On the other hand, often deep integration is simply defined in contrast to the shallow arrangements presented in the previous sub-section as any agreement that imposes further limits to local regulatory autonomy. While the *World Trade Report 2011* (World Trade Organization (WTO), 2011b) has a more detailed discussion of the concept of deep integration, the focus here is on three deep approaches that often emerge in the academic and policy debate: mutual recognition, linking tariffs and non-tariff measures in trade negotiations and the harmonization of domestic measures. These different approaches offer diverse tools to cooperate on non-tariff measures within a trade agreement.

### Mutual recognition

Governments have adopted rules beyond national treatment to limit the discriminatory use of non-tariff measures, ranging from “regulatory competition” to “harmonization” (Hussey and Kenyon, 2011). Mutual recognition of domestic regulations is one such approach which has been adopted, most notably by the European Union. Specifically, so long as another EU member sells a product within its border, it is presupposed to meet domestic regulatory requirements elsewhere in the Union (see also Section D.3). Under mutual recognition, this means that each government has full sovereignty over its own technical regulations for domestically produced products but a limited ability to project those policies onto its trade partners or to determine the characteristics of products consumed domestically.

Mutual recognition has benefits and costs compared with national treatment disciplines discussed above (Costinot, 2008). Consider a specific example. Suppose that there is an externality associated with the consumption of either a domestic or foreign product. If there is a national treatment provision (and governments are not otherwise coordinating on technical regulations), whatever regulation is chosen will be extended to products from the foreign state. There is effectively one technical regulation for all “like” products. In this setting, the problem is that part of the costs of meeting the unified technical regulation is borne by foreign producers, whose welfare is not taken into account by the domestic government. This may result in an excessively stringent regulation. Because the government only internalizes the costs of regulations on the domestic and not on the foreign producers, it weighs domestic consumers’ concerns more heavily.

On the other hand, if countries adopt mutual recognition, governments may be tempted to set loose regulations, leading to a “regulatory race to the bottom”, because the rules will not account for externalities on the foreign market. Keeping in mind these trade-offs that characterize national treatment and mutual recognition, Costinot (2008) finds conditions under which one approach is superior to the other. Specifically, the author finds that national treatment tends to be more efficient when the traded goods are associated with a high level of cross-border spillovers.

Governments can also alter the agreement to address some of the weaknesses of this approach. A set of pre-negotiated minimal standards may serve the purpose of avoiding extreme (and socially inferior) outcomes. For instance, in 1985 when the European Union adopted mutual recognition of member states’ legislation concerning products, the EU directives set out “the essential requirements to be fulfilled to provide for protection of life, health and environment etc.”, with the specific intent of avoiding a regulatory race to the bottom (Kommerskollegium, 2010).

### Linking tariffs and NTMs in trade negotiations

Commentators have developed two sets of arguments that support the view that tariffs and non-tariff measures, for instance domestic environmental or labour regulations, should be linked in trade negotiations. Below, they are referred to as the “grand bargain” and the “enforcement” argument.

According to the “grand bargain” perspective, cooperation on tariff and non-tariff policy is mutually beneficial and self-reinforcing. Therefore, linking different measures in a single grand bargain, for instance exchanging lower tariffs for new environmental regulations, may succeed in achieving mutually welfare-enhancing cooperation to a larger extent than separate

negotiations (Abrego et al., 2001). While this argument has a certain appeal, linking negotiations over different measures and diverse policy areas also comes at the cost of increasing complexity. The probability of a successful outcome, therefore, may well also depend on this more articulated contractual environment.

A second argument to regulate and link non-tariff measures in a trade agreement is the possibility of using tariffs as an enforcement device (Ederington, 2002; Limao, 2005; Spagnolo, 2001). In a setting where governments have an incentive to use domestic measures to manipulate the terms of trade, Ederington (2002) argues that retaliation through tariffs is the most efficient way to enforce cooperation on both tariffs and non-tariff measures. By contrast, it is never efficient to permit governments to distort their regulatory choices for market access purposes.

In a different setting, where regulatory cooperation on non-tariff measures is beneficial but suffers from an enforcement problem, embedding these measures in a trade agreement may provide a means of punishing violators and, hence, increasing welfare (Spagnolo, 2001). On the other hand, linkages may work against trade opening efforts. According to Limao (2005), linking the regulation of tariffs and NTMs may still be welfare improving whenever cross-border spillovers are sufficiently large (i.e. when policies are strategic complements).

### Harmonization

Section D defines harmonization of non-tariff measures as the establishment of common measures, such as technical or safety standards, across different jurisdictions. The focus in that section is on the trade effects of these common measures. The emphasis here is on an institutional design issue: under what conditions do countries benefit from the harmonization of NTMs.

Economists have developed a simple principle to understand the costs and benefits of the harmonization of policies across different jurisdictions, known as the Oates' Decentralization Theorem (Oates, 1972). This theorem shows that there is a basic trade-off in setting common policies, such as harmonized technical regulations. The benefits depend on the extent of cross-border policy spillovers, for instance the extent to which a certain national environmental regulation impacts on the welfare of foreign citizens. The costs depend on the importance of the differences in policy preferences across countries. Specifically, for individual countries the cost of harmonization of a non-tariff measure is that it moves the measure away from its preferred national policy (i.e. a loss in national sovereignty); the benefit is that a harmonized NTM takes into account how the measure impacts on both the national and the foreign welfare (i.e. the policy spillover is internalized).

The Oates' Decentralization Theorem has a simple and intuitive prediction that can serve as a guiding principle for policy-makers. Harmonization of non-tariff measures is an efficient institutional response whenever cross-border policy spillovers are considered to be large and/or differences in policy preferences across countries are not important. For instance, Birdsall and Lawrence (1999) argue that deep integration with advanced economies may create advantages for developing countries that import best regulatory practices, but these benefits need to be traded off with the costs to governments of adopting common rules that, in certain cases, do not match national preferences and the needs of developing countries. This theoretical framework, therefore, offers important insights to negotiators to identify areas where social welfare considerations may justify policy harmonization.

A related issue is the proper forum where this harmonization should take place. Insofar as non-tariff measures create cross-border policy spillovers, as in the case of climate change related policies or food safety standards, there is a need for international cooperation. However, this cooperation may well be carried out in the context of a sector-specific agreement or standardization body, which are outside the competence of the WTO. From the perspective of a trade agreement, the question is one of international coherence. That is, how the environmental measures or the food safety standards relate to the international trade rules. We come back on this point in Sections E.2 and E.4.

A second issue is whether harmonization of non-tariff measures is more appropriate at the multilateral level or at the regional/bilateral level (i.e. within preferential trade agreements – PTAs). The *World Trade Report 2011* (World Trade Organization (WTO), 2011b) documents that a growing number of PTAs go beyond tariff reductions and include common rules on NTMs, such as harmonized standards or harmonized conformity assessment procedures (these practices were found in more than 40 per cent of a sample of 58 PTAs surveyed). In light of the preceding discussion, this finding is not surprising. Members of a PTA may share more similar policy preferences and/or experience stronger policy spillovers than the broad membership of the multilateral trade system. In this sense, harmonization in the regional context could provide an appropriate intermediate level of integration among certain nations and the global level.

However, as discussed in the *World Trade Report 2011* (World Trade Organization (WTO), 2011b), PTAs also have systemic effects through market segmentation that could lead to regulatory divergence and have adverse effects on world welfare. For example, an important trade-off discussed in the literature is that regulatory harmonization among countries of varying levels of development can reinforce a "hub-and-spoke" trade structure, with the larger partner representing the hub to whose standards the spokes conform. This

structure may carry costs. Disdier, Fontagné, and Cadot (2012) use a gravity model to show that when developed trading partners take steps to harmonize their regulations with a developed partner, trade with the developing countries declines.

## 2. Cooperation in specific policy areas: TBT/SPS and services measures

The previous section provided a theory-based discussion of the economic rationale for cooperation on non-tariff measures in a trade agreement. This section illustrates why and how countries cooperate over NTMs in specific policy areas. In particular, the focus is on SPS/TBT measures and domestic regulation in services.

### (a) Cooperation on SPS/TBT measures

This section argues that countries cooperate on SPS/TBT measures to address information problems that arise when governments try to balance trade restrictiveness and achievement of policy objectives, and when seeking to follow best practice in the regulatory process. In this respect, countries cooperate by developing, disseminating and adopting common approaches to regulation. These activities, which promote regulatory cooperation, take place in various fora. For instance, this cooperation occurs in the WTO's TBT and SPS committees, in regulatory cooperation arrangements, and in international standardizing bodies. The focus here is on cooperation in implementing the existing TBT and SPS agreements.

#### (i) *Why do countries cooperate on SPS/TBT measures?*

Countries use SPS/TBT measures, which include technical regulations, standards and conformity assessment procedures, to achieve legitimate policy objectives, such as protection of human health and the environment, or preventing the spread of diseases and pests. In order to achieve their stated objectives, these measures invariably have trade impacts; some may be justifiable while others could be challenged as discriminatory or simply unnecessary to achieve the objective sought. Hence, the need for discipline.

The TBT and SPS agreements require that WTO members balance achievement of legitimate policy objectives against trade restrictiveness in the design and implementation of measures. In particular, members should ensure that measures are not more trade restrictive than necessary for the policy objective at hand, are proportionally restrictive to the risk of not meeting the policy objective, are based on scientific principles and not maintained without sufficient scientific evidence, and do not arbitrarily or unjustifiably

discriminate between members where the same conditions prevail.

Members have sovereign authority in deciding how to regulate under the SPS/TBT agreements. However, members do not always have sufficient information or capacity to regulate effectively or efficiently. Members may face, among other challenges, two information problems in this regard. First, members may not know which measure will be most efficient in striking the aforementioned balance between trade restrictiveness and policy fulfilment. Second, members may not know how best to design and implement SPS/TBT measures across the regulatory lifecycle. The fact that SPS/TBT measures are often opaque and complex, as discussed in Section E.1, compound these challenges.

Indeed, regulatory processes and their impacts may be difficult to grasp, and governments often face problems understanding regulatory needs, or the costs and benefits of their interventions (Harrington et al., 2000). Members may therefore use a particular SPS/TBT measure when it is neither an efficient nor effective instrument for their policy objective or generates unnecessary hindrances to international trade. If members impose SPS/TBT measures that fail to efficiently strike the balance mandated by the agreements, they risk being challenged in the TBT or SPS committees, or ultimately, in dispute settlement.

Setting an internationally agreed benchmark of an efficient regulation for a particular policy objective can help address the first sort of information problem. This benchmark can be used to assess whether a SPS/TBT measure adequately reflects policy objectives; those measures that are more trade restrictive than the benchmark may raise questions. The SPS/TBT agreements do this by strongly encouraging members to align their SPS/TBT measures with relevant international standards, which ideally are developed using the world's best available scientific and technical know-how regarding a particular policy problem.

With respect to the second sort of information problem, the use of an agreed set of regulatory steps that define an efficient regulatory intervention may be beneficial. Sharing a common regulatory language increases transparency and predictability of SPS/TBT measures, and provides common criteria against which to judge measures. Members encourage one another to follow common approaches, such as "good regulatory practice" (GRP), when crafting SPS/TBT measures, and Committee discussion provides further reinforcement of this.

#### (ii) *How do countries cooperate on SPS/TBT measures?*

Members cooperate to address information problems related to SPS/TBT measures in at least three

ways: at the multilateral level, through discussions in the TBT and SPS committees; by using international standards as a basis for regulation; and, more generally, by using and disseminating GRPs, and engaging in regulatory cooperation.

While GRP is not explicit in the TBT or SPS agreements, the discussions in both committees promote “regulatory convergence” by reducing unnecessary diversity in the way governments regulate.

### Good regulatory practice and regulatory cooperation

Even when intended to address the same policy objective, not all regulations are created equal – there are significant variations across countries. While some differences are certainly inevitable and may even be necessary, some general lessons that are broadly applicable have been identified about how to regulate efficiently and effectively across the regulatory lifecycle. These lessons are, essentially, what is incorporated in good regulatory practice (GRP).

Experience and guidance on GRP have been compiled by bodies such as the World Bank, the Organisation for Economic Co-operation and Development and Asia Pacific Economic Co-operation (APEC).<sup>13</sup> GRP emphasizes, inter alia, a deliberative process for identifying public policy problems, considering the costs and benefits of alternative regulatory measures (or of no regulatory intervention), using regulatory impact assessments (RIAs), relying on performance-based regulation, effective internal policy coordination

(*vis-à-vis* WTO obligations), and ensuring transparency and openness to facilitate stakeholder participation in the regulatory process. Thus, the use of GRP can help improve regulatory performance by increasing the transparency and openness of the regulatory process and by subjecting regulatory decision-making to impact analysis and periodic review.

Wider dissemination and use of GRP can to a certain extent provide a common, predictable framework within which countries make regulatory interventions; it induces countries to speak the same “regulatory language”. This is why WTO members engage in bilateral and plurilateral regulatory cooperation arrangements.<sup>14</sup> Regulatory cooperation is a process by which officials engage with their counterparts from different governments in formal and informal settings, including by exchanging information on rules and principles for regulating markets, the objectives of which include the formulation of more compatible and transparent regulations and testing procedures, simplification and the lowering of trade barriers, and making it easier and less costly for exporters to demonstrate conformity with different requirements (see Box E.3 for some examples of regulatory cooperation in the TBT area).

Examples of regulatory cooperation arrangements among countries include initiatives such as the Trans-Pacific Partnership, the Transatlantic Economic Council, the US-EU High Level Regulatory Cooperation Forum, the Trans-Tasman Mutual Recognition Arrangement, and work in organizations such as the South Asian Regional Standards Organization, APEC, the

#### Box E.3: Examples of regulatory cooperation in the TBT area<sup>15</sup>

##### APEC: green technologies

Members of the Asia Pacific Economic Cooperation (APEC) share policy objectives with respect to trade and environmental protection, which they seek to forward through regulatory cooperation in emerging environmental technologies. The 2011 APEC Meeting of Ministers Responsible for Trade stressed the significant role of open trade and investment in the Asia Pacific region in fulfilling the common objective of environmental protection. The rationale behind such cooperation is that a reduction in unnecessary barriers to trade and investment in environmental goods and services would reduce their costs, and increase access to green technology, and therefore further achievement of the shared objective of environmental protection.

The APEC Sub-Committee on Standards and Conformance (SCSC) has worked to promote regional cooperation in green sectors through information exchange, enhanced transparency, and providing a baseline for the use of standards, technical regulations and conformity assessment procedures. These initiatives include the “Solar Technologies Standards and Conformance Initiative”, and “Green Buildings and Green Growth”. In the context of these initiatives, APEC members have recognized the need to conform with international standards, to promote mutual recognition of certification, and to increase stakeholder participation in the standards-setting process.

Several case studies have been undertaken on green technologies under the umbrella of these initiatives, particularly on “green buildings”, and in this respect work is being undertaken in cooperation with the World Bank and the World Green Building Council. In this context, there was recognition of the need to enhance consistency in the use of terminology related to green buildings in order to increase transparency and enable producers to better meet requirements across different regional partners. Standards development

work at APEC on green buildings involves both public and private stakeholders. The APEC SCSC is also collaborating with the ASEAN Consultative Committee on Standards and Quality in the context of work on green buildings.

This initiative illustrates how a policy objective that is common to the APEC membership, namely addressing market failures with cross-border effects related to environmental pollution, is being tackled through regulatory cooperation. In addition, this example shows how countries are trying to engage at an early stage on regulatory cooperation with respect to green technologies to ensure that future regulatory approaches further environmental protection and trade.

### **EU-China: Toys**

RAPEX<sup>16</sup>-China is an online information exchange mechanism which seeks to enhance and regularize the transmission of data on product safety administration and enforcement between China and the European Union. The initiative emerged from the Memorandum of Understanding signed in 2006 between the European Commission Directorate-General for Health and Consumers (DG SANCO) and the General Administration of Quality Supervision, Inspection and Quarantine of China (AQSIQ). It is one element of regulatory cooperation between the European Union and China.

The initiative comprises information exchange between DG SANCO and AQSIQ with respect to toys of Chinese origin that have been identified as unsafe and therefore banned or withdrawn from the European market (as notified to the European Commission via RAPEX). For its part, AQSIQ works towards preventing future bans on Chinese toys in the European market, and informs the European Commission of the results of investigations conducted in response to these notifications, including any measures adopted.

The initiative aims to ensure quality and safety of consumer products, protect consumer rights and interests, and enhance consumer confidence in the context of growth of trade between China and the European Union. Furthermore, the initiative seeks to enhance coordination in toy standards work at the International Organization for Standardization (ISO) level, and to improve awareness in China about applicable requirements for toys in the European Union. It also includes technical cooperation activities to improve product quality and safety. RAPEX-China helps to build trust between regulators and consumers, reduce trade frictions, and create a culture of product safety, while maintaining an open market between the European Union and China for toys.

This example is of interest because it uses a novel information exchange mechanism for cooperation towards the achievement of toy safety. China and the European Union follow different national regulations or standards for toy safety, given differing national preferences in this respect. Under this arrangement, cooperation largely concerns the one-way flow of trade in toys from China to the European Union. Alternatives to this information exchange arrangement could be harmonization to international standards or full alignment of technical requirements, but these may be unrealistic objectives for various reasons. Instead, information exchange enables both China and the European Union to work together to meet shared policy objectives by reducing information asymmetries.

Association of Southeast Asian Nations (ASEAN), and the United Nations Economic Commission for Europe.<sup>17</sup>

Regulatory cooperation arrangements can provide an opportunity to influence how SPS/TBT measures are implemented in other countries. Promoting GRP in these arrangements facilitates discussion and information exchange on the trading partner's measures by providing common criteria and language for assessing measures. Formalized, standing regulatory cooperation arrangements (for example, the Transatlantic Economic Council between the United States and Europe) may increase certainty about a partner's regulatory responses to future problems or products. Moreover, regulatory cooperation in general

is about building trust among regulators with regard to regulatory systems and outcomes. This helps to provide confidence that SPS/TBT measures and conformity assessment procedures will strike an efficient balance between policy objectives and trade restriction.

There are different levels of trust, formality and degree of engagement. The most basic category of cooperation is simple information exchange and trust building, which will lower transaction costs. A more advanced category of cooperation is mutual recognition of accreditation systems and testing procedures, which lowers cost for exports by enabling conformity assessment to the requirements of export

markets to be carried out in domestic laboratories prior to export. Other categories of arrangements involving still greater levels of trust and engagement include mutual recognition of conformity assessment results, mutual recognition of technical regulations, including through recognition of equivalence, and full harmonization of both technical regulations and associated conformity assessment procedures.

Recalling the discussion in Section E.1(c) on the depth of integration in differing approaches to address non-tariff measures, the level of ambition for a particular regulatory cooperation activity may differ depending on the contexts of the countries involved.<sup>18</sup> For example, regulatory cooperation between two major trading partners with strong economic ties may aspire to full harmonization, thereby leading to a high level of convergence. On the other hand, regulatory cooperation between two economies with very different political systems, income levels, and levels of development may have a lower level of ambition – for instance, to increase understanding and confidence-building to facilitate trade.

Shared regulatory traditions and institutional structures can make the deep forms of regulatory cooperation easier to achieve. Differences between countries, however, are not necessarily an obstacle to cooperation. In fact, differences between countries engaging in regulatory cooperation may provide impetus for regulatory innovation that increases efficiency and lowers costs.<sup>19</sup>

Of course, not all forms of regulatory cooperation can be captured by these broad categories, and many arrangements involve aspects of different categories. For instance, regulatory cooperation on a sector basis occurs between partners in regional organizations such as APEC and ASEAN, including various mechanisms with progressive levels of ambition under the umbrella of a single scheme. This enables partners to cooperate to an extent appropriate to their national circumstances.<sup>20</sup>

Novel cooperation between member states of the Common Market for Eastern and Southern Africa (COMESA), the East African Community (EAC) and the Southern African Development Community (SADC) is occurring in the form of the Tripartite Non-Tariff Barriers (NTB) Mechanism. A web-based platform allows exporters to submit complaints about SPS/TBT measures in export markets that are creating trade problems, and then forwards complaints to responsible national authorities for resolution through bilateral consultations among the member states affected, or through relevant regional structures (Kalenga, 2012).

Both the TBT and SPS agreements encourage WTO members to cooperate. The SPS Agreement encourages bilateral equivalence arrangements (see Box E.4 and Section B), two of which have been notified to the SPS Committee. Similarly, the TBT

Agreement encourages members to reach agreements on mutual recognition of results of each other's conformity assessment procedures (see Section D.4). These arrangements are beneficial because they lower costs to exporters relating to the need to monitor potential policy changes in export markets (World Trade Organization (WTO), 2011b).

### International standard-setting

The development of international standards is, by definition, a form of multilateral cooperation. Standardization activities are a process where stakeholders, including governments, cooperate on matters that may have a direct bearing on SPS/TBT measures. The outcome – an international standard – is a tangible result of such cooperation and is, essentially (and when at its best), a means of codifying and diffusing state-of-the-art scientific and technical knowledge related to a particular product or policy problem.<sup>21</sup>

Both the TBT and SPS agreements strongly encourage the use of international standards – as well as participation in the development of such standards. The agreements include a rebuttable presumption that regulations which are in accordance with relevant international standards will be, in the case of the TBT Agreement, “presumed *not* to create an unnecessary obstacle to international trade” and in the case of the SPS Agreement, “presumed to be consistent with the ... provisions of the Agreement”.<sup>22</sup>

International standards are developed by governmental bodies, non-governmental bodies (including “private standards”), or sometimes a combination of both. While the SPS Agreement specifically names three international bodies that develop international standards which serve as benchmarks, the TBT Agreement does not name any specific body in this regard.<sup>23</sup> However, international standards are not a panacea – and the international standardization process itself may not always function ideally; this has been at the root of many discussions at the WTO, and presents a particular challenge for WTO members (this is further discussed in Section E.4).

### Conformity assessment procedures

Cooperation does not only take place at the standards-development phase; it is also relevant to conformity assessment, and, more specifically, to facilitating the recognition of the results of conformity assessment (e.g. mutual recognition arrangements, equivalence agreements and the Supplier's Declaration of Conformity). In other words, actually meeting the standard may not be enough, it is also necessary to be able to demonstrate compliance to create confidence in the quality and safety of exported products (for many developing countries, there are capacity constraints in this regard<sup>24</sup>). Members of the TBT

## Box E.4: Equivalence in the SPS Agreement

The SPS Agreement creates a framework that supports convergence of policies to minimize the negative impacts of SPS measures on trade, while at the same time supporting policy diversity. To do this, the SPS Agreement explicitly recognizes that although measures may differ among trading partners, this does not imply that they do not achieve the same level of appropriate level of protection (ALOP). Indeed, in terms of the SPS Agreement, trading partners are obliged to accept SPS measures as equivalent if the exporting country objectively demonstrates that its measure achieves the importing country's ALOP. Equivalence can be accepted for a specific measure or measures related to a certain product or categories of products, or on a systems-wide basis. The Agreement also specifies that exporting countries should facilitate this process by providing importing countries' access for inspection, testing and other procedures.

ALOP can be achieved in different ways, and countries' measures may diverge due to political and health-related factors. The obligation to explore whether measures are equivalent creates incentives for countries to learn from the experience of their trading partners and thus may contribute to capacity building. Still, given the technological requirements inherent in many SPS measures, developing countries may have concerns about allocating resources to improving SPS capacity if they do not have confidence that their SPS measures will be recognized as equivalent.

To address the concerns of developing countries regarding the implementation of equivalence, the SPS Committee developed guidelines (G/SPS/19/Rev.2). These guidelines offer more details about the types of information that should be provided by both importing and exporting members. Specifically, the guidelines call for importing countries to identify relevant risks, explain its ALOP, and provide its risk assessment or technical justification for its measures. The guidelines also indicate that importing countries should take into account the history of trade with the exporting country since a history of trade implies a familiarity with the infrastructure and measures. The three sisters – Codex Alimentarius, the World Organization for Animal Health and the International Plant Protection Convention – have also developed guidance in the area of equivalence related to their specific areas of expertise.

Given the importance of dialogue among trading partners in order for the concept of equivalence to be effectively implemented, transparency should play a key role. The SPS Committee includes the issue of equivalence as a standing item on the agenda and has developed a notification template that captures information on equivalence agreements. Importing countries that have accepted the equivalence of SPS measures of other countries are expected to notify the relevant measures and affected products. To date, only two notifications have been submitted. While the notifications from countries have not been forthcoming, contributions during the SPS Committee by the three sisters<sup>25</sup> on their work programmes on equivalence enhances transparency of multilateral efforts in this area.

Committee have begun to consider the development of practical guidelines on how to choose and design efficient and effective mechanisms that can assist countries in cooperating also in the area of conformity assessment.

In this regard, both regional and international systems for conformity assessment can contribute to solving the problems related to multiple testing and certification/registration for traders and industries – a challenge that can be particularly difficult to overcome for small and medium-sized enterprises (SMEs). Delegations in the TBT Committee have recently been discussing the work of the International Laboratory Accreditation Cooperation (ILAC) and the International Accreditation Forum (IAF) as useful examples of international cooperation in the area of conformity assessment.<sup>26</sup>

The ILAC is the global authority for laboratory and inspection body accreditation, and the IAF oversees accreditation in the fields of the certification of management systems, personnel and products. The objective of both organizations is the same: one conformity assessment result accepted in every market place. The main tool used by the two organizations is multilateral mutual recognition arrangements among accreditation bodies with a shared vision of a single global system of conformity assessment. This reduces risks for business, regulators and the consumer by ensuring that they can rely on accredited services. In the on-going Sixth Triennial Review of the TBT Agreement, prompted by a proposal from the United States,<sup>27</sup> there is discussion on how members' experiences in the use of these two international systems for conformity assessment can serve to strengthen the implementation of the TBT Agreement.

### TBT and SPS committees

The TBT and SPS committees provide WTO members with the opportunity to discuss specific SPS/TBT measures as well as more general issues, such as good regulatory practices, international standards and transparency. With respect to GRP, members share information on the development and application of these practices. Members have emphasized that regulations developed in the spirit of GRP are more likely to achieve their public policy objectives, and less likely to be driven by competitiveness considerations.<sup>28</sup> Both committees hold regular discussions on international standards, and receive updates from observer bodies that set such standards.

WTO members also discuss specific trade concerns (STCs – see Sections B.2 and C.2) in the SPS/TBT committees. In some cases, the concern is simply a matter of clarification about the scope or status of the measure; in other cases, the concern relates to actual or perceived discriminatory or trade-restrictive aspects of draft or applied measures. These discussions encourage members to follow the benchmarks set by international standards, and to use GRP when formulating measures – thus promoting regulatory convergence. For instance, over one-third of the 330 specific trade concerns raised in the TBT Committee since 1995 have been related, in one way or another, to international standards.

Issues that arise in the SPS/TBT committees include whether an international standard was used as a basis for a particular measure, whether members have deviated from relevant international standards, and whether relevant international guidance exists. In addition, most specific trade concerns raised in the TBT Committee are indirectly related to the use or non-use of GRP in the context of a particular measure – for example, with respect to the rationale for a measure, transparency questions (e.g. public consultation), or regulatory design and an assessment of its impact on trade (e.g. the use of regulatory impact assessments). The discussion of specific trade concerns in the SPS Committee cover similar themes, with the same proportion of such concerns explicitly referring to international standards. Out of the 327 specific trade concerns raised in the SPS Committee since 1995, almost one-third referred to international standards. The largest proportion of concerns (about 40 per cent) have been related to animal health and zoonoses.<sup>29</sup> Food safety and plant health concerns each constitute about a quarter of the remaining concerns.

The multilateral review of trade concerns in the SPS/TBT committees helps to shed light on potentially problematic SPS/TBT measures, and encourages WTO members to avoid unnecessarily trade-restrictive measures that exceed benchmarks or do not follow best practice. In addition, members whose measures

are challenged often provide information or updates which increase the transparency of SPS/TBT measures and regulatory processes (see G/SPS/GEN/204/series and G/TBT/GEN/74/series). Furthermore, information about the impact that a certain measure has on trade can help members identify regulatory inefficiencies and further develop GRP. This is discussed in more detail in Section E.4.

Both committees also give members the opportunity to highlight draft SPS/TBT measures. The TBT and SPS agreements oblige members to notify the WTO Secretariat when they are drafting new SPS/TBT measures that are not in accordance with relevant international standards, and that may have a 'significant effect on trade'. Such notifications contain information about the products covered by the measure, its objectives and the rationale for the measure. They also allow other members to comment on the design of measures.

Since 1995, the TBT and SPS committees have taken decisions and developed recommendations<sup>30</sup> to extend the notification requirements laid out in the relevant agreements in order to further enhance the transparency of measures and to give members better access to information contained, or referred to, in notifications. Some examples include giving guidance to members about which measures should be notified, developing recommended timeframes for notifications as well as comment periods (minimum of 60 days) and entry into force (minimum of six months from the end of the comment period) and establishing procedures for making the full texts of SPS/TBT measures available in multiple languages. Other decisions and recommendations include encouraging members to respond to comments and to take these comments into account when finalizing measures and developing web portals for the WTO Secretariat to disseminate information on SPS/TBT measures.<sup>31</sup>

### (b) Cooperation on services measures

As explained in Section B.3, the nature of services makes regulations the principal limit to market access. First and foremost, the feasibility of applying a tariff to the international provision of services is remote. Trade protection in services, where it exists, will be found in internal laws, regulations, rules, procedures, decisions, administrative actions, and other such measures. Although services regulations often do not primarily have a trade-related focus, there may be cases where regulations have unnecessarily trade-distortive and restrictive effects. Distinguishing between those regulations which are legitimate and those which are considered protectionist is fraught with difficulties. The sub-sections below review how countries cooperate in services depending on the type of measure in question.

(i) *How do countries cooperate on trade in services?*

To facilitate cooperation, services trade agreements, most notably the GATS, have distinguished between three types of services measures, namely:

- (i) measures restricting market access by setting quantitative restrictions and requirements on legal form (i.e. restrictions on the entry of, or limits on the output by, the services supplier)
- (ii) measures which discriminate against foreign services and services suppliers by modifying conditions of competition in favour of national services and service suppliers<sup>32</sup>
- (iii) domestic regulations which are non-discriminatory and non-quantitative in nature.

The extent to which countries have been willing to cooperate on trade in services differs depending on the measures involved. The GATS framework defines measures in categories (i) and (ii) as market access and national treatment limitations which are to be reduced or eliminated through successive rounds of negotiations. Measures in category (iii), on the other hand, have largely not been subjected to trade disciplines, apart from certain general obligations under GATS. There is, however, a mandate in Article VI:4 of the GATS to negotiate disciplines on a specific set of domestic regulations, namely those measures relating to licensing, qualifications and technical standards. The rationale for negotiating disciplines on this particular set of domestic regulations is not too different from that of the TBT and SPS agreements, with the focus on ensuring that licensing and qualification procedures and requirements and technical standards do not constitute unnecessary barriers to trade in services.

Although there are strong parallels between the TBT and SPS agreements and the type of domestic regulation disciplines being negotiated under Article VI:4 of the GATS, the GATS framework for regulatory cooperation on services, apart from the negotiations of specific commitments, remains at a nascent stage. The discussion that follows examines the extent to which cooperation on each of these broad categories of measures can be said to be taking place in respect to the implementation and operation of the agreement. In the case of category (iii) domestic regulation, it should be noted that the focus is on those measures for which disciplines are being negotiated as the rationale, issues and challenges are very similar to those encountered in the TBT and SPS agreements.

(ii) *Cooperation on progressive liberalization*

Section B.3(c) has already provided a discussion of why quantitative restrictions and discriminatory

measures are the most trade distortive, thus providing a stronger case for cooperation. In principle, such cooperation is undertaken through negotiations to remove market access limitations and national treatment discrimination. The results of such negotiations are "bound" through a legal instrument, which can add credibility to existing and future reform as they are costly to revoke.

In the case of the GATS, cooperation on the measures in categories (i) and (ii) culminates in a WTO member undertaking to guarantee a minimum level of market access and national treatment for each committed sector. Schedules for specific commitments in services thus perform a similar function to tariff schedules for goods, in the sense that they facilitate cooperation through reciprocal bargaining. In the case of trade in services, this occurs through request-offer negotiations between pairs or groups of WTO members with common interests or demands, and could be thought of as a framework of cooperation.

There are good political economic reasons why WTO members might have been willing to cooperate on the removal of market access and national treatment limitations. Some of these have been discussed in Section B.3 and Section E.1. What is noteworthy is that the experience of the GATS, as well as preferential trade agreements, as shown by Roy et al. (2007), has mainly concerned liberalization commitments relating to market entry and discrimination and not other aspects of a member's regulatory regime or conduct.

Indeed, such an approach was the intended design of the GATS, which was why a separate mandate to negotiate disciplines on domestic regulation was necessary. Thus, when a WTO member removes a limitation on the number of foreign services suppliers that can operate in its territory, other types of regulations remain unaffected.

The regulator could still require that the services supplier obtain a licence before the service can be supplied. Obtaining such authorization could include the fulfilment of both substantive and procedural requirements. Employees of the services supplier may need to satisfy particular qualification requirements. The services supplier may need to ensure that the services provided conform with certain technical requirements. In addition, any business operation would be subject to environmental, health, safety and labour regulations. All of these non-discriminatory measures, which are typically found in licensing and qualification regimes, often have to be fulfilled before authorization to supply a service is provided. Thus, they may have a profound impact on services market access but would not be subject to negotiations on progressive liberalization.

In particular, domestic regulations in the form of cumbersome and/or opaque licensing and qualification

procedures, subjective or partial licensing and qualification criteria, excessively burdensome requirements and administrative “red tape” can serve to obstruct trade in services, even if they do not appear to be primarily directed at trade. The sheer diversity of regulatory systems and standards in markets internationally can also significantly raise the costs of compliance for the services supplier and act as indirect barriers to the supply of services, even in situations where there are no market access restrictions or discriminatory measures in force. This is why the GATS framework for cooperation had to go beyond the removal of market access and national treatment limitations of the type described in categories (i) and (ii) and address particular aspects of domestic regulation.

### *(iii) Cooperation on domestic regulation*

While the economic theory for cooperation under the GATS is in part different from the one for the GATT (see Box E.1), there is an important similarity that is addressed here. The policy substitution problem discussed in Section E.1, with specific reference to trade in goods, could also apply to trade in services.

When WTO members make commitments on services measures in categories (i) and (ii), governments may face incentives to alter domestic regulations or to implement them in a particularly obstructive manner (i.e. Article VI:4 measures as described above). In practice, the problem may not arise in the same way in services trade as it does in goods trade since there is a large gap between GATS bindings and actual measures. There is less incentive to use domestic regulation as an alternative way of limiting market access or national treatment, since a member can change its regime up to the level of the binding. Indeed, policy substitution in services might also occur in reverse. Governments that lack adequate regulations and enforcement capacity might be reluctant to open markets and might therefore maintain market access restrictions.

Unlike the TBT and SPS agreements, the GATS has yet to fully develop a framework for cooperation on domestic regulation in services. There is a mandate in Article VI:4 of the GATS to negotiate any necessary disciplines to ensure that measures related to certain types of regulations (qualification and licensing requirements and procedures, and technical standards) are, among other things, based on transparent and objective criteria and not more burdensome than necessary to ensure the quality of the services. The Decision on Domestic Regulation (S/L/70) specifies three separate areas for the development of any necessary disciplines. This includes: (i) the development of generally applicable disciplines (i.e. horizontal disciplines to be applied to all sectors); (ii) disciplines for individual sectors or groups thereof; and (iii) disciplines for professional services.

In 1998, the Disciplines on Domestic Regulation in the Accountancy Sector (S/L/64) were adopted by the WTO's Council for Trade in Services. The relevant Council Decision (S/L/63) provides that the “accountancy disciplines” are applicable only to WTO members with specific commitments in accountancy. The disciplines are to be integrated into the GATS, together with any new results that the Working Party on Domestic Regulation may achieve in the interim, at the end of the current round of trade negotiations.

Subsequent to the Accountancy Disciplines, WTO members embarked on the negotiation of “horizontal disciplines” but this did not preclude the possibility of future work on “sectoral disciplines”. Issues concerning the negotiation of horizontal disciplines are discussed later in this section. It should be noted that there are already some existing general obligations requiring cooperation among members, particularly with respect to transparency and administrative procedures, and that the disciplines to be negotiated are expected to build upon them. The following sub-sections discuss how these have been used and the type of cooperation that would be required by domestic regulation disciplines.

### **Existing disciplines and mechanisms**

Article III of the GATS requires WTO members to publish all measures pertaining to or affecting the GATS. In addition, for services which are covered by a member's specific commitments, there is an obligation to notify all laws, regulations or administrative guidelines significantly affecting trade in services. Members are also obliged to establish enquiry points to provide specific information to other members upon request. Notifications, if fully implemented, could be an important avenue to improve information sharing and to address issues of regulatory transparency in services. However, in practice, obtaining compliance with the notification obligation has been difficult to achieve. Several reasons for this low compliance are discussed in Section C and Section E.4 (b).

Other transparency requirements relate to the recognition of the education or experience obtained, requirements met, or licences or certifications granted to a services supplier in a particular country. Article VII of the GATS does not set any particular substantive requirements on how recognition should be undertaken but it requires the notification of existing recognition measures, as well as the opening of any new negotiations. In such a case, adequate opportunity should be provided to any member which indicates its interest in participating. However, as with the notification requirement in Article III, compliance has been limited.

Nevertheless, WTO members adopted a set of voluntary guidelines for mutual recognition agreements or arrangements in the accountancy sector. These

guidelines cover the conduct of negotiations, relevant obligations under the GATS, and the form and content of agreements. The objective is to make it easier for parties to negotiate recognition agreements and for third parties to negotiate their accession to them, or to negotiate comparable ones.

Apart from transparency, cooperation is also required on the administration of domestic regulation. These provisions, which are contained in Article VI of the GATS, have the goal of ensuring due process and openness in decision making. For instance, all measures of general application affecting trade in services, for which commitments have been taken, are to be administered in a reasonable, objective and transparent manner. Information must be provided on the status of applications for the authorization to supply a service. Where specific commitments regarding professional services have been undertaken, adequate procedures to verify the competence of professionals of another country must be provided. While all of these GATS provisions suggest that WTO members saw a need for cooperation on regulatory matters affecting trade in services, it is not clear to what extent these existing provisions have been utilized.

However, the adoption of Disciplines on Domestic Regulation in the Accountancy Sector (S/L/64) by the Services Council in December 1998 was a noteworthy achievement. These disciplines are to be integrated into the GATS, together with any new results that the Working Party on Domestic Regulation may achieve, at the end of the current round of negotiations. A core feature of the disciplines is their focus on (non-discriminatory) regulations that are not subject to scheduling under Article XVI (market access) and Article XVII (national treatment). The Accountancy Disciplines also included a provision that would require WTO members to ensure that such "measures are not more trade-restrictive than necessary to fulfil a legitimate objective". Legitimate objectives were defined as including the protection of consumers (which includes all users of accounting services and the public generally), the quality of the service, professional competence and the integrity of the profession.

### Developing new disciplines

Apart from requiring adherence to the obligations discussed above and completing the Accountancy Disciplines, the GATS has not ventured much further into subjecting non-discriminatory domestic regulation to trade disciplines. Yet, WTO members recognized the need to cooperate on regulatory issues by establishing a mandate on domestic regulation disciplines in Article VI.4 of the GATS. Reaching understanding on the appropriate scope and ambition for such disciplines has been fraught with difficulties. A central problem has been how to distinguish between requirements in

pursuit of legitimate objectives and those which are aimed at restricting trade. Some members have argued in favour of a necessity test, while others are of the view that such a test would be too onerous and would unduly restrict the freedom of regulators. The discussion in Section B points to difficulties in answering this question for trade in services given the relatively limited theoretical and empirical work on this issue.

It also begs the question as to what extent could governments cooperate to minimize the negative effects arising from domestic regulation, amidst the considerable regulatory diversity across sectors and countries. In this regard, the experience of the TBT and SPS agreements are instructive where cooperation is focused on encouraging members to work towards eliminating or reducing requirements which are not necessary for the achievement of the policy objective at hand. Similar mechanisms could be used in services. These could include stronger transparency provisions, a general presumption in favour of international standards and an institutional framework for monitoring and information exchange. The TBT and SPS agreements also contain a necessity test, a subject of much contention in the context of the domestic regulation negotiations (see Section E.4(e) (iii)).<sup>33</sup>

Despite these similarities, there is a critical difference in that services are intangible and thus cannot be sampled, tested and inspected. Thus, procedures and methods used in TBT and SPS measures cannot be easily applied to services – for instance, the development of science-based standards through laboratory testing is much harder or simply not feasible for services. This in turn suggests that evaluation, verification and assurance of conformity can often not be undertaken on the service itself but has to be on the service supplier. Since the "product" cannot be easily examined, regulatory precaution is likely to be higher in services than it is for goods and establishing a commonly acceptable level of risk tolerance harder to achieve.

Below is a description of the type of issues on which cooperation among countries is being sought in the context of the domestic regulation negotiations. It should be noted that services negotiations deal separately with the issues related to transparency, objectivity and the simplification of procedures.

#### *Transparency*

The negotiations seek to ensure that information on regulatory requirements and procedures are accessible to all parties concerned. This includes the publication and availability of information on regulations and procedures, the specification of reasonable time periods for responding to applications for licences, information on why an application was rejected and notification on what information is

missing in an application. It also includes specification of reasonable time periods for responding to applications and information on procedures for review of administrative decisions.

The new domestic regulation disciplines are intended to take account of, and build on, Article III provisions of the GATS on publication and notification of measures (see also Section E.4). Should the transparency provisions be agreed, it would contribute to reducing information asymmetries which are prevalent in services sectors and would provide greater certainty to services suppliers.

#### *Impartiality and objectivity*

Services suppliers typically want to be assured that assessments by regulatory and supervisory authorities for authorization to supply a service, if such authorization is required, will be conducted in a reasonable, impartial and objective manner. It is also well recognized that efficient outcomes are best achieved when decisions are independent from any commercial interests or political influence. In this connection, the formulation of clear criteria and procedures can be vitally important to avoid excessive discretion and to help ensure reasonableness, impartiality and objectivity in the regulatory process.

#### *Simplification of procedures*

Long and complex procedures for assessing an application for authorization to supply a service may discourage services suppliers to seek access to a host member. Such complexity may also serve to hide protectionist intentions. Simplification of procedures will facilitate the activities of services suppliers and reduce the opportunities for hidden protectionism.

Nonetheless, in many services sectors, the characteristics of the services supplied may not always allow for very simple procedures to be adopted. For instance, several authorities may need to be involved in ensuring the quality of the service, in avoiding negative impact on the environment or in enabling public consultations. The complexity of a procedure thus needs to be considered in its context. Linked to the issue of simplification is procedural certainty. It stands to reason that services suppliers would expect that assessment criteria are not modified during the course of an application. Should this be unavoidable, applicants would need to have a reasonable time period to adjust to amended criteria or procedures.

#### *Recognition of equivalence*

To ensure that foreign services suppliers meet the qualification and other standards imposed on suppliers of national origin, regulators are often called upon to assess the equivalence of domestic and foreign qualifications. In many cases, they may require foreign

applicants for licences or other badges of authority to submit a service to tests or to fulfil conditions to demonstrate equivalence. Since such tests are imposed to ensure that a domestic standard is met, they may be regarded as domestic regulations. Negotiations on Article VI.4 disciplines have been grappling with the question of how to ensure that such requirements should be no more burdensome than necessary to ensure the quality of the service. Regulators in these situations could be obliged to take account of qualifications already earned in the home country of the foreign services supplier and to modify accordingly any additional requirements imposed upon them.

The concept of equivalence has already been used in the qualification requirements section of the Accountancy Disciplines, in Article 2.7 of the TBT Agreement and in Article 4.11 of the SPS Agreement. Complementing this principle, governments are encouraged to negotiate agreements to accept the equivalence of qualifications obtained under other jurisdictions or unilaterally recognize equivalence.<sup>34</sup>

#### *International standards*

Acceptance of international standards could facilitate the evaluation of qualifications obtained abroad and help promote services trade. Governments involved in standard-setting at the international level should ensure that this is done in as transparent a manner as possible in order to avoid “capture” by specific-interest groups. GATS Article VI:5(b) says that in determining whether the requirements are compatible with the principles of necessity, transparency and objectivity, account shall be taken of international standards of relevant international organizations applied by WTO members.

The term “relevant international organizations” refers to international bodies whose membership is open to the relevant bodies of at least all members of the WTO. The TBT and SPS agreements already contain a strong presumption in favour of international standards. In services, whilst there is a strong incentive for a similar presumption in favour of international standards, there are significant obstacles. For a start, international standards are less prevalent in services as compared with goods. There are also questions concerning the exact nature of technical standards in services; are they predominantly product or process standards, or both, and to what extent could a trade discipline cover voluntary standards, which may be issued by non-governmental organizations without any delegated authority. In the TBT context, a distinction is made between “standards” as voluntary measures and “technical regulations” as mandatory. The GATS, however, makes no such distinction.

Cooperation will not in itself be sufficient to address all externalities which might arise from regulatory divergence. The relative scarcity of international standards in services, as compared with goods,

reflects in part the differences in regulatory preferences. In such a situation, the regulatory divergence between jurisdictions could well be a direct consequence of a preference for a particular objective as well as its level of attainment. It is not obvious why countries would compromise on achieving a regulatory objective which is considered legitimate and necessary. At best, cooperation might be sought on finding less trade-restrictive means of achieving such an objective or on ways to help services suppliers meet particular standards or other substantive requirements.

Cooperation on domestic regulation in services would require a mix of negative integration, in terms of common prohibitions on particular practices and/or adherence to a particular set of principles. It would also need to be complemented by positive actions to improve regulators' understanding of, and confidence in, standards and requirements with which they may not be familiar.

Cooperation on domestic regulation in services may thus require action to be taken on at least three fronts: (i) establishing an appropriate framework of rules to ensure that domestic regulation does not constitute an unnecessary barrier to trade in services; (ii) promoting greater use of trade instruments for pro-competitive regulation; and (iii) supporting regulatory capacity building for trade in services. The first of these is already being undertaken through the domestic regulation negotiations under the GATS Article VI:4 mandate. The other two action points call for greater regulatory cooperation among agencies and international organizations, and could be linked with a technical cooperation agenda to address regulatory supply-side constraints. These challenges are discussed in greater detail in Section E.4.

#### *(iv) Other forms of cooperation*

Cooperation among regulators has been most evident in the telecommunications sector. Going beyond the elements contained in the GATS Article VI:4 mandate, the Reference Paper containing a set of pro-competitive principles was a major achievement of the 1997 Agreement on Basic Telecommunications. The Reference Paper has helped shape the regulatory environment for telecommunications by elaborating a set of principles covering matters such as competition safeguards, interconnection guarantees, transparent licensing processes and the independence of regulators.

Unlike a general obligation, this instrument enters into force when it is attached by a WTO member to its schedule of specific commitments. Strictly speaking this instrument deals with a broader set of regulatory issues than those contained under the Article VI:4 mandate. It is mentioned here as it provides a useful example of regulatory cooperation which might perhaps

be emulated in other sectors. The Reference Paper approach which is undertaken as additional commitments (Article XVIII) could also serve as a model for cooperation on other regulatory issues, including domestic regulation disciplines under Article VI:4. These issues are discussed further in Section E.4.

The various GATS bodies dealing with implementation and operation of the Agreement also provide fora for cooperation on other aspects of services regulations. Members can, and have raised, regulatory matters for discussion. For example, the Council for Trade in Services has been examining regulatory issues relating to international mobile roaming charges. The Committee on Trade in Financial Services has pursued discussions on the financial crisis and regulatory reform issues. The Committee on Specific Commitments, in addressing regular issues such as the classification of services, requires the interaction of regulators with specific expertise and knowledge of the industry. That being said, these bodies – unlike the TBT and SPS committees – were not primarily designed as fora for regulatory cooperation. The fact that there is no such forum is not surprising since the GATS has yet to negotiate a set of disciplines that would serve a similar purpose as the SPS and TBT agreements.

Outside of the WTO, cooperation on regulation affecting trade in services occurs in many different fora. Roy et al. (2007) have found that overall services liberalization commitments in preferential trade agreements (PTAs) have gone beyond current GATS commitments as well as offers tabled in the Doha Round negotiations. There is, however, little evidence to suggest that PTAs have gone further than the GATS in developing disciplines on domestic regulation or in establishing new avenues for regulatory cooperation. Most PTAs have replicated the provisions contained in Article VI of the GATS. It would seem that PTAs have encountered the same difficulties as at the multilateral level in moving this subject forwards. There are, however, some exceptions.

Mattoo and Sauvé (2010) have noted the inclusion of a necessity test in the Switzerland-Japan PTA, a full chapter on domestic regulation in the Australia-New Zealand Closer Economic Relations Agreement, and additional services-specific provisions on transparency in US agreements. There are also necessity test provisions in the Trans-Pacific Strategic Economic Partnership Agreement and in Mercosur.

Outside the context of trade negotiations, certain regional organizations have developed principles or codes of good regulatory practices that would complement services liberalization. Some of the most developed of these include the OECD Guiding Principles on Regulatory Quality and Performance and the APEC-OECD Integrated Checklist on Regulatory Reform. These instruments, which deal with all

regulations and not just those involving the services sector, provide non-binding principles on how to design regulations which support market openness and competition.

There is also a relatively long history of regulatory cooperation at the sectoral level, such as in postal and communications services, financial services, transportation, education as well as certain professional services. Such cooperation has been necessary to deal with the effects of international inter-dependencies which demand coordinated regulatory response from different jurisdictions in order to be effective. Cooperation has also been required to achieve compatibility and inter-operability between different systems and networks.

For example, the International Federation of Accountants (IFAC), the International Accounting Standards Committee (IASC) and the International Organization of Securities Commissions (IOSCO) set international standards for the accountancy sector. The Universal Postal Convention defines general guidelines on international postal services and regulations on the operations of mail services. The standards developed by the International Telecommunication Union (ITU) are fundamental to the functioning and inter-operability of information, communication and technology (ICT) networks globally. In education, the Regional Conventions of the United Nations Educational, Scientific and Cultural Organization (UNESCO) have been the main international instruments addressing the recognition of academic qualifications for academic and sometimes professional purposes.

In the financial sector, the Basel Committee on Banking Supervision provides a forum for regular cooperation on banking supervisory matters, with the objective of enhancing understanding of key supervisory issues and improving the quality of banking supervision worldwide. A Financial Stability Board (FSB), which brings together national authorities responsible for financial stability in significant international financial centres, international financial institutions, sector-specific international groupings of regulators and supervisors, and committees of central bank experts, has also been established. The FSB coordinates the work of national financial authorities and international standard-setting bodies, with the aim of developing and promoting effective regulatory, supervisory and other financial sector policies.

Although not undertaken primarily for the purposes of trade, such cooperation has important implications, as it can encourage greater understanding, if not harmonization, among regulators. There are, however, risks as international standard setting or regulation may by chance or by design serve the interests of those that have the resources to participate in and

influence the process. While such concerns have been very much at the forefront in goods trade (see Section E.4), there has been less discussion and awareness of it in services trade. Some of this has to do with the fact that the regulation of services is less developed at the international level and where such instruments do exist, they tend to focus on particular sectors.

### 3. GATT/WTO disciplines on NTMs as interpreted in dispute settlement

The discussion in preceding sections of this report has explained that, while some non-tariff measures are motivated principally by a desire to protect import-competing sectors, others pursue legitimate public policy objectives, such as safeguarding human and animal health, consumer protection, or promoting environmental sustainability. In this sub-section, we look at GATT/WTO rules, as interpreted in dispute settlement, with a view to understanding how they may or may not reflect some of the insights drawn from the economic analysis in previous sections.

More specifically, this sub-section first discusses how GATT/WTO rules reflect the economic motivations for multilateral cooperation that were analysed in Section E.1. Secondly, it discusses the extent to which GATT/WTO rules on non-tariff measures take into account the economic rationales for adopting such measures, which were analysed in Section B. Section E.4 will then take this analysis further by discussing some specific issues that arise when GATT/WTO rules are contrasted against the insights provided by economic theory.

#### (a) GATT/WTO rules on trade in goods and reasons for multilateral cooperation

In the case of goods, the GATT/WTO agreements limit the policy instruments that WTO members may use to protect import-competing industries. Tariffs are the only legitimate form of protection that may be used. Members have negotiated maximum levels of tariffs (known as “tariff bindings”) and may not apply tariffs that exceed those levels (see GATT Article II). The maximum levels of tariffs that a member may apply are set out in the member’s schedule of concessions. Members are also prohibited from applying “all other duties or charges of any kind imposed on or in connection with the importation” unless they have reserved the right to do so in their schedules of concessions.

For many years, the principal disciplines that applied to non-tariff measures were the prohibition on quantitative restrictions in GATT Article XI and the non-discrimination obligations in Article I (most-favoured nation – MFN) and Article III (national

treatment) of the GATT. These disciplines were supplemented by the possibility of bringing a non-violation claim where a contracting party considered that a measure, despite being consistent with the provisions of the GATT, nevertheless “nullified or impaired” any benefit accruing to it under the Agreement.

The MFN obligation applies to both internal and border measures. It requires WTO members to treat an imported product from one member no less favourably than the “like” domestic product imported from another country. The national treatment obligation concerns internal measures, such as internal taxes and regulations relating to the sale of a product. It requires members to treat an imported product no less favourably than the like domestic product. One of the key issues that has been discussed in GATT/WTO dispute settlement in connection with the national treatment obligation is the extent to which it forbids measures that have a disparate impact on imports, but can be objectively shown to have a legitimate regulatory purpose. This issue is further discussed in Section E.3(b).

As explained in Section E.1, the overall framework of the GATT is consistent with a policy substitution approach. The GATT also had certain rules that went beyond constraining members from replacing one policy (such as tariffs) with another, such as non-tariff measures. In particular, the GATT included important transparency obligations that respond also to the problem of incomplete information.

Some of the Uruguay Round agreements introduced obligations that extend significantly beyond the policy substitution approach of the GATT. These have been referred to as “post-discriminatory” obligations (Hudec, 2003). Of particular relevance to this report are the obligations contained in the SPS and TBT agreements. Both of these agreement contain non-discriminatory obligations. However, they set out additional requirements that apply to non-tariff measures within their scope. Thus, for example, the SPS Agreement also requires that SPS measures be based on scientific principles. For its part, the TBT Agreement requires that technical regulations not be more trade-restrictive than necessary to fulfil a legitimate objective.

One result of this “post-discriminatory” approach is that the link with the market access concessions protected under a policy substitution approach is more tenuous. Despite the underlying policy substitution rationale underlying the GATT/WTO agreements, today there does not appear to be an overarching requirement that a WTO member show how its overall market access has been undermined when it challenges a non-tariff measure. The only measures for which there is a requirement to demonstrate negative effects as part of a claim of violation are

actionable subsidies. By contrast, a member challenging, for instance, an advertising ban under GATT Article III:4 need not demonstrate any trade effects to succeed in its claim. Nor is there a requirement to show trade effects when challenging SPS measures or technical regulations either.

In sum, the disciplines that apply to non-tariff measures other than actionable subsidies are not directly tied to specific market access concessions. Put differently, a member can challenge an NTM irrespective of whether it has demonstrable trade effects. Having said that, one would expect that members normally will not invest the resources necessary to prosecute a complaint unless the measure has some trade impact.

As originally framed, Article XXIII of the GATT required a contracting party challenging a measure taken by another contracting party to demonstrate that such a measure “nullified or impaired” a benefit expected by that contracting party under the GATT (J. H. Jackson, 1989). In 1962, however, a GATT dispute settlement panel determined that where there was a “clear infringement” of a GATT provision, “the action would, prima facie, constitute a case of nullification and impairment...” (GATT *Uruguay – Recourse to Article XXIII*, para. 15). This legal presumption was later codified and is now incorporated in Article 3.8 of the Dispute Settlement Understanding (DSU).

The claim of nullification or impairment has been the subject of discussion in economic literature where it has been identified as an efficient mechanism to discipline non-tariff measures (see Section E.1(c)). It is still possible for a WTO member to challenge a measure that is not inconsistent with the GATT, but that nonetheless “nullifies or impairs” benefits it expected to obtain under the Agreement. However, as explained below, non-violation claims are subject to stringent requirements and are seldom pursued other than when they are “thrown in” as an alternative claim in case the claims of violation do not succeed.

The vast majority of WTO disputes concern allegations of violation. No WTO member has successfully rebutted the presumption of nullification or impairment, resulting from a finding of violation, by showing that the measures had no actual effect on trade (World Trade Organization (WTO), 2004).

In *EC – Bananas III*, the European Communities attempted to rebut the presumption of nullification or impairment with respect to the panel’s findings of violations of the GATT 1994 on the basis that the United States had never exported a single banana to the European Community, and therefore, could not possibly suffer any trade damage. The Appellate Body rejected the European Communities’ argument and, in doing so, endorsed the following reasoning by an earlier panel:

“Article III:2, first sentence, cannot be interpreted to protect expectations on export volumes; it protects expectations on the competitive relationship between imported and domestic products. A change in the competitive relationship contrary to that provision must consequently be regarded *ipso facto* as a nullification or impairment of benefits accruing under the General Agreement. A demonstration that a measure inconsistent with Article III:2, first sentence, has no or insignificant effects would therefore in the view of the Panel not be a sufficient demonstration that the benefits accruing under that provision had not been nullified or impaired even if such a rebuttal were in principle permitted” (Panel Report, *US – Superfund*, para. 5.19).

The claim of non-violation has been described as an “exceptional remedy” which “should be approached with caution” (Panel Report, *Japan – Film*, para. 10.37 and Appellate Body Report, *EC – Asbestos*, para. 186).

#### (b) GATT/WTO rules on trade in goods and economic rationales for NTMs

Section B explained that non-tariff measures may be justified where such measures address a genuine situation of market failure. Section B further explained that, whereas the welfare effects of an NTM that addresses a genuine market failure are positive, the trade effects are ambiguous.

Since its inception, the GATT/WTO regime has recognized that WTO members may need to adopt non-tariff measures to address market failures. In this regard, GATT/WTO rules on NTMs can be understood as providing “devices” that help distinguish measures that genuinely seek to address a market failure from those that have opportunistic motivations (see Trachtman, 1998; Marceau and Trachtman, 2009). In some cases, GATT/WTO rules also seek to minimize the trade impact of an NTM otherwise adopted for a legitimate policy purpose.

Despite what some critics have said, GATT/WTO rules do not establish a hierarchy between the trade commitments of WTO members and the public policy objectives that these members may pursue through domestic regulation. Ultimately, GATT/WTO rules allow for the application of non-tariff measures that pursue a legitimate non-protectionist purpose, even where the measures have trade effects. The “devices” set out in the WTO agreements to draw the line between protectionist and non-protectionist NTMs are described below.

#### (i) *Non-discrimination and the relevance of intent or purpose*

As discussed in Section E.1, the non-discrimination obligations in Articles I and III of the GATT are the primary devices used in the GATT to constrain policy substitution. Additional flexibility is provided under the general exceptions in Article XX of the GATT, which allows certain measures that pursue the public policy objectives recognized in that provision, such as the protection of human, animal, or plant life or health, and the conservation of exhaustible natural resources.

Even with the additional flexibility provided under Article XX, some fear that the national treatment obligation in Article III can be too blunt an instrument if it is applied mechanically. Those who hold this view advocate an interpretation of the national treatment obligation that does not focus exclusively on whether the challenged non-tariff measure has an impact on imports that is different from the impact on the “like” domestic product. Rather, in their view, the analysis should also take account of the intent or purpose behind the challenged measure, thereby only constraining those measures that do not pursue a legitimate purpose.

As Lester (2011) explains, three positions have been advocated as to the relevance of intent or purpose for the assessment of a domestic regulation under Article III. Those in the first group consider that intent or purpose has no role to play in the analysis of national treatment. Instead, they consider that intent or purpose may be relevant, if at all, where the respondent member invokes one of the general exceptions in Article XX of the GATT. The other two groups believe that intent or purpose must necessarily be considered in the analysis under Article III, yet differ as to where precisely intent or purpose comes into the analysis. One group advocates consideration of intent or purpose in determining whether the imported and domestic products are “like”. The other group sees intent or purposes as being part of the analysis of whether the imported product is being treated less favourably than the domestic product.

Two GATT panels sought to include consideration of regulatory purpose in the assessment of discrimination in what became known as the “aims and effects test” (*US – Malt Beverages* and *Canada – Provincial Liquor Boards (US)*). Hudec describes the “aims and effects test” as making the following two improvements to the traditional approach. First, the new approach “consigned the metaphysics of ‘likeness’ to a lesser role in the analysis, and instead made the question of violation depend primarily on the two most important issues that separate bona fide regulation from trade protection – the trade effects of the measure, and the bona fides of the alleged regulatory purpose behind it”. Secondly, “by making it possible for the issue of regulatory justification to be considered at the same

time the issue of violation itself is being determined, the 'aim and effects' approach avoided both the premature dismissal of valid complaints on grounds of 'un-likeness' alone, and excessively rigorous treatment" (Hudec, 2003: 628).

Regan (2003) has also advocated including consideration of regulatory purpose as part of the assessment of non-discrimination under GATT Article III. In his view, the central inquiry in the assessment of non-discrimination under Article III should be whether the measure is the result of a protectionist legislative purpose. He clarifies that this is not a question of the subjective motives of individual legislators. Rather, it is a question at a more general level about what political forces were responsible for the ultimate political outcome. Regan recognizes that there may be multiple purposes behind the enactment of a regulation. In such a case, he suggests that the regulation be invalidated only if the contribution of protectionist purpose was a "but for" cause of the adoption of the regulation.

It is common understanding that the "aims and effects" test was rejected in *Japan – Alcoholic Beverages*, the first non-discrimination dispute about internal taxes decided under the WTO dispute settlement mechanism (see Roessler, 2003). The issue also came up in *EC – Bananas III*, where the Appellate Body refused to apply the "aims and effect" test in the context of analysing a claim under Articles II and XVII of the GATS. However, some commentators have noted that subsequent Appellate Body reports would appear to recognize some role for regulatory purpose in the assessment under GATT Article III (Regan, 2003; Porges and Trachtman, 2003).<sup>35</sup> This is a matter of current debate as a result of the Appellate Body's rulings on Article 2.1 of the TBT Agreement in *US – Clove Cigarettes* and *US – Tuna II (Mexico)* (see below).

Both the SPS and the TBT agreements include non-discrimination obligations, although they operate somewhat differently. The SPS Agreement provides that SPS measures must not "arbitrarily or unjustifiably discriminate between Members where identical or similar conditions prevail, including between their own territory and that of other Members". This language is a recognition of the fact that, due to differences in climate, existing pests or diseases, or food safety conditions, it is not always appropriate to impose the same sanitary and phytosanitary requirements on food, animal or plant products coming from different countries. SPS measures sometimes vary, depending on the country of origin of the food, animal or plant product concerned. Marceau and Trachtman (2009) contrast this provision with Article III of the GATT, noting that the former does not seem to call for a "like product" analysis, but rather is focused on the justification for the discrimination between situations.

The language of Article 2.1 of the TBT Agreement is closer to that of Article III of the GATT. The TBT

Agreement provides that WTO members shall ensure that in respect of technical regulations, products imported from the territory of any member shall be accorded treatment no less favourable than that accorded to like products of national origin and to like products originating in any other country.

As noted above, the relevance of the rationale or purpose of the measures has been the subject of intense debates in the context of Article III of the GATT. The issue has now been raised in the context of Article 2.1 of the TBT Agreement. It is worth recalling, in this regard, that the TBT Agreement does not include a general exceptions provision similar to GATT Article XX.

Three recent panels took differing approaches with respect to the relevance of intent or purpose for the assessment of likeness under Article 2.1 of the TBT Agreement. The panel in *US – Tuna II (Mexico)*, referring back to the Appellate Body's interpretation of Article III:4 of the GATT in *EC – Asbestos*, interpreted the term "like products" in Article 2.1 of the TBT Agreement as relating to the nature and extent of a competitive relationship between and among groups of products (Panel Report, *US – Tuna II (Mexico)*, para. 7.225). In other words, this panel was reluctant to take the intent or purpose of the measure into account at this stage. The panel in *US – COOL (Certain Country of Origin Labelling)* took a similar approach.

By contrast, the panel in *US – Clove Cigarettes*, which examined a claim against a tobacco measure that prohibits cigarettes with characterizing flavours, other than tobacco or menthol, refused to undertake the analysis of likeness "primarily from a competition perspective". Instead, the panel was of the view that the weighing of the evidence relating to the likeness criteria should be influenced by the fact that the measure at issue was "a technical regulation having the immediate purpose of regulating cigarettes with a characterizing flavour for public health reasons". This meant that it had to "pay special notice to the significance of the public health objective of a technical regulation and how certain features of the relevant products, their end-uses as well as the perception consumers have about them, must be evaluated in light of that objective".

The panel therefore concluded that "the declared legitimate public health objective" of the measure at issue – that is, the reduction of youth smoking – "must permeate and inform our likeness analysis". In particular, the panel considered that the declared legitimate public health objective was relevant in the consideration of the physical characteristics that are important for the immediate purpose of regulating cigarettes with characterizing flavours, as well as the consumer tastes and habits criterion where the perception of consumers, or rather potential consumers, can only be assessed with reference to

the health protection objective of the technical regulation at issue (Panel Report, *US – Clove Cigarettes*, para. 7.119).

Another interesting aspect of the panel proceedings in *US – COOL* is that the parties extensively argued about alleged actual trade effects – and whether such effects were attributable to the measures at issue (the COOL measure) or to other factors. The parties submitted economic figures and analyses, including econometric studies. For the panel this was an important factual matter in the dispute: the panel found it important to make findings on the actual trade effects of the COOL measure, even if, under the legal standard it had identified for Article 2.1 of the TBT Agreement, these findings were not indispensable for the analysis of the complainants' claim. Indeed, the panel went further, arguing that it had the right, "and in fact the duty, to make the factual findings necessary to carry out an objective analysis of the dispute and all of the evidence before us", and the basic function of panels did not exclude – and could, in fact, necessitate – the review of economic and econometric evidence and arguments.

Hence, while the panel did not actually undertake any econometric analysis of its own, it assessed the robustness of the contradictory US and Canadian studies, stressing that the econometric studies, unlike the descriptive analyses, were able to isolate and quantify the different factors at play. It concluded that the Canadian (Sumner) Econometric Study had made a *prima facie* case that the COOL measure had a robust negative and significant effect on the import shares and price basis of Canadian livestock. It also concluded that this impact demonstrated by the Canadian Study, and not refuted by the USDA Econometric Study, concurred with its finding that the COOL measure accorded less favourable treatment (for muscle cuts) within the meaning of Article 2.1 of the TBT Agreement (Panel Report, *US – COOL*, paras. 7.444-7.566).

All three panel reports were appealed, but at the time of writing only the Appellate Body reports in *US – Clove Cigarettes* and *US – Tuna II (Mexico)* had been circulated.

The Appellate Body disagreed with the *US – Clove Cigarettes* panel's interpretation of the concept of "like products" in Article 2.1 of the TBT Agreement, which focused on the purposes of the technical regulation at issue, as separate from the competitive relationship between and among the products. In the Appellate Body's view, "the context provided by Article 2.1 itself, by other provisions of the *TBT Agreement*, by the *TBT Agreement* as a whole, and by Article III:4 of the GATT 1994, as well as the object and purpose of the *TBT Agreement*, support an interpretation of the concept of 'likeness' in Article 2.1 that is based on the competitive relationship between and among the products". Regulatory concerns underlying a technical

regulation may be taken into account only to the extent that they are relevant to the examination of certain likeness criteria and are reflected in the products' competitive relationship.<sup>36</sup> Ultimately, however, the Appellate Body found that the "likeness" criteria that the panel had examined supported the panel's overall conclusion that clove and menthol cigarettes are like products within the meaning of Article 2.1 of the *TBT Agreement* (Appellate Body Report, *US – Clove Cigarettes*, paras. 156 and 160).

The Appellate Body also addressed the less favourable treatment element of Article 2.1 of the TBT Agreement, noting that a panel examining a claim of violation under Article 2.1 should seek to ascertain whether the technical regulation at issue modifies the conditions of competition in the market of the regulating member to the detriment of the group of imported products *vis-à-vis* the group of like domestic products.

The Appellate Body further explained that "the context and object and purpose of the *TBT Agreement* weigh in favour of interpreting the treatment no less favourable requirement of Article 2.1 as not prohibiting detrimental impact on imports that stems exclusively from a legitimate regulatory distinction". This means that where a technical regulation does not *de jure* discriminate against imports, "the existence of a detrimental impact on competitive opportunities for the group of imported *vis-à-vis* the group of domestic like products is not dispositive of less favourable treatment under Article 2.1". Panels must further analyse whether the detrimental impact on imports stems exclusively from a legitimate regulatory distinction rather than reflecting discrimination against the group of imported products. In doing so, panels must carefully scrutinize the particular circumstances of the case, that is, the design, architecture, revealing structure, operation, and application of the technical regulation at issue, and, in particular, whether that technical regulation is evenhanded, in order to determine whether it discriminates against the group of imported products (Appellate Body Report, *US – Clove Cigarettes*, paras. 180-182).

In the end, the Appellate Body agreed with the panel's conclusion that, by exempting menthol cigarettes from the ban on flavoured cigarettes, the US measure accords to clove cigarettes imported from Indonesia less favourable treatment than that accorded to domestic like products, within the meaning of Article 2.1 of the TBT Agreement. The Appellate Body considered that the detrimental impact of the US measure on competitive opportunities for clove cigarettes did not stem from a legitimate regulatory distinction because menthol cigarettes have the same product characteristics (the flavour that masks the harshness of tobacco) that, from the perspective of the stated objective of the US measure, justified the prohibition of clove cigarettes.

However, the Appellate Body sought to clarify that its ruling did not mean that WTO members “cannot adopt measures to pursue legitimate health objectives such as curbing and preventing youth smoking”. It emphasized that, even though the measure at issue pursued the legitimate objective of reducing youth smoking by banning cigarettes containing flavours and ingredients that increase the attractiveness of tobacco to youth, “it does so in a manner that is inconsistent with the national treatment obligation in Article 2.1 of the *TBT Agreement* as a result of the exemption of menthol cigarettes, which similarly contain flavours and ingredients that increase the attractiveness of tobacco to youth, from the ban on flavoured cigarettes” (Appellate Body Report, *US – Clove Cigarettes*, paras. 226 and 236).

The Appellate Body also addressed a claim under Article 2.1 of the TBT Agreement in *US – Tuna II (Mexico)*. The likeness of tuna products of different origins was not appealed. The debate on Article 2.1 thus was limited to the “treatment no less favourable” element of Article 2.1. The Appellate Body began by explaining that technical regulations are measures that, by their very nature, establish distinctions between products according to their characteristics or their related processes and production methods. Therefore, Article 2.1 should not be read to mean that any distinctions, in particular ones that are based exclusively on particular product characteristics or on particular processes and production methods, would *per se* constitute “less favourable treatment” (para. 211).

The Appellate Body described the analysis of whether there is less favourable treatment under Article 2.1 as involving the following two steps: (i) an assessment of whether the technical regulation at issue modifies the conditions of competition to the detriment of the imported product as compared to the domestic like product or the like product originating in another member; and (ii) a determination of whether the detrimental impact reflects discrimination against the imported product of the complaining member.

Referring back to its earlier ruling in *US – Clove Cigarettes*, the Appellate Body explained that the existence of a detrimental effect is not sufficient to demonstrate less favourable treatment under Article 2.1; instead, a panel must further analyse whether the detrimental impact on imports stems exclusively from a legitimate regulatory distinction rather than reflecting discrimination against the group of imported products (paras. 215 and 231). The Appellate Body further said that in this case it would scrutinize in particular, whether, in the light of the factual findings made by the panel and undisputed facts on the record, the US measure is evenhanded in the manner in which it addresses the risks to dolphins arising from different fishing methods in different areas of the ocean (para. 232).

Turning to the US “dolphin-safe” labelling provisions, the Appellate Body first found that the panel’s factual findings “clearly establish that the lack of access to the ‘dolphin-safe’ label of tuna products containing tuna caught by setting on dolphins has a detrimental impact on the competitive opportunities of Mexican tuna products in the US market” (para. 235). As for the question of whether the detrimental impact reflected discrimination, the Appellate Body examined whether the different conditions for access to a “dolphin-safe” label are “calibrated” to the risks to dolphins arising from different fishing methods in different areas of the ocean, as the United States had claimed. The Appellate Body noted the panel’s finding that, while the US measure fully addresses the adverse effects on dolphins (including observed and unobserved effects) resulting from setting on dolphins in the Eastern Tropical Pacific, it does not address mortality arising from fishing methods other than setting on dolphins in other areas of the ocean. In these circumstances, the Appellate Body found that the measure at issue is not even-handed in the manner in which it addresses the risks to dolphins arising from different fishing techniques in different areas of the ocean. On this basis, the Appellate Body reversed the panel’s finding that the US “dolphin-safe” labelling provisions are not inconsistent with Article 2.1 of the TBT Agreement, and found, instead, that the US measure is inconsistent with Article 2.1.

The Appellate Body reports in *US – Clove Cigarettes and US – Tuna II (Mexico)* focused on Article 2.1 of the TBT Agreement; the Appellate Body addressed Article III:4 of the GATT only as relevant context for its interpretation of Article 2.1 of the TBT Agreement. Nevertheless, the reports have given rise to debate about their implications for the analysis under Article III:4 of the GATT (see the International Economic Law and Policy Blog at: <http://worldtradelaw.typepad.com>).

As noted earlier, the TBT Agreement and the GATT are structured differently. The GATT includes a general exceptions provision (Article XX) that may be invoked to justify a measure that is otherwise inconsistent with Article III:4 (or another obligation in the GATT). Article XX refers to some of the policy objectives that are also mentioned in the Preamble of the TBT Agreement, such as the protection of the environment. The Appellate Body observed, in this regard, that while the GATT and the TBT Agreement seek to strike a similar balance, “in the GATT 1994 this balance is expressed by the national treatment rule in Article III:4 as qualified by the exceptions in Article XX, while, in the TBT Agreement, this balance is to be found in Article 2.1 itself, read in the light of its context and of its object and purpose” (Appellate Body Report, *US – Clove Cigarettes*, para. 109). This could be read by some as supporting a different approach under Article III:4 than under Article 2.1 of the TBT Agreement, whereupon any legitimate policy basis for the differential treatment of the imported product and the

like domestic product would be considered in the assessment of the Article XX defence and not as part of the assessment of whether there is discrimination under Article III:4.

Another point to note is that Article XX of the GATT has a closed list of policy reasons that could be invoked to justify an otherwise GATT-inconsistent measure. By contrast, the TBT Agreement does not expressly limit the policy objectives that could be pursued through a technical regulation. The range of objectives that could justify a measure is potentially more “open” under the TBT Agreement than under the GATT.

Appellate proceedings in *US – COOL* had not concluded at the time of writing.

### (ii) *Appropriate level of protection*

Like Article III of the GATT, the SPS and TBT agreements do not establish minimum or maximum levels of regulatory protection. For example, the SPS Agreement does not require a WTO member to regulate in relation to a particular risk. Thus, a WTO member may choose not to regulate at all. At the same time, the SPS Agreement does not impose a ceiling on the maximum level of regulation. The Appellate Body has emphasized in this regard that it is the “prerogative” of a WTO member to determine the level of protection that it deems appropriate (Appellate Body Report, *Australia – Salmon*, para. 199).

Although WTO members have the prerogative to determine their level of protection, they must comply with the requirement of consistency in Article 5.5 of the SPS Agreement. An SPS measure would fail the consistency requirement of Article 5.5 if: (i) the member imposing the disputed measure has adopted its own appropriate levels of sanitary protection against risks to human life or health in several different situations; (ii) those levels of protection exhibit arbitrary or unjustifiable differences (“distinctions” in the language of Article 5.5) in their treatment of different situations; and (iii) the arbitrary or unjustifiable differences must result in discrimination or a disguised restriction of international trade. The analysis under Article 5.5 proceeds, however, only if the situations exhibit different levels of protection and present some common element or elements sufficient to render them comparable (Appellate Body Report, *EC – Hormones*, paras. 214-215 and 217).

### (iii) *Scientific or technical basis*

The SPS Agreement requires that SPS measures be based on scientific principles and not be maintained without scientific evidence. Unless the SPS measure is taken in an emergency or is based on an international standard, it must be based on a risk assessment, which the Agreement defines as:

“The evaluation of the likelihood of entry, establishment or spread of a pest or disease within the territory of an importing Member according to the sanitary or phytosanitary measures which might be applied, and of the associated potential biological and economic consequences; or the evaluation of the potential for adverse effects on human or animal health arising from the presence of additives, contaminants, toxins or disease-causing organisms in food, beverages, or feedstuffs”.

TBT measures may also be supported by scientific or technical studies, although in some cases the scientific or technical information may be one of several factors taken into consideration. Indeed, Article 2.2 of the TBT Agreement includes available scientific and technical information among the elements that may be considered in assessing the risks that would be created if the legitimate objective pursued by the technical regulation were not fulfilled. While it is feasible to consider technical studies providing backing for the need for certain technical regulations relating to consumer safety, the usefulness of technical studies for other technical regulations – such as certain labelling requirements for foods subject to religious restrictions – is less obvious. The drafters of the TBT Agreement would appear to have foreseen that such measures could involve complex technical assessments in that they explicitly provided for the possibility that panels reviewing such measures in WTO dispute settlement could rely on experts “to assist in questions of a technical nature” (see Article 14 and Annex 2 of the TBT Agreement).

The additional requirements of the SPS and TBT agreements have given rise to concerns by some that the WTO will interfere with legitimate democratic choices of the citizens of the WTO members adopting the SPS or TBT measures. Writing about the SPS Agreement, Howse (2000) has argued that these requirements “do not have the effect of usurping democratic judgment about risk and its regulation and placing these matters under the authority of ‘science’”. Rather, in his view, “the SPS Agreement brings science in as one necessary component of the regulatory process, without making it decisive”. Howse finds support for his views in the approach taken by the Appellate Body in *EC – Hormones*. He refers, for example, to the Appellate Body’s acknowledgment that WTO members may adopt SPS measures even if scientific opinion is divided or there is uncertainty.

Sykes (2006) is less optimistic. He has argued that accommodation between the SPS Agreement’s scientific evidence requirement and respect for WTO members’ regulatory sovereignty “is exceedingly difficult if not impossible”. In his view, “(m)eaningful scientific evidence requirements fundamentally conflict with regulatory sovereignty in all cases of

serious scientific uncertainty". He sees this as forcing a choice on the WTO "between an interpretation of scientific evidence requirements that essentially eviscerates them and defers to national judgments about 'science', or an interpretation that gives them real bite at the expense of the capacity of national regulators to choose the level of risk that they will tolerate". A middle ground is only possible "in the rare cases where scientific uncertainty is remediable quickly at low cost".

Hoekman and Trachtman (2010) have argued that the scientific evidence requirement of the SPS Agreement does not entail a dramatic departure from the general policy of the GATT of preventing discriminatory measures (understood narrowly as only covering measures that have a differential impact without an adequate rational justification in terms of achieving a legitimate regulatory objective). They assert that the scientific evidence requirement may be understood as an objective indicator or "proxy measure" of protectionist intent. Hoekman and Trachtman explain that the scientific evidence requirement (including the requirement that SPS measures be based on a risk assessment) would seem to evaluate directly "the extent and quality of the non-protectionist aim". Alternatively, the requirement may be understood to establish a presumption of protectionist aim where the SPS measure is found not to be based on scientific evidence. Described in this manner, the scientific evidence requirement would be mostly concerned with the problem of policy substitution.

The concern about intruding into the regulatory domain of national governments on such sensitive matters as health and safety measures finds reflection in the "standard of review" that applies to the review of such measures by the WTO's adjudicatory bodies. The standard of review refers to the intensity of the scrutiny of domestic measures by WTO panels. As noted above, SPS measures must be based on scientific principles and may not be maintained without sufficient scientific evidence. This sometimes means that the WTO member applying the SPS measures must have conducted a risk assessment in accordance with Article 5.1 of the SPS Agreement.

A panel assessing the consistency of an SPS measure with Article 5.1 is meant to review the WTO member's risk assessment and not to conduct one itself. The Appellate Body has cautioned that "[w]here a panel goes beyond this limited mandate and acts as a risk assessor, it would be substituting its own scientific judgment for that of the risk assessor and making a *de novo* review and, consequently, would exceed its functions under Article 11 of the DSU". It went on to explain that "the review power of a panel is not to determine whether the risk assessment undertaken by a WTO Member is correct, but rather to determine whether that risk assessment is supported by coherent

reasoning and respectable scientific evidence and is, in this sense, objectively justifiable" (Appellate Body Report, *US/Canada – Continued Suspension*, para. 590).

It could be suggested that a deferential standard of review, similar to that applied to the review of SPS measures, would be justified in relation to measures under the TBT Agreement that are based on some kind of technical assessment carried out by domestic authorities. So far, however, the standard of review has not received much attention in the disputes brought to the WTO under the TBT Agreement.

A related issue that has been raised in connection with both the SPS and TBT agreements is whether WTO adjudicators have the required level of expertise to adjudicate disputes that may involve complex scientific or technical debates. The lack of such scientific and technical expertise is one of the justifications given for a deferential standard of review. The SPS and TBT agreements both provide for the possibility that panels seek advice from experts and several panels have done so. Panels must consult the parties when choosing the experts and must respect the parties' due process rights. Thus, a panel was faulted for consulting two experts that had participated in the evaluation of six hormones for purposes of developing international standards when the adequacy of that evaluation was an issue in the WTO dispute (Appellate Body Report, *US/Canada – Continued Suspension*, para. 481).

Moreover, experts cannot do the job of the parties, especially the complainant who bears the burden of proof (Appellate Body Report, *Australia – Salmon*, para. 222). The use of experts must be consistent with the standard of review. In the case of SPS measures, the consultations with the experts "should not seek to test whether the experts would have done a risk assessment in the same way and would have reached the same conclusions as the risk assessor" (Appellate Body Report, *US/Canada – Continued Suspension*, para. 481). In other words, the assistance of the experts is constrained by the applicable standard of review.

#### *(iv) A less trade-restrictive requirement*

As noted earlier, a WTO member taking a domestic measure that is inconsistent with one of the obligations of the GATT nevertheless may be able to justify it if the measure pursues one of the policy objectives recognized under Article XX and is otherwise consistent with the other requirements of that provision. Article XX allows, among other things, measures that are "necessary" to protect public morals or to protect human, animal or plant life or health. Under the approach followed by some panels during the GATT, a measure would be considered to be "necessary" only if there were no alternative measures

consistent with the GATT, or less inconsistent with it, that the member taking the measure could be expected to employ to achieve the relevant policy objective (see GATT Panel Report, *US – Section 337 Tariff Act*, para. 5.26 and GATT Panel Report, *Thailand – Cigarettes*, para. 75).

The Appellate Body has taken a more nuanced approach to necessity. The determination of “necessity”, as articulated by the Appellate Body, involves a weighing and balancing of the relative importance of the interests or values furthered by the challenged measure and other factors, which would usually include the contribution of the measure to the realization of the ends pursued by it and the restrictive impact of the measure on international trade. If this analysis yields an affirmative conclusion, the necessity of the measure must be then confirmed by comparing the measure with possible less restrictive alternatives. The burden of identifying less restrictive alternatives is on the complaining party. To qualify as an alternative, the measure must allow the respondent member to achieve the same level of protection and must be reasonably available – the responding member must be capable of taking it and the measure may not impose an undue burden on that member, such as prohibitive costs or substantial technical difficulties – taking into account the level of development of the member concerned (Appellate Body Report, *Brazil – Retreaded Tyres*, paras. 143 and 156).

In accordance with Article 5.6 of the SPS Agreement, a WTO member establishing or maintaining SPS measures to achieve the appropriate level of sanitary or phytosanitary protection must “ensure that such measures are not more trade-restrictive than required to achieve their appropriate level of sanitary or phytosanitary protection, taking into account technical and economic feasibility”. Footnote 3 to Article 5.6 clarifies that “a measure is not more trade-restrictive than required unless there is another measure, reasonably available taking into account technical and economic feasibility, that achieves the appropriate level of sanitary or phytosanitary protection and is significantly less restrictive to trade”. The assessment described in footnote 3 could be understood as a type of cost-benefit analysis.

In *Australia – Salmon*, the Appellate Body stated that Article 5.6 provides a three-pronged test. The complaining party must prove that there is another measure that: (i) is reasonably available, taking into account technical and economic feasibility; (ii) achieves the member’s appropriate level of sanitary or phytosanitary protection; and (iii) is significantly less restrictive to trade than the SPS measure contested. These three elements are cumulative in the sense that, to establish an inconsistency with Article 5.6, all of them have to be met:

“If any of the elements is not fulfilled, the measure in dispute would be consistent with Article 5.6. Thus, if there is no alternative measure available, taking into account technical and economic feasibility, or if the alternative measure does not achieve the Member’s appropriate level of sanitary or phytosanitary protection, or if it is not significantly less trade-restrictive, the measure in dispute would be consistent with Article 5.6” (Appellate Body Report, *Australia—Salmon*, para. 194).

In *Australia – Apples*, the Appellate Body added that, in determining whether the first two of these conditions have been satisfied (whether there is a measure that is reasonably available, taking into account technical and economic feasibility, and achieves the member’s appropriate level of sanitary or phytosanitary protection), a panel must focus its assessment on the proposed alternative measure. Only in examining whether the third condition is fulfilled will a panel need to compare the proposed alternative measure with the contested SPS measure (Appellate Body Report, *Australia – Apples*, WT/DS367/AB/R, at para. 337).

Marceau and Trachtman (2009) suggest that Article 5.6 of the SPS Agreement, as interpreted, would seem to involve a balancing exercise similar to the one espoused by the Appellate Body in relation to the assessment of necessity under Article XX of the GATT. One difference they identify is that, unlike the assessment of necessity under Article XX of the GATT, the evaluation under Article 5.6 of the SPS Agreement would not include consideration of the degree of the measure’s contribution to the end pursued.

For its part, Article 2.2 of the TBT Agreement provides that “Members shall ensure that technical regulations are not prepared, adopted or applied with a view to or with the effect of creating unnecessary obstacles to international trade. For this purpose, technical regulations shall not be more trade-restrictive than necessary to fulfil a legitimate objective, taking account of the risks non-fulfilment would create. Such legitimate objectives are, *inter alia*: national security requirements; the prevention of deceptive practices; protection of human health or safety, animal or plant life or health, or the environment. In assessing such risks, relevant elements of consideration are, *inter alia*: available scientific and technical information, related processing technology or intended end-uses of products”.

The panels in *US – Clove Cigarettes*, *US – Tuna II (Mexico)* and *US – COOL* each addressed and interpreted Article 2.2 of the TBT Agreement. Despite the differences in the panels’ analyses, there are some common elements that can be discerned in their approaches.

All three panels interpreted this provision as requiring an enquiry regarding the following elements: (i) whether the measure at issue pursues a legitimate objective; (ii) whether the measure at issue fulfils, or contributes to the achievement of, the legitimate objectives, at the level the member deemed appropriate; and (iii) whether there is a less trade-restrictive alternative means of achieving the same level of protection. Moreover, in all three disputes, the United States, as the respondent, consistently argued that the jurisprudence relating to Article XX of the GATT 1994 was not relevant in interpreting Article 2.2 of the TBT Agreement, and that instead panels should rely on Article 5.6 of the SPS Agreement and its jurisprudence (see above). None of the three panels accepted the US argument *in toto*. Rather, they drew upon the Appellate Body's jurisprudence on Article XX of the GATT 1994 in varying degrees, for their analysis under Article 2.2. The panels in *US – Tuna II (Mexico)* and *US – COOL* also relied on Article 5.6 of the SPS Agreement and its related jurisprudence in interpreting Article 2.2.

The three panels, however, adopted different standards for the individual elements of the test. For the panel in *US – Clove Cigarettes*, the first step under an Article 2.2 analysis requires an examination of whether the measure itself is necessary to fulfil the legitimate objectives. Borrowing from the Appellate Body's interpretation of "necessary" under Article XX of the GATT 1994, the panel observed that a measure must make a "material contribution" to the fulfilment of the legitimate objective for it to be considered "necessary" for the purposes of Article 2.2.

Having found that Indonesia failed to demonstrate that the US measure at issue makes no "material contribution" to the stated objective, the panel turned to the second stage of its analysis – the identification of a less trade-restrictive alternative – adopting the test developed by the Appellate Body under Article XX(b) in *Brazil – Retreaded Tyres*. The panel concluded that Indonesia, by "merely" listing two dozen possible alternatives, had failed to establish a *prima facie* case. Moreover, relying again on the Appellate Body Report in *Brazil – Retreaded Tyres*, the panel said that even if a *prima facie* case was established, the United States rebutted it by highlighting that several of the alternatives proposed were already in place in the United States.

The panel in *US – Tuna II (Mexico)* adopted a different approach. In its view, Article 2.2 does not require that the measure itself be necessary for the fulfilment of the legitimate objective. Instead, it requires that the trade restrictiveness of the challenged measure be necessary for the fulfilment of the objective. The panel noted that Article 2.2 differs from Article XX(b) and (d) of the GATT 1994, which require that the measure be necessary. Despite this observation, as a first step, the panel embarked on an assessment of the manner in which, and the extent to which, the measures at issue

fulfil their legitimate objectives, taking into account the WTO member's chosen level of protection. Here, however, the panel's analysis differs from the one conducted by the panel in *US – Clove Cigarettes*, as it focused not on "material contribution", but on the "manner and extent" to which the US "dolphin-safe" labelling provisions fulfil the objectives identified by the United States.

Having found that the measures have the capability to contribute to the fulfilment of these objectives, the panel examined whether there is a less trade-restrictive alternative measure that achieves the same level of protection.

In *US – COOL*, the panel focused exclusively on whether the US measure fulfils its stated objective, even though its interpretation of Article 2.2 envisaged other steps to be assessed, such as an examination of whether the measure at issue is "more trade-restrictive" than necessary based on the availability of less trade-restrictive alternative measures that could equally fulfil the identified objective. Here too, the panel relied upon the Appellate Body's jurisprudence on Article XX, observing that a measure can be said to contribute to the achievement of its objectives when there is a "genuine relationship of ends and means" between the objective and the measure. However, having found that the measure does not fulfil the objective it had determined the United States to be pursuing through its measure, the panel did not assess the availability of less trade-restrictive alternative means of achieving that objective.

As noted above, the appellate proceedings in *US – Clove Cigarettes* have concluded. However, the panel's findings on Article 2.2 of the TBT Agreement were not appealed and thus were not addressed by the Appellate Body in that case.

The Appellate Body interpreted Article 2.2 of the TBT Agreement in *US – Tuna II (Mexico)*, describing the assessment required under that provision as follows. First, a panel must assess what objective(s) a member seeks to achieve by means of a technical regulation. In doing so, it may take into account the texts of statutes, legislative history, and other evidence regarding the structure and operation of the measure. A panel is not bound by a member's characterization of the objectives it pursues through the measure, but must independently and objectively assess them. Subsequently, the analysis must turn to the question of whether a particular objective is legitimate (para. 314). Moreover, a panel must consider whether the technical regulation "fulfils" an objective. This is a question concerned with the degree of contribution that the technical regulation makes towards the achievement of the legitimate objective. Consequently, a panel adjudicating a claim under Article 2.2 of the TBT Agreement must seek to ascertain to what degree, or if at all, the challenged

technical regulation, as written and applied, actually contributes to the legitimate objective pursued by the member.

The degree of achievement of a particular objective may be discerned from the design, structure and operation of the technical regulation, as well as from evidence relating to the application of the measure (para. 317). Furthermore, the assessment of “necessity” under Article 2.2 involves a relational analysis of the trade-restrictiveness of the technical regulation, the degree of contribution that it makes to the achievement of a legitimate objective, and the risks that non-fulfilment would create. In most cases, this would involve a comparison of the trade-restrictiveness and the degree of achievement of the objective by the measure at issue with that of possible alternative measures that may be reasonably available and less trade restrictive than the challenged measure, taking account of the risks that nonfulfilment would create. As clarified by the Appellate Body in previous appeals, the comparison with reasonably available alternative measures is a conceptual tool for the purpose of ascertaining whether a challenged measure is more trade restrictive than necessary.

The obligation to consider “the risks nonfulfilment would create” further suggests that the comparison of the challenged measure with a possible alternative measure should be made in the light of the nature of the risks at issue and the gravity of the consequences that would arise from non-fulfilment of the legitimate objective. This suggests a further element of weighing and balancing in the determination of whether the trade-restrictiveness of a technical regulation is “necessary” or, alternatively, whether a possible alternative measure, which is less trade restrictive, would make an equivalent contribution to the relevant legitimate objective, taking account of the risks that non-fulfilment would create, and would be reasonably available (paras. 318-321).

As regards the measure challenged by Mexico under Article 2.2, the Appellate Body reversed the panel's finding that Mexico had demonstrated that the US “dolphin-safe” labelling provisions are more trade restrictive than necessary to fulfil the United States’ legitimate objectives. In doing so, the Appellate Body reasoned, *inter alia*, that the panel had conducted a flawed analysis and comparison between the challenged measure and the alternative measure proposed by Mexico (the co-existence of the labelling rules in the Agreement on the International Dolphin Conservation Program and the US labelling provisions). The Appellate Body also noted that the alternative measure proposed by Mexico would not make an equivalent contribution to the United States’ objectives as the US measure in all ocean areas. On this basis, the Appellate Body reversed the panel's finding that the measure is inconsistent with Article 2.2 of the TBT Agreement (paras. 328-331).

Appellate proceedings in *US – COOL* remain pending at the time of writing.

Sykes (2003) has suggested that the least trade-restrictive requirement is a “crude” form of cost-benefit analysis that is “highly attentive to error costs and uncertainty”. He describes it as “crude” because there is no actual quantification of the costs and benefits of alternative regulatory policies in monetary terms or using another metric. Instead, he portrays the WTO decision-maker as proceeding “more impressionistically and qualitatively” when assessing the trade effect of alternative policies, their administrative difficulties and resource costs, and their regulatory efficacy. Sykes reviews WTO dispute decisions up to 2003 as well as earlier GATT panels, and finds that they support his understanding of the less trade-restrictive requirement as a “crude” form of cost-benefit analysis.

Bown and Trachtman (2009) are critical of the Appellate Body's articulation of the necessity test and its application in the *Brazil – Retreaded Tyres* dispute. They submit that the Appellate Body has shown itself unwilling to evaluate for itself, or require the panel to have done so, in any meaningful way the factors that are supposed to be weighed and balanced under its test. In the absence of such evaluation, the adjudicatory bodies effectively defer to the domestic authority. Bown and Trachtman ask whether this degree of deference satisfies the mandate of the WTO's adjudicatory bodies. As to which should be the proper test to apply in this context, Bown and Trachtman observe that the text of Article XX, in particular the term “necessary”, most naturally suggests a “least-treaty-inconsistent-alternative-reasonably-available” test, which in this context would call for a comparative analysis of whether there exists another measure that would achieve the same regulatory benefits as the challenged measure, while imposing lower trade-restriction costs, without excessive costs of implementation. Yet, on the assumption that the treaty text could be amended, Bown and Trachtman propose that a more appropriate approach would be one based on a welfare-economics analysis and they illustrate how this approach would proceed using the facts of the *Brazil – Retreaded Tyres* dispute.

Regan (2007) also criticizes the balancing test as articulated by the Appellate Body. Like Bown and Trachtman, Regan argues that the term “necessary” in Article XX suggests a “less-restrictive alternative test”. Regan goes on to argue that, while the Appellate Body has described its approach as one involving weighing and balancing, it is in reality deciding cases on the basis of a less-restrictive alternative test. One of the reasons that he gives for arriving at this conclusion is that he considers that there is an inherent inconsistency between a balancing test and the view also espoused by the Appellate Body that WTO members are entitled to determine for themselves their appropriate level of protection.

Regan has what he considers is a more important objection. He does not believe that the WTO adjudicatory bodies have the authority to judge the relative importance of various (non-protectionist) goals that WTO members might wish to pursue and considers that, if this were indeed done, it would be a serious intrusion into members' regulatory autonomy. Regan explains that the advantage of a "less restrictive alternative" test – the test he thinks the Appellate Body has actually applied – is that it does not require making such judgments, but rather is limited to balancing the trade costs against administrative/enforcement costs (as opposed to the achievement of the underlying goal).

#### (v) *International standards*

As discussed in Section E.1 and Section E.2, regulatory divergence may result in higher costs for producers, exporters and importers. The WTO is not a standard-setting body. The principal means through which the WTO promotes regulatory convergence is by encouraging its members to use international standards. Neither the TBT Agreement nor the SPS Agreement, however, requires a WTO member to use international standards. WTO members may adopt SPS measures or technical regulations that depart from international standards.

Article 3.1 of the SPS Agreement provides that "to harmonize sanitary and phytosanitary measures on as wide a basis as possible, Members shall base their sanitary or phytosanitary measures on international standards, guidelines or recommendations, where they exist". Article 3.3, however, allows WTO members to introduce SPS measures which result in a higher level of SPS protection than would be otherwise achieved by measures based on international standards, provided that there is scientific justification or as a consequence of the level of SPS protection that a member determines to be appropriate.

The legal incentive for harmonization is that, under Article 3.2 of the SPS Agreement, measures based on international standards are deemed to be necessary to protect human, animal or plant life or health and presumed to be consistent with the relevant provisions of the SPS Agreement and the GATT. Yet, it is important to note that, even where a WTO member chooses not to base its SPS measure on an international standard, no negative presumption attaches to that measure. If the measure is challenged in WTO dispute settlement, the complaining member must demonstrate that the measure is inconsistent with the SPS Agreement. It is not enough to show that the SPS measure is not based on the international standard (Appellate Body Report, *EC – Hormones*, paras. 102 and 171).

In the case of technical regulations, Article 2.4 of the TBT Agreement provides that where "relevant international standards exist or their completion is

imminent", WTO members "shall use them, or the relevant parts of them, as a basis for their technical regulations". Nevertheless, Article 2.4 allows WTO members to depart from an international standard, even when such a standard already exists, if "such international standards or relevant parts would be an ineffective or inappropriate means for the fulfilment of the legitimate objectives pursued, for instance because of fundamental climatic or geographical factors or fundamental technological problems".

Similarly to SPS measures, there is a legal incentive for using an international standard in preparing a technical regulation. Article 2.5 of the TBT Agreement states that, where the technical regulation pursues one of the legitimate objectives recognized under the Agreement and is in accordance with relevant international standards, it shall be rebuttably presumed not to create an unnecessary obstacle to international trade. As with SPS measures, there is no negative presumption when a WTO member chooses not to use an international standard as a basis for a technical regulation. If that technical regulation is challenged in WTO dispute settlement, the complaining member must demonstrate that the international standard or relevant parts would be effective or appropriate means for the fulfilment of the legitimate objectives pursued (Appellate Body Report, *EC – Sardines*, para. 275).

The SPS Agreement expressly recognizes three international standard-setting bodies: the Codex Alimentarius Commission, the International Office of Epizootics (now called the World Organization for Animal Health – OIE) and the Secretariat of the International Plant Protection Convention (IPPC). For matters not covered by these three organizations, the SPS Agreement leaves open scope for "appropriate standards ... promulgated by other relevant international organizations open for membership to all Members, as identified" by the WTO's SPS Committee.

The TBT Agreement does not specify which bodies may issue "relevant international standards". The subject of "naming" or not naming bodies under the TBT Agreement has come up for discussion in the context of on-going negotiations in the Doha Round on non-agricultural market access. Here, the WTO membership is divided into two camps but for now the bodies are not listed.

One group of WTO members argues that relevant international standardizing bodies should be explicitly named. Since the goal of the TBT Agreement itself is one of promoting harmonization, this very objective, it is argued, will be impeded if multiple standard-setting organizations co-exist, creating duplicative and possibly contradictory requirements. In a context where regulators are strongly encouraged to base their measure on international standards, competition between standard-setting bodies will lead to

fragmentation of markets, unnecessary compliance costs and even capture of regulators by protectionist interests. The opposite needs to be achieved: close cooperation, greater inclusiveness and sharing of governance at the international level. Focusing the development of standards used for regulatory purposes within a few international bodies will incentivize a broad participation by stakeholders, in particular industry, thus ensuring market relevance and reflecting technological developments (JOB/MA/81 and JOB/MA/80).

It is further argued that naming the relevant international standard-setting bodies would facilitate participation by developing countries because these countries will be better able to prioritize scarce resources. Following on from this, an increase in participation by developing countries will help ensure that standards reflect the widest interests possible, thus providing greater legitimacy and global relevance to the international standard itself (JOB/MA/81 and JOB/MA/80).

Another group of WTO members argues the opposite: international standardizing bodies should not be named because whether a standard is relevant, effective and appropriate in fulfilling a member's particular regulatory or market need depends on the standard itself, not on the body that developed the standard. They argue that Article 2.4 of the TBT Agreement links the relevance of a "standard" to the objective pursued; the term "relevant" is not linked to the body. Furthermore, they suggest that by designating a particular body as a "relevant international standardizing body", WTO members would essentially be endorsing all standards that such bodies produce without reviewing their content, even in cases where the standard might not reflect the interests of all members, or, disproportionately reflects those of only a few (G/TBT/W/138).

It is also argued that a limited number of named bodies cannot produce the breadth and diversity of standards needed to fulfil all of the regulatory and market needs that are the purview of the TBT Agreement.<sup>37</sup> Instead, it is the diversity of bodies that will promote innovation and help ensure that standards are of high quality and respond to regulatory and market needs. Greater harmonization will result from increased use of such standards (G/TBT/W/138).

It is further argued that most bodies producing market-relevant standards (that are actually used) are private sector entities that need to cover their own costs through the sale of standards; naming bodies would eliminate this source of revenue and concentrate proceeds in a few hands. Finally, naming bodies would render any standard produced by a designated body as "relevant", regardless of whether that standard in fact responds to the needs of developing countries, and this would counteract the goal of promoting the

development of standards to meet the diverse needs of developing countries (G/TBT/W/138).

Despite these different views, neither "camp" disputes the importance of using international standards as a means of reducing unnecessary non-tariff measures, and all WTO members agree on the importance of adhering to the 2000 TBT Committee Decision that sets out six principles and procedures (Decision of the TBT Committee on Principles for the Development of International Standards, Guides and Recommendations with Relation to Articles 2, 5 and Annex 3, G/TBT/1/Rev.9, p. 38).<sup>38</sup> This Decision was recently recognized as having interpretative value as a "subsequent agreement" within the meaning of Article 31(3)(a) of the Vienna Convention on the Law of Treaties (Appellate Body Report, *US – Tuna II (Mexico)*, para. 372).

An issue that came up in WTO dispute settlement is whether an international standard had to be adopted by consensus in order to be a "relevant international standard" under Article 2.4 of the TBT Agreement. The Explanatory Note to the definition of "standard" in the TBT Agreement states that "standards prepared by the international standardization community are based on consensus". It then adds that the TBT Agreement "covers also documents that are not based on consensus". This language was interpreted in *EC – Sardines* as applying also to international standards. The Appellate Body confirmed the panel's finding that the definition of a "standard" in Annex 1.2 to the TBT Agreement does not require approval by consensus for standards adopted by a "recognized body" of the international standardization community.

The Appellate Body went on to clarify that its ruling was relevant only for the purposes of the TBT Agreement. Furthermore, it said that the ruling was not intended to affect, in any way, the internal requirements that international standard-setting bodies may establish for themselves for the adoption of standards within their respective operations. As the Appellate Body put it, "the fact that we find that the TBT Agreement does not require approval by consensus for standards adopted by the international standardization community should not be interpreted to mean that we believe an international standardization body should not require consensus for the adoption of its standards. That is not for us to decide" (Appellate Body Report, *EC – Sardines*, paras. 222 and 227).

The question of what constitutes an "international standard" for the purposes of the TBT Agreement was more recently discussed in *US – Tuna II (Mexico)*. The Appellate Body noted that, with respect to the type of entity approving an "international" standard, the ISO/IEC Guide 2: 1991 refers to an "organization", whereas Annex 1.2 to the TBT Agreement stipulates that a "standard" is to be approved by a "body". However, the Appellate Body observed that the TBT Agreement establishes that the definitions in that Agreement

prevail over the definitions in the ISO/IEC Guide 2: 1991. Consequently, the Appellate Body held that in order to constitute an “international standard”, a standard has to be adopted by an “international standardizing body” for the purposes of the TBT Agreement.

The Appellate Body further explained that a required element of the definition of an “international” standard for the purposes of the TBT Agreement is the approval of the standard by an “international standardizing body”, that is, a body that has recognized activities in standardization and whose membership is open to the relevant bodies of at least all WTO members. The Appellate Body additionally observed that the concept of “recognition” has both a factual and normative dimension. A body with “recognized activities in standardization” does not need to have standardization as its principal function, or even as one of its principal functions. At the same time, the factual dimension of the concept of “recognition” would appear to require, at a minimum, that WTO members are aware, or have reason to expect, that the international body in question is engaged in standardization activities. In examining whether an international body has “recognized activities in standardization”, evidence of recognition by WTO members as well as evidence of recognition by national standardizing bodies would be relevant. A standardizing body will be considered open if membership to the body is not restricted. The standardizing body must be open to the relevant bodies of at least all WTO members and on a non-discriminatory basis. Furthermore, it must be open at every stage of standards development.

Having provided its views on the definition of an “international standard” for the purposes of the TBT Agreement, the Appellate Body next considered whether the dolphin-safe definition and certification contained in the Agreement on the International Dolphin Conservation Program (AIDCP) qualified as one. The Appellate Body reversed the panel’s finding and held that AIDCP is not an “international standardizing body” for the purposes of the TBT Agreement because acceding to it requires an invitation by the parties, a decision that must be taken by consensus, and the Appellate Body was not persuaded that being invited to join is a mere “formality” (paras. 398-399).

The panel and Appellate Body reports in *US – Tuna II (Mexico)* also addressed the issue of whether the US dolphin-safe labelling measures constituted a technical regulation or a voluntary standard. The findings on this issue are discussed in Section E.3(vi).

#### (vi) *Regulating private conduct*

The WTO agreements primarily regulate government conduct. Nevertheless, as discussed in Section E.1, private conduct can sometimes have effects equivalent to those of a government-imposed non-tariff measure.

The intervention of some element of private conduct does not necessarily mean that a WTO member is relieved of its responsibility to comply with its obligations under the WTO agreements. Thus, for example, in *Korea – Various Measures on Beef*, there was a reduction in the number of retail outlets for imported beef that followed from decisions of individual retailers who could choose freely to sell the domestic product or the imported product. The Appellate Body, however, explained that the legal necessity of making a choice – between selling domestic or imported beef – was imposed by the government measures itself. In such circumstances, “the intervention of some element of private choice (did) not relieve Korea of responsibility under the GATT 1994 for the resulting establishment of competitive conditions less favourable for the imported product than for the domestic product” (Appellate Body Report, *Korea – Various Measures on Beef*, para. 146).

A similar situation arose in the recent *US – Tuna II (Mexico)* dispute, where the Appellate Body considered whether the detrimental impact on Mexican tuna products resulted from government intervention or was merely the effect of the private choice of US consumers. The Appellate Body held that the modification of the conditions of competition and, hence, the detrimental impact on Mexican tuna products resulted from the challenged US government measure – that is, the US “dolphin-safe” labelling provisions. It based its finding on the fact that it is the government measure that establishes the requirements under which a product can be labelled “dolphin-safe” in the United States. Moreover, while US consumers’ decisions whether to purchase dolphin-safe tuna products are the result of their own choices, it is the government measure that controls access to the label and circumscribes how consumers may express their preferences for “dolphin-safe” tuna products (para. 239).

The TBT Agreement makes some inroads into regulating non-governmental standard-setting bodies as a result of the commitments relating to the Code of Good Practice. The application of the Code to non-governmental standardizing bodies is explained in Section E.2.

Article 14.4 of the TBT Agreement is an interesting provision in terms of attribution to a WTO member of private conduct. It states that the dispute settlement provisions of the WTO can be invoked where a member has not achieved satisfactory results under certain provisions and the interests of another member are significantly affected. Article 14.4 goes on to state that “(i)n this respect, such results shall be equivalent to those as if the body in question were a Member”.

The SPS Agreement also requires WTO members to “take such reasonable measures as may be available to them to ensure that non-governmental entities

within their territories ... comply with the relevant provisions of this Agreement". It similarly states that members must not take measures which have the effect of, directly or indirectly, requiring or encouraging such non-governmental entities to act in a manner that is inconsistent with the Agreement.

Given their increasing use, private standards have become a subject of growing attention. The issue of private standards was first raised in the SPS Committee in 2005. Committee discussions on private standards initially focused on three themes: market access, development and WTO law. In the area of market access, WTO members differ in their views on whether standards are an opportunity or threat to exporters. Many members are concerned that the cost of certification, sometimes for multiple sets of standards for different buyers, can be a problem, especially for small-scale producers and particularly (but not exclusively) in developing countries. Members also have differing views as to whether private standards fall under the jurisdiction of the SPS Agreement. The concern that the proliferation of private standards could undermine some of the progress made in regulating SPS measures through the adoption and implementation of the SPS Agreement is at the root of these divergent views.

Despite the lack of consensus on whether and how private standards fit into the overall framework of the SPS Agreement, the issue has been on the agenda of every meeting of the SPS Committee since June 2005. In addition, the WTO Secretariat has organized two informal information sessions on the topic, and the Standards and Trade Development Facility, a global partnership that supports developing countries in implementing international SPS standards, held a workshop on the issue in 2008. The information sessions and workshop provided the opportunity for two-way education and awareness-raising: increasing the knowledge and understanding of government regulatory officials about the operation of various private standard schemes and their objectives, while at the same time making the operators of the private schemes aware of the concerns and effects of these on developing countries.

In March 2011, the SPS Committee agreed to pursue five practical actions recommended by an ad hoc working group<sup>39</sup> on the issue of private standards (see G/SPS/55 and G/SPS/R/62). While WTO members remain highly divided as to whether private standards legally fall within the scope of the SPS Agreement, the Committee agreed to develop a working definition of private standards related to SPS measures, and to limit any discussions to private standards identified in the definition. In addition, the Committee agreed that information regarding the work of the three international standard-setting organizations referenced in the SPS Agreement (Codex, IPPC and

OIE) as well as relevant developments in other WTO councils and committees should be regularly shared in the Committee. Members agreed to educate relevant private sector bodies in their countries so that they understand the issues raised in the SPS Committee and the importance of the international standards of Codex, IPPC and OIE. The Committee also agreed to explore cooperation with these three bodies in developing information material underlining the importance of international SPS standards.

As noted earlier, one of the distinctions drawn in the TBT Agreement between a technical regulation and a standard is that compliance with the former is mandatory, while compliance with the latter is not. The recent panel in *US – Tuna II (Mexico)* had to decide whether the US dolphin-safe labelling measures were "technical regulations" within the meaning of the TBT Agreement as argued by Mexico or rather a voluntary standard as advocated by the United States. The panel held that "compliance with product characteristics or their related production methods or processes is 'mandatory' within the meaning of Annex 1.1, if the document in which they are contained has the effect of regulating in a legally binding or compulsory fashion the characteristics at issue, and if it thus *prescribes* or *imposes* in a *binding* or *compulsory* fashion that certain product *must* or *must not* possess certain characteristics, terminology, symbols, packaging, marking or labels or that it *must* or *must not* be produced by using certain processes and production methods".

The panellists, however, disagreed as to whether the US measures are mandatory. The majority of the panel found that the US labelling requirement is mandatory because it (i) is legally enforceable and binding under US law (it is issued by the government and includes legal sanctions); (ii) prescribes certain requirements that must be complied with in order to make any claim relating to the manner in which the tuna contained in the tuna product was caught, in relation to dolphins; and (iii) embodies compliance with a specific standard as the exclusive means of asserting a "dolphin-safe" status for tuna products.

The dissenting panellist noted that "the measures do not impose a general requirement to label or not to label tuna products as 'dolphin-safe'. Rather, the use of the label "remains a voluntary and discretionary decision of operators on the market to fulfil or not fulfil the conditions that give access to the label, and whether to make any claim in relation to the dolphin-safe status of the tuna contained in the product". The panellist further determined that Mexico had failed to demonstrate that the measures were *de facto* mandatory, because Mexico had not established "the impossibility of marketing tuna products in the United States without the 'dolphin-safe' label" and that "such impossibility (arose) from facts sufficiently connected to the US dolphin-safe provisions or to another governmental action of the United States" (Panel Report, *US – Tuna II (Mexico)*, paras. 7.111-7.188).

The Appellate Body upheld the panel majority's finding that the US measure is a technical regulation subject to the disciplines of Article 2 of the TBT Agreement. The Appellate Body noted that the measure challenged by Mexico is composed of legislative, regulatory and judicial acts of the US federal authorities and includes administrative provisions. The measure sets out a single and legally mandated definition of a "dolphin-safe" tuna product and disallows the use of other labels on tuna products that use the terms "dolphin-safe", dolphins, porpoises or marine mammals that do not satisfy this definition. In doing so, the US measure prescribes in a broad and exhaustive manner the conditions that apply for making any assertion on a tuna product as to its "dolphin-safety", regardless of the manner in which that statement is made (para. 199).

### (vii) Transparency

Transparency is an important element of all WTO agreements. Section E.2 described some of the most important transparency provisions of the SPS and TBT agreements, and explained the economic rationale of the exchange of information among WTO members.

Transparency obligations are not frequently the subject of WTO dispute settlement. However, in a recent case, *US – Clove Cigarettes*, a violation was found of Article 2.12 of the TBT Agreement, which provides that "(e) xcept in those urgent circumstances ..., Members shall allow a reasonable interval between the publication of technical regulations and their entry into force in order to allow time for producers in exporting Members, and particularly in developing country Members, to adapt their products or methods of production to the requirements of the importing Member". In paragraph 5.2 of the Doha Ministerial Decision, WTO members agreed that "the phrase 'reasonable interval' (in Article 2.12 of the TBT Agreement) shall be understood to mean normally a period of not less than 6 months, except when this would be ineffective in fulfilling the legitimate objectives pursued".

The *US – Clove Cigarettes* case concerned a technical regulation adopted by the United States that came into force three months after it had been published. An initial question that was raised in the case concerned the legal status of paragraph 5.2 of the Doha Ministerial Decision. The Appellate Body rejected the contention that paragraph 5.2 constituted a multilateral interpretation of the TBT Agreement adopted in accordance with Article IX:2 of the WTO Agreement. The reason for this was that paragraph 5.2 had not been adopted pursuant to a recommendation of the Council on Trade in Goods – the Council that supervises the TBT Agreement, as required by Article IX:2 of the WTO Agreement.

As the panel had done, the Appellate Body considered that paragraph 5.2 has interpretive value because it

constitutes a subsequent agreement between the parties, within the meaning of Article 31(3)(a) of the Vienna Convention on the Law of Treaties, on the interpretation of the term "reasonable interval" in Article 2.12 of the TBT Agreement. It then found that, read in the light of paragraph 5.2, Article 2.12 of the TBT Agreement "establishes a rule that 'normally' producers in exporting Members require a period of 'not less than 6 months' to adapt their products or production methods to the requirements of an importing Member's technical regulation".

The Appellate Body further explained that once it is shown that the WTO member adopting a technical regulation has not allowed a period of at least six months between the publication and the entry into force of that technical regulation, such a member carries the burden of demonstrating that a shorter period was justified because (i) the "urgent circumstances" referred to in Article 2.10 of the TBT Agreement surrounded the adoption of the technical regulation; (ii) producers of the complaining member could have adapted to the requirements of the technical regulation within the shorter interval that it allowed; or (iii) a period of "not less than" six months would be ineffective to fulfil the legitimate objectives of its technical regulation. In this particular case, it was found that the United States had failed to establish that any of the above-mentioned circumstances justified a period shorter than six months (Appellate Body Report, *US – Clove Cigarettes*, paras. 255, 268, and 290).

### (c) Issues relating to the GATS

The principal disciplines on measures affecting trade in services are similar to those applying to non-tariff measures for goods trade. These services disciplines focus on MFN (Article II), market access (Article XVI) and national treatment (Article XVII). However, national treatment under the GATS is significantly different from that in goods trade, since it applies only to the sectors for which commitments have been taken, and can be made subject to limitations. Thus, the national treatment obligation in services cannot be viewed as a means to curb policy substitution. Rather, by requiring that limitations on market access and national treatment be subject to scheduling, the Agreement seeks to constrain the trade implications of these measures in the same way that tariffs are bound under the GATT.

The GATS has a very broad scope, which results from the four modes of supply that constitute trade in services. Moreover, unlike traditional trade agreements, the GATS is primarily concerned with internal measures. What matters in services trade is often the overall level of contestability of the market to new and existing entrants, and not just its openness to foreign suppliers. The breadth of the GATS is also reflected by the wide range of measures within its scope. In

accordance with Article I, the GATS “applies to measures by Members affecting trade in services”.

The Appellate Body has explained that the “use of the term ‘affecting’ reflects the intent of the drafters to give a broad reach to the GATS” (Appellate Body Report, *EC – Bananas III*, para. 220). The coverage of the GATS can extend as well to measures that are within the scope of the GATT. In the same case, the Appellate Body noted that, while some measures will fall under one or the other agreement, there may be measures that could be found to fall within the scope of both the GATT and the GATS. These would be “measures that involve a service relating to a particular good or a service supplied in conjunction with a particular good”. In such cases, “while the same measure could be scrutinized under both agreements, the specific aspects of that measure examined under each agreement could be different” (Appellate Body Report, *EC – Bananas III*, para. 221).

The policy substitution problem as discussed in Section E.2 between tariffs and non-tariff measures could in principle only exist for services if WTO members, having removed market access or national treatment limitations, were then to use domestic regulations as a substitute instrument. So far, domestic regulation disciplines under the negotiating mandate of Article VI:4 (see Section E.4) have yet to be defined. Pending those disciplines, members may not under Article VI:5 maintain domestic regulations on licensing, qualification and technical standards in a way that would nullify or impair specific commitments. These domestic regulations should also be based on objective and transparent criteria, not be more burdensome than necessary to ensure the quality of the service, and not have reasonably been expected at the time when the relevant commitments were made.

So far, WTO dispute settlement cases have not addressed Article VI:5, although there has been some guidance on other aspects of domestic regulation. The distinction drawn in the GATS between market access restrictions (Article XVI) and domestic regulations (Article VI) was examined in *US – Gambling*. The issue that arose was whether a ban on a means of supplying a service constituted a market access restriction under Article XVI:2(a) and (c), or whether such provisions covered only measures that were expressed in the form of a numeric value. The panel found that a ban is, in effect, a “zero quota”, and is therefore covered by these provisions. This finding was upheld on appeal (Panel Report, *US – Gambling*, paras. 224-239; Appellate Body Report, *US – Gambling*, para. 265).

The *Mexico – Telecoms* case demonstrated the close relationship between domestic regulation and competition policy. The measures at issue were

Mexico’s domestic laws and regulations that govern the supply of telecommunications services and federal competition laws. The panel found that the interconnection rates charged by Mexico’s major suppliers were not “cost-oriented”, as required by the non-discriminatory disciplines in the Reference Paper contained in Mexico’s schedule of commitments. Furthermore, the panel found that, with respect to its regulations on interconnection costs, Mexico had not taken appropriate measures to prevent “anti-competitive” practices, as it was required to do under the Reference Paper disciplines. The panel also found that US suppliers had not been provided access to public telecommunications transport networks on “reasonable terms”, contrary to Mexico’s obligations under the Annex on Telecommunications.

#### 4. Adapting the WTO to a world beyond tariffs

This final section sketches some of the main challenges in dealing with non-tariff measures in the multilateral trading system. Sub-section (a) illustrates why improvements in the treatment of non-tariff measures in the WTO may become more important in light of rapid changes in the global economy (cross-border production chains) and the growing use of NTMs to address broad consumer and general interests, such as food safety and environmental quality.

Sub-section (b) focuses on the scope for policy flexibility in setting non-tariff measures in the theory and practice of non-violation complaints and of other approaches, such as mutual recognition and harmonization. Sub-section (c) takes up the current transparency provisions in the WTO and the challenge of aligning incentives when transparency has costs. Sub-section (d) focuses on addressing the challenge of distinguishing between legitimate and illegitimate uses of NTMs.

Sub-section (e) discusses policy challenges to international cooperation on non-tariff measures. In particular, it considers the issue of regulatory convergence, the development of rules on private standards, disciplines on domestic regulation and “pro-competitive” regulations in services. Sub-section (f) concludes with a focus on the need for regulatory capacity building in developing countries.

##### (a) NTMs in the 21<sup>st</sup> century

Recent changes and foreseeable changes in the trading environment alter both the need for non-tariff measures and the structure of government incentives to use these measures for protectionist purposes. The Report has discussed in detail the implications of diverse areas of economic change for NTMs, such as the diffusion of global production networks, difficulties

associated with the recent financial crisis and the need to address climate change. Some of the challenges are discussed below.

The rules of the GATT were designed for a world in which international trade predominantly consisted of trade in final goods and primary commodities. However, the modern economic environment has grown more complex as production networks span borders. These changes pose challenges for governance, as the kinds of problems that arise in a world of offshoring require rethinking the current market access based framework of the multilateral trading system.

As Antràs and Staiger (2011, 2012) have argued, deep rather than shallow integration is needed to solve the type of policy problems associated with the proliferation of global production chains. Specifically, the theory outlined in Section E.1(b) suggests that if producers are locked into trade relationships with foreign firms, governments must consider not only market access but also the upstream and downstream effects of their measures. One possibility to account for these needs is that WTO rules could be amended or reinterpreted to allow non-violation complaints to cover “intra-firm market access”. This would require expanding non-violation complaints to cover “benefits” accruing not only from the agreed market access, but from the range of policies that affect the bargaining relationship between the input supplier and the purchaser of those inputs. Such a change would necessitate significant departures from current practice and open challenging questions on institutional design. Part of the challenge lies in distinguishing between those situations in which industries set prices through bargaining rather than competitively. Trade rules would have to reflect such sectoral differences.

Little work on the theory of trade agreements under offshoring has attempted to evaluate the substantive importance of price formation through bargaining, making it difficult to determine the need for an institutional response (Staiger, 2012). As a first step towards a test of the theory, Section C.2 examines those sectors that have a higher share of trade in intermediate goods. While not identical to offshoring and bilateral bargaining, the presence of intermediate goods is indicative of the kinds of international supply chains that would be subject to bargaining over prices and therefore profits.

The statistical analysis finds, however, that the share of intermediate goods is negatively associated with the amount of trade covered by specific trade concerns (and by extension the amount of trade affected by non-tariff measures). This indicates either that the incentive to use NTMs to shift firm profits is dominated by other considerations (such as the desire to make an attractive environment for global production), or possibly that governments have already addressed this

issue in existing “deep integration” preferential trade agreements (see World Trade Organization (WTO), 2011). Even if PTAs promote deep integration, the challenge for the WTO is to ensure coherence among divergent regulatory regimes that in practice may segment markets and raise trade costs.

Changes in international markets do not only arise from differences in how businesses organize. It is also likely that the use of non-tariff measures will be responsive to a number of foreseeable trends in the global economic environment. Section B highlights three areas in which economic changes create new challenges for the regulation of NTMs. These are the way food is produced and consumed, the central role of international finance in the economy and in economic crises, and the fundamental challenges of climate change. Each of these factors is of concern for governments seeking to promote a regulatory environment that protects broad consumer and societal interests, which may however have an impact on trade.

The increasingly globalized agri-food system shows how organizing and regulating global supply chains involves business, government and consumer interests. Section B argues that as consumers’ standards rise, there is a greater need for businesses to manage their supply chains and for governments to ensure the desired level of quality and safety. This effort is complicated by the ever expanding internationalization of food production, and the difficulty in tracing products that change hands very quickly and traverse multiple jurisdictions.

International finance services are similarly complex and fast moving, but play a central role in the global economy. In this environment, challenges to financial markets threaten the stability of entire economies. When crises arrive, governments use a variety of measures to contain the systemic damage and to boost consumer demand. At the same time, economic crises are associated with increased demands for protectionist policies that stabilize the domestic economy at the expense of other countries, fuelling economic tension. This challenge is particularly relevant in light of the apparent institutional failures of the 2008 financial crisis and the subsequent global economic recession.

While the recession itself creates political challenges for international cooperation in general, the concentration and severity of the crisis in countries with sophisticated regulatory regimes and open capital accounts may derail efforts to harmonize regulations in the financial services sector. As financial services continue to make up a large portion of the economy of many countries, facilitating trade in these services may require additional mechanisms to coordinate crisis response.

Financial crises, while harmful, have happened before, and have limited lifespans. Climate change, on the other hand, causes both global and long-lasting effects. The discussion of climate change in Section B emphasizes the challenge of balancing legitimate concerns about carbon leakage with an equitable distribution of the costs of carbon dioxide abatement. As governments increasingly attempt to regulate carbon emissions, part of the discussion inevitably revolves around the trade implications of these measures.

### (b) Policy flexibility: tensions between law and economics

When governments bind tariffs and commit to a level of market access, their partners may worry that measures to address domestic concerns may in fact circumvent the obligations in the agreement. One way that current rules of the WTO enable governments to employ public policy oriented measures is by allowing non-violation complaints, as described in Section E.1(c). Non-violation complaints allow WTO members to be “compensated” after one of their trading partners establishes a trade-altering non-tariff measure by withdrawing concessions to rebalance the level of market access. This remedy confers a high degree of domestic policy flexibility to WTO members, in line with their international commitments. It might serve to encourage confidence in the value of a trade negotiation and discourages governments from using NTMs to renege on commitments. In practice, however, WTO members generally do not invoke non-violation complaints in trade disputes.

Several reasons have been advanced to explain why complaints based on non-violation claims are rare. One is that the Uruguay Round agreements reduced the scope for non-violation cases because GATT/WTO law became “more and more comprehensive and complete”, shrinking “the legal vacuum around GATT ... in particular with respect to subsidization”, which was the target of most of the non-violation claims pursued during the GATT years (Kuijper, 1995). Another reason that has been put forward is that there remain a number of ambiguities concerning the elements that a complainant must satisfy for its claim of non-violation to succeed.

A non-violation complaint is usually understood to protect the expectations of a WTO member (“benefits accruing to it directly or indirectly under the relevant covered agreement”) (Roessler and Gappah, 2005). Nevertheless, questions have been raised as to precisely which expectations are protected and when those expectations can be said to have been frustrated. Finally, the remedy available when a non-violation complaint is successful is weaker than the remedies available in cases of violation. In the first case, the responding party is not under an obligation to withdraw the measure. Instead, the respondent member must “make a mutually satisfactory

adjustment”, which may include compensation (see Article 26(1) of the Dispute Settlement Understanding).

Under the Dispute Settlement Understanding (DSU), WTO members are not generally required to show that a non-tariff measure actually harms market access. Instead, members generally challenge the NTM on the basis of the specific rule it allegedly violates. There is, therefore, a tension between the economic framework, whereby rebalancing can be used to confer policy flexibility, and the legal framework which relies on “clear infringement” of a GATT provision. Moreover, the infringement principle exacerbates the problem regarding the asymmetric application of the non-violation rule described in Section E.1.

Ideally, a government could efficiently correct a domestic market failure by using a non-tariff measure without being accused of violating the agreement so long as this measure is balanced with a tariff adjustment so as not to alter overall concessions to trading partners. As interpreted, however, GATT rules preclude this form of readjustment. Addressing this asymmetry would, at a minimum, require reinvigorating the non-violation rules to cover market access, but several additional problems could arise. Staiger and Sykes (2011) indicate that a requirement to maintain balance in market access, while limiting policy substitution, would discourage economically desirable regulation for fear of sanctions by foreign governments. While this incentive could be limited by calibrating the allowed response, achieving balance would be difficult, particularly as the welfare effects of regulatory policy are often difficult to measure.

Increasingly, the WTO membership addresses non-tariff measures and domestic regulation in services by using one of two tools, harmonization or mutual recognition (discussed in Section D and Section E.1). Harmonization sets both common policy objectives and the measures needed to achieve them, while mutual recognition refers to the reciprocal acceptance of the measures applied in both countries.

In the policy areas covered by either kind of agreement, harmonization and mutual recognition reduce the discriminatory effects of non-tariff measures, but each has a different effect on trade. Section B argues that the economic theory on the relative trade effects of harmonization and mutual recognition does not indicate a general advantage of one rule over the other in terms of trade flows. Looking to actual practice, the empirical analysis in Appendix 5 of Section D indicates that mutual recognition provisions appear to be more trade enhancing than harmonization provisions.

Beyond the trade effects, Section E.1 indicates that governments may set looser than optimal regulations if a mutual recognition rule ensures access to foreign markets. This means that, even if trade is enhanced, there are potential consequences for consumer

welfare. Finally, Section E.1 also points to the potential trade-offs implied by harmonization of non-tariff measures whenever policy needs differ across developed and developing countries.

The asymmetry in the application of non-violation in the GATT/WTO system, the trade-offs implied by harmonization and mutual recognition and the ambiguity of their trade effects point to the difficulties that still persist in the multilateral trade regime in finding the right balance between policy commitments and flexibility. Beyond the issues discussed above, part of the complexities of this problem is tied to the opaque nature of many non-tariff measures and the difficulty in discerning the protectionist and the legitimate intent of governments. These challenges are discussed in more detail below.

### (c) Transparency is no “free lunch”

Transparency is an important dimension of international cooperation on non-tariff measures and services measures. Previous parts of this report have shown that: (i) both NTMs and services measures raise transparency issues (see Section B); (ii) opacity imposes costs on certain firms but it may benefit others (import-competing firms) and, depending on circumstances, politically motivated governments may have a preference for opaque policy instruments over transparent ones (see Section B); (iii) available information on both NTMs and services measures is limited in coverage and of generally low quality (see Section C.1); (iv) international cooperation on NTMs and services measures is made more difficult by their opacity (see Section E.1); (v) a number of transparency provisions in the WTO agreements address the opacity problems (see Section C.1 and Section E.2). This sub-section examines whether existing transparency provisions address all the problems raised by the opacity of NTMs and services measures. It identifies a number of remaining challenges and points at possible solutions.

As discussed in Section E.1, the opacity of non-tariff measures and services measures raises four main problems for international trade cooperation which transparency provisions can help address. First, opacity creates rule-making inefficiencies due to regulatory uncertainties. Secondly, cooperation on NTMs or services measures can suffer because enforcement of agreements requires that the compliance of each government can be observed. Thirdly, if measures are opaque, an agreement may be only of limited use to correct governments' lack of commitment. Finally, transparency may induce or be part of a regulatory improvement process.

Four main types of transparency provisions have been developed over the years to address the problems outlined above (see Section C.1). Publication requirements, in GATT Article X, Article III of the GATS

and in other WTO agreements, are the oldest type of provision. Notifications are another core transparency mechanism, whose importance has substantially increased over the years. The WTO's Trade Policy Review Mechanism and its monitoring reports constitute a third mechanism. Finally, the possibility to raise specific trade concerns in the TBT and SPS committees (see Section C.1) and to some extent the dispute settlement mechanism represent a fourth.<sup>40</sup> The question is whether these four mechanisms ensure sufficient transparency to make cooperation possible.

The answer to this question is that transparency provisions in the WTO agreements help address the problems raised by the opacity of non-tariff measures and services measures but they are not sufficient. One problem is the failure of notifications, one of the pillars of the WTO transparency system, to provide the information they should. WTO members' compliance with certain notification requirements is low and the quality of the information notified is not always sufficient. As already mentioned, part of the reason for this appears to be that notifying can be difficult and costly.

Over the years, various measures have been taken to facilitate and enhance the quality of notifications. The SPS Committee, for example, has decided that it would be useful to be alerted when notified regulations are adopted or enter into force, and has recommended the use of addenda for this purpose. It has also been testing an electronic notifications mechanism to facilitate and improve the quality of notifications. Furthermore, notifications account for as much as 10-20 per cent of technical assistance activities. However, much remains to be done and compliance will most likely be difficult to improve without taking into account the political economy of transparency and notifications.

Contrary to what is often claimed, not everyone benefits from transparency. There are winners and losers from increased transparency. As has been argued in this report, governments may have reasons to prefer opaque measures and some firms may benefit from the higher market entry costs associated with opaqueness. This means that while every government is interested in its partners' measures, it may be reluctant to disclose information on its own measures. The temptation to free ride on the system clearly exists and, if they consider past records, governments may not be too afraid of sanctions for not complying with their notification obligations, except for some finger-pointing.

As for the possibility to use “reverse notifications”, it could help but has not been used very actively since the Uruguay Round.<sup>41</sup> How much it could help depends on various factors. First, it is not clear how easy it is for a WTO member to identify another member's non-tariff measures. Secondly, members may be reluctant

to denounce trading partners for fear of retaliation. Thirdly, other mechanisms may have taken the place of reverse notifications.<sup>42</sup>

If notifications fall short in terms of providing information, what about the WTO's Trade Policy Review Mechanism and its monitoring reports mentioned earlier? Both these transparency mechanisms rely on information from multiple sources and are thus less dependent on the disposition of the government imposing the measures. Trade policy reviews clearly represent an important transparency mechanism but frequency and comprehensiveness, in particular on the services side, are issues.<sup>43</sup>

As for the monitoring reports, at the 8<sup>th</sup> WTO Ministerial Conference in December 2011, Ministers directed the monitoring mechanism to be continued and strengthened.<sup>44</sup> They have also committed to comply with existing transparency obligations and reporting requirements needed for the preparation of these monitoring reports, and to continue to support and cooperate with the WTO Secretariat in a constructive fashion. The questions that remain to be answered pertain to the quantity, quality and accessibility of the information collected for the monitoring reports. At this stage, it is not clear how comprehensive their coverage is, how much it could be expanded and whether and when it can be systematically coded and stored in a database.<sup>45</sup>

Another mechanism which usefully complements notifications and the monitoring reports is the discussion of "specific trade concerns" in the SPS and TBT committees.<sup>46</sup> These discussions provide an opportunity for multilateral review that enhances the transparency and predictability of regulatory measures covered by the TBT and SPS agreements. Since the issues discussed relate to specific measures maintained by other WTO members, there is no incentive problem. Another advantage of this mechanism is that it covers concerns related not only to the measures themselves but also to their implementation.

There are two main limitations to the role that the discussion of specific trade concerns can play. First and foremost, only SPS and TBT measures are covered. Secondly, it is not clear that, even in the covered areas, all measures that violate commitments will be raised. For any concern to be raised, it first needs to be identified by an exporter. It then needs to be communicated to the government. Finally, the government needs to raise it at the WTO. This means that even if a concern is identified and communicated to the government, it may not be raised if, for example, the government is afraid of reprisal.

The challenge, at this juncture, is thus to improve the quantity, the quality, and the accessibility of information collected through active and passive transparency

mechanisms, both on measures and on problems associated with the measures. As far as the accessibility is concerned, the situation will improve significantly if and when all the information notified to, or collected by, the WTO Secretariat is made available through the recently launched Integrated Trade Intelligence Portal (I-TIP).<sup>47</sup>

Improving the quantity and quality of information, however, is more difficult. Further work in the committees and through technical assistance will no doubt continue to help improve the contribution of the notification mechanism to transparency, but, given the incentive problem, this may not be enough. One option mentioned above is to empower the WTO Secretariat with the resources necessary to independently monitor governments and markets. Without a significant improvement in the compliance and quality of notifications, this would be a very costly option, which would have significant budgetary implications for the WTO. The mobilization of additional resources on a sustainable basis could raise incentive issues.

Another option, which has helped improve the transparency of tariffs, is to make it easier for WTO members to comply with their transparency obligations by allowing the WTO Secretariat to use other relevant official sources on a "no objection" basis, if such sources are available.<sup>48</sup> This option, however, will shift the incentive problem to other information-collecting agencies. Finally, a third option is for members to enter into bilateral and/or plurilateral negotiations over more enforceable transparency obligations in the same way that negotiations have taken place over the years to revamp existing rules or introduce new ones.

Depending on which option is adopted to address the incentive problem and to ensure that WTO mechanisms generate a sufficient level of transparency, reliance on external sources to fill information gaps may vary. It seems clear, however, that at least in the short run, the system will continue to benefit from other institutions' collection efforts. As discussed, the WTO Secretariat and other agencies have revamped the existing international classification to facilitate the integration of all available sources of non-tariff measure information. From this perspective, the multi-agency Transparency in Trade (TNT) initiative (see Section C) would have an important role to play in boosting the collection and dissemination of data on non-tariff measures and services measures.

The TNT initiative could be used by partners as an opportunity to put in place a sustainable governance mechanism for transparency in non-tariff measures. Such a governance mechanism would need to take into account the central role that the WTO should play in this area. It would rely primarily on multilateral and regional institutions. Regional secretariats and regional banks, such as the Latin American Integration Association (ALADI) or the African Development

Bank, have already made substantial contributions to the data collection efforts and the Inter-American Development Bank has expressed interest in both data collection and analytical work in the Western Hemisphere. Whatever the model adopted, it will require substantial capacity building and assistance in view of the technicalities. However, if incentives are properly taken into account, there is no fundamental reason why, in the long run, information on NTMs and services measures could not be collected and disseminated in the same way as equally sensitive information on other dimensions of trade policy.

#### (d) The importance of policy rationale

As described in Section E.3, WTO agreements seek to discipline measures that distort trade while recognizing WTO members' right to take measures that pursue legitimate public policies (on such matters as environmental protection, health, and consumer safety). Drawing the line between those measures that should be allowed and those that should be forbidden is often a difficult exercise both with non-tariff measures and domestic regulation in services.

The basic approach of the GATT is to allow domestic regulatory measures provided that they do not discriminate against the imported products (national treatment obligation). One of the challenges that has arisen in connection with national treatment concerns the relevance and weight to be given to the rationale or purpose of the measure. For several commentators, whether or not the regulatory measure has a protectionist rationale or purpose should be the decisive criterion in a determination of discrimination (Regan, 2003; Hudec, 1993).

Consideration of the rationale for measures is a less firmly settled approach in the jurisprudence of the Appellate Body, which has made it clear that the "broad and fundamental purpose of Article III is to avoid protectionism in the application of internal tax and regulatory measures" (Appellate Body Report, *Japan – Alcoholic Beverages II*, pp. 16-17).

The first sentence of Article III:2 concerns tax measures that discriminate between "like" products. It would appear that there would be little scope for consideration of the rationale for the measures under the Appellate Body's interpretation of this provision, according to which the provision is violated any time the imported product is taxed in excess of the like domestic product (Appellate Body Report, *Canada – Periodicals*, p. 19) The second sentence of Article III:2 concerns tax discrimination between directly competitive or substitutable products (a broader category than "like products" under the first sentence).

As a result of the cross-reference to Article III:1, the second sentence of Article III:2 has been interpreted to require the complaining party to show that the imported

and domestic competitive or substitutable products are not similarly taxed "so as to afford protection to the domestic industry". The Appellate Body clarified that the "so as to afford protection" requirement "is not an issue of intent", but rather "of how the measure in question is applied" (Appellate Body Report, *Japan – Alcoholic Beverages II*, pp. 27-28) At the same time, the Appellate Body said in the same case that "(a)lthough it is true that the aim of a measure may not be easily ascertained, nevertheless its protective application can most often be discerned from the design, the architecture, and the revealing structure of the measure" (Appellate Body Report, *Japan – Alcoholic Beverages II*, pp. 29). This reference to the "design, the architecture, and the revealing structure" of the measure has been understood by some as necessarily including considerations relating to the rationale for the measure.

Article III:4 concerns domestic regulatory measures. It does not include a cross-reference to Article III:1 and therefore the Appellate Body has said that "a determination of whether there has been a violation of Article III:4 does not require a separate consideration of whether a measure "afford(s) protection to domestic production" (Appellate Body Report, *EC – Bananas III*, para. 216). Article III:4 requires WTO members to accord imported products "no less favourable" treatment than that accorded to like products of national origin in respect of all domestic regulations. "No less favourable treatment", in turn, has been interpreted to mean that "the measure modify(ies) the conditions of competition in the relevant market to the detriment of imported products" (Appellate Body Report, *Korea – Various Measures on Beef*, para. 137).

In a subsequent case, *EC – Asbestos*, the Appellate Body made two statements that can be read as going in different directions as to the relevance of the rationale for the measure under Article III:4. On the one hand, the Appellate Body said that if there is less favourable treatment of the group of like imported products, there is conversely "protection" of the group of like products. This suggests that once a complainant has demonstrated that the conditions of competition have been modified to the detriment of the imported products (that is, "less favourable treatment"), there is no need to make a separate showing of protectionist intent. On the other hand, the Appellate Body added that "a Member may draw distinctions between products which have been found to be 'like', without, for this reason alone, according to the group of 'like' imported products 'less favourable treatment'" (Appellate Body Report, *EC – Asbestos*, para. 100). This statement has been understood by some as allowing for distinctions between imported and domestic products that are not motivated by protectionist purposes.

Another device that has been used in WTO dispute settlement to assist in distinguishing permissible non-tariff measures from impermissible ones is a balancing test. This test has been used in the context of

assessing a respondent member's assertion that its measure is justified under the general exceptions of Article XX of the GATT and particularly that the measure is "necessary" to protect human, animal or plant life or health under sub-paragraph (b).

As developed by the Appellate Body, the determination of "necessity" involves a weighing and balancing process that begins with an assessment of the relative importance of the interests or values furthered by the challenged measure, and also involves an assessment of other factors, which will usually include the contribution of the measure to the realization of the ends pursued by it and the restrictive impact of the measure on international trade. If this analysis yields a preliminary conclusion that a measure is necessary, this must be then confirmed by comparing the measure with possible less restrictive alternatives. The burden of identifying less restrictive alternatives is on the complaining party. Furthermore, in order to qualify as an alternative, the measure must allow the respondent member to achieve the same level of protection and must be reasonably available (Appellate Body Report, *Brazil – Retreaded Tyres*, paras. 143 and 156).

The relevance of the purpose of a measure for the assessment of discrimination and of the balancing test for assessing "necessity" have come up in three recent disputes under the TBT Agreement. As noted in Section E.3, in *US – Clove Cigarettes*, the Appellate Body interpreted Article 2.1 of the TBT Agreement as not prohibiting detrimental impact on imports that stems exclusively from a legitimate regulatory distinction (Appellate Body Report, *US – Clove Cigarettes*, paras. 180-182).

The economic theory reviewed in Section B has discussed a number of ways that can help to identify situations in which governments may be more likely to employ non-tariff measures for competitiveness reasons rather than the stated public policy rationale.<sup>49</sup> These include an analysis of the efficiency and incidence of the measure in question, and the wider sectoral and political context that may also inform the choice of a particular measure.

In Section B.1, it was found that assuming a particular public policy goal, different measures can be ranked in terms of their economic efficiency. Governments that fail to use the most efficient measure<sup>50</sup> may be subject to institutional and political pressures that encourage the adoption of measures for competitiveness reasons. For example, in order to provide assurance to consumers as to the presence or absence of certain characteristics of a product, a ban or a labelling scheme could be employed. Provided the characteristics are not particularly harmful, the latter is superior from an economic point of view, as it does not artificially limit consumer choice. In practice, the most efficient instrument may not always be easy to determine. It strongly depends on the particular public

policy concern and market conditions, and it is therefore difficult to establish a general ranking of alternative measures. Although quantitative restrictions rarely constitute a first-best policy, an import ban may be optimal if the costs of acquiring relevant information or the risks associated with consumption of the product are extraordinarily high.

The relative incidence of a public policy measure on consumers and producers at home and abroad can also be telling in respect of a possible competitiveness rationale. For instance, in Section B.2, it has been mentioned that profit-shifting in a situation of offshoring and bilateral bargaining might lead a government to change environmental taxes from their efficient levels in order to maximize national welfare, with the burden being shared between domestic consumers and foreign producers. In practice, the incidence of a policy may be difficult to measure, and it can be instructive to gather evidence on the demand for public policy instead in order to gauge the relative influence of domestic producers and to put trade effects into perspective.<sup>51</sup>

Certain features of the sector in question, while not mechanistically determining the prevalence of competitiveness objectives, can give an indication of circumstances under which a competitiveness-oriented policy benefitting the sector in question is more likely. The "protection for sale" literature reviewed in Section B.1<sup>52</sup> has shown that the degree of lobbying and organization within a sector increases the likelihood of obtaining protectionist measures. Other relevant sector characteristics relate to the level of competition and consumer behaviour, as expressed for instance in the degree of import penetration and the level of responsiveness of demand to price changes, where lower levels are associated with higher levels of protection.<sup>53</sup>

The new trade literature which emphasizes differences in firm characteristics (heterogeneous firm theory) provides further insights into relevant indicators.<sup>54</sup> For instance, in Section B.2, it was noted that even in sectors with high import penetration (and, therefore, a higher productivity of foreign firms on average), an incentive to increase protection can still exist depending on the distribution of productivity levels across domestic firms. Firm characteristics may also help to identify whether the implementation of non-tariff measures involving fixed cost increases for market entry could be related to the dominance of large, organized firms in the sector rather than a given public policy goal.

Finally, in Section B.2, the observation was made that a closer examination of the political context can provide insights into why certain non-tariff measures may be used to benefit producer interest groups despite their stated public policy objective. For example, certain NTMs are better suited to target political supporters or

more likely to persist beyond election periods and therefore lead to higher levels of political support. In sum, while the “indicators” mentioned in Section B are certainly neither exhaustive nor able to provide a conclusive answer to the question of the true policy rationale of an NTM affecting foreign trade interests, it still appears that this type of analysis could usefully be employed in order to narrow evidentiary gaps that may arise in the examination of certain trade rules.

### (e) Challenges to expanding cooperation

While the challenges discussed above call for negotiations, international cooperation on non-tariff measures is proving to be difficult for a number of reasons. Here we discuss specific areas of concern.

#### (i) *International coherence*

As mentioned in Section E.2, both the TBT Agreement and the SPS Agreement give significant deference to governments following international standards. Additionally, GATS Article VI:5(b) says that pending the completion of disciplines on domestic regulation, in determining whether the requirements are compatible with the principles of necessity, transparency and objectivity, account shall be taken of international standards of relevant international organizations applied by WTO members. These provisions constitute a unique feature in the WTO: the recognition of other international organizations. However, international standards are not a panacea.

First, countries differ with respect to risk preferences (values) and tastes. To the extent that there is an absence of cross-border effects in such areas as local environmental protection, labour standards, or minimum product quality standards, harmonization to international standards may not be a realistic or economically optimal objective (World Trade Organization (WTO), 2005; World Trade Organization (WTO), 2011). If a country chooses to follow an international standard that does not completely achieve its policy objectives or reflect its national preferences, that country may endure costs due to inappropriate regulation, or be required to undertake further regulatory interventions at additional cost to meet its objectives.

Secondly, the international standardization process may not always function ideally, with the result that not all standards are set equally. Indeed, discussions in the regular work of the WTO have raised concerns with respect to how standards claimed (by the bodies that set them or certain members that use them) to be “relevant” or “international” are actually set. These concerns are about issues such as the opportunity to participate in and influence the standard-setting process and disagreement on the scientific or technical content of the requirements stipulated in the standard itself. Due to lack of regulatory capacity,

developing and least-developed countries may face particular challenges in influencing the standards development process.<sup>55</sup>

In the area of SPS measures, since the international standard-setting bodies are explicitly recognized in the Agreement, there are no questions about whether they are relevant or international. SPS international standards are set through a multilateral process, with each of the three standard-setting bodies adopting a different approach to standard-setting (for more information on the different approaches, see G/SPS/GEN/1115). Nevertheless, similar concerns about participation and influence have been raised in relation to standard-setting in Codex, OIE and IPPC. For example, given the information and data requirements for scientific risk analysis, countries that have a stronger capacity to generate data may have a greater ability to influence outcomes in international standard-setting bodies (Jackson and Jansen, 2010).

Thus, there is a “line of tension” between, on the one hand, a legal obligation (albeit a qualified one) to use international standards, and, on the other, the fact that actually using a “relevant” international standard is not always straightforward. The regular work of the TBT and SPS committees and certain aspects of on-going negotiations in the Doha Round are affected by this tension.

There is another potential “tension” between, on the one hand, the SPS and TBT principles and mechanisms favouring international cooperation and regulatory convergence of standards (including through the presumption of compatibility offered to domestic measures that comply with “relevant” international standards) and, on the other hand, WTO members’ fundamental right, also recognized in the GATT, SPS and TBT agreements, to not use international standards – either because they are ineffective or inappropriate (for instance, because higher standards are desired) – and to adopt and implement their own domestic standards. It is likely that participation in the negotiation of international standards will be most effective when participants believe that the resulting standards will in fact be used by other participants. If members’ sovereignty may justify a right to set aside existing international standards, the legitimate non-application of international standards by some members may reduce the incentive for international cooperation and negotiation of such standards.

In services, while there is a strong incentive for a similar presumption in favour of international standards, there are significant additional obstacles. For a start, international standards are less prevalent in services as compared with goods. Observers some ten years ago were of the view that “it is unlikely that meaningful international standards for most services will be developed any time soon” (Mattoo and Sauv e, 2003). Has anything changed since then? One factor is that offshoring may have given greater incentive to private

industry to develop common standards. Another has been the growing understanding of the relationship between goods and services in global value chains. Since services are heavily embedded in goods, could the pervasiveness of international product standards create an incentive for services suppliers to support international standards? These are questions on which further research could shed light.

Apart from the challenge of developing international standards for services, there are also questions concerning the applicability of technical standards to services, and the extent to which a trade discipline could cover voluntary standards, which may be issued by non-governmental standardizing bodies without any delegated authority.

The WTO legal deference to international standards promotes a form of multilateral convergence. This convergence allows parties in the WTO to refer to standards set by other international organizations, even if the requirements they are based on are trade restrictive. This improves international coherence. However, the challenges outlined above remain, specifically in deciding whether any particular international organization sets “relevant” international standards.

### (ii) *Private standards*

The topic of “private standards” arises across the WTO’s regular work in contexts as diverse as green protectionism, food safety and social responsibility. While some WTO members see no place for this discussion in the WTO, others are keen to engage. Obligations set out in WTO agreements are binding on governments, and only governments can make legal challenges through the WTO’s dispute settlement system. Considering that private standards are non-governmental by definition, this gives rise to at least two questions: what responsibility do governments have with respect to private standards, and what role does – or should – the WTO have in this regard?

Before looking at the law and role of the WTO, it is useful to recall why this has been a matter of discussion in the WTO. Although cast as “voluntary” in nature (because they are imposed by private entities), private standards may become *de facto* a necessary condition for market access even if not imposed by law. The magnitude of the trade effect will depend on the market power of the individual companies requiring adherence to the standard as well as the number that do so. Indeed, the effect of a particular private standard, if pervasive, could be greater than that of a government regulation of a smaller country.

Moreover, a “voluntary” standard that becomes widely used may be a precursor to government regulation. Different entities are involved. They may be companies, non-governmental standardizing bodies, certification

and/or labelling schemes,<sup>56</sup> as well as other non-governmental organizations. The requirements set out in the standards developed by these bodies address a range of perceived or actual consumer-driven concerns that are associated with products (or process and production methods used). These may be environmentally, socially or food safety motivated. The concerns that have been raised at the WTO – mainly by developing countries – are that the requirements are more stringent *de facto* than regulations imposed by governments, that they are proliferating, and that there is no recourse to discipline them.

The texts of both the SPS and TBT agreements contain disciplines that are relevant to non-governmental bodies.<sup>57</sup> In particular, both agreements have an obligation on governments to take “such reasonable measures as may be available to them” to ensure that non-governmental bodies/entities within their territories comply with the relevant provisions of the agreements.

The SPS Agreement states that WTO members should “formulate and implement positive measures and mechanisms in support of the observance of the provisions of [the SPS Agreement] by other than central government bodies” – and that they (members) shall take “such reasonable measures as may be available to them to ensure that non-governmental entities within their territories... comply with the relevant provisions of this Agreement”.<sup>58</sup> The TBT Agreement has similar language.<sup>59</sup> Yet, in the case of the TBT Agreement, there is a difference. It contains an annex (Annex 3) specifically addressed to standardizing bodies. This annex (the “Code of Good Practice”) is open to acceptance also by non-governmental bodies. This is significant. As mentioned elsewhere in this report, the text of the TBT Agreement – unlike the SPS Agreement – does not refer explicitly to any particular international standardizing body. It is therefore up to governments to decide, on a case-by-case basis, which standards may be a relevant basis for regulation in different situations, and this does not exclude standards set by non-governmental entities.

A key question, therefore, is the level of responsibility that governments have with respect to what non-governmental (standardizing) bodies do within their territories. It could be argued that the best-endeavour language attributes to governments a certain degree of responsibility. However, the extent is not obvious: for some WTO members, private standards are seen as beyond the grasp of WTO disciplines – and indeed, WTO members remain divided as to whether private standards legally fall within the scope of the TBT and/or SPS agreements.

Legal issues aside, and granted that concern about the impact of private standards is being voiced in relevant WTO committees, what should the role of the WTO be – if, indeed, it should have one? It is notable

that the kinds of issues that arise in discussions on private standards are not novel: they revolve around such matters as inadequate design, the basis of a measure, transparency, the need for common benchmarks (harmonization), and acceptance that doing things differently does not necessarily mean non-compliance (equivalence). Few, if any, of these issues are fundamentally different from those that arise in the context of SPS/TBT measures (technical regulations or conformity assessment procedures).

In the SPS area, delegations are currently working on enhancing information exchange and increasing understanding and awareness of how private standards compare with or relate to standards set by recognized international standard-setting bodies (such as those of the Codex) and governmental regulations. The situation in the area of TBT is somewhat different. The TBT Agreement does not refer explicitly to any recognized international standardizing bodies. In fact, governments frequently base regulation on standards that are developed by non-governmental bodies, some with international reach.<sup>60</sup> WTO members have developed a refined toolkit of rules and procedures that are helping regulators and trade officials increase the transparency of SPS/TBT measures and to ensure that they do not unnecessarily affect trade. These same rules, together with the experience gained, may also provide useful guidance for the development of private standards.

### *(iii) Disciplines on domestic regulations in services*

How best to strengthen trade disciplines in services without unduly curtailing national regulatory freedoms has been a central question unresolved by the multilateral community. The GATS framework has focused primarily on the negotiation of market-opening commitments, leaving other aspects of domestic regulation and practice largely untouched. Yet, since the establishment of the WTO in 1995, WTO members have grappled with the question of what additional disciplines are required on licensing, qualification and technical standards to ensure that they are not more burdensome than necessary to achieve legitimate policy objectives. The pervasiveness of regulations in services has made it vital to ensure that market access and national treatment commitments are not impaired by unduly burdensome or protectionist practices.

Despite its obvious complement to market access, why has it been so difficult for the multilateral trade community to conclude this set of disciplines? One reason has been the debate over whether such disciplines should be "sectoral", affecting only one specified sector, or "horizontal", in the sense of applying to all services sectors. Progress made in 1998 on the conclusion of the Accountancy Disciplines have led some WTO members to conclude that "sectoral" negotiations could potentially be a more

practical route to pursue as the disciplines could be shaped in accordance with the specificities of that sector. Others have argued that a "horizontal" approach would be more efficient as the rationale for regulation and the reasons for transparency, objectivity and impartiality in the regulatory process are similar across services sectors.

A deeper consideration of this issue would tend to suggest that discussions on the form and scope of the disciplines hides a more fundamental tension, namely the principal concern that common rules at the multilateral level will result in a loss of regulatory freedom to pursue non-trade objectives for services. This begs the question why if governments have been able to agree to TBT and SPS disciplines to ensure that technical regulations, standards and procedures on goods do not create unnecessary obstacles to international trade, has it proven so much more difficult in services?

One reason, though not the only one, may have been the difficulty in designing a "necessity test" that would accommodate the depth and range of regulatory precaution that WTO members appear to wish to retain for services. The Accountancy Disciplines, not yet in force, contain a "necessity test", similar to that in the TBT and SPS agreements, which requires members to ensure that "measures are not more trade restrictive than necessary to achieve a legitimate objective", with an illustrative list of objectives provided. Such a test was designed to leave the choice of objectives to members, with the focus of the discipline on the necessity of the measure used to achieve its avowed purpose. However, it should be kept in mind that unlike in the case of TBT and SPS measures, there is no "product" in services which can be sampled, tested and inspected based on scientific methods. Thus, reaching agreement on what would be the appropriate criteria for determining and evaluating necessity could be inherently more difficult.

Could such a "necessity test", or a variation of it, such as one on "disguised trade restrictions", be used in "horizontal" domestic regulation disciplines? The negotiations, so far, have found no common view on this issue. Yet, a recurring principle in trade agreements is the requirement that the measure used to achieve a certain legitimate objective should be the "least trade restrictive reasonably available". If such a test were to exist, governments would need to assess, when adopting regulations, whether they could use an alternative measure that would be equally able to achieve the policy objective chosen, but which would be less trade restrictive.

Uncertainty remains among certain regulators as to whether their autonomy to regulate would be excessively restricted by a necessity test. On the other hand, proponents of the principle of necessity have argued that a test could be designed that does not

question the necessity of the policy objectives chosen, but solely the necessity of the measure used. Many questions have arisen in the discussions. These relate, for example, to the factors to be considered in determining what is “necessary” and what is not and whether the implementation of a necessity test should also require consideration of whether the policy objective is legitimate or not.

The challenge of disciplining any undesired trade effects of regulation cannot, of course, be reduced only to the question of the “necessity” test. Despite over a decade of negotiations, much remains to be done to improve cooperation and awareness among regulators, policy-makers and trade negotiators of the links between regulatory issues and trade principles. There are also problems of capacity which have made it difficult for negotiators to engage on issues that are not within the traditional realm of trade policy. Regulatory capacity building, in terms of the ability of authorities to formulate and enforce rules appropriate to services trade opening may not be a new challenge, but it is certainly one which has yet to be addressed in a systematic and meaningful way by the multilateral trade community.

Beyond negotiating new disciplines, there remains the challenge of advancing harmonization and recognition. There is an obvious link between multilateral rules on domestic regulation and efforts to harmonize and recognize standards, qualifications, requirements and procedures. The need for disciplines to curb unnecessarily burdensome domestic regulation would clearly be diminished if jurisdictions were to move towards common regulatory practices or develop more arrangements for recognition. These considerations raise the question whether international standards could be used to a greater extent in services. Common international standards would need to be set at a level and in a manner that does not favour those with the greatest capacity to influence the process and outcomes. For the most part, this work would have to be undertaken outside the WTO, which is not a forum for setting standards.

#### *(iv) Pro-competitive principles for services regulation*

A unique feature of the GATS is its promotion of competition within as well as across borders. In a way, disciplines under Article VI:4 – by curbing unnecessarily burdensome regulatory practices in licensing and qualification regimes – facilitate market access and thereby potentially enhance competition. Indeed, given that domestic regulation would apply to foreign and domestic suppliers alike, any applicable GATS disciplines that result from these negotiations would in effect improve market contestability.

Going beyond the negotiation of domestic regulation disciplines under Article VI:4, which only addresses a

very particular set of regulatory issues, there is the question of how much further can and should a trade agreement go in requiring adherence to certain pro-competitive principles. This question has been most prominently answered in the telecommunications sector, where a “Reference Paper” which included pro-competitive principles was negotiated and then committed to by a significant number of WTO members in their schedules of commitments.

The Reference Paper specified pro-competitive regulatory principles for the telecoms sector and was a major achievement of the 1997 Agreement on Basic Telecommunications. It has helped shape the regulatory environment in this sector over the past decade by elaborating a set of principles covering matters such as competition safeguards, interconnection guarantees, transparent licensing processes, and the independence of regulators in a commonly negotiated text. Every government that has acceded to the WTO since the basic telecommunications negotiations has also taken on these disciplines. Furthermore, the fact that the Reference Paper obligations are binding helps propel the domestic reform agenda needed to fully implement the opening of this sector to competition.

The experience of the Reference Paper provides some interesting lessons on what might be some of the fundamental ingredients required to facilitate agreement on the adherence to certain pro-competitive principles. First, there was a shared policy vision for the sector concerned and of the role that market-oriented regulation could play in improving efficiency, as well as achieving social equity objectives. For example, regulators agreed on the need for governments to control the dominant incumbent supplier so as to prevent it from engaging in anti-competitive behaviour.

Secondly, the instrument established a set of common understandings which were sufficiently broad as to allow for diverse rules and practices, but at the same time sufficiently specific to hold governments accountable to transparent, objective and impartial pro-competitive regulation. Thirdly, sector regulators were directly involved in negotiating such an instrument. This was important since in-depth understanding was required of how the market functioned, what market failures needed to be corrected, and how such problems might be appropriately addressed. Fourthly, the instrument allowed for self-selection, as it only entered into force through incorporation in a WTO member’s schedule of specific commitments. Eighty-two members (counting EU member states individually) have, so far, attached the Reference Paper to their schedules of commitments.

The success of the Reference Paper raises the question whether such an instrument could be used in other sectors? Most obvious would be those which

share a similar market structure as telecommunications services, with a major supplier – usually a former monopoly – that controls the infrastructure or network necessary for the supply of services. In such a situation, the major supplier can block new market entrants by restricting access to the infrastructure or network, by limiting participation in the relevant market through its control of essential facilities or by the use of a dominant position in the market. Collective action to agree on a set of pro-competitive regulatory principles would thus be necessary to ensure that there is a level playing field. Another feature of the market might be that scarce resources are needed for the delivery of services, and the manner by which these are allocated would determine whether participation is possible or not. Sectors such as energy, certain forms of transportation, waste and water management, and postal and courier services, to greater or lesser degrees, tend to share some of these characteristics.

For such sectors, an instrument which uses similar regulatory principles as those found in the Reference Paper could help specify the safeguards needed to prevent a major supplier from engaging in anti-competitive practices. Such principles would need to be implemented by a regulatory body which would be separate from, and not accountable to, any services supplier in the market. While such instruments could in theory be negotiated outside the context of a trade agreement, in practice there are political economic reasons why collective action as part of a trade deal is often required (see Section E.1(c)).

An interesting feature of the Reference Paper was the fact that it was negotiated by a group of Members not as an annex to the GATS but as a set of principles that would only be legally binding for those Members who subscribe to it. This rather unique feature of the Reference Paper allowed a critical mass of Members to develop a set of disciplines without having to have consensus. The document itself did not have any particular legal status as it would only enter into force for those Members who attach it to their schedules. This is possible because members can undertake additional commitments under Article XVIII of the GATS in their schedules of specific commitments. It would be interesting to consider whether such an approach could be used for the Article VI:4 domestic regulation disciplines.

Under Article XVIII, WTO members may negotiate commitments with respect to measures affecting trade in services which are not market access and national treatment limitations, including those regarding qualifications, standards or licensing matters. Thus, domestic regulation disciplines could be undertaken as an additional commitment.

(f) Investing in institutions

(i) *Supporting regulatory capacity building for trade in goods*

Even prior to the establishment of the WTO, countries recognized that capacity constraints relating to the standards of bodies, technical infrastructure and the development of regulations in general were of concern for developing countries, and particularly least-developed countries (LDCs). Both the WTO SPS and TBT committees include “technical assistance” as an agenda item at every committee meeting. The discussions in the SPS and TBT committees have focused on facilitating the implementation of the agreements’ provisions on technical assistance.

The TBT Agreement obliges WTO members to give advice to other members (on TBT matters), especially developing country members, and to provide other members with technical assistance (on TBT matters). The text of the Agreement illustrates how the establishment of national standardizing or conformity assessment bodies or institutions and a legal framework would enable developing country members to fulfil the obligations of membership or participation in international or regional systems for conformity assessment. The Agreement also provides advice on steps that should be taken by developing countries’ producers if they wish to have access to systems for conformity assessment operated by governmental or non-governmental bodies. There is also a more general obligation to give priority to the needs of LDCs.

The SPS Agreement contains similar provisions related to technical assistance. According to the Agreement, WTO members agree to facilitate the provision of technical assistance to developing country members, either bilaterally or through the appropriate international organizations. Assistance may be advice, credits, donations or grants and should allow countries to adjust to and comply with SPS measures in their export markets. In addition, when substantial investments are needed for developing countries to fulfil SPS requirements in export markets, members agree to consider providing technical assistance that would permit developing country members to maintain and expand market access opportunities.

**Technical assistance in the TBT area**

The TBT Committee oversees the implementation of the Agreement’s provisions on technical assistance (contained in Article 11), and its role is essentially one of information exchange. One insight that emerges from the work of the TBT Committee is the need for the creation of lasting infrastructures, both regulatory and physical in nature, which may set in place the right conditions for the efficient and effective development and design of technical regulations, standards and

conformity assessment procedures. In particular, the lack of technical infrastructure (or inadequacy of existing infrastructure) constrains many developing country members from accessing markets. Meeting the standard may sometimes not be enough – it is also necessary to be able to demonstrate compliance to create confidence in the quality and safety of exported products.

Quality infrastructure, including laboratories and accredited certification bodies, is essential for developing countries' competitiveness. The TBT Committee has encouraged WTO members to provide technical cooperation in the area of conformity assessment specifically aimed at improving technical infrastructure (e.g. metrology, testing, certification, and accreditation).

### Technical assistance in the SPS area

In overseeing the technical assistance provisions of the SPS Agreement (contained in Article 9), the SPS Committee facilitates the exchange of information where WTO members identify specific technical assistance needs which they may have, and/or report on any SPS-related capacity building activities in which they are involved. Among the most pressing needs highlighted through the work of the SPS Committee, apart from information requirements, was the development of laws and regulatory frameworks and institution building.

The need for hard infrastructure including laboratories, although important, did not generally represent the most serious obstacle to an appropriate implementation of the SPS Agreement. In this regard, the SPS Committee continues to encourage its members to provide targeted technical assistance which responds to the identified needs of members. Discussions within the SPS Committee have also highlighted the technical and scientific expertise and funding available in other international organizations, while emphasizing the need to improve inter-agency coordination (see, for example, G/SPS/GEN/875).

### Standards and Trade Development Facility

If trade is to serve as an engine of growth and an instrument to tackle poverty reduction, developing countries must have effective systems in place to control their SPS risks and meet international standards. Controlling SPS risks will have market access benefits, as well as direct benefits to domestic producers and consumers by reducing pest and disease prevalence, raising production and improving food security. Improved compliance with international SPS standards may also contribute to improved biodiversity and environmental protection. However, given capacity constraints developing countries may not have adequate SPS systems in place. To address these impediments, notably in the public sector,

sustained long-term commitment to funding within national government budgets and by donors will be required to ensure minimum levels of capacity with ultimate positive effects on market access and human and environmental health.

In 2002, recognizing the significant benefits that can arise from investments in SPS capacity, five international organizations – the Food and Agriculture Organization of the United Nations (FAO), the World Organisation for Animal Health (OIE), the World Bank, the World Health Organization (WHO) and the WTO – jointly established the Standards and Trade Development Facility (STDF).<sup>61</sup> The STDF is a global partnership that supports developing countries in building their capacity to implement international SPS standards, guidelines and recommendations as a means to improve their human, animal and plant health status, and ability to gain and maintain access to markets. Its mandate is to: (i) increase awareness about the importance of SPS capacity building, mobilize resources, strengthen collaboration, and identify and disseminate good practice; and (ii) provide support and funding for the development and implementation of projects that promote compliance with international SPS requirements.

The STDF plays an important role in facilitating discussion of past, on-going and planned SPS-related technical cooperation programmes and initiatives. It identifies cross-cutting topics of thematic interest to partners, donors and beneficiaries and organizes joint consultations at global and regional level to further address these issues. Examples of successful STDF work in the past relate to good practice in SPS-related technical cooperation, the use of economic analysis to inform SPS decision-making, SPS risks and climate change, indicators to measure the performance of national SPS systems, regional and national SPS coordination mechanisms, and public-private partnerships in support of SPS capacity. Enhancing the awareness in developing countries, notably at political and decision-making levels, about the importance of SPS compliance and the need for additional investments in this area is another central theme in the STDF's work.

Given the success of the STDF in the area of SPS capacity building, some suggestions have been made that the STDF model could also be adopted to address standards implementation in the area of TBT. In order for this approach to work, there would need to be clarity, among other issues, regarding which specific international standards would be relevant. Furthermore, this type of initiative would require a significant amount of resources in order to be initiated and sustained. Still, lessons learned from the STDF experience indicate that capacity building efforts of this nature can efficiently provide practical economic and health benefits to countries.

### Capacity building and international standards

Due to lack of regulatory capacity in the areas of TBT and SPS, developing and least-developed countries may face particular challenges in respect of participating in international standard-setting activities. Enhancing developing country participation in international standard-setting processes is a crucial step in improving developing countries' ability to use and adapt international standards. Today, actual participation in standard-setting activities by developing countries remains a challenge. Only a small proportion of developing countries are responsible for the management of working groups and technical committees, where the detailed work takes place. Standardizing bodies and international standard-setting organizations should increase their efforts in building understanding of the standard-setting process and in strengthening institutional capacity in developing countries, and particularly LDCs.

#### *(ii) Supporting regulatory capacity building for trade in services*

Given the importance of regulation to the proper functioning of services markets, weakness in regulatory capacity could actually have a negative impact on trade opening. Without the reassurance of a regulatory apparatus capable of identifying and remedying market failures, there might be strong reluctance to undertake domestic reforms and to open markets to international trade. If there is no regulatory capacity to curb anti-competitive conduct or to implement effective prudential regulation, there is a downside risk to market opening, as profits might only be transferred from domestic agents to foreign ones with no discernible efficiency gains. Greater regulatory capacity could also help build greater support for market opening by giving reassurance that the pursuit of social equity objectives would be part of the regulatory framework. Enhancing capacity would also facilitate regulatory cooperation, be it through the negotiation of domestic regulatory disciplines, the development of international standards, or initiatives on harmonization and recognition.

Finding ways to support regulatory capacity building and cooperation so as to complement services policy reform and development is thus an important challenge for the future. The OECD and APEC have established various processes for bringing trade officials together with regulators. The World Bank has launched an initiative on Services Knowledge Platforms, with the aim of establishing a forum for sharing knowledge of regulatory experiences and impacts. This would include information on the factors underlying successful efforts to expand trade in services and the complementary policies that can be used to address market failures and distributional concerns. Such a broad forum, although focused on international regulatory cooperation in services, could do much to foster trade and development.

In sum, addressing regulatory challenges in trade in services requires doing more than curbing non-transparent or unduly restrictive regulatory practices. The challenge which services regulation poses for trade opening should not be seen simply in terms of having less regulation, but more in terms of achieving better regulation – that is, regulation which more effectively achieves public policy objectives with the least distortion of trade. Work on how countries could obtain such results remains at a nascent stage.

Two priority reforms could be assisted by the development community under the “Aid for Trade” initiative. The first would be to support regulatory capacity building so as to strengthen the ability of regulatory institutions to identify, design and implement policies that address market failures and undertake regulatory impact assessments. The second would be to encourage international cooperation to address the regulatory effects on third parties and to share knowledge on good practices. Such work need not be linked to trade negotiations, yet it could do much to improve the climate for opening up trade in services. The WTO has no particular comparative advantage in regulatory matters but it could act as a focal point, as it does for many other supply-side initiatives, to build capacity for trade.

## 5. Conclusions

This section has three substantive parts addressing the theory, the practice and the challenges of cooperation on non-tariff measures. Section E.1 offers a theoretical framework for understanding the rationale for cooperation on NTMs in trade agreements. It shows that this rationale relates to policy substitution as well as governing international production, improving transparency, limiting the competition effects of NTMs and ensuring the efficient use of private standards. Addressing the first problem primarily motivates shallow integration but the other concerns often require deep forms of integration.

Section E.2 and Section E.3 analyse the way that the multilateral trading system deals with non-tariff measures. Insights from practice in the SPS, TBT and services areas highlight how actual cooperation at the WTO seeks to address the problems identified in Section E.1. In particular, the search for efficient policy is bolstered by regulatory dialogue at the multilateral level (for instance, through committee work in goods and negotiations in services) and on a regional basis, the development and adoption of good regulatory practices, and through the development and use of international standards. Section E.3 focuses on how cases involving the use of NTMs have been dealt with by the WTO legal framework and its dispute settlement system. Specifically, it describes the key ways that WTO disciplines address the challenge of distinguishing between legitimate NTMs and measures

designed for protectionist purposes and how these provisions have been interpreted in actual disputes.

Section E.4 provides a speculative (and not necessarily all-encompassing) view of what lies ahead for the WTO in dealing with non-tariff measures. While the multilateral trading system has developed several means to promote deep integration, challenges and opportunities remain. These include: (i) challenges in finding the right mix between international commitments and domestic flexibility in setting NTMs and in improving transparency, particularly in the face of economic, social and environmental change;

(ii) opportunities to improve the dispute settlement mechanism of the WTO through better integration of economic and legal analysis in the determination of legitimate NTMs; (iii) improvements in the current rule-making to adapt the trade system to a fast evolving world in areas such as private standards and domestic regulation in services; (iv) better global cooperation on NTMs which can hardly be achieved without major steps to bolster regulatory capacity in developing countries through concrete actions.

## Endnotes

- 1 Nevertheless, a basic feature of the commitment approach to trade agreements is worth emphasizing here: unlike the terms-of-trade theory, which offers a robust reason to expect that trade agreements ought to be trade liberalizing, there is no presumption one way or the other under the commitment theory as to whether trade agreements should increase or reduce trade.
- 2 International agreements often include provisions that can be applied to future cases without reference to specific cases. Because these provisions are general, they would require interpretation to apply to new individual cases. This *ex ante* indeterminacy is known in the economics literature as an “incomplete contract”.
- 3 The International Trade Centre has developed a “Standards Map”, which contains information on 74 private standards schemes operational in over 160 countries and covering over 40 economic sectors and product groups. It mainly covers agricultural (organic), textile and flower products, which are of significant interest to developing countries. Examples include: information on current and potential geographic distribution of private standards such as Fairtrade, the Forest Stewardship Council and the Carbon Trust Foot Printing Label. This web-based portal allows the user to select standards based on criteria such as coverage, economic and/or quality requirements, type of certification process. Although this is not an exhaustive database, it provides useful information. It is available at: [www.standardstmap.org](http://www.standardstmap.org).
- 4 Several other voluntary standards schemes have emerged in both developed and developing countries since 1992. While some of these schemes are private initiatives, others are managed by governments. Examples of government schemes include the Sustainable Forest Management Standard in Canada, CERFLOR in Brazil, LEI in Indonesia, the Malaysian Timber Certification Council, and the Sustainable Forestry Initiative and the American Tree Farm System in the United States.
- 5 More information is available at: [www.fsc.org](http://www.fsc.org).
- 6 Auld et al. (2008); FSC and PEFC online information.
- 7 ISO is working on a project (ISO 14067) that seeks to develop an international standard on quantification and communication of greenhouse gas emissions of goods and services. In addition, the World Resource Institute and the World Business Council for Sustainable Development are working on two new standards for products and supply chain greenhouse gas accounting and reporting.
- 8 Loi. No. 2010-788: The National Commitment for the Environment.
- 9 The discussion of quality standards and labels builds on the discussion in the *World Trade Report 2005* (World Trade Organization (WTO), 2005b), which provides detailed and thorough analysis of global cooperation on standards and regulation.
- 10 In addition to the articles listed here, Article XVII of the GATS is where members commit through negotiations, along modal lines in their schedules, to extend national treatment to foreign services and services suppliers. In this case, national treatment is treated like negotiated market access rather than a general principle of conduct as it is in Article III of the GATT or the other listed articles.
- 11 The use of the term “discrimination” sometimes differs across disciplines. For economists, any policy that differentially treats products is discriminatory, independently of the legitimacy of the measure. For lawyers, on the other hand, the term discrimination often carries a normative implication and is limited to those situations where a policy differentially treats products in a way that is inconsistent with WTO rules. In this discussion, the word discrimination is used in its economic meaning.
- 12 A separate legal issue is whether these types of concerns can be addressed within the context of exceptions, such as the ones contained in GATT Article XX.
- 13 APEC has done work specifically on the implementation of the TBT Agreement and GRP. The APEC Committee on Trade and Investment’s Subcommittee on Standards and Conformance has developed a document that lays out the principles and practices of GRP as they relate to improving the implementation of substantive obligations under the WTO Agreement on Technical Barriers to Trade. This study, “Supporting the TBT Agreement with Good Regulatory Practice: Implementation Options for APEC Members”, builds upon the recognition of the WTO TBT Committee that use of GRPs can make an important contribution to the effective implementation of the TBT Agreement, and to reducing unnecessary technical barriers to trade (G/TBT/W/350, 16 March 2012). The WTO Secretariat has issued a “Compilation of Sources on Good Regulatory Practice (GRP)”, G/TBT/W/341, 13 September 2011.
- 14 G/TBT/26
- 15 TBT Regulatory Cooperation Workshop, 8-9 November 2011. See: [http://www.wto.org/english/tratop\\_e/tbt\\_e/tbt\\_events\\_e.htm](http://www.wto.org/english/tratop_e/tbt_e/tbt_events_e.htm)

- 16 RAPEX (Rapid Alert System for Non-Food Products), the EU-wide alert system for all dangerous consumer products, pharmaceutical products and medical devices, allows rapid exchange of information between EU member states about measures undertaken to prevent the marketing or use of products which pose a serious risk to consumer health and safety.
- 17 G/TBT/W/340
- 18 G/TBT/W/340
- 19 Report of chairperson to TBT Committee on TBT Regulatory Cooperation Workshop: [http://www.wto.org/english/tratop\\_e/tbt\\_e/docs\\_wkshop\\_nov11\\_e/chair\\_report\\_e.pdf](http://www.wto.org/english/tratop_e/tbt_e/docs_wkshop_nov11_e/chair_report_e.pdf)
- 20 See APEC Electrical and Electronic Equipment Mutual Recognition Arrangement (EEMRA), at [www.apec.org/](http://www.apec.org/)
- 21 Blind (2004); German Institute for Standardization (DIN) (2000); UK Department of Trade and Industry (DTI) (2005).
- 22 Article 2.5 of the TBT Agreement, Article 3.2 of the SPS Agreement.
- 23 The SPS Agreement names the following as international standard-setting organizations: FAO/WHO Codex Alimentarius Commission (Codex), the FAO International Plant Protection Convention (IPPC), and the World Organization for Animal Health (OIE). The TBT Agreement defines both a "standard" (Annex 1, para. 2) and an "international body or system" (Annex 1, para. 4) but does not name a particular international standardizing body.
- 24 In the area of conformity assessment, the importance of "Quality infrastructure" is often referred to and linked to competitiveness. This includes, for instance, adequate laboratories and accredited certification bodies. The TBT Committee has encouraged members to provide technical cooperation in the area of conformity assessment specifically aimed at improving technical infrastructure, e.g. metrology, testing, certification, and accreditation. (This is also discussed in Section E.4.f.)
- 25 FAO/WHO Codex Alimentarius Commission (Codex), the FAO International Plant Protection Convention (IPPC), and the World Organization for Animal Health (OIE).
- 26 Accreditation is defined as "the independent evaluation of conformity assessment bodies against recognized standards to ensure their impartiality and competence to carry out specific activities, such as tests, calibrations, inspections and certifications" (G/TBT/GEN/117, more information can be obtained at [www.ilac.org](http://www.ilac.org) and [www.iaf.nu](http://www.iaf.nu)).
- 27 G/TBT/W/349, dated 13 March 2012.
- 28 Reference to members' submissions to G/TBT/26.
- 29 Zoonoses are defined as any diseases or infections that are naturally transmissible from vertebrate animals to humans (World Health Organization (WHO), 2012).
- 30 Decisions and Recommendations Adopted by the WTO Committee on Technical Barriers to Trade Since 1995, G/TBT/1/R.10 (9 June 2011); Recommended Procedures for Implementing the Transparency Procedures of the SPS Agreement, G/SPS/7/Rev.3 (20 June 2008).
- 31 SPS Information Management System, <http://spsim.wto.org/>; TBT Information Management System, <http://tbtims.wto.org/>.
- 32 MFN-inconsistent measures also fall into this category, and are the ones more severely sanctioned by the GATS. In fact, barring any exemptions, the MFN obligation applies unconditionally to all the services covered by the Agreement.
- 33 See Delimatsis (2008) and Krajewski (2008) for a discussion on creating a necessity test of the type contained in the TBT and SPS agreements.
- 34 GATS Article VII allows for recognition measures as long as there are adequate provisions for other members to negotiate accession and/or achieve recognition of their requirements and certificates, and the measures do not constitute a means of discrimination or a disguised restriction on trade.
- 35 The panel report in *EC- Approval and Marketing of Biotech Products* is also cited as an example of a situation in which differential treatment of the imported and domestic products was considered insufficient for a violation of the non-discrimination obligation in Article III. In that case, the panel said that it was not evident that the less favourable treatment was explained by the foreign origin rather than by perceived differences in terms of the safety of the products (see Panel Report, *EC – Approval and Marketing of Biotech Products*, paras. 7.2509 and 7.2516; Marceau and Trachtman (2009)).
- 36 In *EC – Asbestos*, the Appellate Body found that regulatory concerns and considerations may play a role in applying certain of the "likeness" criteria (that is, physical characteristics and consumer preferences) and, thus, in the determination of likeness under Article III:4 of the GATT 1994.
- 37 Article 1.3 of the TBT Agreement states: "All products, including industrial and agricultural products, shall be subject to the provisions of this Agreement". On the other hand, the SPS Agreement has a much narrower scope, which may mean that naming bodies is more appropriate in that context.
- 38 These principles are: (1) transparency; (2) openness; (3) impartiality and consensus; (4) effectiveness and relevance; (5) coherence; and (6) development. These are contained in full in G/TBT/1/Rev.10 (Annex B), 9 June 2011, p. 46.
- 39 The SPS Committee had established the ad hoc working group in October 2008. Members of the ad hoc working group on SPS-related private standards were: Argentina, Australia, Belize, Brazil, Canada, Chile, China, Colombia, Costa Rica, Dominican Republic, European Union, Ecuador, Egypt, Guatemala, Japan, Mexico, Mozambique, New Zealand, Nicaragua, Norway, Pakistan, Paraguay, Peru, St. Vincent and the Grenadines, South Africa, Chinese Taipei, Thailand, United States, Uruguay and the Bolivarian Republic of Venezuela.
- 40 Other activities that take place in the committees between the circulation of the notifications and the filing of an STC may contribute to transparency.
- 41 The example of the notification requirements of Article 25 of the Agreement on Subsidies and Countervailing Duties, which invites members to notify measures of other members having the effect of a subsidy that have not been notified, is illustrative. Despite the obligation for members which consider that there are no measures requiring notification in their territories to so inform the Secretariat in writing, only 78 countries had made a notification in 2009.
- 42 See for example Article 25.10 of the Agreement on Subsidies and Countervailing Measures. Note that members also have the possibility to ask questions about other members' notifications – for instance, if they consider that they are incomplete.
- 43 Six years or more for all countries but the 20 largest traders.
- 44 See WTO document WT/L/848.

- 45 Part of the answer to these questions obviously depends on how much resources can be allocated to the monitoring exercise.
- 46 The committee on trade in services also offers members the possibility to share information on national experiences and regimes.
- 47 The new portal will for example allow users to access all notified information on trade, tariffs and NTMs that relates to a given tariff line in one single query. All this information was previously stored in separate silos which had to be accessed separately if they were accessible online at all.
- 48 The decision of the Market Access Committee on a "Framework to enhance IDB Notifications Compliance" [G/MA/239 of 4 September 2009] made it easier for the Secretariat to assist members in providing their trade and tariff notifications by allowing the use of other relevant official sources.
- 49 Critics of "deep integration" question the capacity of international organizations to make these determinations. For example, Rodrik (2011) argues that the determination of legitimate or illegitimate trade measures should arise from informed deliberations at the national level, including both importers and exporters in order to balance competing interests in a transparent manner.
- 50 It should be kept in mind that the most efficient measure may well be a discriminatory measure if the source of the externality lies abroad. It also depends on whether a government takes into account only domestic welfare or foreign interests as well. The latter would be particularly important where e.g. transboundary externalities are concerned. As mentioned in Section E.1, if several countries have common interests, cooperation can ensure that global welfare is maximized.
- 51 For example, Swinnen and Vandemoortele (2009) and Marette and Beghin (2010) hold that many public standards, e.g. relating to the regulation of GMOs, are introduced following demands by consumers, even though their trade-restricting effects also benefit some local producers. However, even such an assessment may not be an easy task. Falvey and Berti (2009) provide a concise theoretical framework that illustrates the difficulties involved in disentangling producer from consumer interests when identifying the appropriate level of a minimum quality regulation that would address information asymmetries suffered by consumers. Carpenter (2004) develops a model in which new product requirements seem to confer a commercial advantage to established firms even if the regulator was motivated only by reputation concerns and an interest to be responsive to consumers.
- 52 See particularly also Box B.4.
- 53 Although it is often believed that protection should increase with the ratio of import penetration, the latter result broadly reflects the idea of "sensitive" sectors. A number of papers, such as Goldberg and Maggi (1999) and Gawande and Bandyopadhyay (2000), have found ways to measure these variables and empirically confirm the findings. The latter authors also emphasize that these three factors (import penetration, import elasticity and whether industries are politically organized) go a long way in explaining the pattern of protection and reduce the need to analyse a larger set of factors, including skill composition of employees, average earnings, labour shares and geographical concentration, that have been employed in the empirical literature, without being derived from tightly-knit theories.
- 54 Fischer and Serra (2000) highlight the importance of analysing the characteristics of foreign firms and markets as well in order to understand the incentives of domestic firms to lobby for protectionist measures and get an indication of which industries face higher pressure for protection than others. One important consideration is, for example, the availability and size of alternative markets for foreign competitors and the fixed cost associated with producing under multiple product regulations. In an extension to this approach, Marette and Beghin (2010) further emphasize the importance of taking into account firm heterogeneity and international market conditions. They show that a more stringent product requirement compared to an international standard may not always result in protectionism, but can even be "anti-protectionist" if foreign producers are more efficient at addressing the related externality than domestic producers.
- 55 In 2000, the TBT Committee agreed on six principles and procedures that should be observed during the development of international standards, guides and recommendations for the preparation of technical regulations, conformity assessment procedures and standards. This Committee Decision has recently become the subject of discussion both in the Committee and in the NAMA context (G/TBT/1/Rev.10 (Annex B), 9 June 2011, p. 46).
- 56 For example: FSC, MSC, Carbon footprint labelling, sectoral trade associations (Florverde for flowers; BCI for cotton, or in the food sector: the Global Food Safety Initiative (GFSI)). See examples discussed in Box E.2.
- 57 The TBT Agreement defines a non-governmental body as follows: "Body other than a central government body or a local government body, including a nongovernmental body which has legal power to enforce a technical regulation" (TBT Agreement, Annex 1, para 8). The SPS Agreement uses the term "non-governmental entity" but it is not defined in the Agreement.
- 58 SPS Agreement Article 13 (on implementation).
- 59 TBT Agreement, in particular Article 4.1; articles 3.1, 8.1 and 9.2 are also relevant.
- 60 For instance, members frequently referred to the ISO and the IEC in the TBT context; both these bodies are non-governmental in nature.
- 61 More information on STDF can be found at: <http://www.standardsfacility.org/en/index.htm>.