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Integrating Market Openness

Into the Regulatory Process:

Emerging Patterns in OECD Countries

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**INTEGRATING MARKET OPENNESS INTO THE REGULATORY PROCESS:
EMERGING PATTERNS IN OECD COUNTRIES.**

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EXECUTIVE SUMMARY

Since 1998, sixteen country reviews have been completed under the multidisciplinary OECD Regulatory Reform Programme in response to a Ministerial mandate. As the basis for its analysis of the market openness aspects of regulatory reform for these reviews, the OECD used the six efficient regulation principles which it had previously identified -- transparency and openness of decision-making; non-discrimination; avoidance of unnecessary trade restrictiveness; use of internationally harmonized measures; recognition of equivalence of other countries' regulatory measures; and application of competition principles. These principles have served as a useful framework for assessing how domestic regulatory regimes, processes, and practices contribute to and enhance market openness on the ground. OECD Member countries can now look to a growing body of documented practice and analysis as they consider past lessons and new opportunities for continuing regulatory reform.

As the trade liberalization agenda reaches behind-the-border measures and governments face increasing calls to regulate – particularly in areas such as health, safety, and the environment – the ability to draw on state-of-the-art tools and proven approaches to sound regulatory management will become increasingly important. The cumulative experience of OECD Member countries with regulatory reform to date – including valuable insights on what works best and where further improvements may still be required – holds important keys to the next phase of regulatory reform. This paper takes stock of emerging patterns in trade-relevant best regulatory practices and suggests a way forward. Part 1 reviews the evolution to date of the Regulatory Reform Programme from the perspective of market openness and maps out the directions taken in this paper. Part 2 examines experience and insights gained from the country reviews conducted so far. Part 3 looks ahead, offering some closing observations about the collective experience of reviewed countries to date.

As will be seen in the analysis that follows, it is now possible to identify what may be considered trade-relevant patterns in regulatory practices. Systematic publication of existing and planned rules, rigorous approaches to public consultation including prior notice and comment procedures, groundbreaking use of the Internet to disseminate information and consolidate service delivery are just some of the practices in use today to ensure transparency and openness of decision-making. While it is rare for regulators to be overtly discriminatory, attention is needed to ensure that their application does not entail *de facto* discrimination. Moreover, certain approaches can help reduce discriminatory effects, such as commitment to open regionalism and establishment of liberal investment regimes. Some countries have made significant progress in avoiding unnecessary trade restrictiveness in domestic regulation, relying on rigorous regulatory impact analysis, growing trade advocacy, and greater attention to regulatory design features to achieve trade and investment-friendly rules. Innovative approaches to widening use of internationally harmonized measures and streamlining conformity assessment procedures are yielding important benefits in limiting the adverse effects on trade of divergent regulations. And finally, advances in effective application of competition principles are enhancing market openness for foreign and domestic players alike.

Despite these significant advances, challenges remain in ensuring overall coherence between open market policies and regulatory approaches. The paper thus seeks to strike a suitable balance in showcasing emerging best practices while pointing to areas where further improvements are required. “Best” practices in this context means discernable patterns in regulatory decision-making informed by the collective experience across OECD countries reviewed to date, but should not be taken to imply a one-size-fits-all approach to trade-friendly regulatory approaches. Rather, “best practice” should be understood as an intellectually flexible concept that can accommodate and inform each country’s particular regulatory challenges, legislative and political systems, while respecting decision-makers’ ultimate discretion to balance the complexities and trade-offs between market openness and achievement of legitimate regulatory objectives.

Finally, this paper provides illustrative best practices in ANNEX I summarizing elements of this analysis, main features of which are indicated in the box below. This paper itself could be developed into a checklist of trade friendly design features and pitfalls to be avoided in drafting new regulations.

Box 1. ILLUSTRATIVE BEST REGULATORY PRACTICES FOR FOSTERING MARKET OPENNESS PRINCIPLES, AS OBSERVED IN REVIEWED COUNTRIES

(See ANNEX I for more detail)

Transparency and Openness of Decision-Making

1. Systematic public availability of information
2. Clear, simple procedures for making and implementing rules
3. Systematic reliance on public consultation
4. Clear, open, effective appeals procedures
5. Efforts to ensure transparency in particular areas

Non-Discrimination

1. Narrow exceptions in practice (overt discrimination such as nationality-based restrictions)
2. Contestable markets for government procurement
3. Explicit lead responsibility for ensuring implementation of non-discrimination and other WTO obligations
4. Extent of awareness and efforts to avoid discriminatory effects in regulation (de facto discrimination)
5. Demonstrated commitment to open regionalism
6. Liberal policies towards foreign ownership and investment

Avoidance of Unnecessary Trade Restrictiveness

1. Use of RIAs with due attention to trade effects when making regulations
2. Demonstrated efforts to favour trade-friendly regulatory approaches
3. Simplification of administrative requirements

Use of Internationally Harmonised Measures

1. Reference to international standards as the basis of national standards and domestic regulations
2. Systematic monitoring of efforts to use international standards
3. Acceptance of foreign measures as functionally equivalent

Streamlining Conformity Assessment Processes

1. Demonstrated flexibility towards use of alternative approaches for avoiding duplicative conformity assessment procedures
2. Establishing market confidence through accreditation mechanisms
3. Efficient functioning of conformity assessment bodies, possibly on a competitive basis

Application of Competition Principles

1. Open, accessible complaint procedures for challenging regulatory or private actions which may impair market openness:

1. INTRODUCTION

1.1 Background

1. Since 1998, sixteen country reviews have been completed under the multidisciplinary OECD Regulatory Reform Programme in response to a Ministerial mandate. As the basis for its analysis of the market openness aspects of regulatory reform for these reviews, the Trade Committee used the six efficient regulation principles which it had previously identified: a) transparency and openness of decision-making; b) non-discrimination; c) avoidance of unnecessary trade restrictiveness; d) use of internationally harmonised measures; e) recognition of equivalence of other countries' regulatory measures, and f) application of competition principles. These principles have served to focus and inform the discussion on trade and investment-friendly regulatory processes and practices, while at the same time revealing and clarifying areas where further work may be required. As noted in each review, the intention has been not to judge the extent to which reviewed countries have undertaken and met international commitments relating directly or indirectly to the efficient regulation principles, but rather to assess whether and how domestic rule-making procedures and practices give effect to the principles in practice and successfully contribute to market openness. Similarly, the OECD market openness reviews have not been concerned with an assessment of trade policies and practices in Member countries.

2. As this work has progressed, efforts have been made to draw insights from country experiences with trade and regulatory reform. A workshop on the theme "Regulatory Reform and the Multilateral Trading System: Insights from Country Experience" was held on 7-8 December 2000, and there is now a growing body of related analysis undertaken in OECD in the context of regulatory transparency and trade in services (Box 2). The present paper is the newest contribution to the wealth of country experience represented by this past work, and should be read in conjunction with it. Finally, while the paper draws on the extensive information collected during the country reviews conducted to date in discerning patterns, the picture across the OECD area remains incomplete as a number of Member countries have not so far been reviewed.

2bis In this light, the present report is in no way intended to be the final word; rather, it should be revisited in the future as additional national experiences in OECD and non-OECD countries are collected and studied, in order to make any adjustments that may seem called for. In the meantime it is hoped that the current preliminary attempt to identify patterns in national practices of selected OECD countries that are viewed as relatively successful can attain a wider readership and can facilitate further reflection and dialogue.

Box 2. A Growing Body of OECD Analysis Relating to Regulatory Reform & Market Openness

The OECD Report on Regulatory Reform Volume I & II (OECD 1997).

OECD Reviews of Regulatory Reform: Canada (2002), the Czech Republic (2001), Denmark (2000), Greece (2001), Hungary (2000), Ireland (2001), Italy (2001), Japan (1999), Korea (2000), Mexico (1999), the Netherlands (1999), Poland (2002), Spain (2000), Turkey(2002), the United Kingdom (2002), and the United States (1999).

Strengthening Regulatory Transparency: Insights for the GATS from the Regulatory Reform Country Reviews [TD/TC/WP(99)43/FINAL]

Trade in Services: Transparency in Domestic Regulation: Prior Consultation [TD/TC/WP(2000)31/FINAL].

Trade and Regulatory Reform: Insights from Country Experience: Proceedings of a Workshop (OECD 2001).

Transparency in Domestic Regulation: Practices and Possibilities [TD/TC/WP(2001)31/FINAL]

Policies to Enhance Sustainable Development (OECD, 2001).

1.2 Purpose of this paper

3. This paper will examine the lessons and insights gained from the market openness reviews to date and clarify options for the way ahead. Taken together, the OECD market openness reviews reveal a wealth of experience with regulatory reform, emerging patterns in trade-relevant regulatory practices, and areas where continued efforts will be required to ensure coherence between regulatory and open market policies. **Part 2** examines lessons and insights gained from the market openness reviews to date, principle by principle – an attempt to identify best practices and areas where uneven or inadequate regulatory approaches continue to directly or indirectly undermine optimal market openness. Annex I provides practical illustrations of regulatory approaches followed in reviewed OECD countries that are felt to have been particularly successful in fostering market openness objectives. In this sense, it may be considered a list of "best practices" although this should not be taken to imply that one size fits all. In other words, the particular situation of each country needs careful consideration in determining how best to achieve the goals of efficient regulation that will support open markets.

4. Country-specific examples are used throughout the analysis to illustrate, substantiate and distil the essential experience of the market openness reviews to date and clarify the way forward. Building on this analysis, **Part 3** looks ahead, offering some closing observations about the collective experience of reviewed countries to date.

5. Regulatory reform is first and foremost in the interest of the domestic economy, but from a market openness perspective yields significant benefits for national and foreign stakeholders alike. Moreover, high-quality regulation can be achieved without compromising market openness, and open market policies enhanced through strong regulatory underpinnings. This paper therefore seeks to draw out

best regulatory practices from the trade policy perspective, with a view to ensuring greater coherence and mutual complementarity between the two policy areas.

2. LESSONS AND INSIGHTS GAINED FROM THE MARKET OPENNESS REVIEWS TO DATE

2.1 Transparency and Openness of Decision-Making

6. Transparency in domestic regulatory processes is a fundamental determinant of market openness for both domestic and foreign participants. The ability of market participants to fully understand the regulatory environment in which they are operating as well as have a voice in regulatory decision-making go hand in hand in ensuring effective quality of market access. While WTO commitments on transparency (such as notification procedures set out in the TBT and SPS Agreements) have broken new ground in promoting wider transparency of regulations, the OECD country reviews have provided valuable insights about the range of mechanisms and approaches for giving effect to transparency commitments in practice. The collective OECD experience now points to emerging best practices and remaining challenges around transparency, offering Member and non-Member countries alike a toolbox for designing or refining transparent regulatory regimes as appropriate and greater understanding of the foundations and building blocks of best regulatory practice.

7. **Five key areas** have emerged in the OECD enquiry into regulatory transparency and open decision-making:

- a) systematic availability of information using various channels;
- b) clear, open and simple procedures to ensure predictability in the making and implementing of rules;
- c) systematic and rigorous reliance on public consultation (prior notice and comment procedures);
- d) clear, open and effective appeals procedures; and
- e) ensuring transparency in particular areas, such as government procurement and self-regulation. Each theme is discussed in more detail below with a view to outlining observed patterns and practices in reviewed countries.

2.1.1 *Systematic public availability of information through various channels*

8. Transparency in its most fundamental expression means knowing what the rules are and where to find them. This is critical for domestic and foreign players alike, but particularly relevant for new market entrants who may be confronted not only with different regulatory content, but a different regulatory culture and administrative framework. Effective accessibility of existing rules must therefore begin with systematic availability of such information through widely accessible channels. Gaining access to such information should not be an obstacle in itself; information also needs to be widely available at no or minimal cost to interested stakeholders. As seen below, this can be achieved through various leading edge approaches, notably publication of information through various channels, enquiry points, and the Internet.

i) *Regular publication of information*

9. To provide a complete picture of a given regulatory environment, both existing rules and regulations in the making need to be transparent. Best practice in this area is being achieved through systematic publication of detailed information using both online and traditional print media.

10. Consolidated information about **existing rules** is increasingly available online in the form of comprehensive e-compendiums (see related discussion on Use of the Internet below). **Informal information** on existing laws and regulations is also increasingly accessible on the individual websites or publications of regulatory departments and agencies across national governments, as well as often extensive commentary available through unofficial sources such as trade, sectoral, or professional publications. **Publication of prospective regulations** is much less common among reviewed countries. Where this does occur, proposed regulations are often communicated in a dedicated government publication such as the US *Federal Register*. Such publications are typically widely available in print (for a nominal fee) and as free online editions featuring extensive **search and archive capabilities**. Governments may also use paper-based and electronic support systems developed in the context of notice-and-comment procedures, such as in the Netherlands and the United Kingdom. Individual regulatory authorities in some countries also publish information about planned regulatory initiatives in departmental publications or on their websites, often providing early notice to the public about planned regulatory initiatives (see section 2.1.3.). Such information may also be published on a periodic basis in the context of annual budget and planning activities. Interested stakeholders thus have a range of resources at their disposal for accessing information about regulations in the making.

11. Some but not all countries have parallel processes in place for disseminating information about existing and prospective rules at subcentral and local levels. In general, however, comprehensive, consolidated databases of subcentral regulations across reviewed countries remain rare.

ii) *Enquiry points*

12. The **availability of central enquiry points** to facilitate clarification of rules and their manner of implementation is another important tool for ensuring optimal transparency for new and established market players alike. Notable features of well-functioning enquiry points include highly-skilled response teams, fast turnaround times where further information may be required, optimal use of existing technology where appropriate (e.g. e-mail auto-responders or fax-on-demand services), and available in-person assistance whenever required. The use of central contact points with a view to facilitating trade procedures can also be understood from the perspective of least trade restrictiveness, as discussed in Section 2.3 below.

iii) *Use of the Internet*

13. **Increasing reliance on the Internet** as the publishing venue of choice has clearly emerged as a best practice. **Centralised online compendiums of all laws and related regulations** in force (e.g. Canada, Mexico), often equipped with search engines, offer users rapid and unabridged access to the full legal texts of laws and related regulations. While such compendiums do not offer definitive interpretations of regulatory measures, they do provide a one-stop electronic portal for accessing key information, sparing a user the task of piecing together needed information from disparate sources. State-of-the-art online compendiums are frequently updated and often feature built-in hyperlinks to closely related websites such as sponsoring Ministries. Even the best e-compendiums have yet to be fully integrated with fuller information, however, such as laws and regulations of sub-central authorities and clear delineations of the interrelationships between the two.

14. Many reviewed countries have now started going even further in exploiting Internet technology to enhance transparency and accessibility of government services and information. The creation of **comprehensive e-gateways** such as the UK Site (www.ukonline.gov.uk), the Canada Site (www.canada.gc.ca), and the “Greek-citizen Site” (www.polites.gr) has not only contributed to greater transparency about the operations and offerings of the federal government, but (as will be seen later) has also facilitated the delivery of a new generation of online business transaction possibilities. The “gateway” approach – so-named because it opens the door to vast amounts of information on a wide range of subjects – can be seen as a breakthrough in harnessing the Internet in support of greater transparency. Gateway approaches also make extensive use of embedded hyperlinks to take the user directly to the information required, enabling visitors to the site to locate and download needed information quickly and easily.

15. Despite these advances, **some reviewed countries have yet to fully exploit the full potential of the Internet**, both in terms of getting content online in a user-friendly manner and making it available in English where the home language is not widely understood outside national borders (e.g. Italy). Some of these same countries have however moved quickly to address this technological lag. As noted over the course of its review, Italy has engaged in an active policy to make available online information on both existing and draft regulations, including an action plan for development of comprehensive e-government that would include an e-information gateway and a *Norme in Rete* (regulations online) website complete with search engine.

2.1.2 *Clear, open and simple procedures to ensure predictability in making and implementing rules*

i) *Clear rule-making procedures*

16. Predictability and clarity of the rule-making process provide domestic and foreign stakeholders alike with enhanced transparency and certainty about how the regulatory process can be expected to unfold, allowing them to make informed decisions about when and where to participate in the process. Simplicity and specificity of the steps involved in the making of regulations allow interested stakeholders to fully understand the evolution of a regulatory proposal, enabling them to participate in the rule-making process at appropriate junctures in the process. Depending on the urgency of the circumstances under which it may be formulated, the life span of a given regulatory proposal may often stretch into weeks or months as it advances through the system. A clear, detailed, and freely available description of the regulatory process – as well as any clearly identified exceptions to its coverage – is thus a fundamental guarantor of transparent, open rule-making systems.

17. Clear **codification of rule-making procedures through overarching statute** or other instrument has emerged as another foundation of good regulatory practice. Most of the sixteen Member countries reviewed to date have specific laws setting out rule-making procedures. The US Administrative Procedures Act, Mexico’s Federal Administrative Procedure Law, and Spain’s Administrative Procedure Law are just some examples of this “first tier” of administrative rigor. Some countries have further **supplemented legislative frameworks with standing policies relating to regulatory activity and detailed written guidance on the regulatory process**.

18. Questions have nonetheless arisen regarding the practical implementation of rule-making requirements under certain circumstances. While Japan has an Administrative Procedure Law in place, for example, the country’s more traditional reliance on the inherently opaque “administrative guidance” has raised doubts about the real impact of the Law on day-to-day regulatory management. Similarly, the mere existence of rule-making procedures may not always be enough to ensure optimal transparency. Ensuring

effective adherence to such procedures each step of the way – through an oversight mechanism or suitably established lines of accountability -- is equally important in achieving this result.

19. A small number of reviewed countries do not have specific laws in place setting out procedures to be followed in legislative or regulatory processes, but approach administrative procedural issues from other, sometimes dual perspectives. Ireland, for example, has recently reformed its administrative procedures pursuant to the broader Strategic Management Initiative launched in 1994, and the preparation of regulations (secondary legislation) follows principles set out in the Cabinet Handbook.

ii) *Clearly written rules which can be easily and consistently implemented*

20. Regulatory content across reviewed countries varies in complexity and the style in which it is drafted. Calls for simpler, more user-friendly language have often found their way onto the regulatory reform agenda, with limited results. The challenges are double-edged; on the one hand, regulations may be drafted so tightly as to exclude all but a few regulated parties from meeting their requirements – the prescriptive versus performance-based formulations that have generated trade frictions in the past and formed the basis of new best efforts obligations in world trade agreements. On the other hand, regulations may also be so loosely framed that they invite difficulties in interpretation, possibly leading to inconsistent interpretation and unpredictable application or even discretionary abuses by regulatory officials. Either scenario ultimately undermines compliance by regulated parties.

21. Regulatory complexity was found to be problematic in a range of reviewed countries. Greece's labyrinth of complex rules and inefficient administration has played out in a frequent need for interpretative statements by the Parliament (for laws) or interpretative Ministerial circulars (for decrees), a situation which has been exacerbated by business claims of inefficient bureaucracy and insufficient contacts with central and local authorities. Complex rules, particularly if they are allowed to proliferate in an environment of regulatory inflation, can also undo what systematic publication might otherwise contribute to enhanced transparency. In Italy, for example, where over 35,000 frequently lengthy and detailed national and regional laws are in place, even the administration has faced interpretation challenges, leaving scope for wide discretion in application of rules. The Bassanini Reforms of 1997 addressed this issue, aiming to simplify the system by streamlining the existing stock of laws and regulations, examining the quality of new regulations, and pursuing ongoing simplification of the administration. Indeed, the Italian experience and others like it may point to emerging best practices in this area: periodic commitments to **review the existing stock of laws and regulations** with a view to confirming ongoing relevance and **rigorous vetting of draft regulations** against established criteria for clarity and simplicity.

22. Challenges remain on this front, however, and carry potent risks for market openness. Lack of transparency in regulation and perceptions about rigid implementation in particular areas such as labelling and marking requirements continue to attract the attention of trading parties in some countries. In Korea, for example, lack of clarity in food-related codes has resulted in wide discretion in their interpretation and application, leading to trade frictions. In response, Korea launched a program to review the codes and provide clearer guidance for customs inspectors. Frequent ambiguities in regulations and inconsistent implementation have also proven problematic in some other countries. While additional ad hoc guidance may well alleviate the problem, the preparation of efficient regulation in the first instance could help avoid such problems later on. Regulations in the making need to strike a balance between flexibility ease of interpretation and application, and achievement of the desired policy objective.

2.1.3 *Systematic and rigorous reliance on public consultation, including prior notice and comment procedures*

23. Public consultation and the use of prior notice and comment procedures (sometimes referred to as “pre-publication”) are longstanding practice in some of the countries reviewed to date (e.g. the United States, the United Kingdom, the Netherlands, and Canada). Specific written guidance to regulators describing how public consultations are to be conducted is widely available in these countries. Some reviewed countries may involve the public well before drafting of a regulatory proposal has begun, a kind of early notice designed to pave the way for better acceptance of regulations by interested stakeholders. This early notification is typically carried out through a range of official vehicles, such as annual reports outlining upcoming regulatory initiatives, forward-looking departmental regulatory plans, or Notices of Intent designed to solicit public views in the early stages of problem definition.

24. Even where such regulatory practices are well-established, however, the quality and nature of public consultation can vary widely from country to country. In some countries, the process of making a regulation is essentially an open book, open to participation and comment by any and all interested stakeholders. **Well-publicised, well-organised, highly accessible, and well-timed opportunities for public comment** as well as **clear lines of accountability** for explaining how public comments have been handled are some of the features of this high-level commitment to public consultation. In addition, some independent regulators have integrated these concepts into their day-to-day operations and rely extensively on public inputs to shape sectoral regulation (e.g. the “Public Process” used by the Canadian Radio-Television and Communications Commission or the online consultations of the Greek National Telecommunications and Postal Commission). **Use of the Internet to solicit and gather public comments** in addition to traditional avenues of communication also enhances the potential reach of public consultations in real time, and has the added advantage of universal availability to all (online) stakeholders, national and non-nationals alike, regardless of geographic location.

25. In other countries, a formal commitment to public consultation may exist on the books but be less rigorously applied in practice. Wide discretion amongst regulators on who is to be consulted and how on given regulatory proposals may in effect dilute the intended benefits of broad-based public consultation. In Spain, for example, where **public consultations on regulatory matters are a constitutional requirement**, regulators must provide a “reasonable period” for public consultations, generally defined as not less than 15 working days. Regulatory authorities must prepare a written statement to be included in the *Normative Dossier* summarising public consultations and documenting how the consultation was conducted. Although Spanish regulators are required by law to consult citizens if a proposed regulation affects their “legitimate rights and interests”, in practice they exercise wide discretion in deciding who will be consulted and the extent of information made available to consulted parties to evaluate regulatory proposals.

26. Best practice in this area may be encouraged by clear guidance to regulators on how consultations are to be conducted. Moreover, the availability of such guidance in written form (e.g. the United Kingdom’s *Code of Good Practice on Written Consultation*) help ensure consistency of message and standard of consultation undertaken by regulatory authorities. UK policy makers are further provided with “Guidance on government research into public attitudes and opinions,” which covers all policy investigations that are not conducted through a formal consultation exercise.

27. Informal consultations with interested stakeholders may still occur even in the absence of a formal requirement to do so, but with limited and uneven results. In Hungary, for example, while no formal mechanisms are in place for consulting concerned stakeholders during the preparation or review of regulations, this dialogue tends to happen informally through existing mechanisms such as the Council of Investors and Council of Foreign Economic Operators. In addition, each Ministry and the Prime Minister’s

Office have an **information and complaints office** which is receptive to public inputs by Internet or mail. Foreign business associations have expressed general satisfaction with this “back door approach” to consultation. At the same time, the absence of clear, common guidelines for the consultation effort mean that related complaints are quick to surface. Charges of tight timeframes for the elaboration and finalisation of new regulations, for example, suggest that interested stakeholders feel cut out of a process in which they might otherwise actively participate.

28. Informal consultation may however provide needed experience as countries transition to more rigorous public notice and comment procedures. Informal approaches may also provide needed flexibility in some scenarios or usefully inform reform efforts. In Ireland, where institutional reforms have been introduced to formalise the consultations process, departments are now required to carry out public consultations with interested parties in accordance with a relevant provision of the *Quality Regulation Checklist*, and notice of regulations in the making is published in the *Irish Official Journal* and often through other media such as national newspapers. Prior to these reforms, public consultations on regulatory matters were carried out on an informal basis, and were in fact seen to be working well. Indeed, informality was perceived in this small economy as facilitating the emergence of social consensus, bolstered by easy access to government decision-makers. However, as aptly noted in Ireland’s country review, “informality underpins flexibility and quick responsiveness but is often mirrored by procedures lacking in transparency with inevitable risks of regulatory capture.” A similar experience has been observed in the Netherlands’ policymaking framework. In this sense, best practice regarding public consultation can be understood as a careful balance between flexibility and responsiveness on the one hand, and consistency and transparency of modalities for formal consultation on the other.

29. Overall, there are **encouraging signs of a broad-based, ongoing evolution** towards more rigorous efforts to conduct public consultations prior to enacting regulatory measures, even in the absence of a generalised obligation on government to consult. In Poland, for example, an increasing number of legislative or subordinate measures require consultation with specific groups, whose right to be consulted is guaranteed by law. Rules of Procedure of the Council of Ministers also stipulate that the regulatory authority may consult non-governmental organisations if a proposed measure is relevant to their scope of activity. This trend can also be observed in non-OECD countries. Brazil, Argentina, Chile, India, and Hong Kong all have growing experience with enhancing transparency through the use of public notice, prior consultation and comment procedures.

2.1.4 *Clear, open and effective appeals procedures*

30. Appeals procedures can be understood in two broad contexts: appeal of an existing rule in the sense of an advocacy effort to alter its content, or appeal of an administrative ruling or formal or informal interpretation of an existing rule. Formal avenues for appeal of regulatory decisions or actions seem to be fairly well established across the OECD countries reviewed to date, though actual user satisfaction varies from country to country.

31. Most countries have **formal legislation** in place setting out procedures to be followed in the context of an appeal of an existing rule. Such procedures are sometimes included in statutory provisions on rule-making. The US Administrative Procedures Act, for example, requires federal agencies to afford interested parties the right to petition for the issuance, amendment, or repeal of a rule. There is **little evidence of overt discrimination** between national and non-national parties in terms of their standing under such laws: wherever codified, appeals procedures are available and accessible to all parties without any formal distinction on the basis of nationality. In addition, most national regulatory systems offer more than one avenue for appeal tailored to the issue at hand.

32. Formal avenues for appeal tend to be further supplemented by **informal channels for lodging and advancing complaints**, suggesting that possible disadvantages associated with the former may be dampening reliance on these mechanisms. The existence of informal avenues may also reflect cultural preferences or an expression of good will and general openness to dialogue with disaffected parties. Or, it may simply indicate a lack of appropriate official venues for certain types of regulatory decisions or actions – a legal vacuum filled with alternative approaches.

33. Some national legal systems build in **explicit assurances that foreign parties may effectively access appeals procedures**, an approach sometimes observed in countries with highly proactive investment promotion policy stances. Hungary's *Act on General Rules of Public Administration Procedures* provides that parties whose rights or interests are affected by an administrative decision or action can appeal irrespective of citizenship or domicile, and may do so in the mother tongue of the complainant party. Additional, more informal avenues for appeal also exist in Hungary: any party may lodge complaints about perceived trade and investment restrictions directly with the regulatory authority concerned the Ministry of Economic Affairs, or **through Chambers of Commerce or professional associations**.

34. Despite the widespread existence of established procedures for appealing administrative actions or decisions across the OECD Member countries reviewed to date, formal appeals processes are frequently viewed as cumbersome, time-consuming, and inefficient. A recurrent theme that comes up in this context is the **need for clearly defined time limits** for treatment of an appeal as it advances through the system. Certain types of appeals processes were running over four years on average in one review country. In others, the mere perception of a burdensome, slow-moving appeals system has been shown to seriously undermine business confidence, constraining the ability of domestic and foreign firms alike to react quickly to developments on the ground.

35. Finally, while informal avenues of appeal may be a welcome complement to the system in principle, **lack of transparency around accepted practice, cultural attitudes, and procedural disparities across regulatory authorities** within the same country (let alone as between countries) lower a veil of inscrutability and uncertainty on firms which may be new to the market or lack the resources or knowledge to use such avenues in the same way as more seasoned interlocutors might do. Again, as argued with respect to informal avenues for public consultation, informal avenues make sense in principle, but in practice run the risk of skewing the system in favour of those most knowledgeable about its inner workings. Whether or not foreign firms can effectively hold their own in such an environment vis-à-vis domestic parties, where cultural familiarity and established consultation patterns may already be working in their favour, is an open question.

36. In some cases, **particular avenues of appeal exist for specific areas of regulatory activity**. Reviewed countries in the EU, for example, abide by EU rules on public procurement which require Member States to provide **appropriate judicial review procedures of decisions** taken by procurement authorities. In addition, they must provide for the **possibility of interim measures**, including the **suspension of procedures for the award of contracts**, for **setting aside unlawfully taken decisions**, and for **awarding damages** to parties affected by the infringement. However, actual modalities relating to burden of proof, effectiveness and speed of such proceedings vary widely by national judicial system, and some Member states require that appeals be directed at the responsible Ministry before they may be addressed by the judicial system.

2.1.5 *Ensuring transparency in particular areas*

i) *Gray regulation*

37. “Gray” regulation – non-regulatory **measures which may have regulatory effect** on market participants – represents an ongoing transparency challenge. Though gray regulation varies in potential impact and importance across OECD countries, it is a striking feature of some regulatory regimes. In Japan, for example, at least six different forms of regulations and administrative conduct may have regulatory effect, including some which appear to have no systemic or functional parallel elsewhere in the OECD area. Thus *tsutatsu* (internal orders used as a communication tool between high-level officials and their subordinates), *gyosei shido* (administrative guidance, or actions without legal binding force intended to influence specific actions of other parties in order to realise an administrative aim) and *jimu renraku* (communication tool used by and between bureaucrats) may offer little possibility in practice for meaningful scrutiny and understanding from a market openness perspective by potential new entrants, whether domestic or foreign.

ii) *Self-regulation*

38. The cumulative OECD record to date on ensuring **transparency of self-regulatory schemes** is uneven and does not mirror more sophisticated efforts to improve transparency of government regulation. Indeed, the absence of consolidated information sources on self-regulatory schemes has been observed in most review countries, with possible de facto exclusion of foreign interests in the development of such measures identified as a concern in the context of given entities (e.g. self-regulatory activities undertaken by statutory industrial organisation bodies in the Netherlands). The risk of such outcomes tends to be higher where rules of representation are rigid or outdated, and further compounded in cases where government has delegated regulatory powers to the entity in question.

39. Although information about self-regulatory measures may always be sought out on an ad hoc basis, there seem to be few if any controls in place across countries reviewed to date that would hold responsible entities accountable to a high transparency standard. This situation seems more acute in some countries, where *demandeurs* are essentially left to their own devices to glean what information they can from the relevant association. Evidence from the country reviews suggests that this can be a real problem, sometimes far outstripping concerns about transparency of government regulation itself. Concerns about transparency can also be compounded by alleged discriminatory conduct of some self-regulatory associations, an issue revisited in Section 2.2.

iii) *Standards development*

40. Transparent standards development processes are another key indicator of commitment to market openness. Most reviewed countries have delegated responsibility for standards development to private or pseudo-public standards development organisations (SDOs). Though typically not engaged in standards development themselves, independent government entities in most OECD countries may oversee national standards systems and policies, accredit SDOs, approve national standards, and represent the country in international standardisation activities.

41. International disciplines relating to transparency in standards development are often explicitly transposed in domestic instruments. Canada’s Procedural Document on Accreditation of SDOs, for example, incorporates both ISO/IEC Guide 59 (Code of Good Practice for Standardisation) and the WTO TBT Annex 3 Code of Good Practice for the Preparation, Adoption and Application of Standards, adopting

the more onerous of commitments in case of overlap between the two instruments. This is common practice in most reviewed countries.

42. Standards development processes appear to be broadly open and transparent in most review countries, with wide SDO adherence to the Code of Good Practice. Best practices in this area reflect a rigorous approach to standards development, including the establishment of appropriately-qualified technical committees of volunteers; **effective balancing of interests across** industry, consumer, regulators, and other interested groups; **opportunities for public comment on draft standards prior to finalisation s (including availability of draft standards online); adequate timeframes for submission of comment**(at least 60 days according to the TBT Annex 3 Code, although this period may be shortened for urgent matters involving health, safety or the environment); and **clear lines of accountability on handling of comments**.

43. Official adherence to the Code of Good Practice can be further enhanced by appropriate implementation and follow-up mechanisms. The Canadian example of implementation guidelines to be developed in an “assessment checklist” with specific audit points may offer a useful model for ensuring wider adherence to international best practice for standards development.

iv) *Government procurement*

44. Transparency of procedures and practices relating to government procurement is another critical determinant of market openness. Government procurement encompasses an array of sequenced activities, each of which provides important opportunities for ensuring transparency and openness of decision-making. The initial announcement and dissemination of information about a tender, adequacy of timeframes for its consideration, communication of clearly defined criteria for prospective bidders, clarity of timeliness and guidelines for preparation and submission of bids, clear delineation of the type of award procedure being used, criteria used to evaluate the quality and competitiveness of a given bid, and existence of avenues for challenging given awards are all potential flashpoints on the road from an initial call for tenders to eventual award of a project to the successful bidder. All of this combines to provide a rich area of enquiry on emerging best practices in an area representing huge opportunities for international trade – purchases by central and local governments represent around 14% of total EU GDP, for example.

45. The track record across OECD countries reviewed to date is uneven, offering an insightful look at emerging best practices as well as areas where further improvements are required. EU Member states provide an interesting test case for understanding promising approaches and remaining obstacles to the pursuit of a trade-friendly government procurement regime. Reviewed countries in the EU have benefited from the adoption of EU-wide rules aimed at securing enhanced competition in the area of public works, supplies and services, including a special framework for utilities (energy, water, telecommunications and transport) which has contributed to enhanced transparency by providing a clear and uniform standard for implementation. As documented in the relevant country reviews, major requirements relating to information provision, remedies, non-discrimination, and use of international standards together form a coherent framework for achieving market openness in this area. With respect to information, for example, procurement authorities must prepare **annual projections of total procurement by product area and publish the list** and any contract whose estimated value exceeds specific thresholds in the Official Journal of the European Communities. Tenders must also **disclose which of three permitted award procedures (open, restricted, or negotiated) will be used** and **clearly specify objective selection and award criteria**. This commitment to transparency runs through the various stages of the bidding process, at the end of which procurement authorities must also **place a notice in the Official Journal making known the results of individual tender procedures**. Additional provisions set **minimum periods for the bidding process** to ensure opportunities for effective participation by all interested parties.

46. Implementation of these rules has played out differently across EU Member states, however. In some countries such as Spain, transposition of EU procurement rules into domestic regulatory systems has proceeded relatively smoothly. Others have encountered obstacles to doing so, as in Greece, where the persistence of loosely written bid specifications subject to varying interpretations and inadequate technical preparation of tenders has muddled results. Importantly, the Greek administration has acted to redress some of these shortcomings, including through increased reliance on internationally harmonised technical standards and **tightening of procedures for drafting pre-selection and award criteria**. Italy has addressed similar systemic shortcomings (lack of clear specifications and award criteria, imbalance between restricted and open tenders) through the so-called Merloni Laws and further adjustments to align the domestic regulatory system with the EU Directive.

47. Other countries preparing for EU accession through association agreements have undertaken wide-ranging reform in the area of government procurement. Turkey and Poland, for example, have both made significant progress in introducing new legal frameworks for procurement which would bring regulatory practices into line with international standards for transparency in this area.

48. **Use of the Internet to disseminate information and facilitate bidding processes** has also emerged as a best practice in the area of government procurements. Mexico's innovative approach to organising government procurement through the Internet (COMPRANET) has yielded important gains in terms of transparency as well as ensuring respect for other efficient regulation principles. Canada's MERX, an internationally accessible electronic tendering service and Contracts Canada, an e-database of registered suppliers, also models best practice in this area. **Online publication of all public tenders and awards on the Internet** has also been introduced in the Czech Republic, and across the EU (SIMAP).

49. Passage of specific legislation on procurement appears to be a necessary but not always sufficient condition for ensuring that public procurement unfolds in a consistently transparent way. Enactment of the 1994 Act on Public Procurement and subsequent amendments thereto have increased transparency of government procurement in the Czech Republic, but pursuit of market openness cannot stop there. Significant **implementation challenges** remain, sometimes arising from a lack of familiarity with procurement rules within the administration itself. The Czech Republic has moved to address such shortcomings through **additional on-the-ground training where required**. Sustaining these efforts will be particularly important in countries pursuing decentralisation initiatives, as local authorities are delegated more scope and authority for the conduct of procurement activities.

50. **Ongoing improvements to existing laws** may also be necessary to achieve and maintain optimal market openness. In Hungary, where a first piece of legislation on public procurement passed in 1995 was designed in accordance with existing state-of-the art disciplines, new challenges led to a new Act (in 1999) with additional amendments scheduled for 2002, this time to align the legislation with the EU Public Procurement Directive. Although lack of transparency and perceived procedural irregularities have prompted some firms to take legal action against the state, evidence of a **sustained political commitment** to address the situation provides a fertile policy environment for further reforms to take hold. As in the Czech Republic, additional training will be key to ensuring the long-term success of even the latest innovations in law.

51. Other significant concerns identified in certain country reviews included allegations of bid "rigging," absence of avenues of recourse against procurement entities that fail to respect publication requirements, and the continuing lack of discipline on sub-central procurement authorities with respect to any of the efficient regulation principles, including transparency. While a lasting solution to this latter issue is likely to remain elusive before greater scope and coverage of the WTO GPA Agreement is achieved, domestic regulatory regimes can prepare the way for eventual acceptance of greater liberalisation commitments in this area. A clear and ongoing challenge at this stage is to ensure that new or improved

rules on government procurement demonstrate respect for transparency and are effectively implemented and enforced.

2.2 Non-discrimination

2.2.1 *Formal commitment to the principle and extent of exceptions in practice*

52. Explicit references to economic discrimination in national legislation and overarching requirements to incorporate the principle into domestic regulatory processes are relatively rare amongst the sixteen countries reviewed to date, although the Constitutions of certain countries (e.g. Spain, Hungary) include a general prohibition of discrimination, and specific provisions contained in some national instruments (as in Italy's Civil Code) expressly promote national treatment. In addition, treaties duly concluded and promulgated overrule or have the same force as domestic laws in all reviewed countries, although express references to this effect do not necessarily reflect a greater respect in practice for non-discrimination.

53. In most review countries, specific commitment to the MFN and National Treatment (NT) principles **flows from WTO membership**, so that respect for both is broadly though indirectly ensured through adherence to international trade obligations. Countries tend to be generally vigilant in ensuring effective implementation of this efficient regulation principle, as disrespect for either principle can be, and has been, frequently caught by the WTO dispute settlement system. As a result, overtly discriminatory (nationality-based) content in domestic regulation tends to be fairly exceptional and mainly concentrated in service and "cultural" sectors. Under the "bottom-up" approach taken in the GATS, exceptions to the principle of non-discrimination (MFN exemptions and exceptions to NT) tend to be narrowly defined and, in the case of MFN exemptions, subject to removal by a date certain. Exceptions to NT, on the other hand, are subject to the progressive liberalisation commitment built into the GATS. Accordingly, though overtly discriminatory measures continue to be maintained in all countries, they are at least disciplined by transparency via notification and subject to removal in future negotiations.

54. **Discriminatory practices in the area of government procurement** also provide an insightful look at the extent of reviewed countries' commitment to the principle of non-discrimination in practice. Although most countries reviewed to date are signatories to the plurilateral WTO GPA the quality of effective market access may vary widely. This may be particularly true in countries where highly significant amounts of public procurement take place through subcentral or local authorities not covered by GPA commitments. Moreover, some countries still maintain expressly discriminatory elements in their government procurement regimes. The 1994 Polish law on public procurement establishes a general principle of equal treatment, but a national preference clause applies under some circumstances, while local content requirements limit the scope of competition. Under current Turkish law, the Council of Ministers may authorise procuring entities to award contracts without competition and may also grant a price advantage to domestic suppliers. Such provisions are likely to be eliminated upon accession to the EU.

55. **Responsibility for ensuring implementation of WTO commitments, including on non-discrimination, typically lies with the trade or economic Ministry of each country**, sometimes with additional intergovernmental consultation mechanisms in place for supporting this result. In the United States, for example, USTR plays the lead role in trade policy development, while an interagency trade policy mechanism established under the Trade Expansion Act of 1962 assists USTR with the fulfilment of its mandate. As described in the US review, the interagency trade policy mechanism features three tiers of committees which work to develop official positions on international trade and trade-related investment

issues. In other countries (e.g. Denmark), each Ministry may be delegated responsibility for ensuring respect for the principle of non-discrimination in its respective legislation. However, there is no central oversight body in Denmark to monitor implementation of these commitments. In still other cases, respect for the principle may be expressly extended to the regulatory sphere. Japan “encourages” regulatory bodies to respect non-discrimination in the making and application of domestic regulations. While it may be tempting to dismiss purely exhortatory undertakings as lacking in any real impact on regulators, they may still be valuable in terms of raising awareness about the need to build this (or any other) principle of efficient regulation into domestic regulatory processes. This is undoubtedly a step in the right direction, and superior to the complete silence on the subject observed in some other countries.

56. While overtly discriminating regulation seems to be rare, there are often perceptions of **de facto discrimination**, or rules which may have a discriminatory effect on foreign parties. Specific features of given regulations may effectively place foreign traders, at a competitive disadvantage, though on their face appear to apply to national and non-national interests alike. In several of the OECD countries reviewed to date, some complaints stem from alleged discriminatory elements in subordinate laws, primary legislation, or in the self-regulatory actions of industrial associations. Other complaints reveal suspicions about subtly protectionist vested interests, while still others suggest that de facto discriminatory effects may simply be the result of inadequate vetting of regulatory proposals from the market openness perspective or a lack of awareness, expertise, or commitment on the part of regulatory officials to develop trade-friendly regulation. Such issues will be revisited in Section 2.3 on Avoidance of Unnecessary Trade Restrictiveness.

2.2.2 *Commitment to open regionalism*

57. A commitment to open regionalism in principle must be backed by effective implementation to be meaningful in practice. The OECD countries reviewed to date all express support for the principle, but not all share the same level of commitment to the active pursuit of and participation in regional trade arrangements. Some countries have been enthusiastic proponents of regionalism, while others (e.g. Korea and Japan) have only recently moved away from their traditional, long held preference for further market opening on the basis of multilateral trade liberalisation. Although there has been a sustained trend towards regionalism in recent years, many such initiatives have taken on added complexity as the scope and coverage of existing and sought-after agreements broadens with changing priorities and new developments on the ground. Therefore, while the basic complementarity of regional and multilateral trade liberalisation has gone essentially unchallenged, the actual manner of implementation of a country’s stated commitment to open regionalism remains a critical determinant of market openness.

58. How exactly do countries give expression to this commitment? Several best practices have emerged from the collective experience of OECD Member countries reviewed to date: first, a **high-level political commitment** to open regionalism, sometimes backed by related policy statements or supporting language in the actual text of a regional agreement; second and relatedly, **evidence of willingness to multilateralise all or some preferences granted in the context of a regional arrangement**; third, **active and sustained participation in multilateral trade liberalisation initiatives**, including adequate delegation of negotiating resources to both; fourth, **transparent management and administration of regional agreements**, including through publication and the use of enquiry points; and fifth, **availability of avenues for third parties to pursue complaints** arising from possible trade-diverting effects of a given Agreement.

59. Actual adherence to such practices varies by country, but specific examples help illustrate what has been achieved in such contexts. Mexico, an active participant in FTAs and bilateral investment agreements, earned praise in its review for good faith efforts to share information on the operation of the

regional agreements to which it is party, and has multilateralised FTA preferences in areas such as investment, customs procedures, and intellectual property. Mexico has also demonstrated willingness to go beyond its WTO obligations in certain (services) areas, which has the potential to generate trade-creating effects down the road even for third countries, and sooner than multilateral agreements may be able to deliver. Hungary, too, has also sought to multilateralise certain regional commitments undertaken in the framework of its preferential agreements, and has extended to all WTO Members a commitment undertaken in the context of the Europe Agreement to progressively abolish all remaining quantitative restrictions on industrial products. In addition, as part of its OECD accession commitments, Hungary committed to extend to all OECD Members the benefits of the Europe Agreement relating to operations covered by the OECD Codes of Liberalisation of Capital Movements and Current Invisible Operations.

60. Transparency of preferential agreements has also been greatly advanced through the use of the Internet. The authentic legal texts of virtually all agreements can be easily found online and through a variety of authoritative sources, including regional organisations such as the OAS's excellent SICES service, at the individual websites of trade ministries, and through the WTO and related accounts of the proceedings of Article XXIV Working Parties. Reviewed countries generally maintain open attitudes to third countries when considering or implementing preferential agreements. In the United States, for example, third countries may respond to public requests for comment published in the *Federal Register* or on an ad hoc basis to the relevant US government agency. Finally, extensive interpretative comment on many existing arrangements (as for NAFTA) can often be found on the websites of many trade law firms and industry associations.

61. For all these advances, weaknesses remain. The sheer proliferation of regional trade and investment agreements and variety of approaches taken therein mean that practices by agreement may vary widely, leaving third parties to navigate an ever **more complex web of lengthy and increasingly sophisticated agreements**. While most countries make good efforts to ensure the transparency of such agreements and answer questions about its implementation in practice, avenues for doing so are typically highly dispersed, with no dedicated information services in place to help third country parties understand the nuances of the day-to-day operation of the agreement. The complexity of given rules often defies ready interpretation by interested stakeholders in foreign government and business alike, in some cases inviting adverse speculation about intended effects. Regional undertakings with respect to particular issues such as standards-related activities and regulatory co-operation may also carry inherent risks for non-parties, underlining the continuing need to design approaches which offer useful models at the multilateral level and can be easily multilateralised in practice.

2.2.3 *Attitudes towards foreign direct investment and foreign ownership*

62. Policy stances towards foreign investment and foreign ownership in particular also provide useful insights into the extent of a country's commitment to non-discrimination. **Most OECD Member countries reviewed to date maintain some nationality-based restrictions** on foreign investment, typically in the form of foreign ownership limitations. These are most commonly observed in certain key sectors such as telecommunications services, financial services, air transport, and the so-called cultural industries (e.g. broadcasting, book publishing and distribution, and film distribution). Restrictive regulatory measures in the latter sector are often tied to longstanding political sensitivities as in Canada, where ownership limitations have long been justified on the grounds of maintaining cultural sovereignty.

63. Beyond specific limitations on ownership, some countries also regulate investment through the use of **notification and review provisions**. However, the once heavy scrutiny of inward investment that prevailed for years in some countries has given way to more liberal policies seeking to *attract* investment in an era marked by relative scarcity of global investment resources. Countries now tend to compete for

investment to the point of intense rivalry based on investment incentive and related attraction schemes, and record amounts of FDI stocks in some countries are extolled as pillars of strong economic growth.

64. In some countries, foreign direct investment has been recognised as a **crucial factor in supporting transition to a market economy**. Czech policy towards FDI has as a result evolved rapidly in recent years, with abandonment of the case-by-case study of inward investment projects and the introduction in 1998 of a first programme of investment incentives. This experience has been repeated throughout the region. Even in the absence of explicit provisions encouraging or requiring regulatory measures to be trade and investment-friendly, the drive to attract foreign direct investment often helps ensure this result. So intent are some countries in attracting foreign investment that regulatory approaches may actually reflect **“reverse” discrimination**, whereby foreign parties enjoy additional advantages over domestic firms (not to be necessarily understood as a best practice, as resulting large gaps in profitability between some domestic and foreign firms may introduce a new set of sustainability issues).

65. However, **liberal attitudes to foreign investment are not always matched by the requisite capacity to welcome investors**, and may be heavily undermined by inadequate or inefficient management of regulatory processes and practices. Such is the case in Greece, for example, where a notoriously poor record of attracting FDI has been partly attributed to the poor quality of public administration. Lengthy and sometimes unpredictable administrative procedures, extensive red tape, gaps in regulation, and unpredictable and lengthy judicial enforcement have also been identified as barriers to investment in Turkey despite that country’s formally non-discriminatory treatment of foreign investors, and these situations in fact recently have motivated Turkey to issue a new decree establishing Committees to work on the reduction of such administrative barriers for FDI.

66. The generally liberal attitudes towards foreign investment observed across countries reviewed to date should not however tempt complacency on the need for further progress in instilling the principle of non-discrimination in domestic regulation. Beyond formal restrictions, **less visible but burdensome regulatory practices** can effectively frustrate market openness even where formal limitations may not apply – perhaps even undermining the achievement of stated investment policy objectives. **Long approval periods**, sometimes **onerous conditions attached to initial establishment**, and **real or perceived regulatory barriers** encountered by some new market entrants (which they argue place them at a competitive disadvantage vis-à-vis domestic firms) observed during the course of the sixteen country reviews are some of the ongoing challenges which have surfaced in this context.

2.3 Avoidance of unnecessary trade restrictiveness

67. OECD Member countries reviewed to date exhibit some discernible patterns with regard to formalised commitments to the efficient regulation principle of least trade restrictiveness. Approaches and practices vary across countries. To illustrate, Korea’s Foreign Trade Act specifically requires administrative procedures to be trade and investment-friendly. Japan maintains no such general provisions, though individual ministries and agencies are responsible for applying regulations and administrative procedures in a least trade-restrictive way. Additional progress has been made in Japan’s implementation of this principle in specific areas, notably through the Office of Market Access’s adoption of a set of policy actions on market access issues concerning standards, certification, and other issues. That instrument stipulated that government bodies should “avoid the use of standards, technical regulations and conformity assessment procedures including sanitary and phyto-sanitary regulations which are unnecessary obstacles to trade.” Domestic policy instruments such as these provide examples of the legal transposition of WTO rules into domestic law and reinforce awareness of existing international obligations.

68. Stated policy objectives need to be underwritten by strong mechanisms to ensure effective implementation in practice. Nevertheless, recognising the importance of considering trade effects when developing regulations and other measures does not mean that it is appropriate or possible to develop prescriptive norms in comprehensive trade agreements or enforceable in commercial arbitral tribunals. The remainder of this section sets out the key lessons of the market openness reviews to date in elucidating and encouraging trade-relevant best regulatory practice.

2.3.1 *Efforts to foster awareness of the trade and investment implications of regulations, including when undertaking RIAs*

i) Requirement to Conduct a Regulatory Impact Assessment, With Due Attention to the Trade Dimension

69. Many OECD countries reviewed to date rely on regulatory impact analysis to avoid unnecessary trade restrictiveness. Though not expressly conceived or formulated in terms of market openness considerations per se, the RIA process does provide a systematic approach for assessing the impacts of a proposed regulation and helps inform regulatory decision-making. Where appropriate, therefore, trade impacts would normally be assessed in the mix of other factors deemed relevant in a given regulatory scenario. In the absence of a broader requirement to assess the anticipated impacts of a regulatory proposal on market openness (or indeed an explicit requirement to select a regulatory approach based on market openness considerations), regulatory impact assessment thus emerges in many OECD countries reviewed to date as an available tool for considering trade impacts as appropriate.

70. While regulatory impact analysis is a firmly entrenched practice in many OECD countries, it is still absent or in relatively early stages of development in others. Several of the reviewed countries – among them the Netherlands, the United States, Canada, and the United Kingdom – are highly experienced practitioners of regulatory impact analysis and have long experience with the introduction and refinement of this tool as part of broader regulatory reform initiatives. Though exact presentation and requirements vary, the leaders in regulatory impact assessment have espoused broadly similar approaches. In the US, federal regulatory authorities must submit a Regulatory Impact Analysis (RIA) with each regulatory proposal (with the exception of federal regulations deemed minor), and for “significant” regulatory actions must generally provide additional information which goes beyond the underlying analysis to include an assessment of anticipated benefits of the regulatory action, quantified where possible; an assessment of anticipated costs associated with the regulatory action, quantified where possible; and an assessment of costs and benefits of potentially effective and reasonably feasible alternatives to the proposed regulation, with an explanation why the planned regulatory action is the preferred alternative.

71. In the United Kingdom, Regulatory Impact Assessments and related guidance explicitly call for an analysis of anticipated impacts on trade and investment. In Canada, a Regulatory Impact Analysis Statement (RIAS) must accompany a regulatory proposal throughout its consideration both inside government and in the public domain (as part of public consultation and pre-publication requirements). Extensive written guidance is available to RIAS writers in preparing a document designed to address the core elements of the overarching federal Regulatory Policy. Dutch rules also include an explicit requirement to assess trade impacts, and in Ireland a Quality Regulation Checklist accompanies final draft legislation together with a six-point impact assessment statement.

72. Certain other reviewed countries have established procedures providing for impact assessments of new regulations, including an analysis of costs and benefits, but may not consistently consider trade impacts if at all. Korea’s Basic Act on Administration Regulations requires such assessments, but as noted

in its review, potential impacts on market openness are *unlikely* to be examined unless the proposed regulations relate directly to trade and investment. The linkage is still weak but appears to be at least indirectly acknowledged in some other countries. In Mexico, although unnecessary trade restrictiveness is not included amongst guiding principles for regulatory impact assessments, consideration of trade impacts is implied in other regulatory instruments and may therefore be considered. Potential effects of proposed Spanish regulations are assessed in a largely qualitative “Evaluation Questionnaire” in the absence of specific guidance on economic impacts. The principle of avoiding unnecessary trade restrictiveness may be informally taken into account by bodies such as the Inter-Ministerial Commission for WTO regulations, but nothing codifies consideration of trade impacts in the day-to-day preparation of draft regulations. Such linkages appear tenuous at best, leaving due consideration of possible trade impacts an uncertain prospect in all but the most egregious cases.

73. Still other countries are engaged in **ongoing efforts to establish or strengthen regulatory impact assessment**, some in response to OECD recommendations. A new law in Italy has added more rigor to that country’s procedures, and RIAs for both primary and secondary legislation will now consider trade and investment as part of the underlying economic analysis. Improving the quality and efficiency of RIA procedures is among the central objectives of ongoing regulatory reform in reviewed countries such as Hungary and the Czech Republic, where impact assessments of potential trade impacts have tended to be loosely conducted through interdepartmental co-ordination mechanisms. And development of a rigorous RIA approach remains critical to ensuring market openness in countries like Greece and Japan, where such systems have yet to be established.

74. Certain patterns can therefore be discerned regarding the use of regulatory impact assessment across OECD countries reviewed to date. A number of countries rely on **direct or indirect requirements to assess the anticipated impacts of a regulatory proposal on trade and investment**, relatively few countries require that **regulatory impact analyses be conducted for both primary and secondary (subordinate) legislation**. Countries with long experience in regulatory impact analysis typically have in place rigorous **quality-control standards** for the preparation of thorough, well-done impact assessments, though actual enforcement efforts may vary, and typically **publish impact analyses in the public domain at least once and sometimes twice before a regulation becomes final**. During this **public comment period**, both domestic and foreign stakeholders are free to comment on both the substantive proposal and its supporting analysis. Submission of such comments has been greatly facilitated in some countries through the use of the Internet.

75. Regulatory impact analysis is generally not required of independent regulators. While many such entities are trade-relevant, an enquiry into the possible merits of identifying and encouraging best practices in this area with a view to ensuring consistent quality and transparency of regulatory activities not disciplined by broader policy requirements is beyond the scope of this paper since resources of reviewed countries in the context of market openness are limited.

ii) *Rigorous, systematic quality control of RIAs*

76. Clear rules for the preparation of RIAs with appropriate attention to the trade dimension must also be backed by strong implementation mechanisms. Effective “quality control” approaches must be in place to ensure that regulatory impact analyses have in fact been prepared according to established rules, and, if found to be sub-standard, turned back to drafters for further improvement before advancing any further in the system. Most of the reviewed countries have established vetting mechanisms of this kind, although their effectiveness in ensuring consistently high output from regulatory authorities is sometimes unclear: inadequate quality control of regulatory impact assessments was found to be problematic in some

reviewed countries, sometimes resulting in situations where poorly prepared regulations move unchallenged through the system.

77. Best practice in this context thus requires introduction of a challenge function that is appropriate to each country's legislative system or improved implementation of existing challenge functions where they already exist. Effective quality control may also be encouraged at all stages of a regulatory proposal, from the sponsoring regulatory authority all the way up through the system.

78. Why are some regulatory proposals escaping needed scrutiny, including from the market openness perspective? Closer analysis reveals a Pandora's Box of possible explanations. Substandard regulatory impact assessment may reflect **inadequate training** of regulatory officials charged with their preparation in the first instance, followed by **insufficient vetting of assessments by senior managers** before the work is exposed to a wider government audience. Although trade effects often figure in the range of criteria to be used by regulatory authorities in assessing the anticipated costs and benefits of regulatory proposals, they are but one element competing for a regulator's attention and may well be outweighed by more immediate considerations. Substandard regulatory impact assessments may also advance unscathed through the system based on a subtle expectation that any deficiencies will be "caught" and corrected in the public comment stage. Still other explanations may arise from **interagency rivalry** and insufficient co-ordination with trade agencies.

79. Yet even seemingly intractable issues such as these may be overcome with better training, tighter quality controls at the departmental or agency level, improved awareness that regulation can be trade-neutral or trade-friendly without compromising the fulfilment of legitimate policy objectives, and forging more constructive dialogue and working relationships between trade and regulatory authorities. An additional challenge lies in securing sufficient quality control of regulatory proposals from the market openness (and possibly other) perspectives generally. Filling this crack in the regulatory edifice is a job for the most senior levels of government and political leadership itself.

iii) Better communication between trade and regulatory officials: a pressing governance issue

80. Trade policy bodies across OECD Member countries reviewed to date tend not to be systematically involved in the day-to-day business of regulation-making. Rather, they are more likely to weigh in during the earlier policy development phase of a regulatory proposal and would only become involved in the design details of specific regulations on an ad hoc basis, either at the request of a regulatory authority (not often the case in practice) or if potentially problematic aspects of a regulatory proposal become known through other channels.

81. More proactive involvement in all stages of regulation-making may be a key to more effective advocacy efforts through all available channels, notably during regulatory impact assessment. Although observers in some countries have expressed scepticism in the past regarding the actual impact of regulatory impact analysis in ultimately informing political decision-makers, trade policy communities seem to be generally successful in advocating trade-friendly positions. Even where trade policy views may go unheeded or overruled by other considerations, instances of wilful neglect that would invite adverse trade effects seem to be rare in practice. More often, the challenge is to ensure the effective involvement of the trade policy community in regulatory decision-making within the limits of existing resources and better use of existing internal consultation mechanisms to ensure this result.

82. There also appears to be significant scope for improved working level relationships between trade and regulatory authorities, including competition authorities, and improved co-ordination and communication between trade policy bodies and subcentral regulatory authorities where relevant. Part of

the answer to achieving this may lie in **better use of existing intragovernmental consultation mechanisms or creation of new fora where appropriate venues** do not already exist. However, other largely informal challenges remain in encouraging more open dialogue across government and dismantling real or perceived barriers to more effective co-operation. One avenue may lie in **more focused training efforts** aimed at sharpening regulators' awareness and expertise in recognising problematic features of planned regulations and designing trade and investment-friendly rules. Governments also need to do more to encourage greater understanding that **legitimate policy objectives relating to such areas as health, safety and the environment can be fully achieved without unduly compromising market openness**, and may in fact be facilitated by trade-friendly regulation. This meeting of regulatory and trade policy minds – and the design of mutually supportive policies that should flow from it -- has yet to occur in most OECD countries, and reflects the kind of deep shift in regulatory culture that can only come with sustained efforts to achieve better governance and embrace new ways of looking at today's regulatory challenges and opportunities.

2.3.2 *Favouring Trade-Friendly Approaches to Regulation and its Implementation*

83. All OECD countries reviewed to date express commitment in principle to the concept of trade-friendly regulation, but as revealed over the course of the country reviews, **the actual capacity to ensure this result may be hampered by certain provisions in existing legislation**. Two main issues have emerged in this regard; first, the **capacity to design performance-based regulation** in accordance with WTO TBT obligations on this issue; and second, the **capacity of regulators to embrace regulatory alternatives** where appropriate. The following discussion of these issues should be read in conjunction with the OECD sustainable development Ministerial background reports which underlined key points regarding regulatory choice of instruments, including the importance of case-by-case decision-making to determine what mix of regulatory instruments may be appropriate; the continuing role of conventional regulatory instruments; and the need for regulatory back-up for self-regulation.

i) Capacity for basing regulation on performance rather than design criteria

84. Article 2.8 of the WTO TBT Agreement states that “wherever appropriate, Members shall specify technical regulations based on product requirements in terms of performance rather than design or descriptive characteristics.” This provision is based on an underlying recognition that parties should have the flexibility to meet a regulatory objective in any way that achieves the result without being told exactly how they have to do it. In practice, however, **existing legislative frameworks in some countries may not include the necessary authority to embrace performance-based rules**. This can result in a situation where major pieces of legislation constrain regulators to adhere to a command-and-control, prescriptive style of regulation, perpetuating an old-style approach ill-suited to the dynamics of good regulatory practice in general and trade and investment-friendliness in particular.

ii) Capacity for embracing regulatory alternatives

85. The capacity of regulators to explore alternatives to regulation more generally, or the capacity to explore and exercise “instrument choice,” also carries significant potential to shape trade-friendly regulatory outcomes. **Reliance on alternatives to regulation (e.g. self-regulation) may be appropriate in some cases, but regulators must have the scope and authority (and perhaps, the incentive) to do so**. In some reviewed countries, enabling legislation sometimes explicitly prescribes that particular issues are to be addressed through regulation so that even if alternatives exist, regulators do not have the authority to consider them. Whether this is due to outdated legislation or other agendas is unclear, but the end result is the same.

86. Both scenarios point to a need for the increased vigilance of trade policy bodies during the preparation of new legislation and conduct of reviews or updates to existing legislation so that regulators will have room to pursue both trade-friendly rules and creative alternatives to regulation wherever appropriate. This in turn shifts responsibility back to improved communication between regulatory and trade officials.

2.3.3 Simplification of administrative requirements and streamlined service delivery, including customs procedures

i) Reducing administrative burden on business

87. Simplification initiatives aimed at **reducing administrative burden on business** is one area where governments can move decisively to reduce scope for unnecessary trade restrictiveness while at the same time encouraging greater efficiency within government. Consolidation of service delivery, including through the Internet and “one-stop” service programs, improved overall dialogue between government and business communities, and sustained efforts to streamline customs procedures have together transformed the nature of the regulatory environment in many OECD countries. This section draws on particular country experiences with a view to identifying best practices observed to date.

88. Several review countries, notably Canada, the United Kingdom, and the United States, have a long history of regulatory reform aimed at **serving business needs and reducing administrative burden**. Many such initiatives have been traditionally aimed at easing regulatory and “paper” burden for small and medium-sized enterprises, an endeavour which has gained new momentum with the growing trend towards **e-government and electronic service delivery**. Commitments to comprehensive online information and service delivery are now common features of official policy in such countries, benefiting domestic and foreign firms alike.

89. A brief description of the kinds of approaches being taken in leading countries serves to illustrate emerging best practices in this area. The United Kingdom, reputed to have one of the lowest regulatory burdens on business start-ups in the OECD area, has long sought to reduce administrative burden on small business as a matter of policy. Its “Think Small First” strategy, Small Business Service (an agency of DTI) and participation in broader EU simplification initiatives (notably the SLIM, BEST, and European Business Test Panel projects) have together yielded lasting improvements on an already open business environment. In the UK example, high-level policy commitments appear to have translated into tangible results on the ground.

90. The same kind of focused commitment can be expressed through ongoing improvements in program delivery, including through **skilful harnessing of the Internet**. As documented in its country report, Canada has introduced services that will streamline the business environment in three main ways: by **simplifying and accelerating certain business procedures, notably through the use of “one-stop” online facilities allowing businesses to meet a series of regulatory requirements in one, integrated process instead of securing necessary authorisations from different regulatory authorities**; by **facilitating access to business-related information** (including through a cross-country network of Canada Business Service Centres); and through the introduction of **transaction-based services for the importing community** (e.g. the Canadian Food Inspection Agency’s Automated Import Reference System). Canada Customs and Revenue Agency’s Business Registration Online service, which allows businesses to undertake a succession of required start-up procedures in a single online transaction, boasts client satisfaction, increased regulatory compliance, a highly significant drop in overall processing time per business, and extended service hours amongst results achieved since introduction of its program. The

program is also offered in collaboration with some provinces – an important consideration wherever subcentral authorities wield regulatory authority -- providing a seamless, one-stop service for doing business in the country.

91. Leading edge efforts such as these are not yet common practice throughout the OECD area. At the same time, improved awareness of the challenges and opportunities around administrative burden has translated into concerted reform efforts in some countries. Simplification of administrative procedures has emerged as a core objective of reforms in countries such as Italy, where Parliament now authorises government to present a draft **simplification law each year setting out administrative procedures to be reviewed and streamlined**. Other innovative approaches to achieving improved competitiveness of the Italian business environment have included the creation of one-stop shops for business (*sportelli unici*), the use of financial incentives to accelerate the establishment of such services, the advent of a Public Administration Unified Net web service, active encouragement to municipalities to use notification, self-certification, “silence equals consent” mechanisms, (whereby a given regulatory requirement will be deemed to be met if regulatory authorities have not responded to a request by a given time) and co-ordinated efforts to process complex authorisations on a timely basis. While additional scope for improvement remains, the Italian experience shows how **a recognition that burdensome administrative regulation hurts competitiveness can drive far-reaching reforms to the system**. Such an acknowledgement seems altogether lacking or inadequately reflected in policy in some other OECD countries.

ii) *Simplification and automation of customs procedures*

92. Simplified, automated customs procedures offer another important avenue for minimising scope for unnecessary trade restrictiveness, and the extent of automation in border operations has emerged as a key indicator of capacity and commitment to market openness. Here again, some OECD countries are established leaders in this area, while others have yet to achieve widespread implementation of state-of-the-art technology for streamlining border procedures. Still, automation alone is not enough to ensure optimal customs administration: in order to achieve effectively “paperless” border transactions, customs requirements themselves (type of information requested, forms used to submit the information) may need to be re-thought and simplified. Customs procedures may also need to be rationalised through development of integrated approaches obviating the need for multiple submissions of information to several different authorities.

93. Certain countries have made excellent inroads towards **fully automated systems** featuring **pre-arrival review systems** (allowing importers to electronically transmit their release information to customs officials before the goods even arrive at the border), **online access to all relevant laws and administrative bulletins**, specific support to business through mechanisms such as **customs information services** (which sometimes include overarching policy statements as well as detailed information on standards of service to be expected from customs officials), and clear appeal provisions. Concepts such as self-assessment, advance information and pre-arrival documentation, and risk assessment are being increasingly deployed in support of **faster movement of low risk goods**, allowing a greater concentration of resources on goods with higher or unknown risk. To date, the collective experience points to early successes in implementing wide-ranging customs reform and appropriately training of Customs officials has been among the essential tools for achieving such success. In reviewed countries such as Mexico, for example, comprehensive simplification and automation of customs procedures has resulted in a drop in clearance times, improved efficiency in duty collection, and the reduction of discretionary powers of customs officials.

94. Existing and aspiring EU Member states have pursued simplification of border procedures in the context of harmonisation with the EU Common Customs Code. This framework of rules calls for the establishment of simplified and harmonised procedures such as Single Administrative Documents, Simplified Declaration Procedures, and Local Clearance Procedures. Certain rules, for example, **facilitate the entry of goods on the basis of minimum information only**, with fuller fiscal and statistical documentation to be supplied electronically at a later stage. Introduction of **electronic data interchange (EDI) systems** enable firms and customs to communicate electronically for all documentation and decision/permission actions.

95. Despite impressive progress by some OECD countries in streamlining customs procedures, challenges remain on the road to trade facilitation. Persistent shortcomings include **non-interoperability or geographic exclusivity of certain computer systems**, which compromise the value of EDI systems; **lack of “single window”, integrated approaches to customs clearance** which would allow traders to communicate with a single clearance authority rather than targeting submissions to relevant regulatory authorities, **lack of interface with license delivery or other permit networks**, and **lack of transparency** with regard to issues such as expected time lags for cargo release and available avenues for appeal and dispute settlement. More broadly, lack of multilateral trade rules to guide development of transparent and predictable custom procedures contribute to **uneven implementation of rules** at different border crossings **and discretionary abuses by customs officials** in certain reviewed countries.

2.3.4 Avoiding unnecessary trade restrictiveness in particular areas

96. While many of the substantive issues addressed in the country reviews were, for the sake of order and clarity, routinely dealt with in the context of a particular efficient regulation principle, some issues can be (and in some cases were) discussed in relation to more than one principle. An example of this is standards related issues, which were treated in several country reviews in the discussion on Transparency and Openness of Decision-Making as well as under the principle of avoiding unnecessary trade restrictiveness.

97. Specific experiences demonstrate how countries are giving effect to this latter principle in given areas. Mexico’s approach to standards-related issues is a case in point. In response to complaints by trading partners about the rigidity of labelling and marking requirements and short lead times for traders to respond to modifications in standards-related requirements, Mexico used the so-called “fast track procedure” of its Federal Metrology and Standardisation Law to provide more flexibility for traders to meet labelling and marking requirements. The fast track provision bypasses the normal public consultation process in order to rapidly modify standards that are causing unforeseen harmful consequences. Importantly, in order to offset the absence of open public consultation in such instances, the revised standards cannot impose new or stricter requirements. Reliance on this approach improved market openness in the two cases discussed in the review. Significant efforts have also been made across other review countries to avoid unnecessary trade restrictiveness in particular areas such as government procurement, customs procedures, trade facilitation and reducing administrative burdens on business. Greater transparency, often achieved through enhanced use of the Internet, better integration and co-ordination of government services and administrative requirements relating to trade, and greater reliance on automated processing of administrative transactions where appropriate seem to emerge as prominent keys to success in these areas.

2.4 Use of Harmonised Measures

98. For the purposes of this paper, the concept of internationally harmonised measures refers to two distinct scenarios: reliance on international standards as the basis of domestic regulations (where this is feasible and appropriate) and acceptance of foreign measures as equivalent to domestic measures, even where these may differ, as long as such measures meet the underlying regulatory objective. Both approaches provide important avenues for achieving progressive harmonisation of regulations on as wide a basis as possible, and are discussed separately below.

2.4.1 Commitment to use of international standards

i) *Reference to international standards as the basis of domestic regulation*

99. WTO rules (Article 2.4 of the TBT Agreement, Article 3 of the SPS Agreement) clearly exhort Members to rely on relevant international standards as the basis of domestic regulations wherever possible and appropriate. As set out in the TBT Annex 3 Code of Good Practice for the Preparation, Adoption and Application of Standards, standardising bodies within the territory of a WTO Member are also encouraged to use international standards, or relevant parts of them, as a basis for the standards they develop, except where doing so would be ineffective or inappropriate.

100. As illustrated by the Italian example, national standardising bodies may, in the first instance, emit standards that are direct transpositions of EU (CEN, CENELEC, and ESTI) standards, where the latter standards are often themselves closely mirrored in ISO/IEC standards. As pointed out in the Spanish review, the EU standardising bodies also sign co-operation agreements with international standards bodies with a view to avoiding duplication and achieving a high level of convergence between European and international standards.

ii) *...And systematic monitoring of efforts to use international standards*

101. Some EU countries have created **special agencies to oversee use of internationally harmonised standards**. A lack of systematic data collection and monitoring in this area is a recognised challenge across most OECD countries, making overall progress towards increased reliance on internationally harmonised measures difficult to assess, and the collective experience with these kinds of oversight functions remains limited to date. Some EU countries – particularly small, trade-dependent economies such as the Netherlands – have developed a **strong tradition of reliance on European and internationally harmonised standards** wherever possible, coupled with prompt withdrawal of purely national standards as appropriate. In addition, some countries have introduced **regulatory innovations designed to speed adoption of EU harmonised standards** in domestic systems. Hungary's "endorsement notice" practice, for example, allows direct reliance on English-language EU standards under certain circumstances without prior translation into Hungarian..

102. More generally, reliance on internationally harmonised measures is variable, ranging from excellent to fair, and the **dual (mandatory and voluntary) structure of standardisation activities** is a continuing feature of some regulatory systems (e.g. Mexico, Japan, and Korea). Partly in response to requests of trading partners, some countries such as Japan and Korea have engaged in **efforts to improve reliance on internationally harmonised measures**. In Korea, where frequent departures from international standards have been observed, **existing standards are now periodically reviewed** with a view to achieving complete harmonisation of Korean standards with relevant international standards over the next five years. Policy actions endorsed by Japan's Office of Market Access include express

encouragement to ministries and agencies to use internationally harmonised standards as the basis of domestic rules. All countries reviewed to date are also **active participants in the further development of international standards** where such measures do not yet exist. Ongoing commitment of resources to international standards-setting fora will be a fundamental indicator of the will to respect and implement this efficient regulation principle. Ultimately, however, each government authority must determine whether a relevant international standard exists when proposing a new regulation, and if so, whether it would be an effective and appropriate basis for the new regulation.

2.4.2 Acceptance of foreign measures as equivalent to domestic measures

103. Article 2.7 of the WTO TBT Agreement requires Members to give positive consideration to accepting as equivalent technical regulations of other Members, even if these regulations differ from their own, provided they are satisfied that these regulations adequately fulfil the objectives of their own regulations. In a similar vein, Article 4 of the WTO SPS Agreement requires Members to accept the sanitary or phytosanitary measures of other Members as equivalent, even if these differ from their own or from those used by other Members trading in the same product, if the exporting Member objectively demonstrates to the importing Member that its measures achieve the importing Member's appropriate level of sanitary or phytosanitary protection. Article 4 further stipulates that "reasonable access" shall be given, upon request, to the importing Member for inspection, testing and other relevant procedures.

104. Although cumulative on-the-ground experience with this approach remains limited across the OECD countries reviewed to date, some countries have in place specific procedures and mechanisms for facilitating acceptance of foreign measures where circumstances permit. Such determinations are generally made at the level of the regulatory authority concerned. In the United States, for example, although USTR has overall responsibility for monitoring US compliance with international trade obligations, determinations of equivalence with other countries' regulatory measures rest with the relevant US regulatory authority. Individual regulators generally have wide discretion in deciding this issue and are not held to any broad-based criteria on how such determinations are to be made.

105. Existing and aspiring EU Member states approach regulatory equivalence pursuant to the requirements of the EU New Approach and the Global Approach as alternatives to strict intra-EU harmonization. Although EU-level rules have to date not been subjected to a market openness review, the essence of the two Approaches (consistently discussed in each of the EU Member states reviewed to date) rests on fulfillment by manufacturers of certain "essential requirements" as the basis for meeting EU technical specifications. Thus the European experience has been marked by a categorical shift away from the earlier need to harmonize divergent rules of individual Member states towards an approach which approximates acceptance of foreign (in this case intra-EU) measures as equivalent based on the essential requirements test. Here, the concept of "essential requirements" aims to facilitate a determination of equivalence. Irrespective of operational or interpretative challenges on the ground, such an approach may serve to inform other countries as they seek ways to give effect to WTO obligations in this area – practical and predictable tools for ascertaining equivalence, however formulated, seem a helpful stepping stone to achieving an actual determination of equivalence. Confidence and ease in working relationships between international regulatory communities and broad underlying systemic compatibility also seem important indicators for assessing the chances for success in this area.

106. International government-business dialogue has also helped pave the way for further regulatory co-operation of this nature, particularly in sectors where broadly complementary regulatory systems already exist. Calls by the Transatlantic Business Dialogue (TABD) for the development of functionally equivalent standards in the automotive sector, for example, helped create momentum for a new UN-ECE

Agreement on global technical regulations for wheeled vehicles Achieving effective recognition of equivalency will require ongoing international co-operation at the implementation phase.

2.5 Streamlining conformity assessment processes

107. A variety of approaches to streamlining conformity assessment process are in use across OECD countries reviewed to date. Avoiding duplicative requirements in this area may be achieved through different means, among them **mutual recognition** and **reliance on supplier's declarations of conformity**. However, regulatory decision-making in this area is probably best guided by the particular regulatory objective and how to achieve it. Patterns are therefore difficult to discern and, even where they exist, may not necessarily inform best practice in this area. Nonetheless, an overview of selected experiences to date may serve to map out alternative approaches as possible models, while illuminating the strengths and weaknesses of each as revealed by the collective experience to date. Broad alternative policy orientations are discussed below, followed by a closer look at mutual recognition and suppliers' declarations of conformity – two approaches which have yielded some useful insights to date on streamlining conformity assessment procedures.

2.5.1 Diverse policy orientations across some review countries

108. Approaches to streamlining conformity assessment in use across OECD countries include highly specific and comprehensive rules-based systems. The European "Global Approach" discussed in each of the relevant OECD country reviews, for example, sets out detailed conformity assessment procedures to be used in establishing conformity with the "essential requirements", including criteria relating to the independence and quality of certification bodies and modalities for mutual recognition and accreditation. In an effort to build in flexibility for regulated parties, the Global Approach establishes a range of alternative procedures for recognising fulfilment of the essential requirements test. These alternative procedures (called "modules"), seen as responding to different needs and situations, include **suppliers' declarations of conformity** (self-declaration), **verification by an independent third party**, and **full product quality assurance**.

109. In practice, national public authorities in EU Member states are responsible for identifying and notifying those bodies which are competent to carry out conformity assessment or even in some cases assuming responsibility for accreditation of those bodies, but do not themselves intervene in the task of conformity assessment and certification. Suppliers may use any notified body within the EU to carry out the conformity assessment, which introduces competition to the conformity assessment market and potentially reduces the costs borne by manufacturers in certifying their products. Once found to be in conformity, a product carries the CE marking and can be freely marketed throughout the Single Market without having to undergo additional compliance testing – although on the basis of full producer liability for the product. This test-once, EU-wide access also carries implicit benefits for EU and non-EU countries alike, as products successfully tested once benefit from the "**multiplier effect**" of access throughout all EU Member states.

110. The European approach to achieving conformity assessment – essentially prescriptive and applicable on a comprehensive, across-the-board basis – illustrates how a degree of flexibility can be built into a highly specific rules-based system. At the same time, the experience of some non-European review countries shows that a closely specified approach to conformity assessment may not always be necessary. In the United States, for example, a regulator must decide as part of the regulatory decision-making process whether some sort of attestation of product conformity (e.g. test data or a certification) is necessary at all. Alternatively, and as is more frequently the case in the United States, regulators may rely on a range

of policy instruments such as spot checks of product on the market, compliance penalties (criminal, civil), supplier's declarations, or market deterrents based on producer liability.

111. More generally, most reviewed countries have sought to enhance the market confidence necessary for conformity assessment mechanisms to operate efficiently through the establishment of accreditation mechanisms. Domestic or foreign bodies wishing to perform testing, conformity assessment, quality control and certification of products marketed in a country have to seek accreditation from an accreditation institution operating in that country. Accreditation institutions which usually operate under the supervision of the public authorities inspect and acknowledge the competency and reliability of conformity assessment bodies. They are very active in establishing international networks (such as the International Accreditation Federation – IAF) that allow them to share inspection results and avoid duplicative efforts. Domestic capacity for accreditation, ease of access to the accreditation processes, and a parallel commitment to international co-operation in this area are thus key elements to success of this approach.

2.5.2. *Mutual recognition*

112. Mutual recognition of the results of conformity assessment procedures has been a high-growth area and the subject of heavy commitments of negotiating resources in many OECD countries reviewed to date. Several trade agreements contain exhortatory language on the pursuit of mutual recognition, and a large web of mutual recognition agreements remain under negotiation or in the implementation phases. Experience with mutual recognition to date has shown that this approach can work well in particular sectors where a broad complementarity in regulatory approaches already exists, but may in fact be unattainable where this basic ingredient is absent. In addition, negotiating MRAs has proven only part of the challenge; implementation, which typically involves lengthy confidence-building and information exchange phases, can be a long-term undertaking in itself. As a result, MRAs are now often seen pragmatically as but one of a range of tools available to policymakers to avoid duplicative conformity assessment procedures that are apt to be more successful in some circumstances than in others.

113. The Europe Agreements have provided one framework for actively pursuing mutual recognition. Protocols on conformity assessment between the EU and some acceding countries are in place. A protocol on conformity assessment between the Czech Republic and the European Union, for example, sets out general principles and procedures for the mutual recognition of results of conformity assessment procedures and mutual acceptance of industrial products. The Agreement will allow EU exporters to test and certify their industrial products to EU harmonised requirements and gain access to the Czech market without further conformity assessment, reducing costs and delays. A similar initiative with Hungary was launched on mutual recognition of product certification testing data and marks of conformity. Existing EU Member states already adhere to the principle of intra-EU mutual recognition (as established by the landmark *Cassis de Dijon* ruling) and also participate in the negotiation of EU-level MRAs with third countries. Member states are also subject to monitoring requirements to track their implementation of intra-EU mutual recognition commitments.

2.5.3 *Supplier's declarations of conformity*

114. The use of suppliers' declarations of conformity (SDOCs) seems to be emerging as a particularly promising approach for ensuring greater flexibility in meeting conformity assessment requirements. Rather than having conformity assessment procedures set in government regulation, the SDOC approach leaves firms free to choose how they will demonstrate conformity with technical requirements. For example, a manufacturer may rely on in-house facilities to "self-declare" conformity with technical requirements (with

a, presumption of liability for any defective product) or rely on third parties to certify compliance. As the firm-level expression of a wider self-regulatory scheme, the SDOC approach therefore relies heavily on a mix of professional integrity, mutual trust between regulator, regulatee, and end-user of the product, and a willingness on the part of the manufacturer to stand by the product and accept full risk for any later evidence of non-conformity.

115. While providing greater flexibility for firms in deciding how to demonstrate conformity, SDOCs do not release manufacturers from the obligation to do so or lower the integrity of the process. However a firm decides to demonstrate conformity with regulatory requirements, some form of testing is still required. SDOC approaches in use today thus include self-declarations by a supplier or manufacturer following a test for regulatory compliance prepared in-house or by a private, unaccredited lab (with a presumption of liability for any product later found to be defective) to a more rigorous approach requiring testing to be carried out by an accredited or government-recognised lab.

116. Declarations of conformity also seem to be gaining currency in particular sectors, but are typically limited to a narrow product area. As noted in its review, for example, the United States recognises a declaration of conformity by manufacturers (or importers) of motor vehicles and motor vehicle equipment certifying that their products comply with all applicable Federal Motor Vehicle Safety Standards, backed by appropriate enforcement provisions.

2.6 Application of Competition Principles

117. The extent to which competition principles are embedded in domestic regulatory practices and procedures – the sixth and final principle of efficient regulation – is another key determinant of market openness. The sixteen country reviews have revealed two main perspectives from which a country's commitment to vigorous application of competition principles from an international perspective can be assessed; **overall commitment to the principles** in law and policy, in particular through the existence of **open, effective complaint procedures**; and, as an outcome of the former; **effective access to domestic economic activities**.

2.6.1 *Open, accessible complaint procedures for challenging regulatory or private actions which may impair market openness*

118. **Effective procedures for pursuing complaints** about regulatory actions that condone anti-competitive conduct or fail to correct anti-competitive private actions are fundamental determinants of market openness. Most of the sixteen OECD countries reviewed to date have clearly established channels for handling complaints of this nature on a non-discriminatory basis. Broadly similar approaches prevail. In certain countries (e.g. Korea), firms may first **take complaints directly to the regulatory authority concerned or to the competition authority, the decisions of which may be appealed in administrative courts**. In other countries, disaffected firms have no formal recourse at the level of a specific regulatory authority (though informal avenues for doing so may be available) and must take complaints about regulatory or private action to the national competition authority. Heads of national authorities may have exclusive statutory authority for administering a country's competition legislation, serving as the chief antitrust enforcement official with respect to both civil and criminal investigations. In some review countries, including the United States, private rights of action also allow firms to bring antitrust complaints directly to the courts, and law enforcement agencies enjoy broad prosecutorial discretion.

119. While they may explore the merits of a given complaint, national competition authorities are usually not legally bound to launch full investigations unless their preliminary findings support this (though decisions not to conduct full investigations may themselves be subject to appeal). Affirmative

findings on civil reviewable matters are typically referred to an independent, quasi-judicial competition tribunal for decision. Most decision-making bodies can issue orders to cease and desist, eliminate the effects of infringing conduct, and impose fines. Moreover, since such decisions are administrative, they may also be appealed to appropriate administrative courts. Finally, firms may also use private rights of action to obtain redress for alleged anti-competitive conduct in the courts. Key features in terms of best practices in this area include the **ability to appeal a preliminary substantive finding by regulatory and antitrust agencies alike; the existence of independent tribunals for review of competition decisions; the availability of alternative avenues for redress, such as the right to file an independent private action in the courts or administrative tribunals; and the availability of enforceable remedies.**

120. Certain other design features of national competition regimes also point to what may be considered emerging best practice in this area: **National treatment obligations are sometimes expressly built into national competition legislation**, although discriminatory treatment as between domestic and foreign firms does not seem to be problematic in practice. **Independence of decision-making authorities** from regulatory authorities offers considerable guarantees for application of competition principles from an international perspective. **Timely treatment of complaints**, in accordance with appropriate statutory or internal deadlines, helps to ensure confidence in the system. **Proceedings of competition tribunals should also be widely available** to interested stakeholders, including through the use of regular bulletins, online publication, and annual reports. Finally, **wide-ranging scope and coverage of competition laws in the first instance**, including strong investigatory powers and narrowly defined exemptions (e.g. the “regulated conduct” defense) and **strong competition policy oversight and enforcement mechanisms** set a seamless base for thorough scrutiny of regulatory and private conduct, including “gray area” practices wherever these exist. Shortcomings remain in some OECD countries, however, with respect to some or all of the above practices, with particular efforts needed in certain sectors.

2.6.2 *Ease of Access to Domestic Economic Activities*

121. **Effective access to domestic economic activities** is a key factor in giving effect to the competition principle. Here, long-established but little-contested private practices may present particular difficulties to foreign firms seeking to sell into new markets. The Danish report, for example, found that many sectors in that country have been sheltered by traditional private co-operative arrangements and cartels, creating a high level of horizontal concentration which may threaten effective competition by foreign parties in key areas such as retail distribution. Difficulties encountered by foreign trading partners in accessing distribution channels for other important sectors such as autos and auto parts have also been documented (e.g. in Japan). And in the Netherlands, strong corporatist traditions and lack of enforcement have earned that country a reputation as a “cartel paradise”, with suggestions that this may be seriously undermining efforts by new foreign entrants to access the Dutch market.

122. **Industrial or trade associations** can also be key players from the perspective of competition and market openness. This is especially true where **government may delegate certain regulatory powers to an industrial association**. The risk that such associations may use their regulatory powers to distort competition and limit import competition in particular argues for greater scrutiny of association activities and submission to a higher standard of openness. The Korean case offers the example of *chaebols* (“enterprise groups”) which have been the target of many competition-related complaints from foreign partners. Reforms aimed at improving corporate governance of chaebols have been introduced, but their ultimate impact on disciplining chaebol behaviour remains to be seen.

3. THE WAY AHEAD

3.1 Encouraging Wider Adoption of Emerging Best Practices: Some Closing Observations

123. The collective experience of the sixteen OECD countries reviewed to date points to emerging best practices across all six efficient regulation principles, with leading approaches in some countries serving as useful general models for others. The main lessons of the reviews point to a range of key factors for ensuring trade-friendly regulation, including **length of experience with regulatory reform**, strength of underlying **political commitment, awareness and requisite expertise** of regulatory authorities, **effective trade advocacy** in shaping regulatory outcomes, and commitment to **rigorous oversight and implementation**.

124. While the reviews have clearly reaffirmed the importance of all six efficient regulation principles as determinants of market openness, some of the principles may be more easily implemented in practice than others. Giving greater expression to certain principles such as openness of decision-making through public consultation may also be easier when driven by primarily domestic interests, even though outcomes benefit foreign parties as well. **All principles are therefore not equal** in terms of perceived ease of implementation and expected benefits to domestic stakeholders. For example, challenges associated with ensuring greater reliance on recognition of equivalence or internationally harmonised measures may be perceived as a tougher “sell” than the introduction of “benign” best practices such as prior notice and comment. As a result, certain principles may by their very nature attract politically charged debate around issues such as regulatory sovereignty, while others remain relatively removed from such arenas.

125. Many of the reviews suggest considerable **scope for the pursuit of expressly pro-competitive regulation**. In several countries reviewed to date, regulatory philosophies seem aimed at ensuring respect for international trade obligations, but stop short of going further to ensure an “obligation-plus” regulatory climate wherever possible. This seems to be the case even where domestic firms are pressing for change, whether in the form of less or more efficient regulation.

126. The **quality and consistency of consultation and collaboration between trade policy officials and domestic regulatory authorities** appears to be problematic in several reviewed countries. While existing intra-governmental mechanisms are being used to vet concerns about the trade and investment-friendliness of some regulations to some extent, there is little evidence that this is happening in a systematic way. High-profile regulatory initiatives may also tend to dominate such exchanges, resulting in a de facto absence of scrutiny for lesser-known but potentially restrictive regulatory measures. This shortcoming, together with uneasy relationships between trade and regulatory authorities and the failure of regulatory impact analysis (where it exists) to adequately assess the trade dimension of proposed regulations, combine to highlight a widespread weakness in national regulatory regimes.

127. **Implementation of stated regulatory policy objectives remains a key challenge** in some review countries – even those boasting years of experience and sophisticated improvements to regulatory systems. Poor implementation of otherwise irreproachable regulatory policies appears to result from a combination of inadequate training of regulatory officials and quality control at source to weaknesses in challenge and oversight functions higher in the system. As documented in some country reviews, regulatory proposals often move virtually unchallenged through the system, with attendant adverse consequences on market openness. Market openness cannot be ensured by default.

128. Regulation – particularly social regulation – is likely to be a growth industry in many OECD countries in coming years. Many OECD governments are under enormous **pressure to regulate** in areas such as health, safety, and the environment, and to do so in a manner which will keep pace with ever-

changing needs and technological advances on the ground. Even as governments monitor the stock and flow of domestic regulations in such a dynamic environment, there will be a **heightened need to reassess regulatory inventories for continued relevance and efficiency**. Now more than ever, attention to the market openness dimension in domestic regulation will be a decisive element in establishing global capacity for implementing existing international trade obligations and undertaking a new Round.

3.2 Refining the Analytical Toolbox and Verifying Information

129. To date, experience with the review process as a paradigm for assessing a country's commitment to market openness has **reaffirmed the validity of the six efficient regulation principles** as originally formulated. As noted above however, the principles are **best assessed on their own merits** without seeking to attach equal weight to each in arriving at conclusions about individual country performance. Moreover, it has become clear that it is **not always possible or even useful to analyse application of the various principles in isolation**, as some of them are in fact inter-related. For example, regulatory impact analysis may be appropriately discussed in the context of transparency, although the country reviews have tended to treat this in terms of unnecessary trade restrictiveness. Similarly, regulatory practices in key areas such as government procurement may be usefully highlighted in discussions on a range of principles, including transparency, non-discrimination, and avoidance of unnecessary trade restrictiveness. Finally, analysis has revealed that **there remains scope for refining the principles** to better capture the essence of good regulatory practice in targeted areas. As seen earlier in this paper, a slightly reformulated approach was taken in the discussion of internationally harmonised measures (broadened to include recognition of equivalent foreign measures, wherever and however this occurs) and recognition of equivalence of other countries' measures (recast as a discussion on streamlining conformity assessment procedures).

3.3 Closing the Gap Between Current Practices and New Possibilities in Regulatory Reform

130. Detailed exploration of each of the efficient regulation principles across the sixteen reviewed countries has revealed strengths and weaknesses in each area as well as overlap and linkages across regulatory regimes, practices, and procedures.

131. OECD Member countries now have at their disposal a growing body of knowledge on trade-relevant best practices for enhancing market openness through regulatory reform. **A central issue now is how to build on these insights and provide impetus for the next phase of regulatory reform**. The goal of this next phase should be "smart" regulation informed by past lessons and proven strategies designed to ensure mutual coherence and complementarity between regulatory and trade policy regimes.

132. Achieving a new age in regulatory reform and market openness will require **changes in regulatory culture, intra and inter-governmental co-operation** as well as increased reliance on the kinds of specific tools and approaches examined over the course of the country reviews. How best, however, to move from recognition to action in addressing revealed challenges and opportunities?

133. The next phase of regulatory reform may require attention to **broadier institutional and systemic issues** relating to effective regulatory management. Possible issues that could be generally explored in this context might include:

i) *Building links between domestic regulation and open markets*

a) *Domestic Regulation as Pro-Competitive Tool: Avenues for going beyond implementation of international trade obligations to create an expressly pro-competitive regulatory regime.*

- b) *Improved Training for Regulators:* Approaches to achieve greater awareness that legitimate policy objectives may be achieved without compromising market openness and improve quality of proposed regulations through greater attention to the market openness dimension. Is there a need to introduce greater accountability or incentives for regulators? Would they benefit from more targeted guidance on how to achieve trade and investment-friendly regulation? A case-study inventory demonstrating how this has been achieved in practice?
- c) *Better Regulation of the Regulators:* Approaches to improve scrutiny and quality control of proposed regulations and accompanying impact assessments from a market openness perspective as they advance through the system, potentially through enhanced challenge and oversight functions. Approaches for stemming abuses of regulatory discretion by regulators.

ii) *Leveraging resources to achieve greater coherence between trade and regulatory policies*

- a) *Improved Monitoring of Existing Regulation:* Approaches for monitoring the stock and flow of existing regulation for continued relevance and efficiency, including attention to performance-based regulation and pursuit of regulatory alternatives where possible.
- b) *Improved Co-operation between Regulatory and Trade Officials:* Approaches for breaking down remaining institutional barriers to more effective trade advocacy and strengthening collaboration between regulatory and trade policy authorities.
- c) *Improved Capacity for Ensuring Trade and Investment-Friendly Regulatory Outcomes:* Approaches to strengthening capacity for trade-friendly regimes in areas such as trade facilitation, government procurement, and monitoring use of international standards.

iii) *Maintaining support for further trade-friendly regulatory reform*

- a) *Building Public Awareness:* Is there a need to strengthen regulatory reform efforts with greater outreach activities designed to educate the public and regulatees alike of the benefits of market openness? Does more need to be done to achieve greater understanding that trade-friendly regulation need not compromise (and may even enhance) the fulfilment of legitimate policy objectives?
- b) *Reinvigorating Political Will:* What are the risks that institutional “fatigue” and fears in some circles about the effects of liberalisation will erode commitment to pursue the work of trade-friendly regulatory reform? What can be done to revitalise high-level political commitment to further enhancing market openness through regulatory reform?

ANNEX I

ILLUSTRATIVE BEST REGULATORY PRACTICES FOR FOSTERING MARKET OPENNESS PRINCIPLES, AS OBSERVED IN REVIEWED COUNTRIES (By Principle)

Transparency and Openness of Decision-Making

1. Systematic public availability of information, including through:
 - a) regular publication of information about existing and forthcoming rules;
 - b) enquiry points;
 - c) efficient use of the Internet (e.g. online compendiums and e-gateways)
2. Clear, simple procedures for making and implementing rules
 - a) clearly-defined rule-making procedures;
 - b) clearly written rules backed by consistent implementation
 - c) overarching policy commitment
3. Systematic reliance on public consultation, including through:
 - a) codified procedures
 - b) written guidance to regulators
 - c) well-developed notice and comment procedures
 - d) well-timed opportunities for comment and accountability on how comments handled
 - e) use of the Internet to solicit public comment
4. Clear, open, effective appeals procedures
5. Efforts to ensure transparency in particular areas, such as:
 - a) gray regulation
 - b) self-regulation
 - c) standards development
 - d) government procurement

Non-Discrimination

1. Narrow exceptions in practice (overt discrimination such as nationality-based restrictions)
2. Contestable markets for government procurement

3. Explicit lead responsibility for ensuring implementation of non-discrimination and other WTO obligations
4. Extent of awareness and efforts to avoid discriminatory effects in regulation (de facto discrimination)
5. Demonstrated commitment to open regionalism, including through:
 - a) multilateralized regional preferences;
 - b) transparent management and administration of regional agreements vis-à-vis third parties
6. Liberal policies towards foreign ownership and investment, as evidenced by:
 - a) ease of entry and establishment;
 - b) absence of regulatory barriers to effective competition between domestic and foreign firms

Avoidance of Unnecessary Trade Restrictiveness

1. Demonstrated efforts to encourage awareness of market openness considerations when making regulations, including through:
 - a) mandatory regulatory impact analysis with due attention to anticipated effects on trade and investment;
 - b) RIA requirement for both primary and secondary legislation;
 - c) comparable assessments by independent regulators
 - d) rigorous, systematic quality control of RIAs;
 - e) effective, sustained trade advocacy efforts
2. Demonstrated efforts to favour trade-friendly regulatory approaches, including through:
 - a) use of performance rather than design criteria;
 - b) capacity for embracing regulatory alternatives
3. Simplification of administrative requirements, including through:
 - a) reduced paper burden on business;
 - b) simplified, automated customs procedures (e.g. integrated online service delivery and “Single Window” approaches to customs clearance)

Use of Internationally Harmonised Measures

1. Reference to international standards as the basis of national standards and domestic regulations
2. Systematic monitoring of efforts to use international standards
3. Acceptance of foreign measures as functionally equivalent, including:
 - a) clearly-defined criteria for ascertaining equivalence, and;
 - b) clearly-defined avenues for demonstrating equivalence

Streamlining Conformity Assessment Processes

1. Demonstrated flexibility towards use of alternative approaches for avoiding duplicative conformity assessment procedures, such as:
 - a) mutual recognition;
 - b) unilateral recognition;
 - c) SDOCs
2. Establishing market confidence through accreditation mechanisms
 - a) domestic capacity for accreditation;
 - b) ease of access to the accreditation processes;
 - c) active participation in international co-operation in accreditation.
3. Efficient functioning of conformity assessment bodies, possibly on a competitive basis

Application of Competition Principles

1. Open, accessible complaint procedures for challenging regulatory or private actions which may impair market openness:
 - a) clear, non-discriminatory avenues for complaints;
 - b) transparent and reasonably timely proceedings;
 - c) ability to appeal preliminary findings of the competition authority or the right to bring private antitrust actions before the courts;
 - d) independent tribunals for review of competition decisions;
 - e) availability of enforceable remedies.

The Investment Architecture of the WTO

Unclassified

TD/TC/WP(2002)41/FINAL



Organisation de Coopération et de Développement Economiques
Organisation for Economic Co-operation and Development

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THE INVESTMENT ARCHITECTURE OF THE WTO

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The study, which is also available in French, can be found on the following website:

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THE INVESTMENT ARCHITECTURE OF THE WTO

Executive summary

To the extent that trade and foreign direct investment are related (approximately one third of global trade is intra-firm trade), all WTO agreements hold relevance for foreign investors, even when these do not address investment issues, per se. This being said, the current investment architecture of the WTO can be conceptualised as a continuum across which we find agreements and provisions with different levels of relevance to foreign investment and foreign investors. Some WTO agreements deal very directly with foreign investment issues (*e.g.* the General Agreement on Trade in Services) while others have much less direct (and sometimes even ambiguous) implications from an investment perspective (*e.g.* the Agreement on the Application of Sanitary and Phytosanitary Measures).

This paper examines this continuum by distinguishing three different dimensions of the current WTO architecture, each with a different level of investment ‘relevance’. These are; agreements that directly serve to protect international investment and to create a more liberal international investment environment; agreements that do not protect foreign investment but that do address regulatory issues of direct relevance to international investors and their investments; and agreements and provisions that address more generally issues at the public-private interface. This last dimension mainly involves the numerous references in the WTO to private parties (variously defined) and the obligations of WTO Members towards these or the rights these are accorded. In many instances the importance of such provisions from an international investment perspective is often not clear. However, to the extent that foreign investors constitute a sub-group within the broader universe of private parties, provisions dealing with these should probably be considered as part of the broader WTO investment architecture.

The key findings of the paper include:

- The GATS is the only WTO agreement that displays the elements of ‘traditional’ investment architecture, with modalities for progressive liberalization and provisions for dispute settlement. The plurilateral AGP also protects foreign investors and their investment by prohibiting governments from discriminating against them on the basis of foreign affiliation. The Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS), although not specifically addressing foreign investment, indirectly covers an important class of foreign assets of multinational enterprises, namely their intangible assets.
- Two agreements do not display many of the elements usually associated with ‘traditional’ investment architecture but nevertheless address issues of direct relevance to foreign investors. These include the Agreement on Trade-Related Investment Measures (TRIMs) and the Agreement on Subsidies and Countervailing Measures (ASCM).
- The WTO also contains many provisions relating to private parties (variously defined) and in many of these cases, the obligations or rights conferred can be of potential relevance from an investment perspective, even if the provisions in question don’t explicitly address investment issues. One of the potentially important issues relating to private parties is that, while these do not enjoy formal access to

WTO dispute settlement mechanisms, they nonetheless now have recourse to the various forms of dispute settlement that WTO rules dictate must be established at the domestic level.

1. Introduction

1. At its 30 September 2002 meeting, the Working Party of the Trade Committee discussed “The Investment Architecture of the WTO” [TD/TC/WP(2002)41]. The present revision takes into account oral and written comments received from Delegations.

2. To the extent that trade and foreign direct investment are related (approximately one third of global trade is intra-firm trade), all WTO agreements hold relevance for foreign investors, even when these do not address investment issues, *per se*. This being said, the current investment architecture of the WTO can be conceptualised as a continuum across which we find agreements and provisions with different levels of relevance to foreign investment and foreign investors. Some WTO agreements deal very directly with foreign investment issues (*e.g.* the General Agreement on Trade in Services) while others have much less direct (and sometimes even ambiguous) implications from an investment perspective (*e.g.* the Agreement on the Application of Sanitary and Phytosanitary Measures).

3. This paper examines this continuum by distinguishing three different dimensions of the current WTO architecture, each with a different level of investment ‘relevance’. These are; agreements that directly serve to protect international investment and/or to create a more liberal international investment environment; agreements that do not deal with foreign investment, *per se*, but that do address regulatory issues of direct relevance to international investors and their investments; and agreements and provisions that address more generally issues at the public-private interface. This last dimension mainly involves the numerous references in the WTO to private parties (variously defined) and the obligations of WTO Members towards these or the rights these are accorded. In most instances the importance of such provisions from an international investment perspective is often unclear. However, to the extent that foreign investors constitute a sub-group within the broader universe of private parties, provisions dealing with these should probably be considered as part of the broader WTO investment architecture.

4. Sections two, three and four address the three dimensions of the WTO architecture that we have outlined above. Section two covers the agreements in the WTO that directly address foreign investment, section three covers the agreements that do not address foreign investment specifically but that have direct relevance for foreign investors and section four covers the various instances in WTO agreements where the public-private interface is the focus. Section five concludes by summarising our key findings and highlighting some general implications of the current investment architecture of the WTO for the on-going work of the Working Group on the Relationship between Trade and Investment. Delegates might consider whether any of the key findings or questions raised in this paper should motivate future work of the Working Party in the area of trade and investment.

2. WTO Agreements that directly address foreign investment

5. A feature of most international agreements that deal with investment issues (*e.g.* regional trade agreements, bilateral investment treaties) is that they explicitly define the types of investments and investors, usually in considerable detail, that are intended to be subject to the rights and obligations of the agreement in question (see Annex 1 for examples).

6. In the context of the WTO, the General Agreement on Trade in Services (GATS) is the only agreement that provides a fairly unambiguous definition of foreign investment. It does so through mode three, defined as “the supply of a service by a service supplier of one Member, through commercial

presence in the territory of any other Member” (Article I.2c). This definition is elaborated in Article XXVIII, which defines commercial presence as “any type of business or professional establishment, including through (i) the constitution, acquisition or maintenance of a juridical person, or (ii) the creation or maintenance of a branch or a representative office, within the territory of a Member for the purpose of supplying a service”. A juridical person is in turn defined as being “‘owned’ by persons of a Member if more than 50% of the equity interest in it is beneficially owned by persons of that Member; ‘controlled’ by persons of a Member if such persons have the power to name a majority of its directors or otherwise to legally direct its actions; ‘affiliated’ with another person if it controls, or is controlled by, that other person; or when it and the other person are both controlled by the same person.” These definitions are by far the most precise found in any of the WTO agreements and reflect the sensitivity of negotiators during the Uruguay Round to the need to clearly delineate mode 3 in the GATS, just as most bilateral investment treaties (BITs) and regional trade agreements (RTAs) that deal with investment provide detailed definitions of foreign investment.

7. Article II of the GATS codifies the unconditional most-favoured-nation (MFN) treatment principle, making it one of the agreement’s core general obligations.¹ Under the MFN rule, WTO Members are committed to treating services and service providers from one member no less favourably than like services and service providers from any other member. Unlike the GATT, however, the GATS does not enshrine the right to national treatment. Rather, through a hybrid approach to liberalisation, WTO members *positively* schedule their commitments under the agreement and, where applicable, *negatively* specify in these commitments any derogation from national treatment.

8. GATS Article V addresses issues relating to derogations from MFN in the context of economic integration agreements. Article V stipulates that signatories of a regional agreement covering trade in services eliminate “substantially all discrimination, in the sense of Article XVII [national treatment], between or among the parties” (Article V1b). Furthermore, Article V(6) stipulates that a “service supplier of any other Member that is a juridical person constituted under the laws of a party to an agreement referred to in paragraph 1 shall be entitled to treatment granted under such agreement, provided that it engages in substantive business operations in the territory of the parties to such agreement”. From an investment perspective, this is a particularly significant obligation insofar as it ensures that service suppliers from any WTO member can enjoy the same benefits as nationals of the signatories to a regional agreement once they have an established presence in the region. This ensures that the spread of regional agreements covering trade in services results in the *de facto* plurilateralisation of national treatment for service suppliers, post establishment.²

9. The GATS also addresses issues relating to payments and transfers associated with trade in services, including through mode 3 (Articles XI and XII). Article XI stipulates that, where a WTO Member has made a specific commitment, it shall not apply restrictions on international transfers and payments, except under the conditions relating to balance of payments safeguards outlined in Article XII. Finally, Article XVI on market access commitments stipulates that where specific commitments have been made, and unless certain restrictions to the contrary are explicitly specified with respect to these commitments, measures restricting or requiring certain types of legal entities or limits on the level of foreign share holdings in the case of mode 3 are prohibited.

-
1. However, according to Article II.2, “A Member may maintain a measure inconsistent with paragraph 1 provided that such a measure is listed in, and meets the conditions of, the Annex on Article II Exemptions”.
 2. This argument was made with respect to investment provisions in many RTAs in OECD (2002), “The Relationship between Regional Trade Agreements and the Multilateral Trading System: Investment”, TD/TC/WP(2002)18/FINAL (Paris: OECD).

10. Critical to any interpretation of the GATS is a consideration of the actual commitments that have been scheduled since many of the Agreement's obligations only apply to these. Table 1 in Annex 3 provides summary information on mode 3 commitments made by developed, developing and least developed countries according to 12 broad service sectors.³ For each country grouping, the table identifies the number of countries that have scheduled commitments for a particular service sector and the number of countries that have scheduled full commitments with respect to the service in question (*i.e.* no limits with respect to market access or national treatment for the sector in question). By implication, the table also highlights the number of countries that have not scheduled any commitments for a particular service sector (by comparing the number of countries that have scheduled commitments with the total number of countries in the country grouping in question). For example, of the 69 developing countries that have scheduled GATS commitments, only 12 have scheduled some sort of commitment with respect to distribution services (column 4) and, of these, only 6 have scheduled commitments without limits on either national treatment or market access.

11. One general point that emerges from Table 1 is that a high proportion of developed countries have made mode three commitments across all service sectors, with the exception of health related and social services (only 5 of 15 developed countries⁴ have made commitments and only one of these commitments is without limits on national treatment or market access). All 15 countries in this group have made commitments with respect to business services, communication services, financial services and tourism and travel related services. On average, the developed countries have made mode three commitments in 80% of service sectors and, of these, just under 30% are without limits on national treatment or market access. In contrast, developing countries have made mode 3 commitments in 45% of service sectors on average and, of these, 14% are without limits. The equivalent statistics for the LDCs are 31% and 18%, respectively. One question that this analysis raises is how mode 3 commitments compare with the other modes. Table 2 in Annex 3 compares mode 3 with modes 1 and 2 and reveals that the share of full market access commitments under mode 3 is considerably lower than under the other two modes. For example, among all members only 15% of mode three commitments are without limits, as compared with 32 and 51% for modes 1 and 2, respectively.

12. In addition to the sectoral commitments made by Members, an understanding of the investment implications of the GATS also requires an evaluation of horizontal limits that Members have inscribed in their schedules and their Article II (MFN) exemptions. Table 3 in Annex 3 summarises the numbers of horizontal limits on market access and national treatment related to mode 3. In an examination of scheduled horizontal limits, twelve general types appeared most frequently. A few countries even inscribed "unbound" limits with respect to mode 3 in general (*i.e.* all mode 3 commitments by these countries are unbound with respect to future national treatment and market access undertakings). In the case of developed countries, most horizontal limits relate to notification requirements, land ownership restrictions, local employment requirements (mainly requirements that a certain number of board members be residents in the country in question) and subsidies relating to research and development.

13. Among the most important developing country horizontal limits on market access and national treatment are restrictions on land ownership and equity requirements. One important distinction between developed and developing countries concerns the nature of their horizontal limits relating to authorisation requirements. In the case of developed countries these requirements are mainly stand-alone administrative procedures (*e.g.* the registration of an investment). In the case of developing countries, however, authorisation requirements are usually linked to the various other requirements appearing in the list (*i.e.*

3. Country groupings and service groupings based upon WTO classification in the WTO Services Database.

4. The developed country grouping includes the EC12 as one country.

authorisation for an investment is usually contingent upon other requirements being fulfilled, *e.g.* performance requirements).

14. Another general pattern associated with horizontal limitations is the relative emphasis placed upon market access and national treatment limitations by developed and developing countries. Whereas the former have twice as many national treatment limitations than market access limitations (28 versus 14), the opposite relative relationship holds true for developing countries (102 limits on market access versus 50 limits on national treatment). A final point concerning Table 3 is the fact that, on average, the least developed countries have the fewest horizontal limitations related to mode 3.

15. With respect to Article II (MFN) exceptions, Table 4 in Annex 3 lists the 42 countries that have taken such reservations with respect to mode 3. For the most part, these reservations relate in one form or another to preferences granted in the context of regional and other preferential trading arrangements. For example, eight countries have notified MFN exceptions with respect to present and future bilateral investment treaties; Canada, Chile, Costa Rica, Jordan, Kuwait, Poland, Trinidad and Tobago and Uruguay. Similarly, a number of Latin American countries have reserved their rights to derogate from MFN with respect to present and future arrangements in the context of the Andean Group and the General Treaty of Central American Economic Integration. African countries have reserved their rights to derogate from MFN in the context of the WAEMU and ECOWAS and Nordic countries in the context of Nordic co-operation agreements. In addition, a number of other countries (*e.g.* Malaysia, Singapore) have inscribed more general MFN exceptions that could apply in the context of bilateral and regional investment agreements.

16. In addition to the GATS, several other agreements also deal quite directly with foreign investment issues. The Understanding on Commitments in Financial Services (UCFS) contains three provisions that relate to foreign investment. The first two, UCFS B (5) and UCFS B (7), afford financial service suppliers the right to establish a “commercial presence” in the territory of other Members (including the establishment of “new” financial services).⁵ The third provision is UCFS B (9), which grants to financial service suppliers the right of temporary entry for certain senior personnel and specialists into the territory of a Member provided a commercial presence has been established.

17. Like the GATS, the plurilateral Agreement on Government Procurement also specifies disciplines that protect foreign investors and their investments. The Agreement requires not only that there be no discrimination against foreign products, but also no discrimination against foreign suppliers and, in particular, no discrimination against locally established suppliers on the basis of their degree of foreign affiliation or ownership. Article III affords private firms of other Members treatment no less favourable than that accorded to its own nationals with respect to the processes, rules and practices regarding government procurement and states that private parties operating locally may not be discriminated against because of their affiliation or association with a national of another Member. Similarly, Article VIII states that Members may not discriminate between their nationals and the nationals of other Members when qualifying suppliers for government procurement contracts. Another investment related aspect of this Agreement is the provision in Article XVI that procuring entities shall not, in the qualification and selection of suppliers, products or services, or in the evaluation of tenders and award of contracts, impose, seek or consider offsets, defined as “...measures used to encourage local development or improve the balance-of-payments accounts by means of domestic content, licensing of technology, investment requirements, counter-trade or similar requirements”.

5. UCFS defines “commercial presence” as “an enterprise within a Member’s territory for the supply of financial services and includes wholly- or partly-owned subsidiaries, joint ventures, partnerships, sole proprietorships, franchising operations, branches, agencies, representative offices or other organizations”.

18. As with the GATS, any interpretation of the AGP requires careful consideration of the Annexes to the Agreement as these contain the positive lists to which the Agreement applies. Annex 1 lists the central government entities to which the Agreement applies for each signatory, Annex 2 sub-central entities, Annex 3 all other procuring entities, Annex 4 the specific services covered by the Agreement and Annex 5 the construction services covered by the Agreement. In addition, the “General Notes” to the Annexes contain important additional information on the commitments made by each signatory.

19. The Agreement on Trade-Related Aspects of Intellectual Property Rights (the TRIPS Agreement) includes national treatment, MFN and substantive standards for the protection of specific categories of intellectual property, obligations relating to domestic enforcement procedures and international dispute settlement. The importance of the agreement in the context of foreign investment relates to the increasingly important share of MNE assets accounted for by intangible assets, such as patents, trademarks, etc. Therefore, although the TRIPS Agreement does not mention foreign investment specifically, it does provide protection for an increasingly important class of foreign assets. For example, 20% of the assets (worth \$2.6 billion) of the pharmaceutical company GlaxoSmithKline consist of intangible assets and approximately 35% of these are located outside of its home country (the United Kingdom).

20. The protection that the TRIPS Agreement accords to owners of intellectual property, including in foreign markets, include:

- For geographical indicators, which identify a good as originating in the territory of a WTO member, or a region or locality in that territory, where a given quantity, reputation, or other characteristic of the good is essentially attributable to its geographic origin, right of private parties in a certain geographical area to prevent other parties outside of that area from using a symbol or mark that indicates a good originates in that region when it does not (Article 22 (2)(a) on protection of geographical indications and Articles 23 (1), (2), and (3) on additional protection for geographical indications for wines and spirits).
- Right of the owner of a patent to restrict the use and transfer of that patent (Articles 28 (1) and (2) on rights conferred).⁶
- Right of a right holder to apply to administrative or judicial authorities to request that customs officials not release into circulation goods that the right holder suspects to be “counterfeit trademark or pirated copyright goods” that infringe on the right holder’s intellectual property rights (Article 51 on suspension of release by customs authority and Article 57 on right of inspection and information).

21. To the extent that intellectual property constitutes a form of foreign investment or, more precisely, a foreign asset, the TRIPS Agreement can be argued to embody one of the most exhaustive set of multilateral rules protecting a particular but increasingly important class foreign asset.

3. WTO Agreements that indirectly affect foreign investment

22. The previous section covered agreements that explicitly protect foreign investors and their investments. The GATS does so most directly with respect to the cross border delivery of services via mode three. The plurilateral AGP does so with respect to firms contesting government procurement contracts through a commercial presence. And, although the TRIPS does not address itself explicitly to foreign investment, we discussed it in the previous section because it unambiguously covers an important

6. However, certain caveats to this article are found in TRIPS Article 30 (Exceptions to Rights Conferred) and Article 31 (Other Use Without Authorization of the Right Holder).

class of foreign asset for multinational enterprises. In this section we consider two other WTO agreements that do not display many of the elements of 'traditional' investment architecture but that nevertheless can have clear implications for foreign investors and their foreign investments.

23. The TRIMs Agreement deals with investment issues by providing that no WTO Member shall apply any TRIM inconsistent with Articles III (national treatment) and XI (prohibition of quantitative restrictions) of the GATT. The Agreement does not address itself to measures that are applied specifically to foreign enterprises but rather to enterprises in general. In other words, the prohibitions in the Agreement apply equally to domestic and foreign enterprises. However, to the extent that multinational enterprises tend to be more trade intensive than their domestic counterparts, the burden of trade-related investment measures tends to weigh more heavily on this group. The illustrative list of TRIMs agreed to be inconsistent with the agreement includes measures which require particular levels of local procurement by an enterprise ("local content requirements") or which restrict the volume or value of imports that an enterprise can purchase or use to an amount related to the level of products it exports ("trade balancing requirements").

24. As with the GATS and the AGP, any interpretation of the TRIMs Agreement necessitates a consideration of the notifications made under the Agreement. Article 5 stipulates that Members had 90 days after the entry into force of the WTO Agreement to "notify the Council for Trade in Goods of all TRIMs they are applying that are not in conformity with the" TRIMs Agreement and two years to eliminate these in the case of developed countries, five years in the case of developing countries and seven years in the case of the least developed countries. However, the Agreement also provides the possibility, through requests to the Council for Trade in Goods, for the relaxation of these requirements for countries experiencing "particular difficulties in implementing the provisions" of the Agreement (Article 5:3). As of October 2002, 26 countries have notified TRIMs and 22 countries have notified the Council for Trade in Goods that they do not maintain any TRIMs that are inconsistent with the TRIMs Agreement.

25. The Agreement on Subsidies and Countervailing Measures (ASCM) defines the concept of "subsidy" and establishes disciplines on the provision of subsidies. The relevance of the ASCM to investment issues is that a number of investment incentives fall under the definition of a subsidy and are either prohibited or are subject to the disciplines of the ASCM if they cause "adverse effects". Subsidies contingent upon the exportation of goods produced are prohibited. Adverse effects are defined in terms of distortions to the trade flows of subsidised goods.

4. Private parties and the WTO investment architecture

26. A considerable body of WTO rules applies to private parties, variously defined (see Annex 2). The relevance of various references to private parties to the WTO investment architecture is that foreign investors can constitute an important sub-group affected by such provisions. This dimension of the WTO investment architecture is often overlooked because various WTO agreements define private parties in different ways and, further, they tend not to use the expression 'investor'. The reason for this is that the concern in many WTO agreements is not specific to investment issues but rather to various trade-related rights and obligations as these relate to private parties. However, what needs to be recognized is that private parties are often investors and that the various rights and obligations associated with these will have investment implications, even though they might not be labeled investment provisions as such. Rules at the level of private parties can be categorized in terms of four main areas: non-discrimination; transparency

and procedural fairness; dispute settlement and development provisions.⁷ In this section we consider each of these broad categories in turn.

Non-Discrimination

27. In section 2 we saw that the GATS, the AGP and the TRIPS explicitly provide for the non-discriminatory treatment of certain types of foreign investment or foreign assets. The WTO also promotes non-discrimination in a number of other instances with respect to private parties. This form of non-discrimination relates mainly to the various procedural trade-related settings where private parties and public and government entities interact. To the extent that private parties are defined such that they might include foreign investors, such provisions contribute to the overall investment architecture of the WTO.

28. For example, Article 5.1.1 of the Agreement on Technical Barriers to Trade (TBT) states that “conformity assessment procedures are prepared, adopted and applied for suppliers of like products originating in the territories of other Members under conditions no less favourable than those accorded to suppliers of like products of national origin...”. The TBT also requires that documents must be supplied “at an equitable price (if any) which shall...be the same for the nationals of the Member concerned or of any other Member” (Article 10.4). Although provisions such as these are not directly aimed at foreign investors or their investments, they could nonetheless be relevant from an investment perspective insofar as multinational enterprises often invest in distribution facilities in the countries to which they export their products.⁸

29. Similar provisions are found in the SPS Agreement, which stipulates that “any fees imposed for the procedures on imported products are equitable in relation to any fees charged on like domestic products or products originating in any other Member” (Annex C (f)) and that “the same criteria should be used in the siting of facilities used in the procedures and the selection of samples of imported products as for domestic products so as to minimize the inconvenience to applicants, importers, exporters or their agents” [Annex C (g)].

30. Another example of a provision that doesn’t directly address foreign investment but that could have important investment implications is Article 3 (c) of the Agreement on Rules of Origin, which states that, “the rules of origin that [WTO Members] apply to imports and exports are not more stringent than the rules of origin they apply to determine whether or not a good is domestic and shall not discriminate between other Members, irrespective of the affiliation of the manufacturers of the good concerned”. More generally, numerous WTO Agreements seek to establish criterion for determining what constitutes “related parties”, usually with a view to establishing a distinction between purely domestic producers and producers that, as a result of their foreign affiliations, might have different trading concerns or interests than the former group. For example, the ASCM defines “domestic industry” as including “the domestic producers...except that when producers are related to the exporters or importers or are themselves importers or the allegedly subsidized product or a like product from other countries, the term ‘domestic industry’ may be interpreted as referring to the rest of the producers” (Article 16.1). The note to this article then goes into considerable detail explaining the conditions under which producers will be considered “related” to each other, in effect a definition of foreign investment for purposes of differentiating the rights of domestic and foreign firms under the ASCM.

7. While these are natural groups for categorising provisions that relate to private parties, they all constitute four of the seven issues mandated by paragraph 22 of the Doha Ministerial Declaration for further study by the Working Group on the Relationship between Trade in and Investment.

8. Recalling also that approximately one-third of global trade is intra-firm.

Transparency and Procedural Fairness

31. Subsequent rounds of GATT negotiations have witnessed increasing emphasis on transparency obligations aimed at serving the interests of private parties. For example, the plurilateral AGP deals extensively with obligations to ensure transparency and procedural fairness at the level of private parties. Article IX (10) states that “Any significant information given to one supplier with respect to a particular intended procurement shall be given simultaneously to all other suppliers concerned...”. Article XVIII (2) states that “Each entity shall, on request from a supplier of a Party, promptly provide an explanation of its procurement practices and procedures; pertinent information concerning the reasons why the supplier’s application to qualify was rejected....and to an unsuccessful tenderer, pertinent information concerning the reasons why its tender was not selected...as well as the name of the winning tenderer”. These transparency provisions are relevant from an investment perspective to the extent that AGP Article III prohibits discrimination on the basis of “degree of foreign affiliation or ownership”.

32. The WTO contains a myriad of other such transparency measures aimed at benefiting private parties, including (but certainly not limited to):

- GATS Article III.1 (“Each Member shall publish promptly...all relevant measures of general application which pertain to or affect the operation of this Agreement”).
- SPS Annex C (1) (b) (“the standard processing period of each procedure is published or that the anticipated processing period is communicated to the applicant upon request”).
- General Agreement on Tariffs and Trade 1947 (GATT 1947) Article X (1) (“Laws, regulations, judicial decisions and administrative rulings of general application....shall be published promptly in such a manner as to enable governments and traders to become acquainted with them”).
- TBT Article 10.1 (“Each Member shall ensure that an enquiry point exists which is able to answer all reasonable enquiries from other Members and interested parties in other Members as well as to provide the relevant documents...”).

33. None of these provisions (with the exception of those outlined in the AGP) apply specifically to foreign investors or their investments. However, it remains that foreign investors often find themselves at a disadvantage in foreign markets in terms of their familiarity with local laws, regulations and administrative procedures. Given the importance of transparency and procedural fairness obligations to foreign investors in particular, it would seem reasonable to conceptualize the WTO’s general obligations in this area as an important component of the agreement’s overall investment architecture, even though these provisions do not address foreign investment as such.

Dispute Settlement

34. Foreign investors do not enjoy any rights of standing within the context of the WTO’s Understanding on Rules and Procedures Governing the Settlement of Disputes (DSU). Nonetheless, it remains that the TRIPS, AGP and GATS do address certain dispute settlement issues for private investors, *albeit only indirectly through domestic channels*. The TRIPS agreement, for example, notes in the preamble that “intellectual property rights are private rights” and contains a number of provisions concerning the obligation of WTO Members to provide private parties with access to domestic dispute settlement and the opportunity to enforce their rights under the terms of the agreement (at the national level). For example, Article 32, which affords a patent holder the right to judicial review of any patent revocation or forfeiture. Another is Article 42, which confers intellectual property right holders, defined to

include “federations and associations having legal standing”, the opportunity to invoke in the civil courts of all WTO members legal proceedings to enforce their intellectual property rights.

35. The AGP also contains provisions obliging WTO Members to provide domestic dispute settlement rights to enable firms to seek redress where they feel that their rights under the terms of the AGP have not been respected. Article XX allows a supplier to seek legal recourse if that supplier believes that there has been a breach of the AGP. In particular, Article XX (2) states:

Each Party shall provide non-discriminatory, timely, transparent and effective procedures enabling suppliers to challenge alleged breaches of the Agreement arising in the context of procurements in which they have, or have had, an interest.

While this Article does not require that disputes brought under this provision be heard in civil courts, it nevertheless provides for “an impartial and independent review body” (Article XX (6)).

Finally, the GATS provides that:

Each Member shall maintain or institute as soon as practicable judicial, arbitral or administrative tribunals or procedures which provide, at the request of an affected service supplier, for the prompt review of, and where justified, appropriate remedies for, administrative decisions affecting trade in services (GATS Article VI (2)(a)).

36. Other provisions in the WTO that address dispute settlement issues at the level of private parties include:

- SPS Annex C 1 (i) (“a procedure exists to review complaints concerning the operation of such procedures and to take corrective action when a complaint is justified”).
- Agreement on Preshipment Inspection Article 2 (21) (“User Members shall ensure that preshipment inspection entities establish procedures to receive, consider and render decisions concerning grievances raised by exporters...”).

37. The notion of ‘intermediated standing’ is fairly new to the GATT/WTO system. A question that this form of dispute settlement raises in the context of current discussions in the Working Group on the Relationship between Trade and Investment is how such multilaterally imposed domestic avenues for dispute resolution would eventually co-exist with any dispute resolution mechanisms agreed in a prospective multilateral framework on investment (if such an agreement is ever negotiated).

Development provisions

38. The GATS, TRIPS and AGP all make reference to private parties in Articles concerning developing countries. These articles generally encourage developed country Members and, in certain cases, the service suppliers of developed nations, to provide technical assistance (including with respect to technology transfer) to the private parties of developing countries.

39. The GATS contains two provisions concerning private parties and development. The first, GATS Article IV:2, states that “Developed country Members...shall establish contact points to facilitate the access of developing country Members’ service suppliers to information...”. The second, GATS Article XXV (1), states that service suppliers in WTO Members that are in need of technical cooperation shall have access to the contact points referred to in Article IV:2. In addition, the GATS Annex on Telecommunications (6) (d), states that Members:

Shall give special consideration to opportunities for the least-developed countries to encourage foreign suppliers of telecommunications services to assist in the transfer of technology, training and other activities that support the development of their telecommunications infrastructure and expansion of their telecommunications services trade

40. The TRIPS contains one development-related provision related to private parties. TRIPS Article 66 (2) states:

Developed country Members shall provide incentives to enterprises and institutions in their territories for the purpose of promoting and encouraging technology transfer to least-developed country Members in order to enable them to create a sound and viable technological base (TRIPS Article 66).

41. A final development-related provision conferring rights at the level of private parties is found in the AGP. AGP Article V (12) asserts the right of LDC suppliers to receive special treatment concerning any services or products originating in that LDC. While none of these provisions constitutes hard law, they explicitly acknowledge the role that private parties can (or even should) play in the development process.

5. Conclusion

42. The previous sections examined three different dimensions of the current WTO architecture, each with a different level of investment 'relevance'. These were; agreements that directly serve to protect international investment and to create a more liberal international investment environment; agreements that do not protect foreign investment but that do address issues of potential relevance to international investors; and agreements and provisions that address issues relating to the public-private interface. The key points that the analysis highlighted include:

- The GATS is the only WTO agreement that clearly covers foreign investment and that displays the elements of 'traditional' investment architecture, with rules aimed at providing protection for certain types of foreign investment, modalities for progressive liberalization and provisions for dispute settlement. The plurilateral AGP also protects foreign investors and their investment by prohibiting governments from discriminating against them on the basis of foreign affiliation. The TRIPS Agreement, although not specifically addressing foreign investment, indirectly covers an important class of foreign assets of multinational enterprises, namely their intangible assets.
- Two agreements do not protect foreign investment, *per se*, but nevertheless address issues of direct relevance to foreign investors. These include the TRIMs Agreement and the ASCM.
- The WTO also contains many provisions relating to private parties (variously defined) and in many of these cases, the obligations or rights conferred can be of potential relevance from an investment perspective, even if the provisions in question don't explicitly address investment issues. One of the potentially important issues relating to private parties is that, while these do not enjoy formal access to WTO dispute settlement mechanisms, they nonetheless now have recourse to the various forms of dispute settlement that WTO rules dictate must be established at the domestic level.

ANNEX 1: EXAMPLES OF DEFINITIONS OF INVESTMENT AND INVESTORS

A standard asset-based approach defines investment as⁹:

Investment means:

Every kind of asset and in particular, though not exclusively, may include:

- (i) movable and immovable property and other property rights such as mortgages, liens and pledges;;
- (ii) shares, stock and debentures and any other kind of participation in companies;
- (iii) claims to money or to any other performance having a financial value;
- (vi) intellectual property rights;
- (vii) concessions conferred by law or under contract, including concessions to search for or exploit natural resources;

As an example of the enterprise-based approach, the NAFTA defines investment and investors as:

- (a) an enterprise;
- (b) an equity security of an enterprise;
- (c) a debt security of an enterprise:
 - (i) where the enterprise is an affiliate of the investor, or
 - (ii) where the original maturity of the debt security is at least three years, but does not include a debt security, regardless of original maturity, of a state enterprise;
- (d) a loan to an enterprise:
 - (i) where the enterprise is an affiliate of the investor, or
 - (ii) where the original maturity of the loan is at least three years, but does not include a loan, regardless of original maturity, to a state enterprise;
- (e) an interest in an enterprise that entitles the owner to share in income or profits of the enterprise;
- (f) an interest in an enterprise that entitles the owner to share in the assets of that enterprise on dissolution, other than a debt security or a loan excluded from subparagraph (c) or (d);

9. From WTO (2002). "Scope and Definitions: 'Investment' and 'Investor'" (WT/WGTI/W/108), p. 4.

- (g) real estate or other property, tangible or intangible, acquired in the expectation or used for the purpose of economic benefit or other business purposes; and
- (h) interests arising from the commitment of capital or other resources in the territory of a Party to economic activity in such territory, such as under:
 - (i) contracts involving the presence of an investor's property in the territory of the Party, including turnkey or construction contracts, or concessions, or
 - (ii) contracts where remuneration depends substantially on the production, revenues or profits of an enterprise;

but investment does not mean,

- (i) claims to money that arise solely from
 - (i) commercial contracts for the sale of goods or services by a national or enterprise in the territory of a Party to an enterprise in the territory of another Party, or
 - (ii) the extension of credit in connection with a commercial transaction, such as trade financing, other than a loan covered by subparagraph (d); or
- (j) any other claims to money, that do not involve the kinds of interests set out in subparagraphs (a) through (h); (Article 1139).

ANNEX 2: TERMS USED TO DESCRIBE INVESTMENT AND INVESTORS

Terms Used to Describe Investment

1. “Commercial Presence” (GATS); Article I 1(c), Article XXVIII (d). See also UCFS (defined in D (2)).
2. Intellectual property (TRIPS Agreement)

Examples of terms Used to Describe private parties

1. “Service Supplier” (GATS); defined in Article XXVIII (g).
2. “Juridical Person” (GATS); defined in Article XXVIII (l) and “Juridical Person of another Member” (GATS); defined in Article XXVIII (m).
3. “Financial Service Supplier” (GATS); defined in the Annex on Financial Services (5)(b).
4. “Nationals” (TRIPS); defined in a footnote to Article 1 (3). See also SPS (defined in the footnote to Annex B (4)) and TBT (defined in the footnote to 10.4).
5. “Right Holder” (TRIPS); see Article 42.
6. “Supplier” (AGP); see Article III. See also TBT (see Article 5.1.1).
7. “Firm” (SCM); see Article 12.6.
8. “Interested Parties” (SCM); defined in Article 12.9.
9. “Applicant” (SPS); see Annex C (1).
10. “Purchasers” (ACA); see Article 4.
11. “Non-Resident Supplier of Financial Services” (UCFS); defined in D (1).
12. “Exporters” (APSI). See Article 2 (12). (SCM); see Article 19.3.]

ANNEX 3. TABLES

Table 1. Mode 3 commitments and limits by sector

	1	2	3	4	5	6	7	8	9	10	11	12	Total
Developed countries (15)													
# of countries with scheduled commitments	15	15	13	14	9	14	15	5	15	11	14	2	142
# of countries with no limits	0	6	10	8	5	2	0	1	7	7	2	2	50
Developing countries (69)													
# of countries with scheduled commitments	48	52	30	12	8	10	60	17	64	24	40	4	369
# of countries with no limits	19	7	11	6	2	5	5	9	33	8	12	1	118
Least developed countries (29)													
# of countries with scheduled commitments	16	9	9	3	7	6	9	5	26	9	7	2	108
# of countries with no limits	8	4	7	3	6	5	4	3	15	6	2	2	65
Total (113)													
# of countries with scheduled commitments	79	76	52	29	24	30	84	27	105	44	61	8	619
# of countries with no limits	27	17	28	17	13	12	9	13	55	21	16	5	233

Legend

1. Business Services
2. Communication Services
3. Construction and Related Engineering Services
4. Distribution Services
5. Educational Services
6. Environmental Services
7. Financial Services
8. Health Related and Social Services
9. Tourism and Travel Related Services
10. Recreational, Cultural and Sporting Services
11. Transport Services
12. Other Services not Included Elsewhere

Table 2. Structure of commitments on market access (percentages)

	Mode 1			Mode 2			Mode 3		
	Full	Partial	None	Full	Partial	None	Full	Partial	None
Acceding countries	52	24	24	71	24	5	36	61	3
Developed countries	26	50	24	48	50	2	10	89	1
All countries	32	38	30	51	39	10	15	82	3

Source: WTO secretariat

Table 3. Horizontal limits on market access (MA) and national treatment (NT) related to mode 3

	Type of measure	Developed (15)		Developing (69)		LDC (29)		TOTAL
		Limits on MA	Limits on NT	Limits on MA	Limits on NT	Limits on MA	Limits on NT	
1	authorisation/notification requirements	7	3	27	3	5	1	46
2	equity requirements	0	0	17	7	1	0	25
3	restrictions on land ownership	2	8	20	14	3	1	48
4	debt-equity requirements	0	1	0	2	1	1	5
5	restrictions on remittances	0	0	7	9	0	0	16
6	subsidies	0	8	1	3	0	0	12
7	local employment requirements	2	7	9	6	0	0	24
8	forex requirements	0	0	3	2	0	0	5
9	sectoral limits	3	1	12	2	0	0	18
10	technology transfer requirements	0	0	4	1	0	0	5
11	local content requirements	0	0	2	1	0	0	3
12	unbound	0	0	1	2	1	1	5
	Total	14	28	102	50	10	3	207

Table 4. Article II (MFN) exemptions related to investment

Country	Description of MFN exemption
Austria	1) waiver for financial service providers of some countries of "economic interest test"
Brunei Darussalam	1) Future liberalisation of foreign ownership restrictions; 2) measures pertaining to the establishment of foreign law firms; 3) measures pertaining to the establishment of foreign financial service providers; 4) lower paid-up capital requirement for ASEAN Reinsurance Co.
Bulgaria	1) Present and future bilateral agreements concerning the provision of legal services through established presence.
Canada	1) investor-state dispute settlement in BITS and RTAs; 2) preferential treatment of UK and Irish "loan and investment companies" in Quebec.
Chile	1) Present and future dispute settlement procedures in BITS
Colombia	1) Preferential treatment for foreign investments by telecommunication service providers based in the Andean Group; 2) commercial presence for foreign financial service suppliers only on a reciprocal basis
Costa Rica	1) Passenger transport services only permitted for national firms or firms with at least 60% Central American ownership; 2) Preferences accorded to signatories of the General Treaty of Central American Economic Integration
Cote d'Ivoire	1) Preferences for insurance firms based in signatories to the CIMA; 2) compulsory transfers of 5% non-automotive premiums by foreign reinsurance companies; 3) preferences for financial service providers based in WAEMU Member States
Cyprus	1) Waiver of market access restrictions for firms based in the EU and EFTA countries
EC 12	1) Existing and future Euro-Med agreements; 2) existing and future bilateral agreements with certain listed countries; 3) limits on foreign participation in Italian and French audiovisual and publishing markets; 4) regulations pertaining to foreign investment in the road transport industry in Spain.
El Salvador	1) Preferences accorded to signatories of the General Treaty of Central American Economic Integration
Finland	1) Measures aimed at promoting Nordic cooperation.
Guatemala	1) Preferences accorded to signatories of the General Treaty of Central American Economic Integration
Honduras	1) Preferences accorded to signatories of the General Treaty of Central American Economic Integration
Hungary	1) Financial services provided under mode 3 subject to reciprocity requirements
Iceland	1) measures aimed at promoting Nordic cooperation.
Indonesia	1) Access for foreign financial service providers on a reciprocal basis
Israel	1) Access for foreign financial service providers on a reciprocal basis.
Jordan	1) BITS; 2) land purchase by non-Arab persons; 3) licensing of medical laboratories
Kuwait	1) BITS
Malaysia	1) present and future limits on foreign equity participation
Mauritius	1) Access for foreign financial service providers on a reciprocal basis
Nicaragua	1) Preferences accorded to signatories of the General Treaty of Central American Economic Integration
Norway	1) Measures aimed at promoting Nordic cooperation.
Pakistan	1) Access for foreign financial service providers on a reciprocal basis; 2) favourable treatment for financial institutions set up to undertake Islamic financing transactions
Panama	1) Preferences accorded to signatories of the General Treaty of Central American Economic Integration
Peru	1) Reserves all rights with respect to national treatment of foreign investment
Philippines	1) Access for foreign financial service providers on a reciprocal basis
Poland	1) BITS; 2) investor-state dispute settlement
Senegal	1) Preferences accorded to insurance and financial service providers based in signatories to ECOWAS, WAEMU and WAMU.

Table 4. Article II (MFN) exemptions related to investment (cont.)

Country	Description of MFN exemption
Singapore	1) Investment Guarantee Agreements; 2) all measures pertaining to legal services
Slovak Republic	1) Financial services provided under mode 3 subject to reciprocity requirements
Solomon Islands	1) Government approval for foreign investors based in the Melanesian Spearhead Group waived
South Africa	1) exemption on exchange controls for persons based-in the CMA
Sweden	1) Measures aimed at promoting Nordic cooperation.
Thailand	1) The investment provisions in the bilateral Treaty of Amity and Economic Relations with the United States
Trinidad and Tobago	1) BITS
Turkey	1) National treatment only for investments from specific countries; 2) reciprocity with respect to financial service providers.
United Arab Emirates	1) Preferential treatment for service providers based in members of the Gulf Co-operation Council.
United States	1) certain preferences accorded Canadian and Mexican companies; 2) certain tax measures; 3) limitations on foreign ownership of rights of way; 4) certain regulations pertaining to foreign financial service providers.
Uruguay	1) BITS
Venezuela	1) Preferences accorded to signatories of the General Treaty of Central American Economic Integration; 2) bilateral agreements relating to petroleum-related services; 3) access for foreign financial service providers on a reciprocal basis.

Liberalising Trade in Textiles and Clothing:

A Survey of Quantitative Studies

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Working Party of the Trade Committee

**LIBERALISING TRADE IN TEXTILES AND CLOTHING: A SURVEY OF QUANTITATIVE
STUDIES**

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EXECUTIVE SUMMARY

At its meeting in September/October 2002, the OECD's Trade Committee Working Party initiated work to review the process of structural adjustment in the textile and clothing sectors in OECD and selected non-OECD countries [TD/TC/WP(2002)43]. The focus of the work would be on structural adjustment issues, covering recent developments in textile and clothing trade, trade-related labour adjustments, trade-related technology changes, and business facilitation. In addition, quantitative analysis based on empirical economic modelling would be considered as -a means to address possible analytical gaps in existing research. In order to identify such gaps, a literature review of quantitative studies on textile and clothing market liberalisation would be undertaken. This paper provides such a review.

There is a considerable body of analysis available that aims to quantify the economic and trade effects of textile and clothing market liberalisation. A number of analysts at national and international institutions have provided their assessments. Different tools and approaches have thereby been used to evaluate the impacts of textile trade reform at the regional or global level. Given the economic importance of the textile and clothing sector in some OECD and non-OECD countries and the resulting economy-wide repercussions that changes in the scale and pattern of textile production will tend to trigger, analysis using general equilibrium models has been dominant.

The modelling results consistently indicate considerable shifts in textiles and clothing production and trade as the Agreement on Textiles and Clothing (ATC) is implemented. There is pressure for a large-scale reallocation of resources, with production of textiles and clothing expanding in Asian and other developing countries. In parallel, textiles and clothing production in industrialised countries is expected to contract significantly, while imports of textiles and clothing from developing countries increase. Concerning further regional integration, which has played a major role in textiles and clothing trade during the 1990s, the modelling results predict welfare benefits for the participating countries, while trade diversion is expected to adversely affect outsiders.

All the reviewed studies foresee increases in global welfare as a result of ATC reform. But the estimates of welfare gains show considerable variation, with expected annual global benefits ranging from \$6.5 billion to \$324 billion. Some studies predict ATC reform to account for up to two-thirds of all gains from the Uruguay Round, while others put the contribution of textile and clothing liberalisation at merely 5 per cent. There is similar discrepancy with respect to the distribution of welfare gains. A number of analysts see developing countries as the main beneficiaries of ATC reform, while others expect them in the aggregate to lose from the policy changes. There is also variation in the direction and magnitude of expected welfare impacts at the level of many individual developing countries.

In this context of uncertainty regarding the reform outcome, it is striking that developing countries have consistently been supporting the removal of the Multifibre Arrangement (MFA). But, as some of the quantitative studies show, this stance is understandable in a dynamic world where capital accumulation effects are taken into account and the fact that inefficient quota-allocation schemes can lead to a dissipation of quota rents over time. Under these circumstances, elimination of the MFA might make it possible for developing countries to seize upon their comparative advantage in textiles and clothing and increase their export revenues and incomes.

Another significant result from the empirical studies is that Canada, the EU and the USA are again and again expected to experience substantial increases in welfare from ATC reform, while these countries had been among the initiators of the MFA in the first place. The optimistic modelling results seem partly due to the implicit assumption that resources that are released from some activity can switch to another one without major disruption. In other words, any potential short or medium-term adjustment problem is assumed away. This assumption makes it difficult to properly understand the purpose of quotas. While substantial welfare gains for most OECD countries from lower consumer prices and more efficient resource allocation seem likely in the longer run, potential adjustment problems following MFA phase-out are an important policy consideration and might warrant further analysis.

1. Background

1. On 1 January 1995, the WTO Agreement on Textiles and Clothing (ATC) came into force, which sets out a process to integrate trade in textiles and clothing into the general GATT framework. It is a transitional arrangement that is scheduled to lead to the application of normal GATT rules to the sector after 1 January 2005. From 1974 to 1994, trade in textiles and clothing was governed by the Multifibre Arrangement (MFA), which provided for the application of selective bilateral quotas when surges in imports of particular products caused, or threatened to cause, serious damage to the industry of the importing country. The MFA was a major departure from basic GATT rules and, in particular, the principle of non-discrimination.

2. The ATC commits WTO members to reduce import tariffs,¹ progressively integrate parts of their textile imports into the GATT framework, and enlarge remaining quotas (until they are removed) by increasing annual growth rates at subsequent liberalisation stages (Table 1). A special safeguard mechanism was established to deal with new cases of serious damage or threat thereof to domestic producers during the transition period. The Agreement established the Textiles Monitoring Body (TMB) as a standing body within the WTO, whose role it is to supervise the implementation of the ATC and to examine all measures taken and ensure that they are in conformity with the rules. The TMB provided comprehensive reports to the Council for Trade in Goods on the implementation of the ATC in the first and second stages (WTO documents G/L/179 and G/L/459) in July 1997 and July 2002, respectively.

Table 1: ATC integration scheme for textiles and clothing

	Integration * (Base: 1990 import volume)	Growth rate of residual quotas (Base: Previously agreed growth rates)
Stage I (1 January 1995)	16% (Total: 16%)	16% higher than initial rate (Example: From 3% to 3.48%)
Stage II (1 January 1998)	17% (Total: 33%)	25% increase (Example: From 3.48% to 4.35%)
Stage III (1 January 2001)	18% (Total: 55%)	27% increase (Example: From 4.35% to 5.52%)
End of transition period (1 January 2005)	49% (Total: 100%)	

*) Importing countries are free to choose the products that they integrate at each stage, as long as products are included from the four groupings tops and yarn, fabrics, made-up textile products, and clothing.

Source: WTO.

3. At its meeting in September/October 2002, the OECD's Trade Committee Working Party initiated work to review the process of structural adjustment in the textiles and clothing sectors in OECD and selected non-OECD countries [TD/TC/WP(2002)43]. The focus of the work would be on structural adjustment issues, covering recent developments in textiles and clothing trade, trade-related labour adjustments, trade-related technology changes, and business facilitation. In addition, quantitative analysis based on empirical economic modelling would be considered as a means to address possible analytical gaps in existing research. In order to identify such gaps, a literature review of quantitative studies on textiles and clothing market liberalisation would be undertaken. This paper provides such a review.

4. There is a considerable body of analysis available that aims to quantify the economic and trade effects of textiles and clothing market liberalisation. A number of analysts at national and international institutions have provided their assessments. Different tools and approaches have thereby been used to evaluate the impacts of textiles trade reform at the regional or global level. Given the economic importance of the textiles and clothing sector in some OECD and non-OECD countries and the resulting economy-wide repercussions that changes in the scale and pattern of textiles production will tend to trigger, analysis using general equilibrium models has been dominant, even though in some cases partial equilibrium approaches have been pursued. Most of this research has been published during the 1990s, and the following review summarises and compares the findings of pertinent quantitative studies. References to earlier analysis that has aimed to assess the effects of liberalising textiles and clothing trade can be found, for example, in Pelzman (1983), Goto (1989) and Spinanger (1991).

5. The remainder of the document is organised in four parts. Section 2 provides background information for the subsequent literature review by discussing some of the major economic effects that would be expected from ATC reform, as well as the implications of different modelling approaches and assumptions. This overview aims to help the reader understand the factors that are driving the modelling results. Section 3 then reviews quantitative studies of ATC reform at the global level, while section 4 complements the survey by discussing relevant studies that have a country or regional focus. Finally, section 5 briefly summarises the main findings.

2. Quantitative aspects of trade liberalisation in the textiles and clothing sector

6. Under the MFA, developed and developing countries negotiated bilateral quotas regulating trade in textiles and clothing.² In order to implement these quantitative restrictions, it was agreed that exporting developing countries would voluntarily restrain their supplies. Export rights became scarce and turned into valuable assets, generating rents for internationally competitive suppliers. Governments generally distributed the quotas free of charge to domestic firms based on criteria such as past export performance (Hamilton, 1990). In most countries, quotas were not tradable. Such allocation schemes favouring *status-quo* exporters, as well as requirements that, for example, related annual quota renewal to export performance in unrestricted markets, generated substantial efficiency losses in developing countries over time (Trela and Whalley, 1995). In some cases, developing country exporters had to share parts of their quota rents with importing firms that were able to exercise market power at the individual product level (Krishna, Erzan and Tan, 1994). Yet, most of the rents generated under the MFA accrued to developing country exporters. Table 2 shows estimates of quota rents for a number of countries, as reported by Harrison, Rutherford, and Tarr (1997).

Table 2: Estimates of MFA quota rents and price premia for textiles and clothing, 1994

	Textiles				Clothing			
	Value of quota rents (\$mn)	Share of exports constrained (%)	Quota premium (%)		Value of quota rents (\$mn)	Share of exports constrained (%)	Quota premium (%)	
			EU	USA			EU	USA
Korea	119	16	10	10	555	55	19	23
Indonesia	97	24	17	12	512	52	48	47
Malaysia	65	100	12	10	330	100	32	37
Philippines	7	50	10	9	363	81	28	34
Singapore	7	11	10	8	365	100	28	31
Thailand	53	40	13	9	396	42	36	35
China	378	19	27	18	2 223	31	36	40
Hong Kong, China	48	13	8	8	1 249	100	16	18
Chinese Taipei	95	13	12	8	515	81	22	19
Brazil	65	100	14	9	43	77	18	20
Mexico	41	60	14	9	181	99	18	20
Latin America	46	45	14	9	619	86	18	20
Middle East & North Africa	84	78	7	5	390	97	9	10
Eastern Europe & FSU	87	78	9	6	430	97	12	13
South Asia	566	46	27	18	1 375	85	36	40

Source: Harrison, Rutherford and Tarr (1997).

7. The system of bilateral quotas has frequently been accompanied by high tariffs applied on imports of textiles and clothing. Countries engaged in tariff reduction commitments during the Uruguay Round, but tariffs on textiles and clothing frequently remain significant even after the cuts, and as illustrated in Table 3 for the case of the EU, are on average considerably higher than in the manufacturing sector overall. Also, textiles and clothing tariffs appear to be consistently high across a large number of products and show lower than average variation. Moreover, high tariffs on textiles and clothing exports are not confined to OECD countries. Large developing country exporters, like ASEAN, China, and South Asia have tariffs ranging from 20 to 33 per cent on textiles and 30 to 35 per cent on clothing, impeding the increasingly important trade among developing countries (Lankes, 2002).

Table 3: Structure of EU pre- and post-Uruguay Round tariffs in the textiles and clothing sector (in per cent)

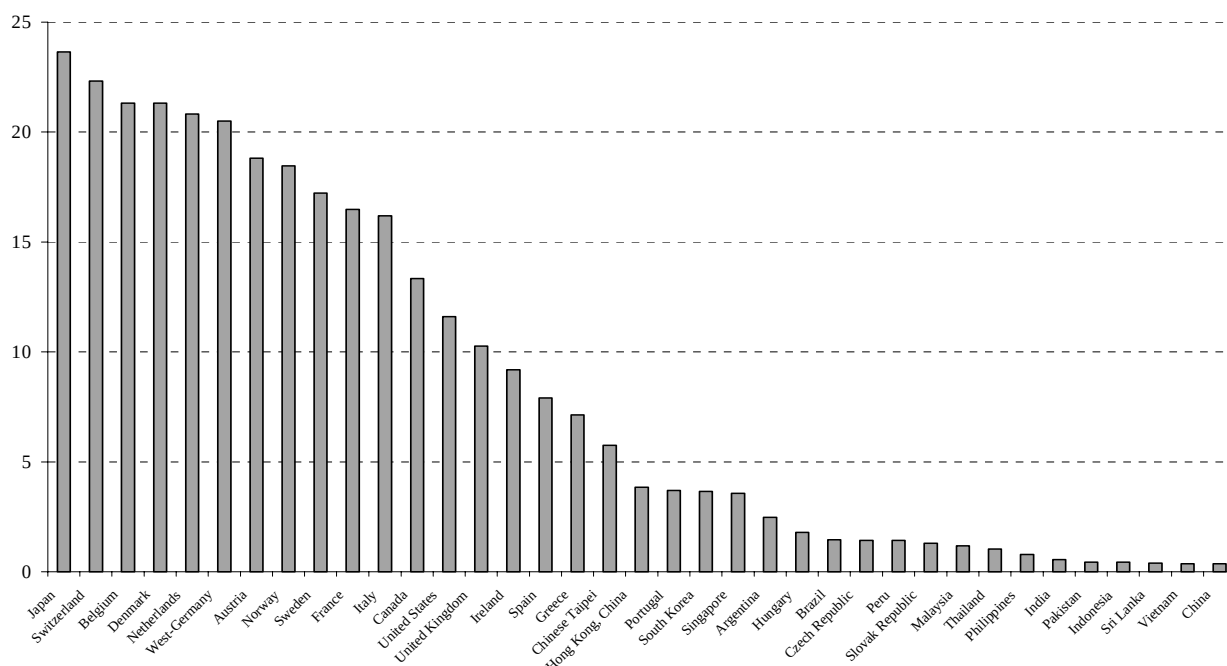
Pre-Uruguay Round (1994)				Tariff rate distribution (in per cent)										
	HS lines	Mean	CoV*	0-2	2-4	4-6	6-8	8-10	10-12	12-14	14-16	16-18	18-20	20-22
Textiles	3943	10.1	0.26	0.8	0.3	2.7	11.2	6.6	64.9	6.1	4.6	2.8	0.0	0.0
Clothing	447	12.3	0.26	0.4	1.1	5.6	4.7	5.4	2.7	13.6	66.4	0.0	0.0	0.0
All manuf.	17760	6.5	0.53	6.8	5.2	29.7	22.3	11.3	17.0	3.6	3.2	0.7	0.0	0.2
Post-Uruguay Round (2004)				Tariff rate distribution (in per cent)										
	HS lines	Mean	CoV*	0-2	2-4	4-6	6-8	8-10	10-12	12-14	14-16	16-18	18-20	20-22
Textiles	3941	7.3	0.25	0.9	0.4	16.2	2.5	68.0	8.1	2.7	0.5	0.8	0.0	0.0
Clothing	447	10.6	0.29	2.0	6.3	1.1	3.1	5.6	1.8	72.7	7.4	0.0	0.0	0.0
All manuf.	17324	4.0	0.96	14.6	27.4	24.6	11.4	17.7	2.8	3.1	0.6	0.4	0.0	0.0

*) Coefficient of variation.

Source: Spinanger (1999b).

8. The complexity of the quota system, the interaction between quotas and tariffs, and the simultaneous Uruguay Round changes in other sectors of the economy make the evaluation of ATC reform difficult. Empirical analysis to quantify the relative magnitude of different impacts becomes necessary. Some of the welfare effects from tariff reduction and quota phase-out that need to be considered are outlined in the following:

- The removal of quantitative restrictions eliminates the basis for quota rents. The latter are passed from exporters to consumers in previously import constrained markets in the form of lower prices. There are also efficiency gains from specialisation according to comparative advantage, which in the case of the US, the EU and other quota-constrained countries is likely to imply increasing domestic consumption and reducing production. As the MFA arrangements were motivated by potential adjustment problems within developed importing countries posed by surges of lower cost imports, the shift of labour and capital resources out of the textiles and clothing sector is likely to entail sizeable adjustment costs. Hence, there are advantages and disadvantages to developed importing countries from ATC reform.
- Importers of textiles and clothing that were previously unconstrained, such as Japan, could well experience reductions in welfare from the removal of textiles quotas. Exporters will tend to divert sales to previously constrained markets, possibly resulting in import price increases and a terms-of-trade deterioration in previously unconstrained importing countries.
- The lowering of tariffs applied to textiles and clothing imports will affect the amount of tariff revenues collected by governments. If the demand for imports is very price elastic, such that a reduction in tariffs (to non-zero levels) triggers a large increase in imports, tariff revenue might increase. Otherwise it will decrease.
- For quota-constrained exporting countries, the welfare effects are mixed (Yang, Martin and Yanagishima, 1997). On the one hand, there is the loss of quota rent in export markets that were previously constrained. On the other hand, exporters could potentially gain in efficiency to the extent that they shift resources into textiles and clothing, assuming they have an *ex post* comparative advantage in these industries, which in many cases will be based on their low labour costs (Figure 1). In addition, there is the potential improvement in terms-of-trade on sales of textiles and clothing products to previously unconstrained markets, such as Japan. The size of the terms-of-trade effects will depend largely on the share of sales to previously constrained *versus* unconstrained markets.
- ATC reforms will also influence the country composition of exports, most likely in the direction of a concentration of suppliers. Whenever textiles and clothing quotas became binding in one country under the MFA, investment was directed to initially unconstrained exporting countries, who then later became constrained also, with investment flowing yet elsewhere. Removing the discriminatory restraints will tend to lead to a reversion to more country concentrated patterns of exports, with many higher cost developing countries, for which the production of textiles and clothing might have been the first stage of the industrialisation process, possibly losing out (Whalley, 1999).
- The implications for upstream sectors, like cotton production, are unclear. An overall increase in textiles and clothing production after trade liberalisation will also boost the demand for cotton to the benefit of fibre producers. However, textiles and clothing production will shift from industrialised to developing countries, and as the latter often run trade policies that favour domestic fibre producers, cotton producing countries without a significant processing industry might encounter stronger impediments to their export operations than before ATC reform.

Figure 1: Hourly Labour Costs in the Primary Textiles Industry, 1993 (in \$US)

Source: Werner International, reproduced from Brugnoli and Resmini (1996).

9. One major challenge for applied economic modelling of textiles and clothing liberalisation is to represent existing quantitative restrictions appropriately. The restrictiveness of the applied MFA quotas varies from product to product, and from supplier to supplier, and aggregate measures have to be interpreted with care. Some researchers have modelled the phase-out of quotas as an increase in exporting efficiency in order to capture the effect of removing the constraint to exports (Diao and Somwaru, 2001), while most analysts liken the effects of the MFA quotas to price wedges and use estimates of export tax equivalents, such as those derived by Francois and Spinanger (2000) and generalised in the GTAP database, in their simulations.

10. There are a number of other differences between the available empirical studies. Analysts emphasise different economic relationships in the textiles and clothing sector and choose their methods and simplifying assumptions accordingly. It is then not surprising that different modelling approaches and sets of behavioural and structural hypotheses generate differing results. The following listing describes some major aspects of frequently encountered analytical approaches, as applied to ATC reform. Reviewing these aspects will provide the background for the subsequent discussion of individual studies.

- **General equilibrium versus partial equilibrium analysis:** Computable general equilibrium (CGE) models make it possible to consider changes simultaneously in different parts of the economy, linkages between sectors, and economy-wide resource constraints at the national and international level (Francois and Reinert, 1998). However, these tools rely on a number of simplifying assumptions, such as full employment of resources, and depend on a large amount of empirical information. If the sector to be analysed is small and not tightly linked to other parts of the economy, partial equilibrium analysis that focuses on the sector under consideration will tend to yield similar results, while being less data-intensive. Most ATC reform studies employ CGE models, though.

- Base year: The base year influences the modelling results in several ways. Prices and quantities change over time, so that models that are calibrated on data for different time periods are not fully comparable. Also, knowledge about policy parameters evolves. For example, available estimates of the export tax equivalents of MFA quota restrictions have undergone major revisions during the 1990s. Moreover, when comparing absolute welfare effects across studies that use different base periods, the effects of inflation should be taken into account.
- Level of aggregation: The sectoral and regional aggregation of a model varies with the objective of a study and data availability. Some aggregation seems inevitable, because it is virtually impossible to model the hundreds of product-lines that are involved in product-specific MFA quotas. A relatively high level of aggregation has the advantage of reducing computational complexity and the need to estimate unknown model parameters. However, aggregation reduces the dispersion of distortions in the economy, so that welfare estimates of the removal of these distortions will be biased downwards. For example, when using a 12 region model, Harrison, Rutherford and Tarr (1997) find global welfare gains from the Uruguay Round that are 5-10 per cent lower than those obtained from an otherwise identical model that differentiates between 24 regions.
- Homogenous versus heterogeneous imports: One important modelling issue concerns the degree to which domestically produced goods and imports from different countries are substitutes for each other. If imports from different countries are taken to be imperfect substitutes (the so-called Armington assumption), intra-industry trade can be represented. Most studies of ATC reform differentiate textiles and clothing products by place of origin and, hence, allow for intra-industry trade. This heterogeneity assumption tends to lead to smaller quantity changes in simulations than would be the case for homogenous products, as consumers are taken to express a preference for domestically produced goods over foreign goods.
- Constant versus increasing returns to scale: Several ATC studies depart from the standard framework of perfect competition and constant returns to scale by assuming that manufacturing, including textiles and clothing production, is characterised by increasing returns to scale. This assumption implies some degree of market power and the representation of firms' behaviour as monopolistic competition. Both domestic and imported products are heterogeneous, so that there is no "home bias" and import price changes are transmitted symmetrically to the domestic market. As a result, simulations of ATC reform generally show stronger impacts than under constant returns to scale and "Armington preferences".
- Static versus dynamic analysis: Analysis using comparative static models is generally based on a medium-term time horizon that allows for some adjustments, like employment shifts, to take place, while assuming a fixed stock of capital. Longer-run dynamic models incorporate additional linkages over time, such as those between policy reform, savings and investment. Changes in investment, in turn, trigger further changes in production and income. Hence, dynamic models tend to predict more pronounced economic effects from policy reform than static ones.

11. A number of analysts have aimed to quantify the impacts of the complex set of trade policy changes contained in the Uruguay Round Agreement. The information requirements for such an undertaking are considerable and analysts have had to compromise between the comprehensiveness of sector and country coverage and the detail of structural and trade policy representation. For example, Haaland and Tollefsen (1994) and Brown, Deardorff, Fox, and Stern (1997) place the emphasis of their CGE analysis on tariff and services trade liberalisation and do not model the phasing-out of MFA quotas. Their sectoral results contain estimates of the impact of the Uruguay Round on textiles and clothing, but as the central liberalisation feature in this sector was not represented, the findings should be interpreted with

care. The following discussion concentrates on quantitative analysis that explicitly deals with MFA quota elimination. Some structural features and the central results of some of the main studies are summarised in Annex tables 1 and 2.

3. Studies at the global level

12. The global effects of textiles trade liberalisation have been considered and quantified before the ATC was conceived. For example, Trela and Whalley (1990) analyse the removal of quotas and tariffs between Canada, the EU, the USA and 34 supplying developing countries using a static CGE model under assumptions of perfect competition and constant returns to scale.³ Traded products are assumed to be homogenous. Their analysis is explicitly geared towards the textiles sector by specifying fourteen textiles and clothing categories and one composite other sector in their model. The researchers expect global welfare gains from quota and tariff elimination to total \$23 billion per year, with the three developed country importers together accounting for about two-thirds of the gains and developing countries for one third. A number of developing countries are expected to be able to increase their exports by several hundred per cent at the expense of production in developed countries. Nevertheless, a few developing countries are expected to face welfare losses from textiles trade liberalisation, as the improved access to developed countries markets would in their cases not compensate for the loss in quota rents. These losses would be more widespread and pronounced, if the textiles market liberalisation would consist of eliminating quotas, but leaving tariffs unchanged, as assumed by the analysts in a second policy scenario.

13. In a follow-up study (Trela and Whalley, 1995), the authors expand their CGE model to capture effects related to internal quota-allocation schemes in exporting countries.⁴ This is done by distinguishing two types of producers in exporting developing countries: established, high-cost producers that supply restricted export markets, and new and more efficient producers that are confined to supply the domestic market. Removal of MFA restrictions and quota-allocation procedures would allow textiles and clothing production to shift to the most efficient producer, both internationally and domestically. Trela and Whalley estimate that the welfare losses from inefficient quota-allocation schemes exceed those from the country quotas, so that the global benefits of quota and tariff elimination would amount to \$49.7 billion annually. The benefits of removing the inefficient quota-allocation scheme would mainly accrue to developing country exporters, even though some of the efficiency improvements would be passed on to developed country importers in the form of lower prices.

14. Similar to Trela and Whalley, Yang (1994) concludes that the abolition of the MFA would benefit most countries and result in a substantial global welfare gain.⁴⁵ However, his study based on a partial equilibrium model of two sectors (textiles & clothing) across eight country groups finds aggregate welfare improvements that are substantially lower than those expected by Trela and Whalley. Moreover, the gains are not falling mainly on developed countries, but are about equally divided between developed and developing countries, even though internal inefficiencies from quota-allocation schemes in developing country exporters are not explicitly considered. The differences in findings seem to be mainly due to lower tariff equivalents used to represent the quota protection of developed country markets and to the differentiation between restricted and unrestricted products in the US, EU and other restricted markets in Yang's study.

15. The first quantitative assessments of the Uruguay Round Agreement predicted very substantial impacts from the opening of textiles and clothing markets. Nguyen, Perroni and Wigle (1993) evaluate the implications of the Draft Final Act of the Uruguay Round for nine sectors and ten country groups using a static CGE model.⁴ They find that the aggregate welfare gains from textiles quota expansion would exceed those of the scheduled agriculture and service market liberalisation and account for \$84.5 billion per year, or almost 40 per cent of the total Uruguay Round gains.⁶ The welfare gains would fall roughly equally on

developed and developing countries. World trade in textiles is expected to increase by six per cent. Large-scale labour market adjustments are predicted, with the country group comprising South Korea, Chinese Taipei, Hong Kong/China, and Singapore expected to see employment in textiles and clothing production increase by more than 80 per cent, while the textiles labour force in Australia and New Zealand, Canada, the USA, and Western Europe is foreseen to contract by 22 to 36 per cent.⁷

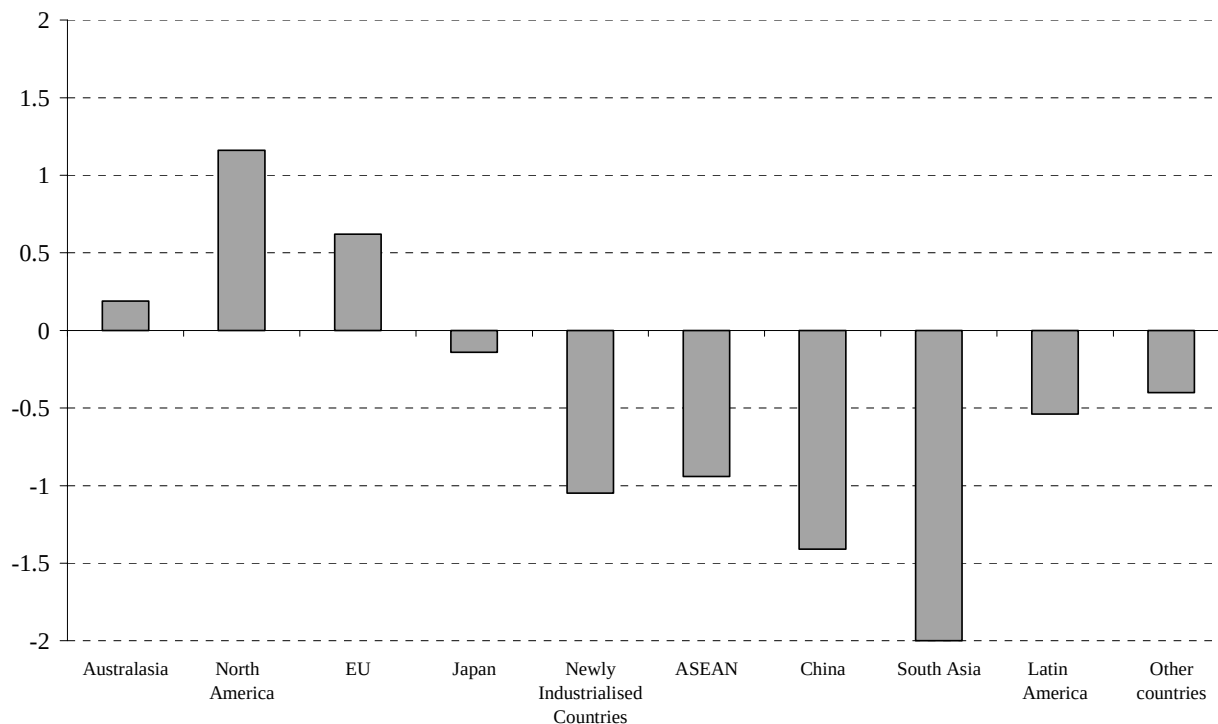
16. Large shares in overall Uruguay Round welfare gains from textiles trade liberalisation are also found by other analysts. Using a dynamic CGE model under assumptions of perfect competition and constant returns to scale, Francois, McDonald and Nordström (1994) estimate the global gains from textiles and clothing quota removal to amount to \$47 billion annually,⁸ which corresponds to 42 per cent of their estimate of total Uruguay Round welfare increases. In a second scenario, in which the authors assume monopolistic competition and increasing returns to scale, the predicted welfare gains from textiles market liberalisation are at \$189 billion more than four times higher than in their first scenario and account for no less than two-thirds of all Uruguay Round gains. Moreover, in the second scenario all countries, including developing countries, see welfare improvements from textiles quota elimination, while developing countries lose in the case of perfect competition and constant returns to scale. This result is due to the greater price elasticity of import demand under monopolistic competition and increasing returns to scale,⁹ so that the benefits from improved access of developing countries to developed country markets more easily compensate for the loss of quota rents.

17. In a subsequent study (Francois, McDonald and Nordström, 1996), the authors use a similar modelling set-up for a different baseline period and a more detailed sectoral and regional breakdown. In addition, they explore alternative linkages between trade, income and capital accumulation. In particular, different assumptions concerning the capital stock (fixed or endogenous) and the savings rate (fixed or endogenous) are considered in order to study longer-term capital accumulation effects that can magnify income gains or losses. The results indicated that incorporation of “full dynamics” (both capital stock and savings rate endogenous) leads to estimates of global welfare gains from textiles and clothing market liberalisation that are almost twice as high as those under the assumption of a fixed capital stock and a fixed savings rate.

18. Yang, Martin and Yanagishima (1997) analyse textiles and clothing market liberalisation using the Global Trade Analysis Project (GTAP) CGE model, calibrated on data for the year 1992. They distinguish 10 sectors, including two for textiles and clothing, and 10 regions. Their results suggest that the ATC would account for aggregate annual benefits of \$28.6 billion, or 38 per cent of all global welfare gains from the Uruguay Round. The authors also report expected terms-of-trade changes due to the phase-out of MFA quotas, which show improvements in export to import price ratios for Australasia, North America and the EU, while Japan and developing countries are expected to see a worsening in their terms-of-trade (Figure 1).

Figure 1: Expected changes in terms-of-trade after MFA quota removal *

(in per cent)



Note: *) assuming no change in pre-Uruguay Round tariffs.

Source: Yang, Martin and Yanagishima (1997).

19. A version of the GTAP model is also used by Hertel, Martin, Yanagishima and Dimaranan (1996) when analysing the liberalisation of manufacturing trade. But their estimates are based on ATC reform in a projected economy of the year 2005. They find that MFA quotas would become more binding over time for virtually all exporters, taking into account projected economic growth, structural changes, and ATC quota growth. The increases in restrictiveness are particularly pronounced for exports of clothing from China, Indonesia, Malaysia and the Philippines. Removing textiles and clothing quotas under these circumstances would lead to global welfare gains of \$37.3 billion per year.

20. Bach, Dimaranan, Hertel and Martin (2000) explicitly compare liberalisation scenarios with and without considering projected changes in the economy during the Uruguay Round implementation period. Simulations of MFA removal using the high export tax equivalents for 2005 yield estimates of global welfare gains that are more than 140 per cent higher (in 1992-US\$) than those obtained using export taxes for the year 1992. The differences between simulation results for other parts of the Uruguay Round package, such as tariff reform, are much less pronounced, suggesting that economic growth and structural changes in the textiles and clothing sector warrant particular attention by analysts.

21. Yang (1996) also analyses MFA reform for an economy projected to the year 2005. He first evaluates the impacts of quota acceleration during the ATC transition period, before proceeding to an assessment of MFA quota elimination. He finds that the production and welfare impacts during the three phases of ATC transition are limited. One reason for the small effects might be that the integration requirements are defined in volume terms so that importing countries can minimise their adjustment needs

by first integrating product items that are high in volume but low in value (Bagchi, 1994). The global welfare improvement from full elimination of MFA quotas is projected to amount to \$52.9 billion annually. In a further scenario, the author evaluates the implications of induced technological change on the liberalisation outcome and estimates that the benefits of reform would be magnified substantially and would, under his assumptions, lead to welfare gains for all country groups concerned.

22. The substantial size of the expected welfare gains in some of the early studies of ATC reform may be partly due to an overestimation of the tariff equivalents of textiles and clothing quotas and, hence, the benefits of removing existing protection. Using updated figures for tariff equivalents and a static CGE model under constant returns to scale, Harrison, Rutherford and Tarr (1997) estimated the annual benefits of ATC reform to amount to \$16 billion, or 27 per cent of total Uruguay Round gains.¹⁰ An increasing returns to scale version of their model predicted slightly higher global welfare gains from textiles and clothing liberalisation of \$16.4 billion, and the simultaneous consideration of dynamic capital accumulation effects resulted in a benefit estimate of \$20.3 billion. Similar to the analysis by Francois *et al.* (1996), the incorporation of dynamic linkages in the model led to more optimistic estimates concerning the impact of ATC reform on developing countries. Harrison *et al.* also conducted sensitivity analysis with respect to the elasticities of demand, and found that developing countries would experience higher and more widely spread welfare increases if demand was assumed to be relatively more inelastic, as reductions in import prices would trigger larger demand increases in developed importing countries and higher terms-of-trade gains in unconstrained markets. Moreover, larger elasticities of substitution between different export markets would benefit developing countries in the aggregate, but efficient producers, such as China, South Asia, Indonesia, Thailand, and Malaysia, would gain from the possibility of breaking more easily into previously constrained markets at the expense of high-cost producers in Latin America, the Middle East, North Africa, Eastern Europe and the former Soviet Union.

23. Diao and Somwaru (2001) stress the impacts of liberalisation over time in their analysis. They model ATC reform as a reduction in tariffs by 30-40 per cent and an annual increase in export efficiency by 0.5 per cent over 20 years. They predict that textiles and clothing trade levels after trade policy reform would be 5 to 16 per cent higher than they would have been without trade liberalisation, with trade in clothing products increasing twice as fast as textiles trade. Clothing and textiles exports from developing countries would increase, but so would to some extent textiles exports from industrialised countries. This finding hints at the international interrelationships in production patterns with lower prices for clothing stimulating demand in developed countries and exports from developing countries, who in turn increase their imports of capital-intensive textiles products used as inputs for the production of labour-intensive clothing. Asian and Middle Eastern exporters are expected to gain world market share, at the expense of producers in Eastern Europe, Latin America, and industrialised countries. As the authors assume that no MFA quota rents exist, the improved resource allocation after trade liberalisation leads to welfare gains in all countries. Global benefits are expected to amount to \$88 billion annually in the short run (Year 5) and \$203 billion in the long run (Year 20). More than two-thirds of all welfare gains accrue to developing countries.

24. Recent IMF analysis using the GTAP model covers impacts on labour market and upstream sectors (Lankes 2002). It is estimated that each job saved in a developed country by tariffs and quotas costs about 35 jobs in developing countries. Eliminating MFA quotas and tariffs on textiles and clothing in developed countries would generate employment for as many as 27 million workers in developing countries. Global welfare gains are estimated to amount to \$34.7 billion per year, with more than two-thirds of the total accruing to developing countries. Some of these gains would be captured by fibre crop producers. For example, cotton exports from sub-Saharan Africa are expected to increase by 9 per cent, or \$132 million, as a result of textiles and clothing liberalisation. The study also evaluates the impact of further liberalisation of textiles and clothing trade, including tariff reductions in developing countries, and

finds that developing countries would be able to capture almost all the welfare gains from such liberalisation efforts.

25. A major impact on textiles and clothing trade flows during the 1990s has ensued from regional trade agreements, like the Europe Agreements and NAFTA, as well as from the establishment of offshore processing legislation, which enabled firms to circumvent MFA quotas (Brugnoli and Resmini, 1996; Spinanger, 1999a). Fouquin, Morand, Avisse, Minvielle and Dumont (2002) quantify the impacts of further regional integration, in addition to analysis of MFA quota elimination. In particular, they simulate the impact of hypothetical free trade areas between the European Union and Mediterranean countries, and between North and Latin American countries. They find that removing the remaining EU tariffs on textiles and clothing imports from Mediterranean countries would boost production of textiles and clothing by 20 per cent and more than 50 per cent, respectively. Clothing exports to the EU would more than double. In terms of welfare effects, the Mediterranean countries would gain \$3 billion per year compared to a welfare loss under a scenario of MFA quota elimination without regional preferences. Due to trade diversion, Asian exporters, notably China, would lose in exports and economic welfare. Qualitatively similar effects are predicted from the creation of a free trade area of the Americas, even though the quantitative impacts are expected to be less pronounced.

4. Studies with a regional focus

26. In addition to analysis that evaluates the global impacts of ATC reform, there are a number of studies that focus on the effects of liberalising textiles and clothing trade for particular regions. Francois, Glismann, and Spinanger (2000) analyse the impacts of ATC reform for the EU using a CGE model. In particular, they evaluate the relative effects of MFA quota phase-out and Uruguay Round tariff reductions. They find that the EU would reap total welfare gains of €25.3 billion per year, of which 97 per cent would derive from MFA elimination and 3 per cent from tariff reform. Moreover, they estimate the distribution of reform benefits across member countries (Table 4). Germany, France, and the United Kingdom are the main beneficiaries of ATC reform in absolute terms, while Denmark, Germany, and Austria gain most if the welfare increases are related to population size. Southern European countries would carry relatively large shares of negative sectoral impacts, but these would be more than compensated through estimated consumer gains. Nevertheless, Greek families would on average gain only about a fifth as much from ATC reform as Danish ones. The authors also assess the annual costs of protection per job saved. For textiles, the latter amount to about €28 500 per worker, and for clothing to about €41 100.

Table 4: Annual welfare gains from ATC reform in the European Union (1997-€)

	MFA elimination	UR tariff cuts	Total ATC reform	
	Million €	Million €	Million €	€ per family of four
Austria	639	18	661	327
Belgium/Lux.	789	22	815	307
Denmark	494	14	511	386
Finland	350	10	362	281
France	4 428	124	4 581	312
Germany	6 752	196	6 999	341
Greece	211	5	217	83
Ireland	175	5	181	196
Italy	3 356	83	3 453	240
Netherlands	1 101	32	1 140	291
Portugal	230	5	235	94
Spain	1 580	43	1 633	166
Sweden	517	15	536	242
United Kingdom	3 824	106	3 956	268
Total EU	24 446	677	25 282	270

Source: Francois, Glismann and Spinanger (2000).

27. The production and labour market effects of ATC reform on the German textiles and clothing sector have been investigated and quantified by Schöppenaus, Egerer, Brenton, and Buelens (2002). They first simulate the impact of the EU's eastward enlargement on textiles and clothing markets, as the final stage of ATC reform is scheduled to take place after 10 new members have joined the Union. Enlargement is expected to have a moderately positive effect on textiles production (plus 2.9 per cent) and a moderately negative impact on clothing output (minus 1.5 per cent) in Germany. The removal of MFA quotas will have more pronounced though still limited effects, with expected reductions of textiles output and employment of about 4.4 per cent and a contraction of clothing production and employment by about 6.4 per cent. In a further simulation, the authors assess the impact of a world-wide cut in textiles and clothing tariffs by 20 per cent and find that such an additional liberalisation step would only have minimal effects in Germany and the EU. The general equilibrium analysis is complemented by partial equilibrium assessments of the effects on textiles and clothing related industries, such as spinning, weaving, and machinery. The expected impacts vary across these industries, as the latter are affected to a differing extent by the removal of MFA quotas and the subsequent adjustments in the textiles and clothing sector. The output of the spinning sector in Germany is expected to contract by 3.4 per cent, i.e. less than textiles and clothing, while production in the weaving and machinery industry is foreseen to fall more than proportionally (10.4 per cent and 9.2 per cent, respectively). The study did not report any estimates of welfare impacts, but, as indicated by Francois, Glismann and Spinanger (2000), Germany can be expected to be among the main beneficiaries of ATC reform in the EU, due to lower consumer prices and more efficient resource use.

28. The USA is also expected to gain considerably from liberalisation of textiles and clothing trade. Using a partial equilibrium approach, Cline (1987) estimates the net welfare gains from complete liberalisation to amount to \$7.3 billion annually for clothing and \$0.8 billion for textiles.⁴ He also investigates the income distribution effects of textiles and clothing protection. When taking employment effects, consumption patterns and enterprise profits into account, he finds that protection tends to benefit primarily the higher income groups that obtain most of the protection-inflated industry profits.

29. De Melo and Tarr (1990) use a CGE model of the US economy to examine the effects of quota removal.⁴ They estimate that improvements in efficiency would generate annual benefits of \$5.9 billion and capturing rents from foreigners would result in additional gains of \$6 billion, resulting in an overall annual welfare improvement of \$11.9 billion. The authors also assess concerns regarding adjustment costs in the domestic quota-protected industries. When measuring social hardship as the earnings losses of displaced workers over six years, they estimate that the benefits of quota elimination would largely outweigh the adjustment costs, to the extent that for every dollar of worker income saved, the economy would lose \$65.¹¹

30. Reinert (1993) uses a similar approach as the one employed by De Melo and Tarr, while differentiating between the textiles and clothing sectors and explicitly considering five upstream supplier sectors: cotton, cellulosic man-made fibres, non-cellulosic organic fibres, textiles machinery, and needles, pins and fasteners.⁴ He estimates US welfare gains from MFA quota elimination to amount to \$7.3 billion. About 90 per cent of these gains are due to the removal of clothing quotas and 10 per cent to the liberalisation of textiles trade. Employment in the textiles and clothing sectors is expected to contract by 16 100 and 21 300 full-time equivalent employees, respectively, and by an aggregate 2 560 workers in the five upstream sectors.

31. In a related study, Hanson and Reinert (1997) investigate the distributional effects of textiles and clothing protection in the USA.⁴ Using the CGE model of Reinert (1993), they disaggregate households into eleven income groups and assess the effects of MFA quota removal on the different groups. Contrary to Cline (1987), they find that textiles and clothing protection is slightly progressive. In particular, the losses in employment opportunities for low-wage workers in textiles and clothing production after MFA elimination are not entirely offset through lower consumer prices. Hence, removing quota-protection is predicted to affect the US income distribution slightly in the direction of greater inequality.⁷

32. The impact of ATC reform on some major developing country exporters, notably Asian countries, has also been subject to quantitative investigations. For example, Yang and Zhong (1998) use the GTAP-CGE model to compare projected annual changes in output and trade for some major textiles and clothing exporters with and without trade liberalisation. One of their findings is that while trade liberalisation would accelerate output growth in China, textiles output would continue to grow much less rapidly than GDP. In contrast, growth in clothing production exceeds overall economic growth. The group of newly industrialised economies (NIEs) shows an opposite growth pattern, pointing to fiercer competition from China in clothing production after trade liberalisation, while increased textiles demand in China and other efficient clothing producers helps boost textiles production in the NIEs. In a related study (Zhong and Yang, 2000), the authors estimate that China would realise welfare gains of as much as \$8.6 billion per year from the phasing out of the MFA. This would correspond to almost two-thirds of the country's total gains from liberalising according to Uruguay Round patterns.

33. Ianchovichina, Martin and Fukase (2000) evaluate the impacts of China's accession to the WTO, based on the "accession offer" of November 1999. Their GTAP-analysis uses economic projections for the period 1995-2005. They find that the most important sectoral impacts of China's accession to the WTO would concern the clothing industry. Production of clothing is expected to rise by 249 per cent over the ten year period following accession, compared to 54 per cent in a counterfactual scenario of no accession. Exports would increase by 330 per cent, compared to 43 per cent without accession. The expansion of clothing production is predicted to stimulate input demand for imported textiles, to the extent that the latter would increase by 163 per cent.

34. Walmsley and Hertel (2000) use a dynamic version of the GTAP model to analyse the effects of alternative target dates for the elimination of China's MFA quotas following WTO accession. In particular, they compare a scenario in which quotas levied by North American and European countries are

assumed to be eliminated at the beginning of 2005 with one in which safeguards are invoked to delay the removal of quotas on Chinese textiles and clothing until 2010. The results indicate that China, North America and Europe would all experience lower welfare gains from deferred liberalisation. Moreover, the authors find that job losses in the textiles and clothing industry of industrialised countries are delayed, but not avoided, when quotas are phased out more gradually.

35. China's and Chinese Taipei's accession to the WTO is also the subject of analysis by Francois and Spinanger (2002). Similar to other analysts, they see textiles and clothing as a sector with very strong production and export potential in Greater China, particularly the People's Republic. ATC reform alone is expected to increase China's GDP by 1.1 per cent, which corresponds to about a fifth of the economy-wide growth impact of WTO accession. According to the authors' GTAP results, WTO accession and ATC reform will increase textiles exports significantly both in China (+39 per cent) and Chinese Taipei (+14 per cent). For clothing, exports from China are expected to explode (+168 per cent), while those from Chinese Taipei (-53 per cent) will likely contract. More generally, countries that have profited from preferential market access to industrial countries through the MFA are expected to suffer substantial losses in international market share. The authors also evaluate the prospective impact of China's WTO accession and ATC reform on Hong Kong/China and conclude that Hong Kong/China will remain a major sourcing hub for textiles and clothing production, but will face fiercer competition in world markets.

36. Another developing country beside China that is expected to experience significant production, export, and welfare increases from ATC reform is India. In their study of the impact of global trade policy, Chadha, Pratap, Bandyopadhyay, Sachdeva and Kurien (2000) expect India to experience welfare improvements of \$1.9 billion (in 1995-US\$) from the phase-out of MFA quotas, which corresponds to more than half of the country's total Uruguay Round gain.¹² These gains are likely to have further increased in recent years, as export tax equivalents of Indian MFA quotas for textiles and clothing have risen over time (Kathuria and Bhardwaj, 1998; Kathuria, Martin and Bhardwaj, 2001). Moreover, when studying the implications of domestic policy reforms in India in the context of trade liberalisation, Elbehri, Hertel and Martin (2003) find that if labour productivity in Indian textiles and clothing industries would increase by 67 per cent to reach the level enjoyed by China, the benefits from ATC reform for the country would more than double.

5. Summary

37. The preceding sections surveyed a considerable number of quantitative analyses of ATC reform. The key characteristics and main results of 29 assessments, drawn from 16 different studies, are summarised in annex tables 1 and 2. The ATC reform simulations rely on differing modelling approaches, base data, and structural assumptions, which, as discussed in section 2, drive the results. It seems *a priori* impossible to judge which analyst is right or wrong in his or her assessment. In any case, having several estimates derived under different circumstances can make it possible to increase one's confidence about some consistently obtained simulation outcomes, while at the same time help to identify issues that might warrant further analysis.

38. For example, the modelling results consistently indicate considerable shifts in textiles and clothing production and trade as the ATC is implemented. There is pressure for a large-scale reallocation of resources, with production of textiles and clothing expanding in Asian and other developing countries. In parallel, textiles and clothing production in industrialised countries is expected to contract significantly, while imports of textiles and clothing from developing countries increase.

39. All the reviewed studies foresee increases in global welfare as a result of a liberalisation of trade in textiles and clothing. But the estimates of welfare gains show considerable variation, with expected annual global benefits ranging from \$6.5 billion to \$324 billion. Some studies predict ATC reform to account for up to two-thirds of all gains from the Uruguay Round, while others put the contribution of textiles and clothing liberalisation at merely 5 per cent. There is similar discrepancy with respect to the distribution of welfare gains. A number of analysts see developing countries as the main beneficiaries of ATC reform, while others expect them in the aggregate to lose from the policy changes. There is also variation in the direction and magnitude of expected welfare impacts at the level of many individual developing countries.

40. In this context of uncertainty regarding the reform outcome, it is striking that developing countries have consistently been supporting the removal of the MFA. But, as some of the quantitative studies show, this stance is understandable in a dynamic world where capital accumulation effects are taken into account and the fact that inefficient quota-allocation schemes can lead to a dissipation of quota rents over time. Under these circumstances, elimination of the MFA might make it possible for developing countries to seize upon their comparative advantage in textiles and clothing and increase their export revenues and incomes.

41. Another significant result from the empirical studies is that Canada, the EU and the USA are again and again expected to experience substantial increases in welfare from ATC reform, while these countries had been among the initiators of the MFA in the first place. The optimistic modelling results seem partly due to the implicit assumption that resources that are released from some activity can switch to another one without major disruption. In other words, any potential short or medium-term adjustment problem is assumed away. This assumption makes it difficult to properly understand the purpose of quotas. Of the reviewed studies, only De Melo and Tarr (1990) try to incorporate adjustment costs into their assessment, and this in a rather *ad hoc* way. While substantial welfare gains for most OECD countries from lower consumer prices and more efficient resource allocation seem likely in the longer run, potential adjustment problems following MFA phase-out are an important policy consideration and might warrant further analysis.

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Endnotes:

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- ¹ Article 7, paragraph 1, subparagraph (a) of the ATC states: "As part of the integration process and with reference to the specific commitments undertaken by the Members as a result of the Uruguay Round, all Members shall take such actions as may be necessary to abide by GATT 1994 rules and disciplines so as to achieve improved market access for textile and clothing products through such measures as tariff reductions and bindings, reduction or elimination of non-tariff barriers, and facilitation of customs, administrative and licensing formalities."
 - ² The quotas on exports from developing countries were to grow by 6 per cent annually, although the growth rate of bilateral quotas often fell short of this target. The MFA also foresaw some limited flexibility that allowed countries to transfer a portion of an unfilled quota from one category to another ("swing"), to use the unfilled quota from the previous year ("carry-over"), or to borrow quota from the next year ("carry-forward").
 - ³ An earlier version of the analysis was published as a working paper (Trela and Whalley, 1988).
 - ⁴ This study was completed before the ATC came into effect, so that it does not assess the ATC as such.
 - ⁵ The analysis draws on a doctoral dissertation (Yang, 1992a) and a working paper (Yang, 1992b).
 - ⁶ In the Nguyen *et al.* analysis, textiles and clothing are grouped together with furniture into a 'light industries' sector, so that a part of the reported welfare gains from trade liberalisation will be due to improved furniture market access.
 - ⁷ Yet, employment losses have to be seen in the context of ongoing restructuring in the textiles and clothing sector, which in the USA, for example, has resulted in the contraction of employment by 725 000 jobs between 1994 and 2002.
 - ⁸ The estimates apply to the removal of industrial quotas, which in the authors' analysis comprise quotas on Japanese car exports alongside textile and clothing quotas.
 - ⁹ In the case of increasing returns to scale and imperfect competition, there is no dichotomy between homogenous domestic products and heterogenous imported products. Both domestic and imported products are heterogenous, while with perfect competition and constant returns to scale the use of the so called "Armington assumption", which implies that imports from different regions are imperfect substitutes, leads to an inherent home bias with a relatively low transmission of import price changes to the domestic market.
 - ¹⁰ The study was also published as a book chapter (Harrison, Rutherford and Tarr, 1996).
 - ¹¹ Concerning adjustment impacts on capital owners in the textiles industry, the losses can be expected to be relatively modest, as the US textiles industry has consistently lagged the sector-average in terms of profitability.
 - ¹² This study is related to the earlier conference paper by Chadha, Pohit, Stern and Deardorff (1999).

Annex table 1: Structural characteristics of ATC reform studies

Study	Author affiliation	Approach	Base year	Dynamics	Competition	Imports	Sectors (T & C)	Regions	Policy reform
Trela & Whalley (1990)	Univ.-CAN	CGE	1986	Static	Perfect	Homogeneous	15 (14)	37	Quota & tariff elimination
		CGE	1986	Static	Perfect	Homogeneous	15 (14)	37	Quota elimination
Trela & Whalley (1995)	Univ.-CAN	CGE	1986	Static	Perfect	Homogeneous	15 (14)	37	Quota & tariff elimination
		CGE	1986	Static	Perfect	Homogeneous	15 (14)	37	Quota elimination
Nguyen <i>et al.</i> (1993).	Univ.-CAN	CGE	1986	Static	Perfect	Heterogeneous	9 (1)	10	Exp. of quotas by a factor of 4
Yang (1994)	Univ.-AUS	PE	1986	Static	Perfect	Heterogeneous	2 (2)	8	Quota elimination
Francois <i>et al.</i> (1994)	GATT	CGE	1990	Dynamic	Perfect	Heterogeneous	15 (2)	9	Quota elimination & tariff red.
		CGE	1990	Dynamic	Monop.	Heterogeneous	15 (2)	9	Quota elimination & tariff red.
		CGE	1990 & 2005	Dynamic	Perfect	Heterogeneous	15 (2)	9	Quota elimination & tariff red.
		CGE	1990 & 2005	Dynamic	Monop.	Heterogeneous	15 (2)	9	Quota elimination & tariff red.
Francois <i>et al.</i> (1996)	GATT	CGE	1992	Static	Perfect	Heterogeneous	19 (2)	13	Quota elimination & tariff red.
		CGE	1992	Semi-dyn.	Perfect	Heterogeneous	19 (2)	13	Quota elimination & tariff red.
		CGE	1992	Dynamic	Perfect	Heterogeneous	19 (2)	13	Quota elimination & tariff red.
		CGE	1992	Static	Monop.	Heterogeneous	19 (2)	13	Quota elimination & tariff red.
		CGE	1992	Semi-dyn.	Monop.	Heterogeneous	19 (2)	13	Quota elimination & tariff red.
		CGE	1992	Dynamic	Monop.	Heterogeneous	19 (2)	13	Quota elimination & tariff red.
Yang <i>et al.</i> (1997)	Univ.-AUS & WB	CGE	1992	Static	Perfect	Heterogeneous	10 (2)	10	Quota elimination & tariff red.
Herel <i>et al.</i> (1996)	Univ.-USA & WB	CGE	1992	Static	Perfect	Heterogeneous	10 (2)	15	Quota elimination
Bach <i>et al.</i> (2000)	Univ.-DNK/USA & WB	CGE	1992	Static	Perfect	Heterogeneous	8 (2)	13	Quota elimination
		CGE	1992 & 2005	Static	Perfect	Heterogeneous	8 (2)	13	Quota elimination
Harrison <i>et al.</i> (1997)	Univ.-USA & WB	CGE	1992 & 94	Static	Perfect	Heterogeneous	22 (2)	24	Quota elimination & tariff red.
		CGE	1992 & 94	Static	Monop.	Heterogeneous	22 (2)	24	Quota elimination & tariff red.
		CGE	1992 & 94	Dynamic	Monop.	Heterogeneous	22 (2)	24	Quota elimination & tariff red.
Yang (1996)	UN	CGE	1992 & 2005	Static	Perfect	Heterogeneous	6 (2)	15	Quota elimination
Chadha <i>et al.</i> (2000)	R-Inst.-IND	CGE	1995	Static	Monop.	Heterogeneous	23 (2)	7	Quota elimination
Diao & Somwaru (2001)	IFPRI & Gov.-USA	CGE	1997	Dynamic	Perfect	Heterogeneous	7 (2)	13	Exp. efficiency incr. & tariff red.
Fouquin <i>et al.</i> (2002)	R-Inst.-FRA	CGE	1997	Static	Perfect	Heterogeneous	7 (2)	13	Quota elimination
Lankes (2002)	IMF	CGE	1997	Static	Perfect	Heterogeneous	7 (3)	17	Quota & tariff elimin. in ind. c.

Annex table 2: Estimates of annual welfare gains from ATC reform (base year billion US\$)

Study	Global	CAN	EU	JPN	USA	CHN	IND	All dev. c'tries (% of tot gains)	Share of UR (% of tot gains)	Comment
Trela & Whalley (1990)	a	0.8	2.2		12.3	1.8	0.1	35%		
	b	0.9	3.0		15.0	0.9	-0.1	13%		
Trela & Whalley (1995)	a	1.1	3.7		16.4	1.9	0.5	57%		Capturing effects of inefficient quota-allocation.
	b	1.2	4.7		19.2	1.2	0.3	48%		Capturing effects of inefficient quota-allocation.
Nguyen <i>et al.</i> (1993).		1.6	17.2	-0.5	21.6			49%	40%	
Yang (1994)			1.0	-0.1	2.2	0.4		52%		
Francois <i>et al.</i> (1994)	a	1.7	26.4	-0.3	23.6	-1.0		-16%	42%	Dynamics through endogenous capital stock
	b	6.3	70.7	1.3	62.9	1.6		19%	65%	Dynamics through endogenous capital stock
	c	2.7	42.9	-0.4	38.4	-3.5		-24%	39%	Dynamics & 2005 projected economy
	d	10.2	115.1	2.1	102.3	5.4		23%	64%	Dynamics & 2005 projected economy
Francois <i>et al.</i> (1996)	a	0.3	5.9	-0.6	7.1	3.3		27%	46%	
	b	0.7	8.6	-0.8	10.8	5.4		28%	44%	Endogenous capital stock & fixed savings rate
	c	1.0	9.4	-0.6	11.9	5.9		36%	35%	Endogenous savings rate & end. capital stock.
	d	-0.2	10.3	2.0	11.7	9.4		61%	59%	
	e	-0.1	17.3	3.3	19.2	19.0		68%	61%	Endogenous capital stock & fixed savings rate
	f	0.4	18.5	4.2	22.6	11.2		59%	50%	Endogenous savings rate & end. capital stock.
Yang <i>et al.</i> (1997)			13.5	-1.7		5.6		-4%	38%	
Hertel <i>et al.</i> (1996)			24.9	0.8		5.9		-32%	14%	Based on 2005 projected economy
Bach <i>et al.</i> (2000)	a		8.1	0.2		1.9	1.4	-11%	30%	
	b		23.3	0.7		7.2	1.9	-20%	38%	Based on 2005 projected economy
Harrison <i>et al.</i> (1997)	a	0.9	7.6	-0.5	10.1	0.9		-14%	27%	
	b	0.9	7.6	-0.6	10.0	1.0		-9%	17%	
	c	1.0	7.8	-0.5	9.2	1.7		17%	12%	Dynamics through endogenous capital stock
Yang (1996)			30.7	3.7		5.1		-31%	49%	
Chadha <i>et al.</i> (2000)		0.8		-1.7	4.4	0.6	1.9	37%	5%	
Diao & Somwaru (2001)			19.4			23.7	10.8	72%		Welfare effects after year 20
Fouquin <i>et al.</i> (2002)			1.5	-0.8		6.0	4.1			
Lankes (2002)								69%		

Source: OECD Secretariat.

HIPC and Trade Policy Reform:

Some Early Observations

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Executive summary

In September 1996, the IMF and the World Bank launched the Heavily Indebted Poor Countries (HIPC) Initiative to address the unsustainable external debt situation in many low-income countries by offering debt relief to eligible countries that were pursuing sound economic policies to help reduce their external debt burden to sustainable levels. Following a major review, the Initiative was significantly enhanced in 1999 to provide more rapid qualification and deeper and broader debt relief to a larger number of countries conditional on a commitment to poverty reduction. By the end of 2002, 42 countries had been identified by the IMF and World Bank as being HIPC, of which six had reached completion point, i.e. were receiving debt relief after having started to successfully implement a Poverty Reduction Strategy. The total cost of assistance provided or committed to the 42 HIPC amounts to about \$37.2 billion (in 2001 present value terms). An approximately equal share of this cost falls on bilateral and multilateral creditors.

The HIPC Initiative requires countries receiving debt relief to undertake a Poverty Reduction Strategy programme involving elements of trade policy reform. This study reviews country experiences with respect to the impact of reforms of trade and trade-related policies on economic performance, export capacity and the ability to attract foreign direct investment. Trade policy reform can be crucial for success in international markets. Opening domestic markets will change relative prices, induce adjustments in consumption and production patterns to reflect comparative advantage and, hence, lead to a more efficient use of resources. The resulting efficiency gains will tend to translate into higher levels of economic growth, which in turn make investments from domestic and foreign sources more attractive and increase the country's production and export capacity.

Many HIPC are not able to realise their full export potential due to supply-side constraints. Indeed, high levels of debt are often the result of the inefficient use of investment resources in the past, e.g. for the development of infrastructure. In this context, trade policy reform, covering border and behind-the-border measures, can complement efforts to overcome structural weaknesses and anti-competitive domestic policy practices and introduce more market-driven institutions and decision-making into often highly distorted domestic economies.

While at present the empirical results on the economic performance of different groups of HIPC are only preliminary and indicative, the available evidence suggests that the set of policy reform requirements expected from countries participating in the Initiative is positively linked to income, investment, and integration into the world market. Countries that have reached economic stability and started to implement policy reforms in the context of their Poverty Reduction Strategies have performed better overall during 1997-2001 than countries that are less advanced in their policy reform programmes, which, however, still did better than countries that had not yet attained economic stability and started with domestic reforms. These findings need, however, to be verified through careful econometric analysis, once a sufficiently comprehensive time-series of relevant economic data becomes available. Such analysis might also shed light on the causality of success. In particular, it might make it possible to establish whether participating countries have performed well because of the HIPC requirements associated with debt relief, or whether good policies and relatively good economic performance in the past have made it easier for them to qualify for debt-relief.

1. Background

1. This study reviews experiences in Heavily Indebted Poor Countries (HIPC) with respect to the impact of reforms of trade and trade-related policies on economic performance, export capacity and the ability to attract foreign direct investment. It presents preliminary evidence on the effects of the HIPC policy reform and debt relief programme, drawing mainly on reports of the World Bank and the WTO. The analysis complements work undertaken by other organisations and OECD Committees. In particular, the project recently initiated by the World Bank on “Trade, Aid and Debt in HIPC” focuses largely on market access issues, while the ongoing work of the OECD’s Development Co-operation Directorate (DCD) on HIPC involves primarily the monitoring of debt levels. Some other DCD activities with a broader country range, notably those on good governance, conflict and peace, and trade, development and capacity building, are also of relevance, even though they do not necessarily have a trade policy reform focus. Moreover, the OECD’s Export Credit Group is continuing to monitor export credit flows to HIPC with a view of ensuring that they are not used for unproductive expenditures.

2. The remainder of the document is organised in two parts. Section 2 provides a brief description of the HIPC Initiative. Section 3 then reviews the economic, trade and investment performance of HIPC during the five-year period 1997-2001 and reports on recent reform efforts in a number of countries.

2. The HIPC Initiative

3. In the early 1990s, it became more and more apparent that the external debt situation for a number of low-income countries, notably those in Africa, had become extremely difficult. For these countries, even full use of traditional mechanisms of rescheduling and debt reduction together with continued provision of concessional financing and pursuit of sound economic policies appeared not to be sufficient to attain sustainable external debt levels within a reasonable period of time and without additional external support. In September 1996, the IMF and the World Bank launched the HIPC Initiative to address the situation by offering debt relief to eligible countries that were pursuing sound economic policies to help reduce their external debt burden to sustainable levels. Following a major review, the Initiative was significantly enhanced in 1999 to provide more rapid qualification and deeper and broader debt relief to a larger number of countries conditional on a commitment to poverty reduction.

4. Debt relief under the HIPC Initiative is subject to successful adjustment and policy reform. All countries requesting assistance must in principle have (i) established a record of macroeconomic stability and economic reforms (ii) adopted a Poverty Reduction Strategy Paper (PRSP) by the *decision point*, the date at which the Executive Boards of the IMF and World Bank formally determine a country’s eligibility for debt relief; and (iii) have made progress in implementing this strategy for at least one year by the *completion point*, the time when multilateral, bilateral and commercial creditors pursue reductions in the net present value of their claims sufficient to reduce the country’s debt to a sustainable level. During the period between the decision and the completion points, the World Bank and the IMF are providing “interim relief”, while bilateral and commercial creditors are generally expected to reschedule obligations coming due. The total cost of assistance provided or committed to the 42 HIPC amounts to about \$37.2 billion (in 2001 present value terms). An approximately equal share of this cost falls on bilateral and multilateral creditors. A detailed description of the HIPC Initiative is contained in the World Bank’s communication to the WG-TDF of September 2002 (World Bank, 2002).

5. By the end of 2002, 42 countries had been identified by the IMF and World Bank as being HIPC. Of these countries, six had reached the completion point, for 20 debts relief had been approved at decision point, 12 had not yet reached decision point, and four had been characterised as countries with potentially

sustainable debt levels. The vast majority of HIPC (34 countries) are located in Africa, while four countries each in Asia and Latin America are covered by the Initiative. Twenty-four of the 42 HIPC are classified by the United Nations as Least Developed Countries (LDCs). Table 1 provides an overview of the status of HIPC.

3. Recent economic, trade and investment performance in HIPC

6. The relationship between trade, finance and debt is complex. Many domestic, border and external policies influence a country's trade performance and financial sustainability. Literature reviews on the linkages between trade and finance (WTO, 2002b) and trade and debt (WTO, 2002c) have highlighted a number of relevant factors. The following discussion focuses on the contribution of trade and trade-related policy reforms to improvements in trade capacity and linkages to foreign direct investment.

7. Trade policy reform can be crucial for success in international markets. Opening domestic markets will change relative prices, induce adjustments in consumption and production patterns to reflect comparative advantage and, hence, lead to a more efficient use of resources. The resulting efficiency gains will tend to translate into higher levels of economic growth, which in turn make investments from domestic and foreign sources more attractive and increase the country's production and export capacity.

8. Many HIPC are not able to realise their full export potential due to supply-side constraints. Indeed, high levels of debt are often the result of the inefficient use of investment resources in the past, e.g. for the development of infrastructure. In this context, trade policy reform, covering border and behind-the-border measures, can complement efforts to overcome structural weaknesses and anti-competitive domestic policy practices and introduce more market-driven institutions and decision-making into often highly distorted domestic economies.

9. Trade policy reforms can also contribute to alleviating poverty and fostering pro-poor growth. In many cases, protection favours vested interests of the socio-political elite at the expense of the country's less well-off population. The HIPC Initiative is explicitly aimed at reducing poverty in participating countries and changes in trade policies can form an integral component of the Poverty Reduction Strategy programmes of the participants, even though in some of the early conditionality programmes, such as those in Uganda, trade aspects seem to have received little consideration (Mijumbi, 2001). The sometimes inadequate integration of trade policy reform elements in PRSPs is actively being addressed and increased attention in PRSPs, which are supposed to be prepared by national governments in a participatory process involving a broad range of relevant stakeholders, is to be devoted, for example, to the link between customs reform and governance and the impact of the imminent liberalisation of textiles trade on HIPC economies.

10. Since the HIPC Initiative in its enhanced form was launched less than four years ago and the first country, Uganda, reached completion point just in May 2000, any evaluation of the success of the HIPC Initiative can only be indicative and preliminary. For example, the available anecdotal evidence regarding the success of reforms of trade and trade-related policies (Box 1) is mixed and difficult to link to the recent economic and trade performance of HIPC. Moreover, data on economic developments in HIPC should be interpreted with care, as there is generally considerable uncertainty concerning the statistical quality of the information. Also, the short-term performance of particular countries (see Annex) is often related to external factors, like commodity price developments, and only partly dependent on domestic policy choices.

Table 1: Status of Heavily Indebted Poor Countries

Country	HIPC-Decision Point	HIPC-Completion Point	LDC-Status	WTO member	Last TPR
<i>Countries that have reached completion point</i>					
Bolivia	Feb-00	Jun-01		Sep-95	Jul-99
Burkina Faso	Jul-00	Apr-02	LDC	Jun-95	Nov-98
Mauritania	Feb-00	Jun-02	LDC	May-95	Sep-02
Mozambique	Apr-00	Sep-01	LDC	Aug-95	Jan-01
Tanzania	Apr-00	Nov-01	LDC	Jan-95	Mar-00
Uganda	Feb-00	May-00	LDC	Jan-95	Dec-01
<i>Countries that have reached decision point</i>					
Benin	Jul-00	..	LDC	Feb-96	Sep-97
Cameroon	Oct-00	..		Dec-95	Jul-01
Chad	May-01	..	LDC	Oct-96	
Ethiopia	Nov-01	..			
Gambia	Dec-00	..	LDC	Oct-96	
Ghana	Feb-02	..		Jan-95	Feb-01
Guinea	Dec-00	..	LDC	Oct-95	Feb-99
Guinea-Bissau	Dec-00	..	LDC	May-95	
Guyana	Nov-00	..		Jan-95	
Honduras	Jul-00	..		Jan-95	
Madagascar	Dec-00	..	LDC	Nov-95	Feb-02
Malawi	Dec-00	..	LDC	May-95	Feb-02
Mali	Sep-00	..	LDC	May-95	Nov-98
Nicaragua	Dec-00	..		Sep-95	Oct-99
Niger	Dec-00	..	LDC	Dec-96	
Rwanda	Dec-00	..	LDC	May-96	
São Tomé and Príncipe	Dec-00	..			
Senegal	Jun-00	..	LDC	Jan-95	
Sierra Leone	Mar-02	..	LDC	Jul-95	
Zambia	Dec-00	..	LDC	Jan-95	Oct-02
<i>Countries that have not yet reached decision point</i>					
Burundi	..	..	LDC	Jul-95	
Central African Republic	..	..	LDC	May-95	
Comoros	..	..			
Congo	..	..		Mar-97	
Congo, Dem. Rep.	..	..	LDC	Jan-97	
Côte d'Ivoire	..	..		Jan-95	Jul-95
Lao P.D.R.	..	..			
Liberia	..	..			
Myanmar	..	..	LDC	Jan-95	
Somalia	..	..			
Sudan	..	..			
Togo	..	..	LDC	May-95	Jan-99
<i>Countries with potentially sustainable debt levels</i>					
Angola	n.a.	n.a.	LDC	Nov-96	
Kenya	n.a.	n.a.		Jan-95	Jan-00
Viet Nam	n.a.	n.a.			
Yemen	n.a.	n.a.			

n.a.: not applicable.

Source: OECD Secretariat based on World Bank and WTO information.

Box 1: Reforming trade and trade-related policies in HIPC: some examples

Many developing countries have made progress since the mid-1990s in the “primary agenda” of domestic trade policy reform, such as tariff reduction, conversion of non-tariff barriers, or reduction in the dispersion of tariff rates. For example, Mauritania reduced its average tariff from 19 per cent in 1996 to 10.6 per cent in 2001. The country also consolidated its tariff structure, reducing maximum rates from 180 per cent to 20 per cent (World Bank, 2001a).

With border duties falling in many countries, some HIPC have started to develop legislation on new anti-dumping, as well as countervailing and safeguard measures. For example, Malawi seems to be heading towards a more extensive use of trade remedies, even at the risk of thereby protecting inefficient industries (WTO, 2002e). However, some countries, such as Cameroon, have legislation regulating contingency trade measures in place, but have not yet applied such trade policy instruments (WTO, 2001a).

Customs procedures are a major problem in many developing countries. One of the three pilot diagnostic studies carried out in the context of the Integrated Framework investigated trade policies in Cambodia (a moderately-indebted, low-income country), and found that 99 per cent of trading firms identified Cambodian customs as their biggest constraint (World Bank, 2001b). Some countries have started to address these problems by streamlining customs procedures, for example, through opening single-window facilities, such as in Cameroon (WTO, 2001a).

One continuing problem in many HIPC is that customs procedures might appear clear on paper, while in practice they turn out to be rather cumbersome and discretionary, thereby discouraging foreign trade (WTO, 2002d). The lack of integrity of public officials is part of the problem. A recent poll found that in Bolivia people rank corruption as the third biggest problem in the country, after poverty and unemployment (Andersen and Nina, 2001). Civil service reforms to increase efficiency, transparency and accountability and decentralise government functions have been launched in 1999, but progress has been delayed by resistance from vested interests (World Bank, 2002b).

In addition to border measures, other types of regulations, such as government procurement practices, have recently undergone reforms in some HIPC. For example, in Malawi new legislation to improve transparency and monitoring of public procurement and to organise open tenders has been under discussion (WTO, 2002e). In Cameroon, wider tender announcements have been established, independent audits for large contract awards have been put in place, and more regular monitoring activities have been instigated (WTO, 2001a).

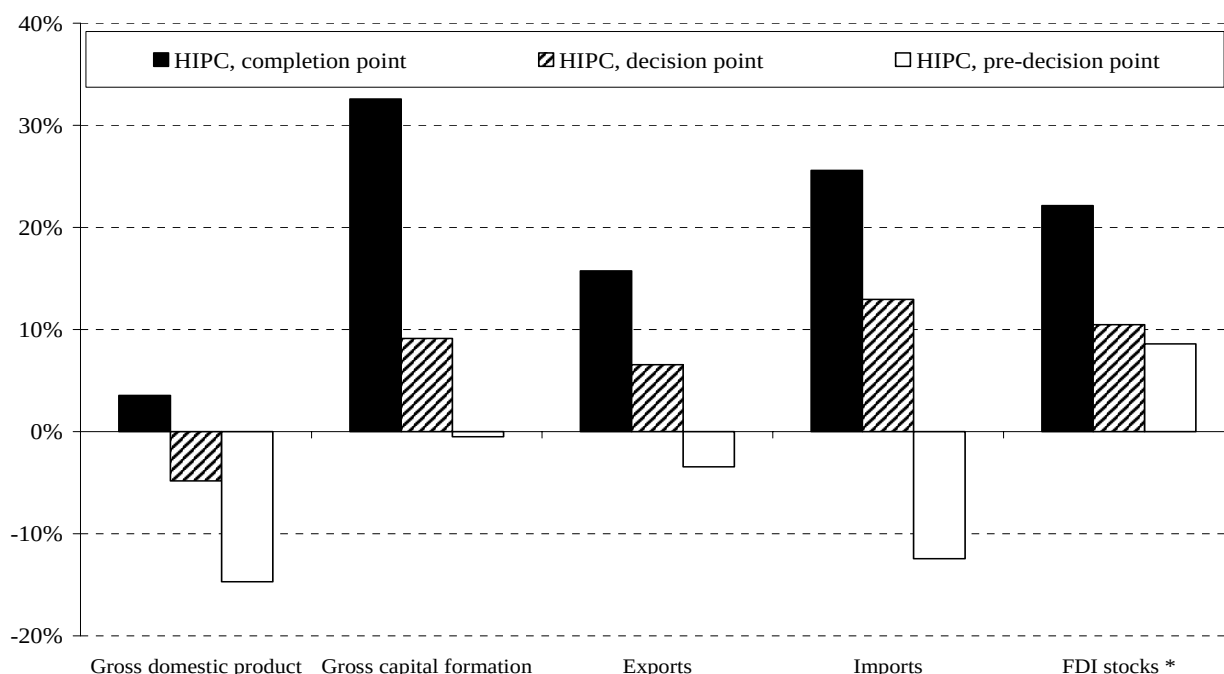
One major problem for many HIPC is their highly concentrated export base, which makes them vulnerable to adverse price developments in world markets for their export products. In Mauritania, for example, 99 per cent of all exports are primary products (fish and minerals). Attempts at diversifying the range of exports has often stumbled due to the countries’ inability to attract foreign investors that could have assisted, for example, in the processing, packaging and distribution of agro-food products.

Another serious deficiency in many HIPC is the relatively poor integration of domestic and international markets due to high transport and handling costs. The lack of or poor state of port, rail and road infrastructure gives rise to high shipping costs that erode the benefits from trade. For example, in Cambodia port charges are four times higher than in neighbouring Thailand (World Bank, 2001b). Moreover, because of the small size of domestic HIPC markets, transport companies can relatively easily obtain dominant positions and stifle competition. For example, there are only two (foreign-owned) maritime shipping companies operating in Mauritania, and shipping rates quoted for container shipments from Baltimore to Nouakchott are between two and three times higher than those from Baltimore to Hong Kong/China, despite the former route’s shorter shipping distance (World Bank, 2001a).

11. In this context, it might be helpful to compare economic developments in country-groups that differ with respect to the stage of reform under the HIPC Initiative in order to reduce the overall influence of idiosyncratic factors that affect the performance of individual countries. In the following this is done for three country clusters: (i) countries that had reached the completion point by the end of 2002, (ii) countries that had reached the decision point by then, and (iii) countries had not yet established a sufficient record of macroeconomic stability and economic reform to be considered for debt relief. The countries in the different groups are shown in Table 1, while a comparison of economic indicators is undertaken in Figure 1.

12. The results from the group comparison show that countries that have reached economic stability and started to implement policy reforms in the context of their Poverty Reduction Strategies have overall performed better during 1997-2001 than countries that are less advanced in their policy reform programmes, which, however, still did better than countries that had not yet attained economic stability and started with domestic reforms. Only in the six countries that had reached completion point was aggregate GDP in 2001 higher than in 1997, while it fell over time in the other two country groups. Investment for “completion point countries” in 2001 was more than 30 per cent higher than in 1997, while it increased by less than 10 per cent in “decision point countries” and fell in “pre-decision point HIPC”. Qualitatively similar results are obtained for exports and imports. All three country groups experienced increases in the stock of foreign direct investment during the late 1990s, but the largest inflows are once again observed for “completion point HIPC”. Any inference on the effectiveness of trade policy reforms should be cautious, though, as it seems at this point in time virtually impossible to determine what the relative contribution of reforms of trade and trade-related policies *vis-à-vis* other policy reforms to the overall performance of countries has been.

Figure 1: Developments in economic indicators in different groups of HIPC
(current US\$, percentage change during 1997-2001)



*) average annual growth during 1995-2001.

Note: only those countries were included in the comparisons, for which data for 2001 was available.

Source: OECD Secretariat based on World Bank (2002c) and Unctad (2002).

13. In the two groups of countries that reached decision point and completion point, respectively, imports increased faster than exports, implying a deterioration of the trade balance. Over a longer time period, such a development could compromise the countries' ability to service their debt, and, hence, undermine the objectives of the HIPC Initiative. However, in the context of strong short-term inflows of foreign direct investment, the surge in imports might well be due to purchases by foreign investors of capital goods abroad. These imports increase the productive capacity of the countries and make it possible for them to increase their output and exports in the future.

14. While at present the empirical results on the economic performance of different groups of HIPC are only preliminary and indicative, the available evidence suggests that the set of policy reform requirements expected from countries participating in the Initiative is positively linked to income, investment, and integration into the world market. Receiving debt relief while maintaining economic stability and continuing with domestic reforms has the potential to free resources for investment and attract additional foreign investors, and by doing so improve the long-term growth prospects of HIPC. However, it should be noted that the observed effects so far are likely to be only to a very limited extent related to actual reductions in debt levels, which started for the first countries only very recently.

15. The tentative findings will need to be verified through careful econometric analysis, once a sufficiently comprehensive time-series of relevant economic data becomes available. A number of related questions might thereby warrant more profound examination: What have been the consequences of earlier structural adjustment programmes in HIPC? How have trade policy reforms been carried through? What are the short-term *versus* long-term effects of trade liberalisation? How has debt relief influenced trade performance? What has been the impact of trade policy reform on tariff revenues? What has been the effect of international crisis, such as the HIV/AIDS epidemic or the Asian financial crisis on HIPC? Have trade and FDI been complements or substitutes? Such analysis might also shed light on the causality of success. In particular, it might make it possible to establish whether participating countries have performed well because of the HIPC requirements associated with debt relief, or whether good policies and relatively good economic performance in the past have made it easier for them to qualify for debt-relief.

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ANNEX

Recent economic and trade performance in selected HIPC

In the following, selected economic, trade, and investment indicators are compared over the five year period from 1997, the year when the first countries reached decision point under the original HIPC Initiative, and 2001, the latest year for which data are available. The analysis is centred on the six HIPC that had reached completion point by the end of 2002 and, hence, have already started to successfully implement their Poverty Reduction Strategies. These countries are Bolivia, Burkina Faso, Mauritania, Mozambique, Tanzania, and Uganda. Annex Table 1 provides an overview of the development of key economic indicators in the six countries.

**Annex Table 1: Developments in economic indicators in selected HIPC
(current US\$, 1997 = 100)**

<i>Gross domestic product</i>	1997	1998	1999	2000	2001
Bolivia	100	106	105	105	100
Burkina Faso	100	109	108	96	102
Mauritania	100	91	87	90	94
Mozambique	100	114	117	112	105
Tanzania	100	112	110	117	119
Uganda	100	108	102	98	91
<i>Gross capital formation</i>	1997	1998	1999	2000	2001
Bolivia	100	130	98	97	..
Burkina Faso	100	117	103	93	103
Mauritania	100	99	88	147	140
Mozambique	100	142	201	203	175
Tanzania	100	101	117	140	148
Uganda	100	101	104	111	106
<i>Exports</i>	1997	1998	1999	2000	2001
Bolivia	100	100	86	87	..
Burkina Faso	100	135	108	88	102
Mauritania	100	93	86	92	90
Mozambique	100	107	121	153	286
Tanzania	100	86	95	104	105
Uganda	100	84	88	76	72

Source: World Bank, 2002c.

There is no clear and common trend in economic indicators across the six countries. GDP increased by 19 per cent in Tanzania during the period 1997-2001, but fell by 9 per cent in Uganda. Moreover, developments over time were not smooth, but showed considerable variation. The five countries, for which data on gross capital formation in 2001 were available, all had higher investment in 2001 than five years earlier, but again with intermediate peaks and troughs in individual countries. The largest variation in the country group can be observed for exports, where Mozambique almost tripled the value of its foreign sales during 1997-2001,¹ while exports fell by nearly 30 per cent in Uganda.

¹ The strong export performance of Mozambique is related to the privatisation programme implemented since the late 1980s and recent large-scale investments by foreign companies, e.g. in aluminium smelting.

Agro-Food Products and Technical Barriers to Trade:

A Survey of Issues and Concerns Raised in the WTO's TBT Committee

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Joint Working Party on Agriculture and Trade

**AGRO-FOOD PRODUCTS AND TECHNICAL BARRIERS TO TRADE: A SURVEY OF ISSUES AND
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**AGRO-FOOD PRODUCTS AND TECHNICAL BARRIERS TO TRADE:
A SURVEY OF ISSUES AND CONCERNS RAISED IN THE WTO'S TBT COMMITTEE**

Executive summary

This study presents a survey of issues and concerns raised in the WTO's Committee on Technical Barriers to Trade, with particular emphasis on discussions related to agro-food products. It thereby aims to provide background information on TBT-related activities during the period 1995-2001. The participation of OECD and non-OECD countries in the Committee discussions is analysed, and agro-food related TBT issues that might warrant further investigation with respect to their trade and economic effects are identified. The document complements an earlier study on activities related to the WTO's SPS Committee.

During the 26 regular sessions of the TBT Committee during 1995-2001, a total of 63 specific trade concerns were raised concerning the implementation and administration of the TBT Agreement. Questioning another country's measure or the way it is notified provides an opportunity to initiate discussion and helps to resolve misunderstandings, clarify contentious matters, and possibly avoid trade disputes in the future. Twenty of the concerns were specifically related to agro-food products, mainly involving genetically modified organisms, livestock products, and beverages. Two-thirds of all agro-food concerns were related to questions of labelling.

The transparency provisions of the TBT Agreement require WTO member countries to designate a single government authority responsible for the implementation of those provisions and to specify publications that are used to announce that work on draft technical regulations and conformity assessment procedures is proceeding. WTO members also have to establish enquiry points to answer requests for information from other member countries. Yet, by the end of 2001 more than a fifth of WTO members did not meet the transparency requirement concerning enquiry point establishment, and almost half had not yet designated single government authorities and announcement publications.

Concerning notifications of technical regulations and conformity assessment procedures, the number of notified measures varied during 1995-2001 from 370 to 790 per year. Twenty-nine OECD countries and 40 non-OECD countries, including 33 developing countries, have submitted TBT notifications. About 28 per cent of the TBT notifications in 2001 specifically concerned agro-food products. Of these, a quarter referred to broad categories of agriculture and food products, a further fifth to beverages and tobacco, and almost 15 per cent each to field crops and livestock products. Almost half of all TBT notifications concerning agro-food products in 2001 stated as their objective either consumer information and labelling or prevention of deceptive practices and consumer protection.

Seventeen of the 27 disputes that alleged violations of the TBT Agreement concerned agro-food products. However, almost of all these cases were pursued mainly under other aspects of international trade law. Of the 17 disputes, two were resolved following consultations, eight led to the establishment of a panel (which in five cases led to mutually satisfactory solutions), while seven were still pending at the end of 2001. All the complaints in the agro-food disputes concerned measures implemented in OECD countries. In 12 cases the complaint was raised by other OECD countries and in five cases by developing countries.

During its second triennial review of the operation and implementation of the TBT Agreement in November 2000, the TBT Committee critically assessed the considerable number of WTO members that had not yet communicated single government authorities and announcement publications, and established TBT enquiry points. It furthermore noted that concerns regarding labelling were raised frequently during discussions in Committee meetings and reiterated the importance of any such requirements not becoming disguised restrictions on trade. Moreover, the Committee noted that developing countries continued to face difficulties in contributing to the development of international standards, so that technical assistance remained important.

While the TBT Committee review did not refer to particular economic sectors, the findings from this study suggest that technical measures and their possible trade impacts are more controversial for agro-food products than for other merchandise. Agriculture and food products account for about nine per cent of world merchandise trade, but were specifically targeted in 28 per cent of all notified TBT measures during 2001. Moreover, 32 per cent of all specific trade concerns in the TBT Committee have involved agro-food products, as well as 62 per cent of all TBT-related disputes. These results suggest that trade policy makers and technical experts at standardising bodies might want to devote particular attention to contentious issues concerning agro-food products, such as food labelling, in order to minimise the risk of disruptions of international trade.

I. Background

1. Technical regulations and standards are used by governments to achieve domestic policy objectives, such as containment of health and environment-related risks or fraud, and to facilitate trade by ensuring the interoperability of technical systems and improving market transparency. Also, demanding technical requirements can sometimes contribute to reinforce consumer confidence and boost sales of products of both domestic and foreign origin. On the other hand, excessive or cumbersome measures have the potential to undermine market contestability, discourage imports, and, thus, reduce economic efficiency.

2. The WTO Agreement on Technical Barriers to Trade (TBT Agreement) tries to ensure that regulations, standards, testing and certification procedures facilitate trade and do not give rise to unwarranted protection for domestic producers. The 1994-Agreement was part of the outcome of the Uruguay Round and extends and clarifies the 1979-Agreement that was reached in the Tokyo Round of multilateral trade negotiations. It requires that technical regulations and standards, as well as testing and certification procedures, be transparent, justified by legitimate objectives, such as national security, prevention of deceptive practices, human health and safety, animal and plant life and health, or environmental protection, and do not create unnecessary obstacles to trade. Countries have the right to pursue domestic policy objectives through technical regulations and conformity assessment procedures; however, when designing these measures, they are required to use relevant international standards, if these exist and would be effective and appropriate.

3. The TBT Agreement covers all technical measures (regulations, standards, testing and certification procedures) relating to any product or process and production method, except sanitary and phytosanitary measures, which fall under the auspices of the Agreement on Sanitary and Phytosanitary Measures (SPS Agreement), and technical specifications related to government procurement, which are covered by the plurilateral Agreement on Government Procurement. Examples of measures that might fall under the TBT but not the SPS Agreement include technical regulations and procedures concerning composition and packaging, marking and labelling, process and production methods, and final product characteristics. Measures based on product requirements are supposed to be specified in terms of performance rather than design or descriptive characteristics.

4. This study presents a survey of issues and concerns raised in the WTO's Committee on Technical Barriers to Trade, with particular emphasis on discussions related to agro-food products. It complements a corresponding survey of activities in the SPS Committee (OECD, 2002), as well as ongoing work in the OECD concerning food and non-food labelling. Earlier work in the OECD on TBT issues concerning agro-food products had already analysed several specific subjects, such as trade considerations of food quality attributes (OECD, 1999) or particular forms of food labelling (OECD, 1997, 2001). In this context, the following description and discussion aims to provide broad background information on activities in the TBT Committee during the period 1995-2001, analyse the participation of OECD and non-OECD countries in the Committee discussions, and identify agro-food related TBT issues that might warrant further investigation with respect to their trade and economic effects.

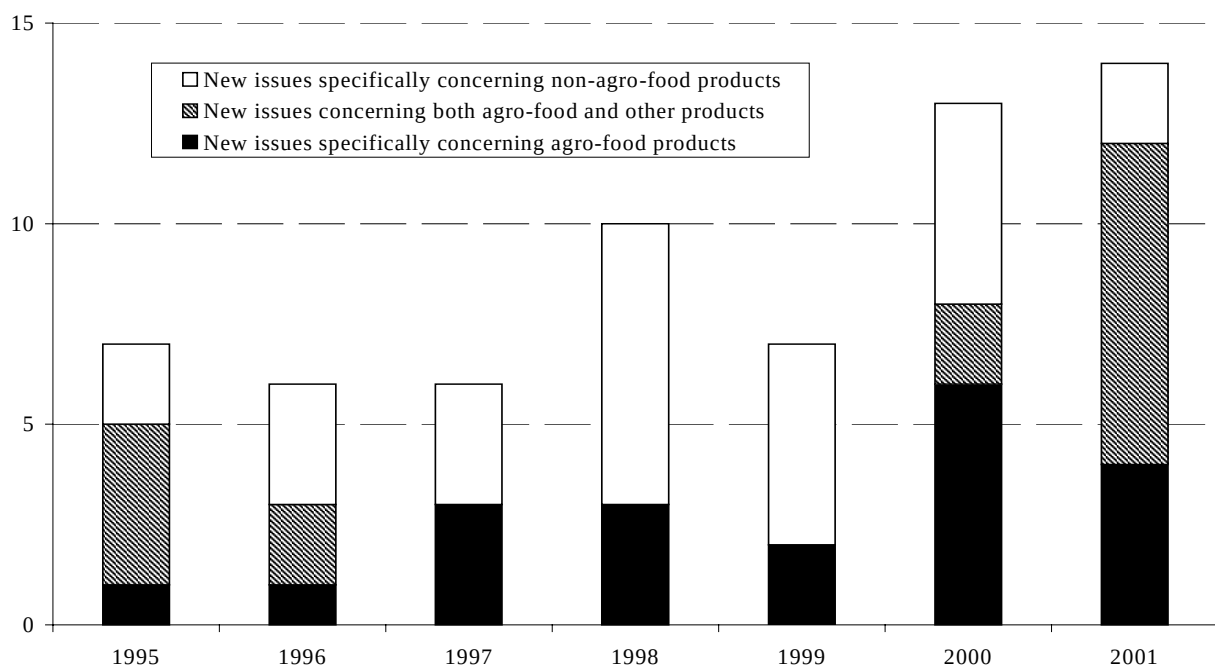
5. The remainder of the document is organised as follows. Section 2 provides an overview of specific trade concerns that have been raised in meetings of the WTO's TBT Committee. Section 3 reports on the implementation of the transparency provisions of the TBT Agreement, notably the designation of single government authorities and announcement publications, the establishment of enquiry points, and the notification of TBT measures. Section 4 then discusses trade disputes related to TBT matters. Finally, section 5 summarises some preliminary evaluations concerning the implementation of the TBT Agreement.

II. Specific trade concerns raised in meetings of the TBT Committee¹

6. The TBT Agreement established the TBT Committee, whose role it is to oversee the implementation and operation of the Agreement's provisions. In particular, the Committee discusses trade issues related to technical regulations and conformity assessment procedures, reviews notifications, and develops policy and procedural recommendations. Over the period 1995 to 2001, the Committee held 26 regular meetings, as well as three special meetings on procedures for information exchange (November 1995, September 1998, and June 2001).

7. During the 26 regular sessions, a total of 63 distinct issues were raised by delegations concerning trading partners' policies or regulations. Questioning another country's measure or the way it is notified provides an opportunity to initiate discussion on the particular issue in the Committee. It can thereby help to resolve misunderstandings, clarify contentious matters, and possibly avoid trade disputes in the future. The number of new concerns discussed has shown an increasing trend over time, rising from six to seven per year during 1995-97 to fifteen in 2001 (Figure 1).

Figure 1: Number of specific trade concerns raised in the TBT Committee, 1995-2001



Source: OECD Secretariat based on WTO information (G/TBT/M).

8. Twenty specific trade concerns were directly related to agro-food products, 16 were of a general nature, and 27 concerned non-agro-food products.² Agro-food related concerns have been raised about

1. While the term 'specific trade concern' is not mentioned in the minutes of the meetings of the TBT Committee, the WTO Secretariat has recently released a document (WTO, 2002a), in which specific trade concerns are taken to be questions and concerns raised in the TBT Committee about trading partners' measures. In this paper, the term is used accordingly.

2. This method of counting follows the approach of the WTO Secretariat (WTO, 2002a & 2002b) of tallying specific trade concerns in the form of distinct issues discussed in the TBT Committee. Alternatively, one could define the number of specific trade concerns as the individual interventions that delegations have

TBT measures in 20 OECD countries (counting the EU as 15 countries) and five developing countries. Conversely, 22 OECD countries and 17 non-OECD countries (counting ASEAN as 10 countries), including 16 developing countries, have raised or supported agro-food concerns.

9. Of all the specific trade concerns related to agro-food products, five referred to genetically modified organisms, four to livestock products and beverages, two to fish and tobacco, and one to wood, organic products, and perishable products. Two-thirds of all cases concerned questions of labelling, i.e. measures regulating the kind and size of printing on packages and labels and defining the information that may or should be provided to consumers. Issues concerned missing or unclear notifications, as well as labelling requirements that were seen as unjustified in the sense of discriminating among "like" products. A brief description of the 20 specific trade concerns related to agro-food products, drawing on material from the WTO meeting summaries, is given in the Annex. It should be noted, however, that the material does not make it possible to evaluate whether a particular country is not satisfying its obligations under the TBT Agreement.

10. Countries are likely to have had additional concerns about trading partners' measures, which may have been raised and resolved bilaterally. The discussions of specific trade concerns in the TBT Committee might, therefore, be seen as primarily representing issues that could not be resolved bilaterally or were regarded as being of generic importance so to warrant the attention of the Committee. In this context, raising a concern in the Committee might be seen as an intermediate solution attempt before continuing on to formal consultations and dispute settlement.

III. Notifications under the TBT Agreement

11. WTO member countries are required to designate a single government authority responsible for the implementation of the TBT transparency provisions and to specify publications that are used to announce that work on draft technical regulations and conformity assessment procedures is proceeding. They also have to establish enquiry points that are able to answer requests for information from other member countries. Further transparency provisions under the TBT Agreement concern notifications by WTO members of bilateral or multilateral agreements that they have reached on issues related to technical regulations, standards, and conformity assessment procedures and of standardising bodies that have accepted the Code of Good Practice. This Code provides transparency and other disciplines for the preparation, adoption and application of standards by central and local governmental, non-governmental and regional standardising bodies, and thereby helps to avoid duplication of standardisation work.

12. Moreover, countries have to notify other members through the WTO Secretariat of the proposed introduction of or changes to technical regulations or conformity assessment procedures for which no international standard, guide or recommendation exists or that differ from such international benchmarks and that may have a significant effect on trade of other member countries. Notifications are supposed to specify the products covered by the proposed technical regulation or conformity assessment procedure and contain a brief description of the objective and rationale of the measure. Notifications are to take place at an early appropriate stage, i.e. normally 60 days before the measures are finalised, in order to make it possible to introduce amendments and take comments from other member countries into account. In case of urgent problems of safety, health, environment protection or national security, the comment period can be shortened.

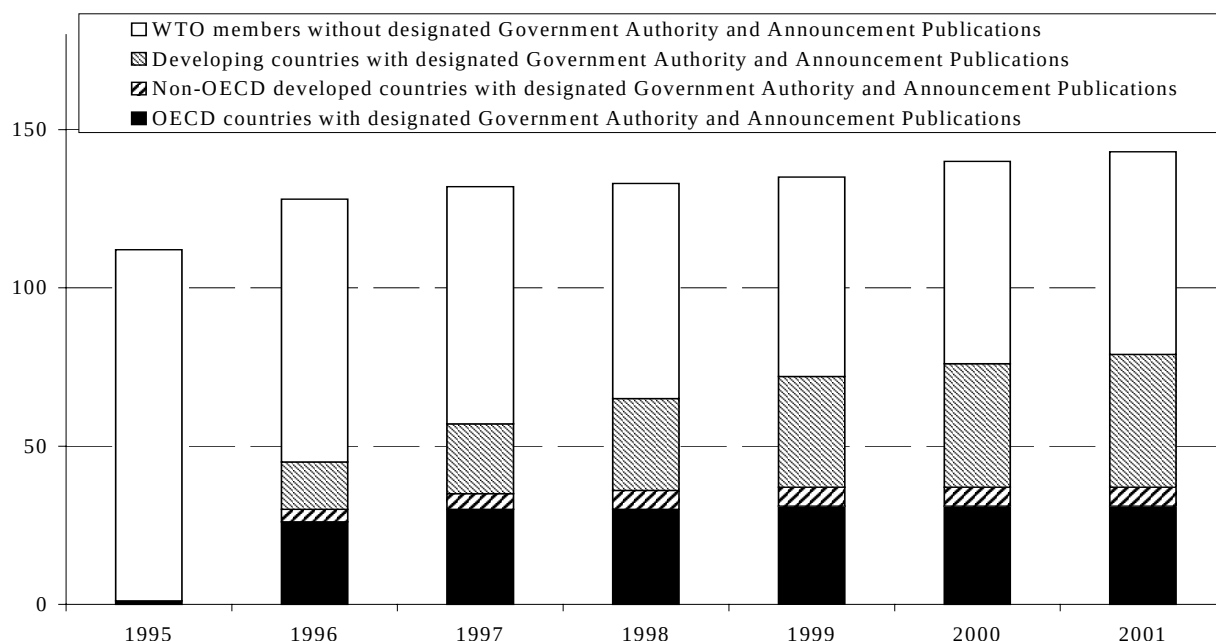
made when raising or supporting concerns. If this procedure is used, there were 58 concerns specifically related to agro-food products, 57 were of a general nature, and 38 concerned non-agro-food products.

13. During the period 1995-2001, an increasing number and proportion of WTO members has designated single government authorities and announcement publications and established enquiry points (Figures 2 and 3). All thirty OECD countries and the European Union had reported enquiry points by the end of 1997 and named government authorities and announcement publications by the end of 1999. However, 32 WTO members, including 29 developing countries, had not reported enquiry points and 64 member countries, including 58 developing countries, had not named single government authorities and announcement publications by the end of 2001. In other words, by the end of 2001, 22 per cent of WTO members did not meet the transparency requirement concerning enquiry point establishment, and 45 per cent had not fulfilled the obligation to designate single government authorities and announcement publications.

14. It is unclear how effective the notification authorities and enquiry points are in providing timely information on new draft regulations and in replying to questions and comments, respectively. In some cases there seems to have been a lack of awareness at the national level of countries' obligations under the TBT Agreement or insufficient co-ordination between agencies involved in the notification process (WTO, 2000). Also, a survey of WTO members revealed that enquiry points are not always well equipped with electronic facilities, due to resource constraints and lack of technical know-how (WTO, 1999). These deficiencies are likely to adversely affect the speed and quality of responses to queries and comments from other WTO members. Hence, in some of the countries that have designated single government authorities and announcement publications and established enquiry points these institutions might not be fully operational.¹⁵ Concerning notification by WTO members of bilateral or multilateral agreements on issues related to technical regulations, standards, and conformity assessment procedures, 35 such agreements were notified during 1995-2001. One of these applies specifically to TBT measures concerning agro-food products, six to all products, and 15 to non-agro-food products. Thirteen notifications did not specify the products concerned.

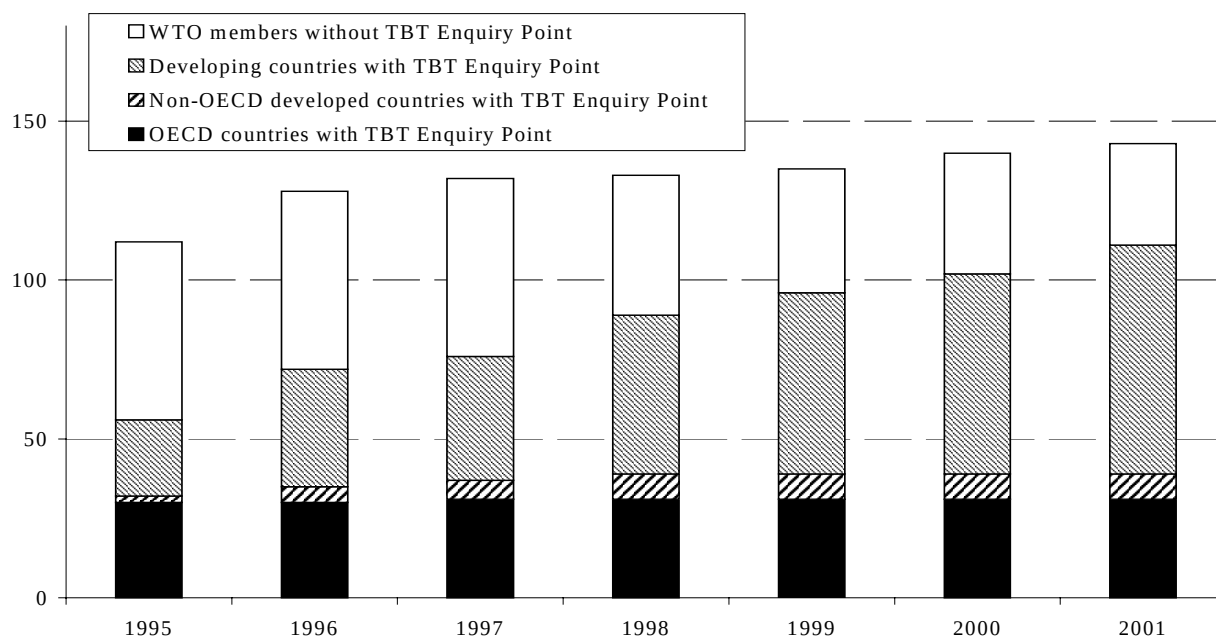
15. During the period 1995-2001, 138 standardising bodies from 94 WTO members have adhered to the Code of Good Practice. All OECD countries and the European Union have notified at least one standardising body. In addition, five non-OECD developed countries and 58 developing countries have submitted corresponding notifications.

Figure 2: Number of WTO members with and without designated Government Authority and Announcement Publications



Note: The information on WTO membership refers to the end of the year, while the data on the designation of Government Authorities and Publications is based on WTO documents (G/TBT/2 & addenda) that were released during the same year.
Source: OECD Secretariat based on WTO information.

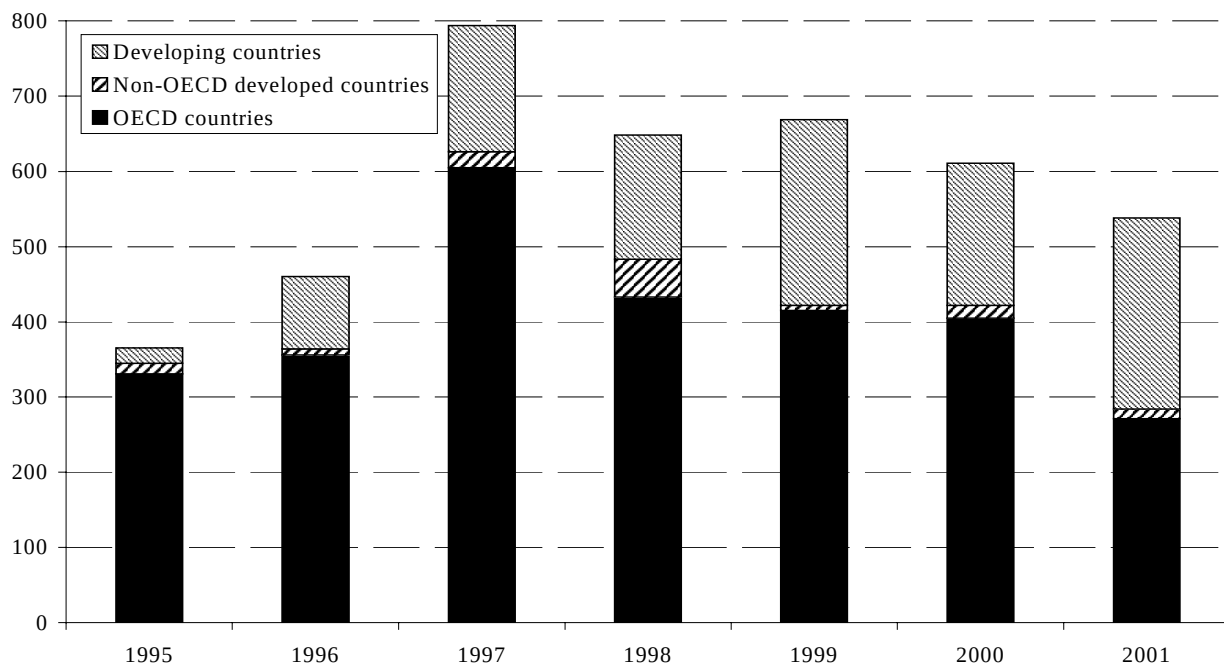
Figure 3: Number of WTO members with and without TBT Enquiry Points



Note: The information on WTO membership refers to the end of the year, while the data on the establishment of Enquiry Points is based on WTO documents (G/TBT/ENQ) that were released during autumn of the same year.
Source: OECD Secretariat based on WTO information.

16. From 1995 to the end of 2001, a total of 4085 technical regulations and conformity assessment procedures were notified under the TBT Agreement. The number of notified measures increased markedly up to 1997, but has since then generally been falling (Figure 4). Of the 30 OECD countries, only Hungary had not notified a TBT measure by the end of 2001.³ Moreover, 40 non-OECD countries, including 33 developing countries, have submitted TBT notifications. Indeed, the share of notifications by non-OECD countries has increased almost continuously over time and accounted for half of all notifications in 2001.

Figure 4: Number of notified TBT measures, 1995-2001

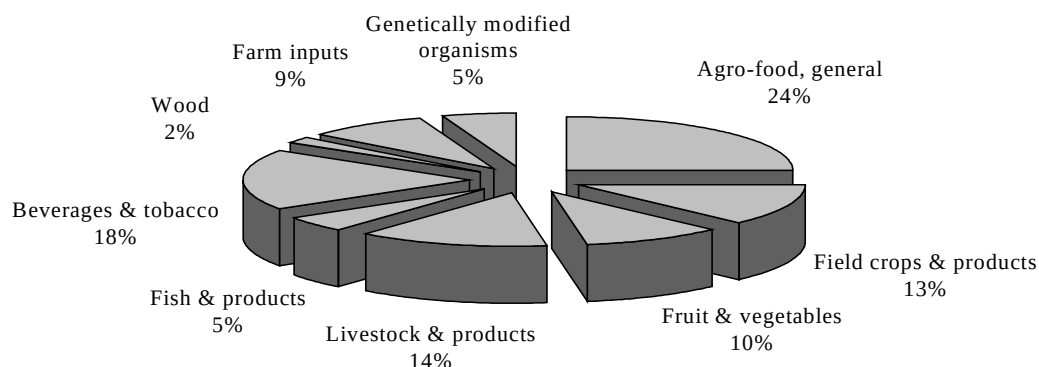


Source: OECD Secretariat based on WTO information (document G/TBT/11).

17. Of the 538 notifications made during 2001, 152 referred specifically to agro-food products. This corresponded to a share of about 28 per cent. A quarter of all agro-food notifications under the TBT Agreement referred to broad categories of agriculture and food products, a further fifth to beverages and tobacco, and almost 15 per cent each to field crops and livestock products (Figure 5). About 95 per cent of the agro-food notifications during 2001 concerned technical regulations and the remaining 5 per cent conformity assessment procedures. Emergency notification procedures were invoked for about 5 per cent of all agro-food notifications. All agro-food notifications originated from authorities at the level of central government.

18. Concerning the stated objectives of the TBT measures concerning agro-food products notified during 2001, almost half of the notifications mentioned either consumer information and labelling or prevention of deceptive practices and consumer protection. Consumer health and safety provided the rationale for measures in a fifth of all cases, and adoption of new domestic law and technology for a further 8 per cent. The detailed breakdown of objectives and rationales, classified in accordance to the criteria laid down in WTO document G/TBT/W/18, is shown in Table 1.

3. The EU has been reporting Union-wide measures and these are counted as notifications by all 15 member countries. In addition, 10 EU members have notified national regulations or procedures.

Figure 5: TBT notifications concerning agro-food products by product group, 2001

Source: OECD Secretariat based on WTO information (documents G/TBT/GEN/N).

Table 1: TBT notifications concerning agro-food products by objective, 2001

Objective or rationale of notified TBT measure	Number of notifications*	Share of notifications
National security requirements	0.0	0%
Consumer information, labelling	19.0	13%
Prevention of deceptive practices & consumer protection	55.5	37%
Protection of human health or safety	34.0	22%
Protection of animal or plant life or health	2.5	2%
Protection of the environment	4.7	3%
Quality requirements	4.0	3%
Harmonisation	2.0	1%
Adoption of new domestic law and technology	11.5	8%
Lowering or removal of trade barriers	1.5	1%
Trade facilitation	7.3	5%
Others	5.0	3%
Not specified	5.0	3%
Total	152.0	100%

*) When notifications state more than one objective, a weight of less than one was assigned to each particular objective, so that the sum of the objectives adds up to the total sum of notifications.

Source: OECD Secretariat based on WTO information (documents G/TBT/GEN/N).

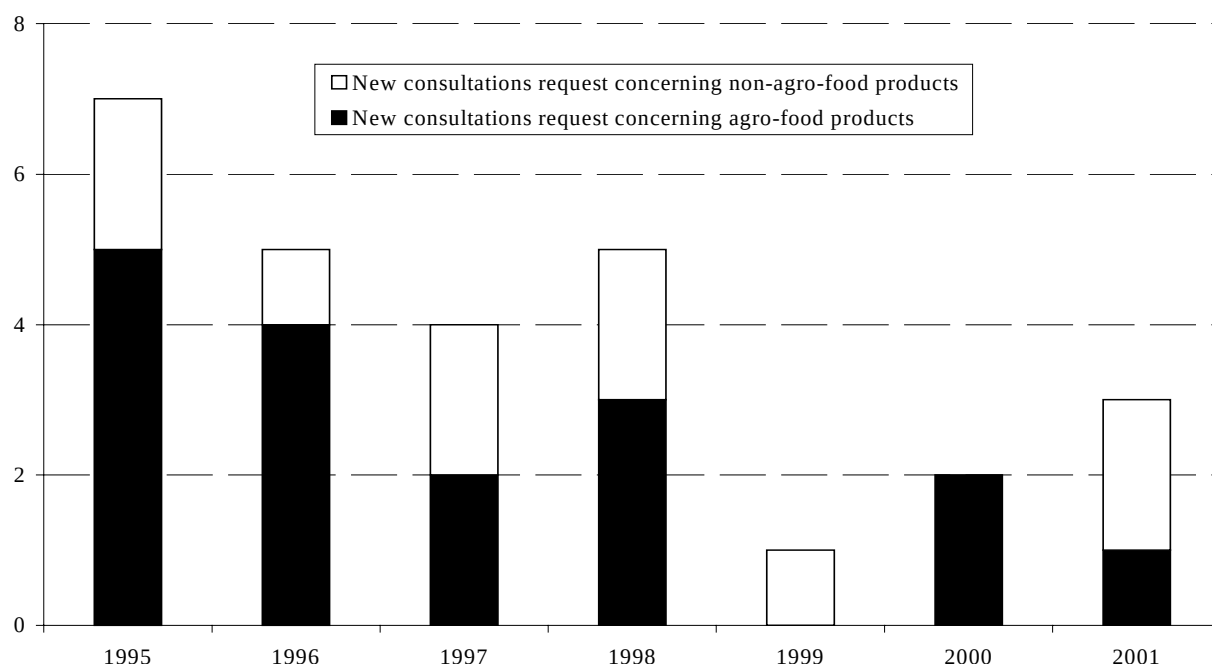
IV. TBT-related disputes

19. In cases where bilateral or multilateral discussions have not made it possible to resolve a trade-related disagreement about technical measures between countries, member countries can ask for resolution of the issue according to the WTO dispute settlement rules. If formal consultations as the initial stage of the process do not lead to a mutually agreeable solution, the establishment of a dispute panel can be requested. This panel rules on the compliance of a measure with the provisions of international trade law, including the TBT Agreement. If necessary, the panel's ruling could subsequently be reviewed by the WTO Appellate Body.

20. Of the more than 240 requests for consultations that had been formally raised during 1995-2001, 27 concerned alleged violations of the TBT Agreement (Table 2). During 1995-98, there were four to seven new consultations requests per year, while subsequently the number of new cases fell to one to three (Figure 6). Seventeen cases, i.e. more than three-fifths of all TBT-related cases, concerned agro-food products. However, in all of these cases violations of other parts of international trade law were also alleged (see last column in Table 2), and panels and the Appellate Body may in such instances base their decisions on rules other than those under the TBT Agreement. For example, the consultation requests of 10 of the agro-food cases also alleged violations of the Agreement on Sanitary and Phytosanitary Measures (SPS Agreement) and concerned indeed often mainly SPS issues.⁴ The alleged violation of the TBT Agreement was in these cases generally related to some part of the regulation or standard that was not of a sanitary or phytosanitary nature, such as a labelling requirement. The seven agro-food related TBT cases that did not refer to the SPS Agreement related to the EU's trade description of scallops (three requests for consultations from Canada, Peru, and Chile), Philippines' complaint against USA's import prohibition of certain shrimps and shrimp products, New Zealand's complaint against EU's measures affecting butter products, USA's complaint against Belgium's administration of measures establishing customs duties for rice, and Peru's complaint against EU's trade description of sardines. Only in the latter case was the dispute primarily based on the TBT Agreement.⁵

4. In addition, Canada's complaint against EC's (France's) measures affecting asbestos, which does not directly concern agro-food products, alleged violation of both the TBT and the SPS Agreements.

5. The case, for which no mutually satisfactory solution had been reported yet by the end of October 2002, can be summarised as follows: In 2001, Peru requested consultations and subsequently the establishment of a panel concerning the EC's trade description of sardines. Venezuela, Chile, the USA, and Ecuador later joined the consultations. The Peruvian authorities alleged that the implementation of Council Regulation (EEC) No. 2136/89, which prevents Peruvian exporters from continuing to use the trade description "sardines" for their products, violated GATT Article XI, as well as Articles 2 and 12 of the TBT Agreement. In particular, the Council Regulation was seen as an unjustified barrier to trade, as it did not correspond to the Codex Alimentarius standards that classified the species "*sardinops sagax sagax*" as being "sardines". In 2002, the Panel and the Appellate Body found the EC Regulation to be inconsistent with Article 2.4 of the TBT Agreement and requested the European Communities to bring the EC Regulation into conformity with its obligations under that Agreement.

Figure 6: Number of new TBT-related requests for consultations, 1995-2001

Source: OECD Secretariat based on WTO information (documents WT/DS).

21. In eight of the 17 agro-food disputes invoking the TBT Agreement the complaining party requested the establishment of a panel. Three panels dealt with the EC's trade description of scallops, two with the EC's import prohibition on meat produced with growth-promoting hormones, and one each with the EC's measures affecting butter products, the EC's trade description of sardines, and Belgium's administration of measures establishing customs duties for rice. Solutions for the three scallop, the butter, and the rice duties cases had been found by the end of 2001, and a brief summary of the disputed issues is provided in Box IV.1. Moreover, two of the nine cases for which no panel had been established (yet) were settled after consultations, while seven cases were still pending by the end of 2001.

22. All the complaints in the agro-food disputes concerned measures implemented in OECD countries. In 12 cases the complaint was raised by other OECD countries and in five cases by developing countries.

Box IV.1: TBT-related disputes that have been resolved after establishment of panels

In 1995, Canada, Chile, and Peru requested consultations and subsequently the establishment of panels concerning the EC's **trade description of scallops**. According to an order by France's government, certain varieties of *pectinidae* (scallops) could after 1 January 1996 no longer be sold using the traditional description of "Coquilles St. Jacques" or "Noix de St. Jacques" on the French market, but had to use the trade description "pétoncle", which – according to the complainants – consumers associate with a product of lower quality. The complainants alleged violation of GATT Articles I and III, as well as Article 2 of the TBT Agreement, which requires that imports be treated no less favourably than 'like products' of national origin. The dispute was settled in July 1996 on a mutually satisfactory basis by the implementation of a new order by the French government. Scallops are henceforth to be marketed in France under the name "Coquilles Saint Jacques" or "Noix de St. Jacques", followed by the scientific name of the species. Moreover, the country of origin must be indicated on the label.

In 1997, New Zealand requested consultations and subsequently the establishment of a panel concerning the EC's **measures affecting butter products**. New Zealand claimed that, in addition to GATT Articles II, III, X and XI and the Agreement on Import Licensing Procedures, the EC was violating Article 2 of the TBT Agreement through its decision to qualify butter manufactured by two particular butter-making processes (Spreadable and AMMIX) as not being "manufactured directly from milk or cream" and, hence, to exclude such butter from eligibility for New Zealand's country-specific tariff quota established by the EC's WTO schedule. A mutually satisfactory solution was found in November 1999, when the EU's Council of Ministers passed a new regulation, clarifying that butter manufactured by using concentrated milkfat and/or the fractionation of such milkfat, such as in the Spreadable and AMMIX butter-making processes, should still be considered as being manufactured directly from milk or cream and, therefore, meet the EC's requirement for butter applying in connection with the country-specific tariff quota for New Zealand.

In 2000/01, the United States requested consultations and subsequently the establishment of a panel concerning Belgium's **administration of measures establishing customs duties on rice**. The US alleged that Belgian customs authorities had disregarded the transaction values associated with certain shipments of rice imported from the United States between 1 July 1997 and 31 December 1998, for purposes of establishing the relevant customs values and duties. Although the Belgian authorities approved the proffered transaction values prior to entry of the rice in question, Belgian customs authorities in November 2000 rejected the use of the same transaction values when assessing duties. The rejection of the proffered transaction value appeared to have been based *inter alia* on the application of an unpublished interpretative memorandum addressing the value to be assigned to specific, limited product characteristics. Belgium customs authorities applying this interpretative memorandum, which confined the category of product characteristics and the value to be assigned to such characteristics in establishing the customs value of the imports in question, were seen to have acted inconsistently with Belgium's obligations set forth in paragraphs 2, 4 and 5 of Article 2 of the Agreement on Technical Barriers to Trade. In addition, violations of GATT Articles I, II, VII, VIII, X and XI, the Customs Valuation Agreement, and the Agreement on Agriculture were alleged. A mutually satisfactory solution was found when the Belgian authorities, acting under EC law, redetermined the duties in dispute on the basis of new evidence.

Table 2: WTO disputes invoking the TBT Agreement, 1995-2001

Parties and nature of complaint	Countries supporting complaint	Consultations request	Panel request	Panel established	Panel report	Appellate body report	Decision on dispute	Implementation deadline	Solution reported	Comments
USA's complaint against Korea's shelf-life requirements for frozen processed meats and other products.	CAN, JAP	3-May-95	-	-	-	-	-	-	20-Jul-95	Also involving GATT Art. III & XI; SPS; Agreement on Agriculture.
Canada's complaint against EU's trade description of scallops.	Chile, ICL, JPN, Peru	19-May-95	7-Jul-95	19-Jul-95	5-Aug-96	-	-	-	19-Jul-96	Also involving GATT Art. I & III.
Peru's complaint against EU's trade description of scallops.	CAN, Chile, JPN	18-Jul-95	14-Sep-95	11-Oct-95	5-Aug-96	-	-	-	19-Jul-96	Also involving GATT Art. I & III.
Chile's complaint against EU's trade description of scallops.	CAN, JPN, Peru	24-Jul-95	13-Sep-95	11-Oct-95	5-Aug-96	-	-	-	19-Jul-96	Also involving GATT Art. I & III.
Canada's complaint against Korea's restrictions on treatment methods for bottled water.	EU, USA	8-Nov-95	-	-	-	-	-	-	24-Apr-96	Also involving GATT Art. III & XI; SPS.
USA's complaint against EU's import prohibition for meat produced with growth-promoting hormones.	AUS, CAN, NZL	26-Jan-96	25-Apr-96	20-May-96	18-Aug-97	16-Jan-98	13-Feb-98	13-May-99		Also involving GATT Art. III & XI; SPS; Agreement on Agriculture. USA authorised (26-Jul-99) to raise tariffs by 100% on EU products worth US\$116 mill. p.a.
USA's complaint against Korea's inspection procedures for fresh fruits.		24-May-96								Also involving GATT Art. III & XI; SPS; Agreement on Agriculture.
Canada's complaint against EU's import prohibition for meat produced with growth-promoting hormones.	AUS, NZL, USA	28-Jun-96	16-Sep-96	16-Oct-96	18-Aug-97	16-Jan-98	13-Feb-98	13-May-99		Also involving GATT Art. III & XI; SPS; Agreement on Agriculture.. CAN authorised (26-Jul-99) to raise tariffs by 100% on EU products worth C\$11.3 mill. p.a.
Philippines' complaint against USA's import prohibition of certain shrimps and shrimp products	AUS, JPN	25-Oct-96								Also involving GATT Art. I, II, III, VIII, XI and XIII.

Continued on next page.

Table 2 (cont.)

Parties and nature of complaint	Countries supporting complaint	Consultations request	Panel request	Panel established	Panel report	Appellate body report	Decision on dispute	Implementation deadline	Solution reported	Comments
New Zealand's complaint against EU's measures affecting butter products		24-Mar-97	6-Nov-97	18-Nov-97	24-Nov-99	-	-	-	11-Nov-99	Also involving GATT Art. II, III, X and XI; Agreement on Import Licensing Procedures.
EU's complaint against USA's restrictions on imports of poultry products.		18-Aug-97								Also involving GATT Art. I, III, X, XI; SPS.
India's complaint against EU's restrictions concerning rice imports.		25-May-98								Also involving GATT Art. I, II, III, VIII and XI; SPS; Agreement on Import Licensing Procedures; Agreement on Agriculture.
Canada's complaint against EU's restrictions on pine wood imports due to nematodes.		17-Jun-98								Also involving GATT Art. I, III and XI; SPS.
Canada's complaint against USA's restrictions on imports of live animals and grains.		25-Sep-98								Also involving GATT Art. I, III, V, XI, and XXIV; SPS; Agreement on Agriculture.
USA's complaint against Mexico's measures affecting trade in live swine.		10-Jul-00								Also involving GATT Art. III and XI; SPS; Agreement on Agriculture.
USA's complaint against Belgium's administration of measures establishing customs duties for rice		19-Oct-00	19-Jan-01	12-Mar-01					18-Dec-01	Also involving GATT Art. I, II, VII, VIII, X and XI; Customs Valuation Agreement; Agreement on Agriculture.
Peru's complaint against the EU's trade description of sardines	Venezuela, Chile, USA, Ecuador	23-Apr-01	7-Jun-01	24-Jul-01						Also involving GATT Art. I and III.

Source: OECD Secretariat based on WTO information (documents WT/DS).

V. Summary of evaluations concerning the implementation of the TBT Agreement

23. The TBT Agreement asks for a review of the operation and implementation of the Agreement through the TBT Committee every three years. The first such review was concluded in November 1997 and the second in November 2000. During the second review the Committee stated with respect to the transparency provisions of the Agreement that, given the considerable number of WTO members which had not named single government authorities and announcement publications, "the status of implementation needed to be improved" (WTO, 2000). Similarly, concerning the provision of information on TBT enquiry points by member countries the Committee considered that the "status of implementation was not satisfactory".

24. While acknowledging the increasing number of notifications made by central governments as well as the increasing number of notifying countries, the Committee noted "the low level of notifications of technical regulations and conformity assessment procedures of local government at the level below that of the central government of Members" (WTO, 2000). Furthermore, the Committee observed that "concerns regarding labelling were raised frequently in the Committee meetings during discussions on the implementation and operation of the Agreement. In this regard, the Committee reiterated the importance of any such requirements being consistent with the disciplines of the Agreement, and in particular stressed that they should not become disguised restrictions on trade." Moreover, the Committee noted that "international standardization was an area where developing country participation was still limited and constrained" and recognised the importance of technical assistance in this regard.

25. The Committee's evaluation of the operation and implementation of the TBT Agreement did not differentiate between sectors or product groups. But the description of TBT issues and concerns in this study suggests that problems associated with technical barriers to trade might be particularly pertinent for agro-food products. Agriculture and food products account for about nine per cent of world merchandise trade (WTO, 2001), but were specifically targeted in 28 per cent of all notified TBT measures during 2001. Moreover, 32 per cent of all specific trade concerns raised in the TBT Committee have concerned agro-food products, as well as 62 per cent of all TBT-related disputes. Hence, technical measures and their possible trade impacts seem to be more controversial for agro-food products than for other merchandise. However, most TBT-related disputes also involve and are often mainly about alleged violations of other parts of international trade law, so that the absolute number of disputes should be interpreted with care. Nevertheless, the finding of an increasing trend in the number of specific trade concerns raised in the TBT Committee suggests that trade policy makers and technical experts at standardising bodies might want to devote particular attention to contentious issues concerning agro-food products, such as food labelling, in order to minimise the risk of future disruptions of international trade.

27. Indeed, informal discussions on labelling have already been initiated in the TBT Committee in order to look at ways in which disciplines might be imposed on labelling regimes. One idea has thereby been to extend the application of the principles of the Code of Good Practice to labelling issues. These discussions are still ongoing in the TBT Committee as well as in other technical organisations.

VI. References

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ANNEX

**QUESTIONS AND DISCUSSIONS IN THE COMMITTEE ON
TECHNICAL BARRIERS TO TRADE**

Agricultural products, 1995-2001

1. Mexico. Meat packaging and labelling.

Concern	The problem of labelling in general. Are adhesive labels acceptable and can the Spanish language label be affixed in Mexico?
Issue raised by	New-Zealand
Issue supported by	
Date and relevant documents	April 1995 (G/TBT/M/1)

In April 1995, New Zealand focussed its attention on a Mexican regulation which appeared to apply to a large range of products, including meat products, and did not appear to be justified. The regulation laid down a strict framework for packaging and labelling. The speaker asked if adhesive labels were acceptable and whether the Spanish language label could be affixed in Mexico.

Mexico confirmed that the definitive versions of these plans would be brought to the Committee's attention, while answers to the questions raised by New Zealand would be provided by the competent authorities as soon as possible.

2. United States. Tea standards.

Concern	International standards not applied
Issue raised by	European Communities
Issue supported by	
Date and relevant documents	June 1996 (G/TBT/M/5), October 1996 (G/TBT/M/6)

The European Communities asked the United States to explain the reasons why it was not using the international standard in the draft regulation on tea.

3. European Communities. Lack of notification concerning GMOs.

Concern	No notification of technical regulation.
Issue raised by	Canada
Issue supported by	United States
Date and relevant documents	June 1997 (G/TBT/M/8), October 1997 (G/TBT/M/10)

Canada maintained that the European Communities had not provided notification of a technical regulation and an amendment to a Directive on genetically modified organisms. The former laid down the rules for the authorisation and labelling of genetically modified foodstuffs, while the amendment to the Directive stated that foodstuffs containing GMOs should be described as such on the package. The European Communities replied that the notifications had been sent out.

4. Thailand. Ingredients used in manufacturing cigarettes and cigars.

Concern	Clarification concerning draft legislation on the disclosure of ingredients used in manufacturing cigarettes and cigars.
Issue raised by	European Communities
Issue supported by	
Date and relevant documents	June 1997 (G/TBT/M/8)

The European Communities drew attention to a Thai Government Act, adopted in April 1997, concerning disclosure of the ingredients used in manufacturing cigarettes and cigars. The questions focussed on the notification date. Thailand replied that it would ask its authorities for the answers.

5. Thailand. Labelling of cigarette packets.

Concern	Clarification concerning the Bill on cigarette packet labelling
Issue raised by	European Communities
Issue supported by	
Date and relevant documents	October 1997 (G/TBT/M/10)

The European Communities raised the problem of the labelling of cigarette packets which had been broached in a Thai Ministerial Rule that had not yet been notified.

The Communities asked for the notification date. Thailand replied that it would answer as soon as its authorities had given their reply.

6. European Communities. Labelling of food products containing GMOs.

Concern	Mandatory labelling of foodstuffs produced from genetically modified organisms
Issue raised by	United States
Issue supported by	Argentina, Brazil, Canada and New-Zealand
Date and relevant documents	July 1998 (G/TBT/M/12), September 1998 (G/TBT/M/13), November 1998 (G/TBT/M/14), March 1999 (G/TBT/M/15), June 1999 (G/TBT/M/16), October 2000 (G/TBT/M/21), November 2000 (G/TBT/M/22), March 2001 (G/TBT/M/23), and June 2001 (G/TBT/M/24)

In July 1998, the United States representative drew attention to European Council Regulation No.1139/98 on the Compulsory Indication of the Labelling of Certain Foodstuffs Produced from Genetically Modified Organisms (GMOs). She recalled that the labelling requirement had been the subject of previous interventions in the Committee. The proposal was notified to the Committee (G/TBT/Notif.97.766) on 12 December 1997 and her authorities had commented on it. However, she was concerned that in adopting its final Council Regulation, the European Communities failed to take into account the comments that were made on its objectives and the practical aspects associated with its implementation. She feared that it would create unnecessary obstacles to international trade in corn and soybeans, and would set an unfortunate example for the future regulation of other food and agricultural products. She believed that other Members shared similar concerns, and requested an explanation from the Commission on how the concerns raised by her delegation were addressed, and on the steps that would be taken to ensure compliance with the obligations under the Agreement.

The American approach was backed by New Zealand which stressed, on one hand, the failings of scientific assessments and, on the other, the considerable extra cost of the tests, which would be borne by consumers. Other ways of informing consumers could be explored.

Canada said that it shared US concerns about the validity of protein identification, the ability of the labelling system to inform consumers, compliance with procedures and the possibility of trade being disrupted.

The European Communities justified the choice of the equivalence criterion instead of the concept of « substantial equivalence » by stressing that the presence of protein and DNA resulting from genetic modification constituted a demonstrable difference, over and above the natural variations with a conventional foodstuff. The European Communities then invited their partners to continue bilateral discussions.

7. Egypt. Meat labelling.

Concern	Labelling difficult to perform, costly and not consistent with international practice
Issue raised by	European Communities
Issue supported by	United States
Date and relevant documents	September 1998 (G/TBT/M/13), November 1998 (G/TBT/M/14) , March 1999 (G/TBT/M/15)

In September 1998, following complaints from exporters, the European Communities, stressed the extent to which Egypt's decision to make double labelling of meat mandatory (inside and outside of packaging containers, plus the requirement to indicate the names of the importers and slaughterhouses) was costly, technically difficult to comply with and not in conformity with international practice, and therefore constituted a technical barrier to trade.

Egypt replied that this sort of labelling had been introduced for religious reasons, inasmuch as it made it possible to establish that the animals had been slaughtered in accordance with Islamic custom. It added that double labelling was in no way a barrier to trade in that the exporter had this information and the obligation to indicate the date of slaughter and the country of origin was necessary in order to protect the health of consumers.

8. Netherlands. Mandatory labelling of wood and wood products.

Concern	Request for clarification
Issue raised by	Canada, ASEAN
Issue supported by	Norway, Poland, Ecuador and Brazil
Date and relevant documents	September 1998 (G/TBT/M/13), November 1998 (G/TBT/M/14), March 2001 (G/TBT/M/23) and June 2001 (G/TBT/M/24)

In September 1998, Canada asked the Netherlands for clarification on a notification about a Bill on the labelling of wood and wood-based products. The legislation, which was scheduled to come into force in January 2000, was deemed discriminatory and inconsistent with WTO and TBT agreements because it appeared to be mandatory. Wood products would be treated differently depending on their origin (primary forest or not) and wood-based products would also be treated differently from similar products. Canada pointed out that there was no consensus on the definitions of primary forest and on the idea of an area where wood production would be on a sustainable basis. Environmental practices with regard to forest management could differ according to the objectives, production methods and the country. Canada could agree to the notification, as long as it was market-based and independent and was voluntary.

In November 1998, the ASEAN, through its representative, the Philippines, and having stated that the Netherlands had to comply with the obligations deriving from its status as a member of the International Tropical Timber Organisation, endorsed Canada's arguments and judged the Bill inopportune.

The European Communities noted that countries had strong feelings about the Bill. They stressed that these comments would be submitted to the Dutch Parliament which would take a new decision. The Bill had not yet been voted and a new notification would be presented.

In May 2001, through its representative, Malaysia, the ASEAN again expressed doubts concerning the rationale behind this notification, adopted by the Dutch Lower House in 2000, and criticised the Netherlands' unilateral interpretation of sustainable forest management. The Bill ran counter to international agreements such as the International Tropical Timber Agreement (ITTA). Brazil and Canada joined in the criticism.

The European Communities replied that the Bill had not yet been voted by the Senate and that, for it to be ratified, the Bill would subsequently need to be signed by the government. The comments would be passed on.

9. European Communities. Wine labelling with « traditional expressions »

Concern	EC Regulation restricting the use of expressions used to describe characteristics such as colour and vinification or other methods.
Issue raised by	United States
Issue supported by	Argentina, Australia, Canada, Chile, Egypt, Mexico, New Zealand and Uruguay
Date and relevant documents	October 1999 (G/TBT/M/17), February 2000 (G/TBT/M/18) and October 2001 (G/TBT/M/25)

The United States drew attention to the content of a European Communities document stipulating that wines with labels bearing one of the expressions considered by the EC to be traditional would be refused access to the Community unless they came from a country with which a bilateral agreement had been reached. However, the terms referred to were descriptive and in wide use throughout the world, but did not provide any information as to the origin and quality of the wine. They were not reserved designations. Another source of concern, in addition to the wine problem, was the extension of this type of label to other agricultural products. Other countries joined with the United States in expressing their concerns.

While Uruguay shared the same objective as the European Communities, i.e. the protection of guarantees of origin, it was perplexed about the use of a number of expressions which did not appear to designate varieties of products that could be connected with a specific European region. Uruguay asked for further clarification.

The European Communities said that the object of the regulation was to protect expressions which, over time, had taken on a particular connotation. The aim was to « avoid misleading consumers and to discourage unfair competition ».

They answered the United States by saying that only certain specific expressions would be retained, stressing that it had not provided a single example of a wine about which traditional expressions were used, thus proving their specificity and the need to protect them. Application of the regulation had been postponed and had not yet been notified.

In October 2001, the United States again expressed its concern regarding another text that used the same arguments as those set out above. The said Bill restricted imports of wines and constituted a barrier to trade.

10. Australia and New Zealand. Labelling of transgenic products.

Concern	Purpose of mandatory labelling for all products containing GMOs, including those substantially equivalent to conventional products
Issue raised by	Canada
Issue supported by	
Date and relevant documents	June 1999 (G/TBT/M/16), October 1999 (G/TBT/M/17)

Canada welcomed the combined approach adopted by New Zealand and Australia concerning the labelling of products derived from gene technology. It pointed out, however, that the obligation also applied to products that were substantially equivalent to traditionally derived products, though without understanding either the reasons or the purpose. It asked what the reasons were for this strategy, how the labelling programme would be compatible with international trade obligations, and how it would be applied and monitored and on the basis of what method of analysis.

New Zealand replied that the purpose of the labelling was to inform the consumer and that written replies would be sent to Canada. Australia endorsed the reply given by New Zealand.

11. United States. Eco-labelling of tuna-based products based on the method of fishing.

Concern	Uncertainty as to the mandatory nature of eco-labelling
Issue raised by	Brazil
Issue supported by	Egypt, Mexico, Thailand
Date and relevant documents	February 2000 (G/TBT/M/18), May 2000 (G/TBT/M/19), October 2000 (G/TBT/M/21), November 2000 (G/TBT/M/22)

In February 2000, Brazil asked the United States for clarification concerning a notification about tuna fished using techniques which were not dangerous for dolphins. According to the notification, the label affixed would indicate how they had been fished. But what was not clear was whether the label would be mandatory ; if it was, it would constitute a barrier to trade by accentuating the damage to the developing countries.

In May 2000, Mexico endorsed Brazil's concerns. The United States replied that there was legislation requiring the use of an official stamp on a voluntary basis. In November 2000, it said that a corrigendum to the notification had been published.

12. New Zealand. Conservation and protection of trout

Concern	Import ban on trout
Issue raised by	Canada
Issue supported by	
Date and relevant documents	May 2000 (G/TBT/M/19), July 2000 (G/TBT/M/20) and October 2001 (G/TBT/M/25)

Canada expressed concern in May 2000 about the New Zealand Bill banning imports of trout as a non-commercial species, which was contrary to the WTO agreement. No information had as yet been provided.

New Zealand replied that it was a temporary ban, designed to provide time to consider the question of the protection of trout fishing in that country. There was not at present any market, or therefore commercial sale likely to jeopardise the sustainable operation of wild trout fishing. The authorities would look at the whole question of the protection of trout fishing and would look at the problem again at a later date.

That reply did not satisfy Canada which, in July 2000, when the ban had been extended, asked for further clarification concerning the link between trout imports and the sustainability of wild trout fishing. Canada asked for the ban to be lifted forthwith. New Zealand replied that the question had high priority and asked Canada to pursue discussions.

13. Japan. Labelling standards concerning the quality of perishable foodstuffs.

Concern	Content of the label not in compliance with international standards.
Issue raised by	New Zealand, Egypt
Issue supported by	Australia
Date and relevant documents	May 2000 (G/TBT/M/19), July 2000 (G/TBT/M/20), November 2000 (G/TBT/M/22) and March 2001 (G/TBT/M/23)

In May 2000, New Zealand expressed concern regarding a notification from Japan on labelling standards concerning the quality of processed foodstuffs, fresh foodstuffs, hulled rice, white rice and marine products. The labelling was based on the country of origin and applied to all foodstuffs and beverages intended for sale.

Although the « protection of consumers' interests » argument was put forward to justify the labelling, it transpired that the latter was mandatory and that a link was made between product quality and the country of origin of the product. New Zealand challenged that idea, there being no scientific link between quality and the country of origin.

New Zealand also pointed out that this policy resulted in additional costs that would have to be borne by consumers. Discussions had already taken place with Japan, but without convincing New

Zealand. How could extra costs be justified when what was involved were pointless barriers to international trade? What scientific arguments were the Japanese authorities using to justify this policy? What were the risks?

Japan replied that the labelling requirement was in response to consumer demand, Japanese consumers choosing products on the basis of the efforts made to improve both quality and price, and that that obligation applied to all products, including those produced locally. It was stressed that the new labelling system would result in significant additional costs.

In March 2001, Egypt again asked Japan for an explanation concerning compliance with the obligation for SMEs and stressed the consequences for the developing countries.

14. European Communities. Labelling of beef and beef products.

Concern	System for the identification and registration of bovine animals, as well as the labelling of beef and beef products.
Issue raised by	Brazil, Egypt
Issue supported by	Canada, South Africa, United States and New Zealand
Date and relevant documents	July 2000 (G/TBT/M/20), October 2000 (G/TBT/M/21) and November 2000 (G/TBT/M/22)

Brazil asked the European Communities about their notification concerning a system for the identification and registration of bovine animals, as well as the labelling of beef and beef products. The label was required to indicate the country of origin, the slaughterhouse, the de-boning hall and the category of the animal. Brazil wondered whether only the first two requirements were mandatory.

Egypt said in November 2000 that it was concerned by this new system which could well prove to be a serious barrier to trade from the developing countries.

The European Communities said that they were anxious to provide all the necessary documents and were ready to discuss labelling problems with the Committee.

15. European Communities. Marketing standards applying to eggs.

Concern	Unjustified marketing standards
Issue raised by	Canada
Issue supported by	India, United States
Date and relevant documents	October 2000 (G/TBT/M/21), November 2000 (G/TBT/M/22)

In November 2000, Canada asked the European Communities to justify a new regulation concerning certain marketing standards for eggs, which involved labelling that varied according to operating conditions.

The European Communities replied that the process of adopting this new regulation was not very far advanced and that the labelling was in response to a need for information on the part of consumers. The technical requirements were being drawn up.

16. Indonesia. Labelling of food products, wines and spirits.

Concern	Barrier to international trade
Issue raised by	European Communities
Issue supported by	Egypt, United States
Date and relevant documents	July 2000 (G/TBT/M/20), October 2000 (G/TBT/M/21), November 2000 (G/TBT/M/22) and June 2001 (G/TBT/M/24)

The European Communities felt in June 2001 that some of the requirements in Indonesia's notification concerning the labelling of foodstuffs, wines and spirits ought not to apply because of their restrictive effect on international trade. Indonesia said that it would reply at a later date.

17. European Communities. Certification of biological products

Concern	Discrimination between countries with regard to certification
Issue raised by	United States
Issue supported by	
Date and relevant documents	October 2001 (G/TBT/M/25)

In October 2001, the delegate of the United States expressed concern over a notification from the European Communities on requirements with respect to the importing and certification of biological products. Their products would have to be approved by competent authorities of individual Member States. Each Member State could decide which border authorities be assigned this task. However, in the Member States, there was no procedure established for border authorities to communicate with the competent authorities that issued the import authorisation. She was concerned about the potential delays and the unclear procedures that would be implemented, though the EC had responded that its Member States would inform it on how the new regulations were to be implemented. In view that the regulations were to be implemented in July 2002, she requested the EC to provide clear information on the procedures in Member States.

The e European Communities promised to pass the questions and comments on to the competent authorities.

18. European Communities. Standards for wine bottles.

Concern	Treatment favouring products of European origin
Issue raised by	United States
Issue supported by	Argentina, Australia, Canada, Chile, New Zealand and Uruguay
Date and relevant documents	October 2001 (G/TBT/M/25)

In October 2001, the United States criticised a European Communities plan which involved, first, coming back to the « traditional expressions » information and, second, reserving certain types of bottle solely for EU use, thus favouring products of European origin and creating an unnecessary barrier to trade. This scheme, which was contrary to both the GATT agreements and the WTO agreement, represented an attempt to obtain a competitive advantage for locally produced wines and alcoholic beverages. Australia joined with the United States in asking for notification of the draft regulation.

The representative of the European Communities explained that it was not possible to notify the proposal at the moment, since the proposal was under discussion within the Commission as well as between Member states at the expert level, and no draft text had been prepared. He assured the Committee that it would be notified when a formal draft text exist, in time before it was adopted.

19. Chile. Labelling of transgenic foodstuffs.

Concern	Labelling created a barrier to trade
Issue raised by	Canada
Issue supported by	
Date and relevant documents	October 2001 (G/TBT/M/25)

Canada expressed concern about a Chilean regulation on the system of labelling transgenic foodstuffs. Canada had doubts concerning the scientific justification, the implementation of the measures and their binding nature.

Chile took note of Canada's questions and confirmed the measure which would come into effect one year after its publication in the Official Journal.

20. Brazil. Labelling of foodstuffs containing GMOs.

Concern	Request for clarification
Issue raised by	United States
Issue supported by	
Date and relevant documents	October 2001 (G/TBT/M/25)

The United States asked Brazil in October 2001 whether the decree on labelling, which set a tolerance threshold of 4% of GMOs in foodstuffs, was a definitive text and whether it was going to be the subject of a notification or not. Brazil replied in the affirmative.

Environmental Goods:

A Comparison of the APEC and OECD Lists

Unclassified

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Organisation de Coopération et de Développement Economiques
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ENVIRONMENTAL GOODS: A COMPARISON OF THE APEC AND OECD LISTS

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FOREWORD

This report has been prepared in response to a request from the Joint Working Party on Trade and Environment (JWPTE). It was drafted by Ronald Steenblik in the Trade Policy Linkages Division of the Trade Directorate, under the supervision of Dale Andrew. The Secretary-General has agreed to declassify the document under his responsibility, as recommended by the JWPTE, with the aim of bringing information on this subject to the attention of a wider audience.

The report, which is also available in French, can be found on the OECD website at the following address: <http://www.oecd.org/trade> and <http://www.oecd.org/trade/env>

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EXECUTIVE SUMMARY

Paragraph 31(iii) of the Doha Ministerial Declaration calls for negotiations on “the reduction or, as appropriate, elimination of tariff and non-tariff barriers to environmental goods and services.” “Environmental goods” were not further defined in the Doha declaration. However, a substantial amount of work to identify the scope of environmental goods had already been undertaken by the OECD and APEC, culminating in two product lists of candidate goods, one from each organisation.

Counting only entries with corresponding Harmonized System (HS) codes, the OECD list appears to be about 50% longer than the APEC list. However, when one eliminates multiple listings at the 6-digit level, they are more similar in length: there are 132 unique HS codes in the OECD list, compared with 104 in the APEC list. The composite list has 233 entries identified with an HS code, covering 198 different goods. These magnitudes are small compared with the total numbers of lines contained in WTO Members’ national tariff schedules, which range from less than 6 000 (in the schedules of Australia and India) to over 11 000 (in the schedules of Hungary, Korea, Mexico, and Turkey). In all, less than 30% of the goods are common to both lists. The greatest areas of overlap are found in the categories of air-pollution control, recycling, incineration, and measuring and monitoring equipment.

In reviewing the developmental history of the OECD and APEC product lists of environmental goods, it is clear that the two exercises were interlinked and informed each other. For example, the drafters of the APEC list consciously based their categories of environmental goods in large part on the work being undertaken at the time by the OECD/Eurostat informal working group on the environment industry. However, the objectives of the two exercises differed, as did the procedures for generating the lists.

The OECD list was the result of an exercise intended to illustrate, primarily for analytical reasons, the scope of the “environment industry.” The selection of categories of goods could therefore be broad, because there were no specific policy consequences of adding products to the list. Moreover, the OECD’s larger list was created deductively: starting from general categories based on the classifications appearing in the environment industry manual, and adding more specific examples, in order to produce an estimate of average tariffs on a previously undefined class of goods.

The APEC approach started with nominations — not unlike the request/offer procedures traditionally used in trade negotiations — yielding a list of goods which was then arranged according to an agreed classification system. Further, since the aim of the APEC list was to obtain more favourable tariff treatment for environmental goods, APEC member economies limited themselves to considering only those specific goods that could be readily distinguished by customs agents and treated differently for tariff purposes. For this reason, issues related to “like products”, products defined by particular processes or production methods, and products defined by their life-cycle impacts, were not addressed, with the result that some goods were left off the list that could be included on the OECD list. This constraint of practicality could be relaxed in the OECD’s analysis because its aim was merely to illustrate what could potentially be included.

Perhaps the most elementary observation to make from any comparison of the various lists of environmental goods that have been produced to date is that the number of goods that could be included in an eventually agreed list is potentially large. Clearly, both the OECD and the APEC lists have helped frame the current WTO negotiations on environmental goods. But it is also clear that many, if not most, WTO members regard the lists as just that: helpful but not definitive.

ENVIRONMENTAL GOODS: A COMPARISON OF THE APEC AND OECD LISTS

Introduction

1. Paragraph 31(iii) of the Doha Ministerial Declaration calls for negotiations on “the reduction or, as appropriate, elimination of tariff and non-tariff barriers to environmental goods and services.” “Environmental goods” were not further defined in the Doha declaration. However, a substantial amount of work to identify the scope of environmental goods had already been undertaken by the OECD and APEC¹, culminating in two product lists of candidate goods, one from each organisation. Though these lists were developed for purposes other than the WTO negotiations, and therefore have to be regarded as only indicative, several countries have considered them to be useful starting points for those negotiations. Indeed, in September 2002 the WTO Secretariat was requested to circulate the two lists to the Negotiating Group on Market Access (NGMA), which is the WTO body conducting negotiations on environmental goods², and subsequently to the Committee on Trade and Environment in Special Session (CTESS), with which the NGMA closely co-ordinates.³ Since then, Japan has submitted a proposal which includes some goods from both of these lists.

Geneses of the two lists

2. The dynamic nature of their market, together with the role they can serve in strengthening environmental protection, have made environmental goods obvious candidates for a trade-liberalisation initiative, one that could both benefit the environment and boost international trade. A basic difficulty confronts trade negotiators, however: there is no well-defined sector known as “the environmental goods sector.” Rather, environmental goods are spread across a wide range of industrial and trade classification nomenclatures. In the words of one analyst, “This is less a sector than an agglomeration of providers of many types of goods, services and technologies that are usually integrated into production processes and are often hard to tease out as separate items” (US Office of Technology Assessment, 1994, p. 149).

3. Specific end-of-pipe pollution abatement and clean-up technologies — such as catalytic converters for automobile exhausts — are obvious candidates for any list of environmental goods. But they are not the only goods used for environmental improvement. Classifying goods from outside this narrow area as “environmental” raises fundamental issues, however. Many goods that are used for environmental

1. Asia-Pacific Economic Cooperation.

2. Under the negotiating structure adopted by the Trade Negotiations Committee in February 2002, negotiations on market access for non-agricultural products were to take place in the Negotiating Group on Market Access, and negotiations on services to take place in the Council for Trade in Services in Special Session. Negotiations on trade and environment were to take place in the Committee on Trade and Environment meeting in Special Session.

3. The lists are contained, respectively, in WTO documents TN/MA/S/6 and TN/TE/W/18.

protection and resource management potentially have other uses: pumps can be used in a wastewater treatment facility, or in a variety of other industrial uses not related to environmental remediation. Other goods may be considered “good for the environment” by virtue of their relative (as opposed to absolute) performance in use — a criterion with the potential to render the definition extremely broad, as almost all goods and technologies have substitutes that are cleaner or more efficient. No attempt is made here to resolve these classification issues, but readers are advised to bear them in mind when considering the product coverage of any list of environmental goods.

4. In the following two sub-sections, the geneses of the OECD and APEC lists are treated separately. In fact, their developmental phases closely paralleled each other and intersected at several points, the one exercise informing the other. That is not surprising, as six (eventually seven) countries⁴ were members of both organisations. However, the purposes that the lists were intended to serve differed from the start. The OECD list was the result of an exercise intended to illustrate, primarily for analytical reasons, the scope of the “environment industry.” The selection of categories of goods could therefore be broad, because there were no specific policy consequences of adding products to the list. By contrast, the APEC list resulted from policy discussions directed toward anticipated changes in tariffs. And whereas the OECD list was meant to be indicative, particularly as a framework for undertaking economic analyses in general, and of trade flows and tariff barriers in particular, the APEC list — for which the negotiation process came to an end before full consensus was reached — was the direct result of negotiated offers in the context of a trade-liberalisation initiative.

The OECD list

5. OECD interest in the environmental goods and services arose initially as part of its work on environmental policy and industrial competitiveness. A report prepared by the Industry Committee in 1992 described market developments in the environment industry and the role of environmental policies (OECD, 1992). A subsequent report (OECD, 1996a) expanded and deepened the analysis, collected available data, and showed a clear need for improving information on the industry and undertaking further analysis.

6. Publication of these results prompted numerous questions. What had been the record in exporting environmental technologies? Could the impact on industrial competitiveness due to the application of cleaner technologies be measured? How could environmental and economic policy be modified to encourage and support growth, job creation and trade in goods and services of the environment industry? It soon became apparent that answering these questions would require addressing major statistical and methodological difficulties related to problems of industry delimitation and data availability.

7. In 1994 the US Government (the Environmental Protection Agency and the Department of Commerce) hosted a meeting of experts in Washington, D.C. The main aim of this meeting was to identify ways in which more-comprehensive and consistent information could be collected — particularly on production, employment, trade, investment and R&D — so as to provide a solid foundation for policy analysis (OECD, 1996b). Before statistics could be gathered, however, a clearer definition and classification of the environmental goods and services industry had to be developed. To this end, the OECD, in collaboration with Eurostat (the Statistical Office of the European Communities), formed an Informal Working Group on the Environment Industry composed of experts from OECD countries who, as part of their work at national ministries for economics or industry, national statistical offices, or public or private research institutes, were responsible for collecting and analysing data on the environmental goods and services industry.

4. Australia, Canada, Japan, Korea (which joined the OECD late in 1996), Mexico, New Zealand and the United States.

8. At its first meeting in Luxembourg, in April 1995, the OECD/Eurostat Informal Working Group agreed on an interim definition of, and classification system for, the environment industry (OECD, 1996c). After considering various alternatives, the Working Group agreed on the following definition:

The environmental goods and services industry consists of activities which produce goods and services to measure, prevent, limit, minimise or correct environmental damage to water, air and soil, as well as problems related to waste, noise and eco-systems. This includes cleaner technologies, products and services that reduce environmental risk and minimise pollution and resource use.

9. The Working Group went on to add, “For cleaner technologies, products and services, despite their importance, there is currently no agreed methodology which allows their contribution to be measured in a satisfactory way” (OECD/Eurostat, 1999, p. 10). This limitation is why, for example, products defined in terms of their energy efficiency were not included in the original OECD list.

10. The definition and classification were tested during 1996 and 1997 by collecting new data and re-organising available data in OECD countries. In the mean time, Canada, the Commission of the European Communities, France and the United States started using the OECD/Eurostat classification to design and carry out new surveys and studies on the environment industry.

11. During 1997 the OECD/Eurostat Informal Working Group continued to refine and improve its interim definition and classification system. Meanwhile, the OECD’s Joint Working Party on Trade and Environment (JWPTE) began to take an interest in the subject. The OECD/Eurostat Informal Working Group was concentrating on defining relevant industry activities covering both goods and services, to improve analysis and develop coherent, comparable statistics for national surveys, whereas the JWPTE’s interest was on developing a framework for future trade liberalisation efforts in the environmental goods and services (EGS) sector. In the absence of any internationally agreed product list of environmental goods, an attempt was made to develop such a list — identified by 6-digit HS (Harmonized System) trade nomenclature product numbers — and arranged according to the groups, categories and sub-categories of environmental goods that had been developed by the Informal Working Group. Inherent in the nature of the OECD/Eurostat classification system, it was possible to identify a greater number of HS product numbers for the six sub-categories of group A (“Pollution Management”), than for the two sub-categories of group B (“Cleaner Technologies and Products”) or the ten sub-categories of group C (“Resources Management”). The final list, which is reproduced in Annex Table 1 to this document, was completed in 1998 and published subsequently in both a working paper of the JWPTE (OECD, 1999a) and the final report of the Informal Working Group (OECD/Eurostat, 1999b). It was also reproduced, unchanged, in the publication *Environmental Goods and Services: The Benefits of Further Global Trade Liberalisation* (OECD, 2001).

12. It must be stressed that the OECD list was meant to be illustrative rather than definitive, particularly for use in analysing levels of tariff protection. As the “Note” to the list published in the OECD/Eurostat (1999b) *Manual* explains, “The list is not exhaustive; not all environmental goods are covered. Some environmental goods have no equivalent HS commodity code. Some HS commodity codes include goods which may not be environmental goods.” It is with respect to the last point where some of the most important differences between the OECD and APEC lists are to be found. In producing the OECD list, no attempt was made to go beyond the 6-digit (sub-heading) HS codes and identify only those goods that could be considered “environmental”. By contrast, as described below, the APEC list was produced through an essentially “bottom up” process, and includes many “ex-headings” (nationally defined tariff lines) of goods falling under more aggregate commodity descriptions.

The APEC list

13. The roots of the APEC list of environmental goods trace back to a November 1995 meeting in Osaka, Japan, wherein APEC Leaders agreed to identify industries in which the progressive reduction of tariffs could have a positive impact on trade and on economic growth in the Asia-Pacific region, or for which there was regional industry support for early liberalisation. A year later, at their meeting in Subic Bay, Philippines, APEC Leaders issued more-precise instructions, directing Ministers responsible for trade⁵ to “identify sectors where early voluntary liberalisation would have a positive impact on trade, investment and economic growth in the individual APEC economies as well as in the region and submit recommendations on how this can be achieved.”

14. At their May 1997 meeting in Montreal, APEC Trade Ministers directed officials to identify possible sectors that might be candidates for early voluntary liberalisation. Following this invitation, a wide variety of APEC economies put forward 62 sectorally based nominations, in total covering more than 40 sectors, for initial consideration at a subsequent meeting of senior officials held in August. Most proposals were supported by several economies, but few were supported by all (Yamazawa and Scollay, 2003). Environmental goods and services, as a distinct category, was proposed by four economies — Canada, Japan, Chinese Taipei and the United States — drawing on the original working OECD definition of the environmental sector to guide initial classification work (Dee *et al.*, 1998). Ultimately, a total of nine economies proposed goods under this category.

15. By the time of the November 1997 APEC leaders’ meeting in Vancouver, the nominations had been arranged into 41 sectors. Out of that meeting, a subset of 15 sectors emerged as clearly enjoying the greatest support for EVSL among member economies. These fifteen sectors were then further divided into two tiers. The first tier comprised nine sectors identified for fast-track treatment: environmental goods and services, fish and fish products, forest products, medical equipment and instruments, energy, toys, gems and jewellery, chemicals, and a telecommunications mutual-recognition agreement. The second tier comprised those sectors (oilseeds and oilseed products, food, rubber, fertilisers, automotive and civil aircraft) that APEC member economies deemed would require more preparatory work before they would be ready for implementation.⁶

16. Acting on the decisions of Leaders and Ministers in Vancouver, senior officials instructed sectoral co-ordinators to finalise agreements or arrangements that would include, in addition to market opening, elements of facilitation and economic and technical co-operation. Building on extensive work as undertaken in the fall of 1997, including extensive inter-sessional work, two further rounds of experts’ meetings were held in Penang and Kuala Lumpur to further develop the Vancouver proposals in advance of the June 1998 Kuching meeting of APEC Trade Ministers. By the time of this meeting of Ministers, a framework for addressing EVSL, including draft product lists, end tariff rates and timetables, had been worked out. Both at Kuching and in subsequent meetings in 1998, including in Kuantan, work continued to further develop each of the proposals. A copy of the revised, consolidated list of environmental goods (also known as the “Kuantan version”) is attached to this document as Annex Table 2. This is the list that would eventually be transmitted to the WTO.

5. Hereinafter simply “Trade Ministers”.

6. Proposals for the second tier of sectors were further developed for assessment and review by APEC Ministers at the Kuching meeting in June 1998 (Dee *et al.*, 1998).

Table 1. APEC's EVSL for environmental goods: flexibility proposals by the sectoral co-ordinator

Schedule target	Implementation schedule
Preferred outcome	Tariffs eliminated over 4 years, in 4 equal cuts, with the first cut taking place six months after conclusion of the agreement, subject to the completion of domestic legislative procedures, and subsequent cuts taking place by 1 January 2001, 2002 and 2003.
Minimum conformity	Industrialised Economies: 90% of tariff lines to be reduced to 0% by 1 January 2003. Developing Economies: 80% of tariff lines to be reduced to 0% by 1 January 2003.
Flexibility	Industrialised Economies: any remaining non-zero tariff lines to be reduced to 0% by 1 January 2005. Developing Economies: the first tranche (at least half) of any remaining non-zero tariff lines to be reduced to 0% by 1 January 2005; the last tranche of non-zero tariff lines to be reduced to 0% by 1 January 2007

Sources: Sectoral co-ordinator for environmental goods and services, "report on agreements/arrangements for market opening, facilitation and other measures", 11 November 1998; Government of New Zealand, "Preparations for the 1999 Ministerial Conference — APEC's 'Accelerated Tariff Liberalisation' (ATL) Initiative — Communication from New Zealand", Document no. WT/GCW/138 (26 January 1999), World Trade Organization, Geneva.

17. Because environmental goods are not defined as a sector in the HS nomenclature, liberalisation by necessity had to be pursued on a product-specific basis (Oxley, 1999). Proceeding from the OECD definition of what activities form part of an environmental industry, APEC economies identified, by HS codes, a positive list of products to be covered under the agreement. Tariffs for these specified products were, in principle, to be completely eliminated by 1 January 2003.⁷ However, in recognition of the need to deal with product-specific concerns raised by individual economies in each sector, some flexibility was allowed. In the case of environmental goods, elimination of some tariffs could be delayed until 2005 for a small number of products, or by 2007 in the case of developing economies (Table 1).

18. This negotiating context gave rise to a certain amount of caution on the part of some economies, who may not have wanted to see items with high tariffs be targeted for liberalization. In addition, some economies were quite sensitive to the "dual use" issue. They reasoned that, while some items might have a use, even an important use, in an environmental context, they might also be used in other industries, with the result that the effects of tariff liberalisation would not be limited to the environment sector. Further, even where HS tariff lines contained items that were essential to the environment industry, there might also be other products that fell within the same 6 or 8 digit tariff heading that were not so environmentally-focused.

19. The APEC economies found ways to address many of these concerns through, for example, (1) the inclusion of a 6-digit heading if the products were predominantly environmental, or so central to

7. Targets for the environmental goods and services sectors were initially "to be determined" and were only finalised subsequent to the June 1998 Kuching meeting of APEC Trade Ministers.

environmental uses that their exclusion was absolutely necessary; or (2) the specification of an “ex-heading” where APEC economies essentially wished to provide duty-free treatment to a specific product. In the latter cases, it would have been left up to individual economies to specify how that product would be reflected in their own national tariff schedules. All of these issues tended to make economies more cautious about inclusion of HS headings and products, and made the APEC list shorter than it otherwise might have been.

20. Notably absent from the consolidated list of environmental goods were chemicals used for processes such as water purification or waste-water treatment. Chemicals were left off the environmental goods list, not because they were regarded as non-essential for environmental protection and remediation, but because APEC Members wanted to avoid entangling the EVSL initiative for environmental goods with the one for chemicals, particularly as the EVSL initiative for chemicals called only for harmonising tariff rates (Annex Tables 3 and 4). The proposal for EVSL of chemicals had a longer history, beginning with the Uruguay Round’s Chemical Tariff Harmonization Agreement (CTHA), to which several APEC economies had already become signatories as part of their Uruguay Round tariff commitments (Box 1).

21. The logic of avoiding overlap between EVSL lists was *not* applied to goods from the medical equipment and instruments sector, 36 of which are included in the environmental goods list under the category for monitoring and analysis equipment.⁸ There is also some overlap between the list for energy and the list for environmental goods, but it is smaller, with only 17 tariff lines common at the 6-digit level, of which 10 refer to different ex-headings.

22. During the remainder of 1998 additional technical experts’ meetings took place to elaborate the details of the various EVSL frameworks. The resultant proposal, presented to Trade Ministers and APEC Leaders at their annual meetings in Kuala Lumpur in November 1998, was a comprehensive package that included undertakings on four elements: tariffs; services; non-tariff measures; and economic and technical co-operation (Ecotech). While noting the progress made in 1998 in finalising the EVSL package, Ministers could not agree to move forward on its tariff elements. A decision was therefore taken to refer the tariff elements of the EVSL proposals to the WTO, for possible adoption on a binding basis by the full WTO membership. In so doing, the Ministers also pledged to work “constructively to achieve critical mass in the WTO necessary for concluding agreement in all 9 [first-tier EVSL] sectors.”⁹ Malaysia, as APEC Chair, communicated this outcome to the WTO General Council in December 1998.

23. New Zealand, as APEC Chair for 1999, later circulated two papers to the WTO Members, explaining the history of the EVSL initiative, and providing details on the liberalisation targets, flexibility approaches, and the positions reached by APEC economies for each sector by the time of the Kuala Lumpur Ministerial and Leaders’ meetings. The expectation was that the tariff elements of the “Accelerated Tariff Liberalisation” (ATL) initiative — as the EVSL initiative became known in the WTO — would be advanced as a whole for consideration and adoption at the Third WTO Ministerial Conference in Seattle (December 1999). Due to the complicated nature of the Seattle Ministerial, however, little progress was made on the package.

8. Several products included on the list (particularly under HS headings 9027 and 9031) also form part of the schedule of commitments entered into by Parties to the WTO’s Information Technology Agreement, several of whom are also members of APEC.

9. The APEC Ministers also noted that “This process of expanding participation beyond APEC will not prejudice the position of APEC members with respect to the agenda and modalities to be agreed at the Third WTO Ministerial Conference.”

Box 1. The EVSL initiative for chemicals

Chemicals such as hydrated lime and magnesium dioxide are used in many environmental processes, such as water purification, waste-water treatment and air-pollution control. They were left off APEC's Early Voluntary Sectoral Liberalization (EVSL) initiative for environmental goods because they were covered under a separate EVSL initiative for chemicals.

The chemicals EVSL initiative — later to become part of the Accelerated Tariff Liberalization (ATL) initiative — had its origins in the Uruguay Round of multilateral trade negotiations. In 1991, chemical associations from several countries proposed that chemical tariffs be harmonised at 0%, 5.5% or 6.5%, depending on the class of the chemical product. The harmonisation initiative covered all of HS Chapters 28-39, except for a handful of items that were considered to be part of the Uruguay Round agricultural negotiations. The industry proposal became the basis for the Uruguay Round Chemical Tariff Harmonization Agreement (CTHA), to which about two-dozen countries became signatories.* Since then, several other countries have adopted the CTHA as part of their WTO accession commitments, and others still in the process of acceding have signalled their willingness to undertake the CTHA commitments. Currently, over 30 (mainly OECD member) countries are now in the process of implementing the CTHA, with more to join once their accession negotiations are completed.

When APEC Ministers called for the nomination of sectors for Early Voluntary Sectoral Liberalization in mid-1997, the United States and Singapore each nominated the full range of products covered by the CTHA and the tariff rates agreed to in the Uruguay Round for those products. Australia and Hong Kong, China joined with the United States and Singapore to co-sponsor a broad chemical initiative. Several other proposals were also received for subsectors of the chemical sector, and fertilisers was selected by APEC Ministers as a separate sector for liberalisation beyond that provided in the CTHA.

* At the end of the Uruguay Round, the CTHA encompassed the Quad (Canada, the European Commission (on behalf of the 12 EU Member States) Japan, and the United States), Korea, Norway, Singapore and Switzerland. In 1995 this number increased with the addition of three new Member states to the European Union.

Source: Government of New Zealand, "Preparations for the 1999 Ministerial Conference — APEC's 'Accelerated Tariff Liberalisation' (ATL) Initiative — Communication from New Zealand — Addendum", Document no. WT/GC/W/138/Add.1 (22 April 1999), World Trade Organization, Geneva.

24. Meanwhile, work on other aspects of the EVSL initiatives — namely, reducing non-tariff barriers, facilitating trade, and encouraging economic and technical co-operation — has continued within APEC. For example, APEC members have been encouraged to submit and support proposals for economic and technical co-operation projects that will facilitate trade in environmental goods. An APEC Cleaner Production Strategy¹⁰ has been developed and approved that includes a list of generic, illustrative activities for implementing the strategy: (i) cleaner-production training modules; (ii) sector-based demonstration projects and case studies; (iii) technical conferences and seminars; (iv) environmental management systems (e.g. ISO 14001) workshops and training activities; (v) study tours and cleaner-production fellowships; (vi) technical exchanges; (vii) electronic information exchanges; (viii) use of industrial-extension support systems to promote cleaner production among SMEs; and (ix) development of guidebooks and manuals. In 2003, the APEC Secretariat plans to study the impacts on APEC economies of measures to liberalise and facilitate trade in environmental services.

10. See http://www.amz.com/apec2/HomePage/cp_strategy.html

Comparison of the OECD and APEC lists

25. Annex Table 5 combines the OECD and APEC lists of environmental goods into one composite list, to facilitate comparison. Goods have been organised according to the categories and sub-categories used in the OECD/Eurostat scheme and, within those sub-categories, ordered by 6-digit HS nomenclature sub-headings. In most cases, categories used in the APEC list correspond to those in the OECD list,¹¹ and hence the assignment of goods from the APEC list to OECD categories is straight-forward, though for a few goods assumptions had to be made as to which sub-categories they should be assigned. Also, in nine cases (see endnote to table), goods from the APEC list have been assigned here to OECD categories other than those to which they appear in the original APEC list. An example is ozone, an ex-heading under HS sub-heading 8543.89: in the APEC list it appears under the category of waste-water management; for the purposes of compiling a composite list it has been assigned also to potable water treatment.

26. Counting only entries with corresponding HS codes, the OECD list appears to be about 50% longer than the APEC list (Table 2). However, when one eliminates multiple listings at the 6-digit level, they are more similar in length: there are 132 unique HS codes in the OECD list, compared with 104 in the APEC list. The composite list has 233 entries identified with an HS code, covering 198 different goods. These magnitudes are small compared with the total numbers of lines contained in WTO Members' national tariff schedules, which range from less than 6 000 (in the schedules of Australia and India) to over 11 000 (in the schedules of Hungary, Korea, Mexico, and Turkey).¹²

27. Strictly speaking, the two lists do not overlap much at the level of six-digit HS codes. In all, less than 30% of the goods in the combined list are common to both lists, and about half of the goods on either list can be found on the other. The greatest areas of overlap are found in the categories of recycling equipment (OECD sub-category A.3.6), incineration equipment (sub-category A.3.7), and measuring and monitoring equipment (sub-category A.6.1). Even then, for about one-quarter of the common goods, the APEC list refers to one or two specific goods, rather than to all the goods contained within the tariff line. For example, the OECD product list refers to "Parts for spark-ignition internal combustion piston engines", whereas the APEC list covers only the ex-heading category of industrial mufflers.

11. The exception is the APEC category "Other Recycling Systems" (ORS), which corresponds to the OECD sub-category "3.6 Recycling Equipment" under the general category of "3. Solid Waste Management".

12. WTO Secretariat, "WTO Members' Tariff Profiles", WTO Doc. No. TN/MA/S/4/Rev.1, Geneva.

Table 2. Summary statistics of APEC and OECD lists of environmental goods

Statistic	Number or %
OECD list	
Total HS subheadings	164
Unique HS subheadings	132
APEC list	
Total HS subheadings	109
Unique HS subheadings	104
— <i>of which qualified by ex-Heading specification</i>	44
Composite list	
Total HS subheadings	233
Unique HS subheadings	198
Tariff lines common to both the OECD and APEC lists	54
— <i>of which qualified by ex-Heading specification</i>	13
Percentage overlap (54 out of 198)	27 %

Source: Annex Table 5 to this document.

28. One reason for the surprising lack of overlap is a difference of emphasis. Under the category *Heat/energy savings and management*, the OECD list specifies 14 tariff lines and the APEC list only 3. The OECD list contains 5 tariff lines each under the sub-categories *Hazardous waste storage and treatment equipment* and *Waste collection equipment*; the APEC list contains none. On the other hand, the APEC list contains a much larger number of goods under the category *Environmental monitoring, analysis and assessment*, including some goods not mentioned in the OECD list, such as gas and electricity meters. Almost all of the goods contained in the OECD list under this category appear also on the APEC list.

29. Another reason for the small degree of overlap is the omission of some tariff lines from the APEC list because the particular goods were already included on lists prepared for other EVSL initiatives — notably that for chemicals. Thus, whereas particular chemicals, such as chlorine, hydrogen peroxide and magnesium hydroxide, all falling within HS chapters 28 through 39, are sprinkled across the OECD product list under categories ranging from air-pollution control to renewable energy (in the case of methanol), with most listed under waste-water management, they are with one exception¹³ entirely absent from the APEC list for environmental goods. However, all of the chemicals appearing on the OECD list

13. The exception relates to two products listed under HS code 3926.90 (Other articles of plastics and articles of other materials of headings 3901 to 3914; other): bio-film medium that consists of woven fabric sheets that facilitate the growth of bio-organisms; and rotating biological contactor consisting of stacks of large (HDPE) plates that facilitate the growth of bio-organisms. The APEC list includes these under the category of waste-water management.

were covered by APEC's separate EVSL proposal for chemicals (see paragraph 17, above), which was more encompassing.

30. In several cases, the APEC list provides greater specificity for goods that are mentioned in the OECD list but for which no HS codes were provided. Examples are trash compactors and parts for trash compactors (corresponding to the OECD's sub-category "compactors"), electromagnets (OECD: "magnetic separators"), inflatable oil-spill recovery barges (OECD: "oil spillage cleanup equipment"), wind-powered electric generating sets (OECD: "wind turbines"), and hydraulic turbines and water wheels (OECD: "hydroelectric plant"). No doubt had the OECD gone into greater detail in these sub-categories the degree of overlap between the two lists would have been greater.

31. Notably, the APEC list includes some specific products — including several goods from or for agriculture — corresponding to categories of goods suggested by the OECD but for which not only no HS codes were specified but no concrete product examples were provided. For example, New Zealand had nominated biodegradable erosion-control matting and ecologically-safe ground covers (both ex-headings of HS code 4601.20), as well as hot-water weed-killing systems (an ex-heading of HS code 8436.80), for EVSL. All three of these items are classified in the APEC list as relating to waste-water management. (Under the OECD list they would more logically be classified as goods used to make agriculture more sustainable.) Similarly, Canada nominated booms or socks consisting of ground cobs of corn (maize) contained in a textile covering (an ex-heading of HS code 2302.10) as an environmental good used in remediation and cleanup.

Other lists

32. In November 2002 Japan submitted a list of environmental goods as part of a broader proposal on market access for non-agricultural products communicated to the NGMA and CTESS (reproduced in this document as Annex Table 6).¹⁴ Japan's list, which contains 166 entries (corresponding to 157 unique HS codes), incorporates many goods from both the OECD and the APEC lists, plus an additional 30 products that do not appear on either list. Most of the newly proposed products appear under the heading "Cleaner Technology and Products", and almost all are less-polluting or more energy- or resource-efficient versions of similar goods covered by the same 4- or 6-digit HS codes. Examples include "inverter type air conditioners" (an ex-heading under HS heading 8415), "ultrasonic dish-washing machines" and "dish-washing machines capable of saving detergents" (ex-headings under HS code 8422.11), and "double-hulled oil tankers" (an ex-heading under HS code 8901.20).

33. Other candidate lists of environmental goods are currently under preparation by several other WTO Members and are expected to be submitted to the NGMA and CTESS during 2003. In all likelihood, these lists, too, will incorporate goods from both the OECD and the APEC lists, as well as propose some new ones. The variation reflects to some extent national priorities in the negotiations on trade in goods in general. But it also reflects differences in views regarding which goods countries consider to be truly "environmental".

14. Government of Japan, "Market Access for Non-Agricultural Products — Communication from Japan", WTO document no. TN/MA/W/15 & TN/TE/W/17, 20 November 2002, World Trade Organization, Geneva.

Conclusions

34. In reviewing the developmental history of the OECD and APEC product lists of environmental goods, it is clear that the two exercises were interlinked and informed each other. For example, the drafters of the APEC list consciously based their categories of environmental goods in large part on the work being undertaken at the time by the OECD/Eurostat informal working group on the environment industry.¹⁵ At the broad level, therefore, the two lists are quite similar.

35. However, the objectives of the two exercises differed, as did the procedures for generating the lists. The OECD's larger list was created deductively: starting from general categories based on classifications appearing in the environment industry manual, and adding more specific examples, where available, in order to produce an estimate of average tariffs¹⁶ on a previously undefined class of goods. The APEC approach started with nominations — not unlike the request/offer procedures traditionally used in trade negotiations — yielding a list of goods which was then arranged according to an agreed classification system.

36. It is important also to understand the APEC list in the context of the larger Early Voluntary Sectoral Liberalisation (EVSL) initiative with which it was associated. Environmental goods constituted only one of 15 sectors falling under the EVSL initiative, and one of 9 when it was referred to the WTO and became part of the Accelerated Tariff Liberalisation (ATL) initiative. Neither the APEC nor the OECD exercise sought to exclude any particular categories of goods *a priori*. However, because of the broad coverage of the EVSL initiative and its segmentation into distinct sectors, each with a different set of liberalisation target dates and rates, certain goods such as chemicals, which clearly are necessary for limiting or correcting environmental damage, were not included in the EVSL initiative for environmental goods. This was more apt to be the case the further the liberalisation targets for other sectors diverged from those for environmental goods.

37. Further, since the aim of the APEC list was to obtain more favourable (different) tariff treatment for environmental goods, APEC member economies limited themselves to considering only those specific goods that could be readily distinguished by customs agents and treated differently for tariff purposes. For this reason, issues related to “like products”, products defined by particular processes or production methods, and products defined by their life-cycle impacts, were not addressed, with the result that some goods were left off the list that may have been included in the OECD list. This constraint of practicality could be relaxed in the OECD analytical study because its aim was to illustrate what could potentially be included.

38. Perhaps the most elementary observation to make from any comparison of the various lists of environmental goods that have been produced to date is that the number of goods that could be included in an eventually agreed list is potentially large. Clearly, both the OECD and the APEC lists have helped frame the current WTO negotiations on environmental goods. But it is also clear that many, if not most, WTO members regard the lists as just that: helpful but not definitive.

15. See WTO document no. WT/GC/W/138.Add.1 (22 April 1999).

16. For the latest information on tariffs, see the table at <http://www.oecd.org/env>.

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ANNEXES

Annex Table 1. The OECD's illustrative product list of environmental goods

Category and product description	HS code
A. POLLUTION MANAGEMENT	
1. Air pollution control	
<i>1.1 Air-handling equipment</i>	
Vacuum pumps	841410
Compressors of a kind used in refrigerating equipment	841430
Air compressors mounted on a wheeled chassis for towing	841440
Other air or gas compressors or hoods	841480
Parts for air or gas compressors, fans or hoods	841490
<i>1.2 Catalytic converters</i>	
Filtering or purifying machinery and apparatus for gases	842139
Parts for filtering or purifying machinery	842199
<i>1.3 Chemical recovery systems</i>	
Limestone flux	252100
Slaked (hydrated) lime	252220
Magnesium hydroxide and peroxide	281610
Activated earths	
Filtering or purifying machinery and apparatus for gases*	842139
Parts for filtering or purifying machinery*	842199
<i>1.4 Dust collectors</i>	
Filtering or purifying machinery and apparatus for gases*	842139
Parts for filtering or purifying machinery*	842199
<i>1.5 Separators/precipitators</i>	
Other glass fibre products	701990
Machinery for liquefying air or other gases	841960
Other machinery for treatment of materials by change of temperature	841989
Filtering or purifying machinery and apparatus for gases*	842139
Parts for filtering or purifying machinery*	842199
<i>1.6 Incinerators, scrubbers</i>	
Other furnaces, ovens, incinerators, non-electric	841780
Filtering or purifying machinery and apparatus for gases*	842139
Parts for filtering or purifying machinery*	842199
Industrial or laboratory electric resistance furnaces	851410
Industrial or laboratory induction or dielectric furnaces	851420
Other industrial or laboratory electric furnaces and ovens	851430
Parts, industrial or laboratory electric furnaces	851490
<i>1.7 Odour control equipment</i>	
Parts for sprayers for powders or liquids	842490

Category and product description	HS code
2. Wastewater management	
<i>2.1 Aeration systems</i>	
Compressors of a kind used in refrigerating equipment*	841430
Air compressors mounted on a wheeled chassis for towing*	841440
Other air or gas compressors or hoods*	841480
Parts for air or gas compressors, fans or hoods*	841490
<i>2.2 Chemical recovery systems</i>	
Limestone flux*	252100
Slaked (hydrated) lime*	252220
Chlorine	280110
Anhydrous ammonia	281410
Sodium hydroxide solid.	281511
Sodium hydroxide in aqueous solution	281512
Magnesium hydroxide and peroxide*	281610
Activated earths*	
Aluminium hydroxide	281830
Manganese dioxide	282010
Manganese oxides (other)	282090
Lead monoxide	282410
Sodium sulphites	283210
Other sulphites	283220
Phosphinates and phosphonates	283510
Phosphates of triammonium	283521
Phosphates of monosodium or disodium	283822
Phosphates of trisodium	283523
Phosphates of potassium	283524
Calcium hydrogenorthophosphate	283525
Other phosphates of calcium	283526
Other phosphates (excl. polyphosphates)	283529
Activated carbon	380210
Water filtering or purifying machinery and apparatus	842121
Other machinery for purifying liquids	842129
Parts for filtering or purifying machinery*	842199
<i>2.3 Biological recovery systems</i>	
<i>2.4 Gravity sedimentation systems</i>	
Flocculating agents	
<i>2.5 Oil/water separation systems</i>	
Other centrifuges	842119
Parts of centrifuges	842191
Water filtering or purifying machinery and apparatus*	842121
Other machinery for purifying liquids*	842129
Parts for filtering or purifying machinery*	842199

Category and product description	HS code
<i>2.6 Screens/strainers</i>	
Other articles of plastic	392690
Water filtering or purifying machinery and apparatus*	842121
Other machinery for purifying liquids*	842129
Parts for filtering or purifying machinery*	842199
<i>2.7 Sewage treatment</i>	
Flocculating agents	
Woven pile & chenille fabrics of other textile materials	580190
Tanks, vats, etc. > 300l	730900
Tanks, drums, etc. >50 l < 300 l	731010
Cans < 50 l, closed by soldering or crimping	731021
Other cans < 50l	731029
Hydraulic turbines	8410 00 - 13
Parts for hydraulic turbines	841090
Incinerators, non-elec*	841780
Weighing machines capacity <30 kg	842381
Weighing machines capacity >30 kg <500 kg	842382
Weighing machines	842389
Parts for sprayers for powders or liquids*	842490
Industrial/lab electric resistance furnaces*	851410
Industrial/lab induction, dielectric furnaces*	851420
Industrial/lab electric furnaces & ovens, nes*	851430
Parts, indl & lab elec furnaces*	851490
<i>2.8 Water pollution control, wastewater reuse equipment</i>	
<i>2.9 Water handling goods and equipment</i>	
Articles of cast iron	732510
Root control equipment	
Positive displacement pumps, hand operated	841320
Other reciprocating positive displacement pumps	841350
Other rotary positive displacement pumps	841360
Other centrifugal pumps	841370
Other pumps	841381
Valves, pressure reducing	848110
Valves, check	848130
Valves, safety	848140
Other taps, cocks, valves, etc.	848180
Instruments for measuring the flow or level of liquids	902610
Instruments for measuring or checking pressure	902620
3. Solid waste management	
<i>3.1 Hazardous waste storage and treatment equipment</i>	
Other articles of cement, concrete	681099
Other articles of lead	780600
Other electric space heating and soil heating apparatus	851629
Lasers	901320

Category and product description	HS code
Vitrification equipment*	
<i>3.2 Waste collection equipment</i>	
Household & toilet articles of plastic	392490
Brooms, hand	960310
Brushes as parts of machines, appliances	960350
Mechanical floor sweepers	980390
Trash bin liners (plastic)	
<i>3.3 Waste disposal equipment</i>	
Compactors	
Refuse disposal vehicles	
Polypropylene sheeting, etc.	392020
<i>3.4 Waste handling equipment</i>	
<i>3.5 Waste separation equipment</i>	
Magnetic separators	
<i>3.6 Recycling equipment</i>	
Magnetic separators*	
Machinery to clean, dry bottles, etc.	842220
Other mixing or kneading machines for earth, stone, sand, etc.	847439
Other machines for mixing/grinding, etc.	847982
Other machines, nes, having individual functions	847989
Tire-shredding machinery	
<i>3.7 Incineration equipment</i>	
Other furnaces, ovens, incinerators, non-electric*	841780
Parts of furnaces, non-electric	841790
Industrial or laboratory electric resistance furnaces*	851410
Industrial or laboratory induction or dielectric furnaces*	851420
Other industrial or laboratory electric furnaces and ovens*	851430
Parts, industrial or laboratory electric furnaces*	851490
4. Remediation and cleanup	
<i>4.1 Absorbents</i>	
<i>4.2 Cleanup</i>	
Other electric space heating and soil heating apparatus*	851629
Lasers*	901320
Vitrification equipment*	
<i>4.3 Water treatment equipment</i>	
Surface active chemicals (not finished detergents)	
Oil spillage cleanup equipment	
Other electrical machines and apparatus with one function	854389

Category and product description	HS code
5. Noise and vibration abatement	
<i>5.1 Mufflers/silencers</i>	
Parts for spark-ignition internal combustion piston engines	840991
Parts for diesel or semi-diesel engines	840999
Silencers and exhaust pipes, motor vehicles	870892
<i>5.2 Noise deadening material</i>	
<i>5.3 Vibration control systems</i>	
<i>5.4 Highway barriers</i>	
6. Environmental monitoring, analysis and assessment	
<i>6.1 Measuring and monitoring equipment</i>	
Thermometers, pyrometers, liquid-filled	902511
Other thermometers, pyrometers	902519
Hydrometers, barometers, hygrometers, etc.	902580
Other instruments for measuring liquids or gases	902680
Parts of instruments for measuring, checking liquids or gases	902690
Instruments for analysing gas or smoke	902710
Chromatographs, etc.	902720
Spectrometers, etc.	902730
Exposure meters	902740
Other instruments using optical radiation	902750
Other instruments for physical or chemical analysis	902780
Parts for instruments, incl. microtomes	902790
Ionising radiation measuring & detecting instruments	903010
Other optical instruments	903149
Other measuring or checking instruments	903180
Manostats	903220
Hydraulic/pneumatic automatic regulate, control instruments	903281
Other automatic regulate, control instruments	903289
Auto emissions testers	
Noise measuring equipment	
<i>6.2 Sampling systems</i>	
<i>6.3 Process and control equipment</i>	
Thermostats	903210
Electrical process control equipment	
On-board monitoring/control	
<i>6.4 Data acquisition equipment</i>	
<i>6.5 Other instruments/machines</i>	

Category and product description	HS code
B. CLEANER TECHNOLOGIES AND PRODUCTS	
1. Cleaner/resource efficient technologies and processes	
Electrochemical apparatus / plant	
Extended cooking (pulp)	
Oxygen delignification	
Ultrasonic cleaning	
Fluidised bed combustion	
2. Cleaner/resource efficient products	
CFC substitutes	
Hydrogen peroxide	280110
Peat replacements (e.g. bark)	
Water-based adhesives	
Paints and varnishes, in aqueous medium, acrylic or vinyl	320910
Other paints and varnishes, in aqueous medium	320990
Double-hulled oil tankers	
Low-noise compressors	
C. RESOURCES MANAGEMENT GROUP	
1. Indoor air pollution control	
2. Water supply	
<i>2.1 Potable water treatment</i>	
<i>2.2 Water purification systems</i>	
Chlorine*	280110
<i>2.3 Potable water supply and distribution</i>	
Water, incl. natural or artificial mineral water	220100
Distilled and conductivity water	285100
Ion exchangers (polymer)	391400
3. Recycled materials	
<i>3.1 Recycled paper</i>	
<i>3.2 Other recycled products</i>	
4. Renewable energy plant	
<i>4.1 Solar</i>	
Instantaneous gas water heaters	841911
Other instantaneous or storage water heaters, non-electric	841919
Photosensitive semiconductor devices, incl. solar cells	854140

Category and product description	HS code
<i>4.2 Wind</i>	
Windmills	
Wind turbines	
<i>4.3 Tidal</i>	
<i>4.4 Geothermal</i>	
<i>4.5 Other</i>	
Methanol	290511
Ethanol	220710
Hydroelectric plant	
5. Heat/energy savings and management	
Catalysts	381500
Multiple walled insulating units of glass	700800
Other glass fibre products*	701990
Heat exchange units	841950
Parts for heat exchange equipment	841990
Heat pumps	
District heating plant	
Waste heat boilers	
Burners: fuel other than oil or gas	
Fluorescent lamps, hot cathode	853931
Electric cars	
Fuel cells	
Gas supply, production and calibrating metres	902810
Liquid supply, production and calibrating metres	902820
Thermostats*	903210
6. Sustainable agriculture and fisheries	
7. Sustainable forestry	
8. Natural risk management	
Satellite imaging	
Seismic instruments	
9. Eco-tourism	
10. Other	

* Indicates that the HS code appears previously in the table.

Annex Table 2. Proposed product coverage under APEC's EVSL initiative for environmental goods

	Environ. activity¹	HS No.	ex²	HS 6-digit description	Additional product specification
1	R/C	2302.10	ex	Bran, sharps and other residues, whether or not in the form of pellets, derived from the sifting, milling or other working of corn	Booms or socks consisting of ground corn cobs contained in a textile covering
2	WWM	3926.90	ex	Other articles of plastics and articles of other materials of headings 3901 to 3914; other	Bio-film medium that consists of woven fabric sheets that facilitate the growth of bio-organisms.
3	WWM	3926.90	ex	Other articles of plastics and articles of other materials of headings 3901 to 3914; other	Rotating biological contactor consisting of stacks of large (HDPE) plates that facilitate the growth of bio-organisms.
4	WWM	4601.20	ex	Mats, matting, and screens of vegetable materials	Erosion control matting (biodegradable)
5	WWM	4601.20	ex	Mats, matting, and screens of vegetable materials	Ecologically safe ground covers (biodegradable)
6	WWM	5603.14	ex	Non-wovens, whether or not impregnated, coated, covered or laminated: of manmade filaments; weighing more than 150 g/m2	Fabric of polyethylene/polypropylene/nylon for filtering wastewater.
7	WWM	5911.90	ex	Textile products and articles, for technical uses, specified in note 7 to this chapter; other	Environmental protection cloth
8	M/A	6902.10	ex	Refractory bricks, blocks, tiles and similar refractory ceramic constructional goods, other than those of siliceous fossil meals or similar siliceous earths; containing by weight, singly or together, more than 50% of the elements Mg, Ca or Cr, expressed as MgO, CaO or Cr ₂ O ₃	Industrial incineration

	Environ. activity ¹	HS No.	ex ²	HS 6-digit description	Additional product specification
9	M/A	6902.20	ex	Refractory bricks, blocks, tiles and similar refractory ceramic constructional goods, other than those of siliceous fossil meals or similar siliceous earths; containing by weight more than 50% of alumina (Al ₂ O ₃), of silica (SiO ₂) or of a mixture or compound of these products	Industrial incineration
10	M/A	6902.90	ex	Refractory bricks, blocks, tiles and similar refractory ceramic constructional goods, other than those of siliceous fossil meals or similar siliceous earths; other	Industrial incineration
11	M/A	6903.10	ex	Other refractory ceramic goods (for example, retorts, crucibles, muffles, nozzles, plugs, supports, cupels, tubes, pipes, sheaths and rods), other than those of siliceous fossil meal or of similar siliceous earths; containing by weight more than 50% of graphite or other carbon or of a mixture of these products	Laboratory refractory equipment
12	M/A	6903.20	ex	Other refractory ceramic goods (for example, retorts, crucibles, muffles, nozzles, plugs, supports, cupels, tubes, pipes, sheaths and rods), other than those of siliceous fossil meal or of similar siliceous earths; containing by weight more than 50% of alumina (Al ₂ O ₃) or of a mixture or compound of alumina and silica (SiO ₂)	Laboratory refractory equipment
13	M/A	6903.90	ex	Other refractory ceramic goods (for example, retorts, crucibles, muffles, nozzles, plugs, supports, cupels, tubes, pipes, sheaths and rods), other than those of siliceous fossil meal or of similar siliceous earths; other	Laboratory refractory equipment
14	M/A	6909.19	ex	Ceramic wares for laboratory, chemical or other technical uses; other	Laboratory equipment
15	M/A	7017.10		Laboratory, hygienic or pharmaceutical glassware, whether or not graduated or calibrated; of fused quartz or other fused silica	

	Environ. activity ¹	HS No.	ex ²	HS 6-digit description	Additional product specification
16	M/A	7017.20		Laboratory, hygienic or pharmaceutical glassware, whether or not graduated or calibrated; of other glass having a linear coefficient of expansion not exceeding 5×10^{-6} per Kelvin within a temperature range of 0 C - 300 C	
17	M/A	7017.90		Laboratory, hygienic or pharmaceutical glassware, whether or not graduated or calibrated; other	
18	APC	8404.10		Auxiliary plant for use with boilers of heading No. 8402 or 8403 (for example, economizers, super-heaters, soot removers, gas recoverers)	
19	APC	8404.20		Condensers for steam or other vapour power units	
20	APC	8405.10	ex	Producer gas or water gas generators, with or without their purifier; acetylene gas generators and similar water process gas generator, with or without their purifiers	Include only those with purifiers.
21	N/V	8409.91	ex	Parts suitable for use solely or principally with the engines of heading No. 8407 or 8408; suitable for use solely or principally with spark-ignition internal combustion piston engines.	Industrial mufflers
22	APC	8409.99	ex	Parts suitable for use solely or principally with the engines of heading No. 8407 or 8408; other	Industrial mufflers
23	REP	8410.11		Hydraulic turbines and water wheels of a power not exceeding 1,000 kW	
24	REP	8410.12		Hydraulic turbines and water wheels of a power exceeding 1,000 kW but not exceeding 10,000 kW	
25	REP	8410.13		Hydraulic turbines and water wheels of a power exceeding 10,000 kW	
26	REP	8410.90		Hydraulic turbines and water wheels; parts, including regulators	

	Environ. activity ¹	HS No.	ex ²	HS 6-digit description	Additional product specification
27	WWM	8413.60	ex	Pumps for liquids, whether or not fitted with a measuring device; other rotary positive displacement pumps	Submersible mixer pump to circulate water in wastewater treatment process; sewage pumps, screw type
28	WWM	8413.70	ex	Pumps for liquids, whether or not fitted with a measuring device; other centrifugal pumps	Centrifugal pumps lined to prevent corrosion; centrifugal sewage pumps
29	PWT	8413.81	ex	Pumps for liquids, whether or not fitted with a measuring device; other pumps	Wind turbine pump
30	M/A	8414.10		Vacuum pumps	
31	APC	8414.59		Fans (and blowers) other than table, floor, window, ceiling or roof fans with a self contained electric motor of an output not exceeding 125W	
32	M/A	8414.80		Air or vacuum pumps, air or other gas compressors and fans; ventilating or recycling hoods incorporating a fan, whether or not fitted with filters; other	
33	S/H	8417.80	ex	Industrial or laboratory furnaces and ovens, including incinerators, non-electric; other than bakery ovens and furnaces for treatment of ores	Waste Incinerators
34	S/H	8417.90	ex	Parts of Industrial or Laboratory Furnaces and Ovens, Including Incinerators, Non-electric	Parts of waste incinerators
35	REP	8419.19	ex	Other instantaneous or storage water heaters, non-electric	Solar Water Heaters
36	M/A	8419.40		Distilling or rectifying plant	
37	H/E	8419.50		Heat exchange units	
38	M/A	8419.60		Machinery for liquefying air or other gases	
39	M/A	8421.19		Centrifuges, including centrifugal dryers, other than cream separators and clothes-dryers	

	Environ. activity ¹	HS No.	ex ²	HS 6-digit description	Additional product specification
40	WWM	8421.21		Filtering or purifying machinery and apparatus for liquids: for filtering or purifying water	
41	WWM	8421.29		Filtering or Purifying Machinery and Apparatus For Liquids; other	
42	APC	8421.39		Filtering or Purifying Machinery and Apparatus For Gases; other	
43	M/A	8421.91	ex	Parts of Centrifuges, Including Centrifugal Dryers	Centrifuges, Accessories & Parts; except clothes dryers and clothes dryer furniture
44	APC	8421.99		Parts of filtering or purifying machinery and apparatus for liquids or gases	
45	ORS	8422.20		Machinery for cleaning or drying bottles or other containers	
46	WWM	8428.33	ex	Other continuous-action elevators and conveyors, for goods or materials; other, belt type	Belt-type above ground conveyor used to transfer solids or slurries between plants
47	WWM	8436.80	ex	Other agricultural, horticultural, forestry, poultry-keeping or bee-keeping machinery	Hot water weed killing system
48	S/H	8462.91	ex	Machine tools for working metal, other than punching or notching and combined punching and shearing; hydraulic presses	Shredders/balers for metals; hydraulic
49	S/H	8472.90	ex	Other office machines	Paper shredders
50	S/H	8474.10	ex	Sorting, screening, separating or washing machines	Machines of a kind for use in screening and washing coal
51	ORS	8474.10	ex	Sorting, screening, separating or washing machines	Waste foundry sand reclamation equipment
52	ORS	8474.32	ex	Machines for mixing mineral substances with bitumen	Asphalt recycle equipment
53	WWM	8479.82	ex	Mixing, kneading, crushing, grinding, screening, sifting, homogenizing emulsifying or stirring machines	Agitator for wastewater treatment

	Environ. activity ¹	HS No.	ex ²	HS 6-digit description	Additional product specification
54	ORS	8479.82	ex	Mixing, kneading, crushing, grinding, screening, sifting, homogenizing emulsifying or stirring machines	Other than kneading machinery
55	S/H	8479.89	ex	Machines and mechanical appliances having individual functions, not elsewhere specified or included in this chapter, other	Radioactive waste press
56	WWM	8479.89	ex	Machines and mechanical appliances having individual functions, not elsewhere specified or included in this chapter, other	Trash compactors
57	PWT	8479.90	ex	Parts of Machines and mechanical appliances having individual functions, not elsewhere specified or included in this chapter, other	Parts of trash compactors
58	REP	8502.31		Generating sets, electric, wind-powered	
59	S/H	8505.90	ex	Electro-magnets; other, including parts	Electromagnet
60	S/H	8514.10	ex	Industrial or Laboratory Furnaces and Ovens; electric, resistance heated	Waste incinerators or other waste treatment apparatus
61	S/H	8514.20	ex	Industrial or Laboratory Furnaces and Ovens; electric, induction or dielectric	Waste incinerators or other waste treatment apparatus
62	S/H	8514.30	ex	Industrial or Laboratory Furnaces and Ovens, electric, other	Waste incinerators or other waste treatment apparatus
63	S/H	8514.90	ex	Parts of industrial or laboratory electric furnaces and ovens or other laboratory induction or dielectric heating equipment	Parts of Waste incinerators
64	REP	8541.40	ex	Photosensitive semiconductor devices, including photovoltaic cells whether or not assembled in modules or made up into panels; light emitting diodes	Solar cells
65	WWM	8543.89	ex	Electrical machines and apparatus, having individual functions, not specified or included elsewhere in this chapter; other	Ozone production system
66	R/C	8907.10	ex	Inflatable rafts	Inflatable oil spill recovery barges

	Environ. activity ¹	HS No.	ex ²	HS 6-digit description	Additional product specification
67	R/C	8907.90	ex	Other floating structures	Pollution protection booms
68	M/A	9015.40		Photogrammetrical surveying instruments and appliances	
69	M/A	9015.80		Other surveying, hydrographic, oceanographic, hydrological, meteorological or geophysical instruments and appliances, excluding compasses	
70	M/A	9015.90	ex	Parts and accessories of surveying, hydrological, meteorological, or geophysical instruments and appliances, excluding compasses	Photogrammetric instruments; parts and accessories for articles of subheading 9015.40
71	M/A	9022.29		Apparatus based on the use of X-rays or of alpha, beta or gamma radiations for other than medical, surgical, dental or veterinary uses	
72	M/A	9022.90	ex	Apparatus based on the use of X-rays or of alpha, beta or gamma radiations for other than medical, surgical, dental or veterinary uses	Parts and accessories for goods of subheading 9022.29
73	M/A	9025.11		Thermometers and pyrometers, not combined with other instruments: liquid-filled, for direct reading	
74	M/A	9025.19		Thermometers and pyrometers, not combined with other instruments: other than liquid-filled, for direct reading	
75	M/A	9025.80		Hydrometers and similar floating instruments, thermometers pyrometers, barometers, hygrometers, and psychrometers, recording or not, and any combination of these instruments	
76	M/A	9025.90		Parts and Accessories for Hydrometers and similar floating instruments, thermometers pyrometers, barometers, hygrometers, and psychrometers, recording or not, and any combination of these instruments	
77	M/A	9026.10		Instruments and apparatus for measuring or checking the flow or level of liquid	

	Environ. activity¹	HS No.	ex²	HS 6-digit description	Additional product specification
78	M/A	9026.20		Instruments and apparatus for measuring or checking pressure	
79	M/A	9026.80		Other instruments and apparatus	
80	M/A	9026.90		Parts and accessories for articles of subheading 9026	
81	M/A	9027.10		Gas or smoke analysis apparatus	
82	M/A	9027.20		Chromatographs and electrophoresis instruments	
83	M/A	9027.30		Spectrometers, Spectrophotometers and Spectrographs Using Optical Radiations (Ultraviolet, Visible, Infrared)	
84	M/A	9027.40		Exposure Meters	
85	M/A	9027.50		Other instruments and apparatus using optical radiations (UV, visible, IR)	
86	M/A	9027.80		Other instruments and apparatus for physical or chemical analysis	
87	M/A	9027.90		Microtomes; parts and accessories	
88	M/A	9028.10		Gas Meters	
89	M/A	9028.20		Liquid Meters	
90	M/A	9028.30		Electricity Meters	
91	M/A	9028.90		Parts and accessories for articles of subheading 9028	
92	M/A	9030.10		Instruments and apparatus for measuring or detecting ionising radiations	
93	M/A	9030.20		Cathode-ray Oscilloscopes and Cathode-ray Oscillographs	
94	M/A	9030.31		Multimeters	
95	M/A	9030.39		Other instruments and apparatus, for measuring or checking voltage, current, resistance or power, without a recording device	

	Environ. activity¹	HS No.	ex²	HS 6-digit description	Additional product specification
96	M/A	9030.83		Other instruments and apparatus for measuring or checking electrical quantities, with a recording device	
97	M/A	9030.89		Other Instruments and Apparatus for Measuring or Checking Electrical Quantities	
98	M/A	9030.90	ex	Parts and accessories (for nominated articles of subheading 9030)	
99	M/A	9031.10		Machines for Balancing Mechanical Parts	
100	M/A	9031.20		Test Benches	
101	M/A	9031.30		Profile Projectors	
102	M/A	9031.80		Other Measuring or Checking Instruments, Appliances and Machines, not elsewhere specified in this chapter	
103	M/A	9031.90	ex	Parts and accessories (for nominated articles of subheading 9031)	
104	M/A	9032.10		Thermostats	
105	M/A	9032.20		Manostats	
106	M/A	9032.81		Hydraulic and Pneumatic Instruments and Apparatus	
107	M/A	9032.89		Automatic Regulating or Controlling Instruments, other	
108	M/A	9032.90		Parts and accessories	
109	M/A	9033.00		Parts and Accessories (Not Specified or Included Elsewhere in this Chapter) for Machines, Appliances, Instruments or Apparatus of Ch. 90	

Table endnotes:

1. Abbreviations:

APC = Air Pollution Control
H/E = Heat/Energy Management
M/A= Monitoring/Analysis
N/V = Noise/vibration abatement
ORS = Other Recycling Systems
PWT = Potable Water Treatment
R/C = Remediation/cleanup
S/H = Solid/Hazardous Waste
WWM = Waste Water Management

2. An “ex” in the column indicates that only the “ex-heading” product (described in the last column) is being nominated.

Source: World Trade Organization, “List of Environmental Goods — Paragraph 31 (iii) — Note by the Secretariat”, Document no. TN/TE/W/18
20 November 2002, Geneva.

Annex Tables 3 and 4 respectively list the tariff nominations contained in the EVSL proposal for chemicals (supported by the United States, Singapore, Australia, and Hong Kong, China), and these were specified for the APEC Leader's Meeting in November 1997 (reproduced in Dee *et al.*, 1998). The tariff nominations were put forward as HS (harmonised system) codes common to the customs tariff schedules of each country. Two-digit nominations mean that the entire chapter has been proposed; four-digit nominations relate to specific sub-chapters.

Annex Table 3. APEC's EVSL proposal for chemicals: product list

HS code	Item description (exclusions)
28	Inorganic chemicals; organic or inorganic compounds of precious metals, of rare earth metals, of radioactive elements or of isotopes
29	Organic chemicals (but excluding HS code 2905 43, mannitol, and 44, D-glucitol (sorbitol))
30	Pharmaceutical products
31	Fertilisers
32	Tanning or dyeing extracts; tannins and their derivatives; dyes, pigments and other colouring matter; paints and varnishes; putty and other mastics; inks
33	Essential oils and resinoids; perfumery, cosmetic or toilet preparations (but excluding HS code 3301: essential oils, including concretes and absolutes; resinoids; oleoresins; extracts obtained by enfleurage of maceration; other terpenic and aqueous solutions)
34	Soap, organic surface active agents, washing preparations, lubricating preparations, waxes
3506	Prepared glues and other adhesives, put up for retail sale, not exceeding a net weight of 1 kg
3507	Enzymes; prepared enzymes not elsewhere specified or included
36	Explosives; pyrotechnic products; matches; pyrophoric alloys; certain combustible preparations
37	Photographic or cinematographic goods
38	Miscellaneous chemical products (but excluding HS code 3809.10, finishing agents with a basis of amylaceous substances; and HS code 3823.23, sorbitol other than that of subheading 2095.44)
39	Plastics and articles thereof

Annex Table 4. APEC's EVSL for chemicals: flexibility proposals by the sectoral co-ordinator

Target	
End tariff rates	CTHA harmonised rates (i.e., 0% to 6.5%)
End dates for implementation	By 2001 for rates below or equal to 10%; by 2004 for other rates
Minimum conformity	80% of tariff lines to reach CHTA rates (0% to 6.5%) by 2004
Flexibility	For the remaining 20% of tariff lines: • 15% to CHTA rates by 2006 • 5% (not exceeding 10% of imports) to CHTA rates by 2008 • Applied tariff rates of 20% or more to be reduced to 10% by 2004

Annex Table 5. Comparison of products covered under APEC's EVSL initiative for environmental goods and the OECD's illustrative list of environmental goods

List coverage			HS Code ^{1/}	Product description	Additional product specification
OECD	APEC ²				
A. POLLUTION MANAGEMENT					
1 Air pollution control					
		X	8404.10	Auxiliary plant for use with boilers of heading No. 8402 or 8403 (for example, economizers, super-heaters, soot removers, gas recoverers)	Include only those with purifiers.
		X (ex)	8405.10	Producer gas or water gas generators, with or without their purifier; acetylene gas generators and similar water process gas generator, with or without their purifiers	
1.1 Air-handling equipment					
	X	X	8414.10	Vacuum pumps	
	X		8414.30	Compressors of a kind used in refrigerating equipment	
	X		8414.40	Air compressors mounted on a wheeled chassis for towing	
		X	8414.59	Fans (and blowers) other than table, floor, window, ceiling or roof fans with a self contained electric motor of an output not exceeding 125W	
	X	X	8414.80	Other air or gas compressors or hoods	
	X		8414.90	Parts for air or gas compressors, fans or hoods	
1.2 Catalytic converters					
	X	X	8421.39	Filtering or purifying machinery and apparatus for gases	
	X	X	8421.99	Parts for filtering or purifying machinery	
1.3 Chemical recovery systems					
	X		2521.00	Limestone flux	
	X		2522.20	Slaked (hydrated) lime	
	X		2816.10	Magnesium hydroxide and peroxide	
	X			Activated earths	
	X	X	8421.39 *	Filtering or purifying machinery and apparatus for gases	
	X	X	8421.99 *	Parts for filtering or purifying machinery	

List coverage		HS Code ^{1/}	Product description	Additional product specification
OECD	APEC ²			
1.4 Dust collectors				
X	X	8421.39 *†	Filtering or purifying machinery and apparatus for gases	
X	X	8421.99 *†	Parts for filtering or purifying machinery	
1.5 Separators/precipitators				
X		7019.90	Other glass fibre products	
X	X	8419.60	Machinery for liquefying air or other gases	
X		8419.89	Other machinery for treatment of materials by change of temperature	
X	X	8421.99 *†	Parts for filtering or purifying machinery	
1.6 Incinerators, scrubbers				
X	X (ex)	8417.80	Other furnaces, ovens, incinerators, non-electric waste incinerators	
X	X	8421.39 *†	Filtering or Purifying Machinery and Apparatus For Gases; other	
X	X	8421.99 *†	Parts of filtering or purifying machinery and apparatus for liquids or gases	
X	X (ex)	8514.10	Industrial or laboratory electric resistance furnaces	Waste incinerators or other waste treatment apparatus
X	X (ex)	8514.20	Industrial or laboratory induction or dielectric furnaces	Waste incinerators or other waste treatment apparatus
X	X (ex)	8514.30	Other industrial or laboratory electric furnaces and ovens	Waste incinerators or other waste treatment apparatus
X	X (ex)	8514.90	Parts, industrial or laboratory electric furnaces	Parts of waste incinerators
1.7 Odour control equipment				
X		8424.90	Parts for sprayers for powders or liquids	
2 Wastewater management				
2.1 Aeration systems				
X		8414.30 *	Compressors of a kind used in refrigerating equipment	
X		8414.40 *	Air compressors mounted on a wheeled chassis for towing	
X	X	8414.80 *†	Other air or gas compressors or hoods	
X		8414.90 *	Parts for air or gas compressors, fans or hoods	

List coverage		HS Code ^{1/}	Product description	Additional product specification
OECD	APEC ²			
	X (ex) ³	8543.89 †	Electrical machines and apparatus, having individual functions, not specified or included elsewhere in this chapter; other	Ozone production system
<i>2.2 Chemical recovery systems</i>				
	X	2521.00 *	Limestone flux	
	X	2522.20 *	Slaked (hydrated) lime	
	X	2801.10	Chlorine	
	X	2814.10	Anhydrous ammonia	
	X	2815.11	Sodium hydroxide solid	
	X	2815.12	Sodium hydroxide in aqueous solution	
	X	2816.10 *	Magnesium hydroxide and peroxide	
	X	*	Activated earths	
	X	2818.30	Aluminium hydroxide	
	X	2820.10	Manganese dioxide	
	X	2820.90	Manganese oxides (other)	
	X	2824.10	Lead monoxide	
	X	2832.10	Sodium sulphites	
	X	2832.20	Other sulphites	
	X	2835.10	Phosphinates and phosphonates	
	X	2835.21	Phosphates of triammonium	
	X	2835.22	Phosphates of monosodium or disodium	
	X	2835.23	Phosphates of trisodium	
	X	2835.24	Phosphates of potassium	
	X	2835.25	Calcium hydrogenorthophosphate	
	X	2835.26	Other phosphates of calcium	
	X	2835.29	Other phosphates (excl. polyphosphates)	
	X	3802.10	Activated carbon	
	X X	8421.21	Water filtering or purifying machinery and apparatus	
	X X	8421.29	Other machinery for purifying liquids	
	X X	8421.99	Parts for filtering or purifying machinery	
<i>2.3 Biological recovery systems</i>				

List coverage		HS Code ^{1/}	Product description	Additional product specification
OECD	APEC ²			
2.4 Gravity sedimentation systems				
	X		Flocculating agents	
2.5 Oil/water separation systems				
X	X	8421.19	Other centrifuges	
X	X	8421.21 *†	Water filtering or purifying machinery and apparatus	
X	X	8421.29 *†	Other machinery for purifying liquids	
X	X	8421.91	Parts of centrifuges	
X	X	8421.99 *	Parts for filtering or purifying machinery	
2.6 Screens/strainers				
X	X (ex)	3926.90	Other articles of plastics and articles of other materials of headings 3901 to 3914; other	(1) Bio-film medium that consists of woven fabric sheets that facilitate the growth of bio-organisms.
			Other articles of plastics and articles of other materials of headings 3901 to 3914; other	(2) Rotating biological contactor consisting of stacks of large (HDPE) plates that facilitate the growth of bio-organisms.
	X (ex)	5603.14	Non-wovens, whether or not impregnated, coated, covered or laminated: of manmade filaments; weighing more than 150 g/m2	Fabric of polyethylene, polypropylene, or nylon for filtering wastewater.
X	X	8421.21 *†	Filtering or purifying machinery and apparatus for liquids: for filtering or purifying water	
X	X	8421.29 *†	Filtering or Purifying Machinery and Apparatus For Liquids; other	
X	X	8421.99 *†	Parts for filtering or purifying machinery	
2.7 Sewage treatment				
	X		Flocculating agents	
	X	5801.90	Woven pile & chenille fabrics of other textile materials	

List coverage		HS Code ^{1/}	Product description	Additional product specification
OECD	APEC ²			
	X (ex)	5911.90	Textile products and articles, for technical uses, specified in note 7 to this chapter; other	Environmental protection cloth
X		7309.00	Tanks, vats, etc. > 300 litres	
X		7310.10	Tanks, drums, etc. >50 litres <300 litres	
X		7310.21	Cans < 50 litres, closed by soldering or crimping	
X		7310.29	Other cans < 50 litres	
X		8410.00	Hydraulic turbines 00	
X	X	8410.11	Hydraulic turbines 11	
X	X	8410.12	Hydraulic turbines 12	
X	X	8410.13	Hydraulic turbines 13	
X	X	8410.90	Parts for hydraulic turbines	
X	X	8417.80 *	Incinerators, non-electric	
X		8423.81	Weighing machines capacity <30 kg	
X		8423.82	Weighing machines capacity >30 kg <500 kg	
X		8423.89	Weighing machines	
X		8424.90 *	Parts for sprayers for powders or liquids	
	X (ex)	8428.33	Other continuous-action elevators and conveyors, for goods or materials; other, belt type	Belt-type above ground conveyor used to transfer solids or slurries between plants
	X (ex)	8479.82	Mixing, kneading, crushing, grinding, screening, sifting, homogenizing emulsifying or stirring machines	Agitator for wastewater treatment
X	X (ex)	8514.10 *†	Industrial/lab electric resistance furnaces	Waste incinerators or other waste treatment apparatus
X	X (ex)	8514.20 *†	Industrial/lab induction, dielectric furnaces	Waste incinerators or other waste treatment apparatus
X	X (ex)	8514.30 *†	Industrial/lab electric furnaces & ovens, n.e.c.	Waste incinerators or other waste treatment apparatus
X	X (ex)	8514.90 *†	Parts, industrial/lab electric furnaces	Parts of waste incinerators

2.8 Water pollution control, wastewater reuse equipment

List coverage		HS Code ^{1/}	Product description	Additional product specification
OECD	APEC ²			
2.9 Water handling goods and equipment				
X		7325.10	Articles of cast iron	
X		8413.20	Root-control equipment	
X		8413.50	Positive displacement pumps, hand operated [centrifugal pumps]	
X	X (ex)	8413.60	Pumps for liquids, whether or not fitted with a measuring device; other rotary positive displacement pumps	Submersible mixer pump to circulate water in wastewater treatment process; sewage pumps, screw type
X	X (ex)	8413.70	Pumps for liquids, whether or not fitted with a measuring device; other centrifugal pumps	Centrifugal pumps lined to prevent corrosion; centrifugal sewage pumps
X		8413.81	Other pumps	
X		8481.10	Valves, pressure reducing	
X		8481.30	Valves, check	
X		8481.40	Valves, safety	
X		8481.80	Other taps, cocks, valves, etc.	
X	X	9026.10	Instruments for measuring the flow or level of liquids	
X	X	9026.20	Instruments for measuring or checking pressure	
3 Solid waste management				
3.1 Hazardous waste storage and treatment equipment				
X		6810.99	Other articles of cement, concrete	
X		7806.00	Other articles of lead	
X		8516.29	Other electric space heating and soil heating apparatus	
X		9013.20	Lasers	
X			Vitrification equipment	
3.2 Waste collection equipment				
X		3924.90	Household & toilet articles of plastic	
X		9603.10	Brooms, hand	
X		9603.50	Brushes as parts of machines, appliances	

List coverage		HS Code ^{1/}	Product description	Additional product specification
OECD	APEC ²			
X		9603.90	Mechanical floor sweepers	
X			Trash bin liners (plastic)	
<i>3.3 Waste disposal equipment</i>				
X		3920.20	Polypropylene sheeting, etc.	
	X (ex)	8462.91	Machine tools for working metal, other than punching or notching and combined punching and shearing; hydraulic presses	Shredders/balers for metals; hydraulic
	X (ex)	8472.90	Other office machines	Paper shredders
X			Compactors	
	X (ex) ³	8479.89	Machines and mechanical appliances having individual functions, not elsewhere specified or included in this chapter, other	Trash compactors
	X (ex) ⁴	8479.90	Parts of Machines and mechanical appliances having individual functions, not elsewhere specified or included in this chapter, other	Parts of trash compactors
X			Refuse-disposal vehicles	
<i>3.4 Waste handling equipment</i>				
<i>3.5 Waste separation equipment</i>				
	X (ex)	8474.10	Sorting, screening, separating or washing machines	Machines of a kind for use in screening and washing coal
	X (ex)	8505.90	Electro-magnets; other, including parts	Electromagnet
X			Magnetic separators	
<i>3.6 Recycling equipment</i>				
X	X	8422.20	Machinery for cleaning or drying bottles or other containers	
	X (ex)	8474.10 †	Sorting, screening, separating or washing machines	Waste foundry sand reclamation equipment
	X (ex)	8474.32	Machines for mixing mineral substances with bitumen	Asphalt recycle equipment
X		8474.39	Other mixing or kneading machines for earth, stone, sand, etc.	
X	X (ex)	8479.82	Mixing, kneading, crushing, grinding, screening, sifting, homogenizing emulsifying or stirring machines	Other than kneading machinery
X	X (ex)	8479.89 †	Machines and mechanical appliances having individual functions, not elsewhere specified or included in this chapter, other	Radioactive waste press

List coverage		HS Code ^{1/}	Product description	Additional product specification
OECD	APEC ²			
X			* Magnetic separators	
X			Tire-shredding machinery	
<i>3.7 Incineration equipment</i>				
	X (ex) ⁵	6902.10	Refractory bricks, blocks, tiles and similar refractory ceramic constructional goods, other than those of siliceous fossil meals or similar siliceous earths; containing by weight, singly or together, more than 50% of the elements Mg, Ca or Cr, expressed a	Industrial incineration
	X (ex) ⁵	6902.20	Refractory bricks, blocks, tiles and similar refractory ceramic constructional goods, other than those of siliceous fossil meals or similar siliceous earths; containing by weight more than 50% of alumina (Al ₂ O ₃), of silica (SiO ₂) or of a mixture or compound	Industrial incineration
	X (ex) ⁵	6902.90	Refractory bricks, blocks, tiles and similar refractory ceramic constructional goods, other than those of siliceous fossil meals or similar siliceous earths; other	Industrial incineration
X	X (ex)	8417.80 *†	Industrial or laboratory furnaces and ovens, including incinerators, non-electric; other than bakery ovens and furnaces for treatment of ores	Waste Incinerators
X	X (ex)	8417.90	Parts of Industrial or Laboratory Furnaces and Ovens, Including Incinerators, Non-electric	Parts of waste incinerators
X	X (ex)	8514.10 *†	Industrial or Laboratory Furnaces and Ovens; electric, resistance heated	Waste incinerators or other waste treatment apparatus
X	X (ex)	8514.20 *†	Industrial or Laboratory Furnaces and Ovens; electric, induction or dielectric	Waste incinerators or other waste treatment apparatus
X	X (ex)	8514.30 *†	Industrial or Laboratory Furnaces and Ovens, electric, other	Waste incinerators or other waste treatment apparatus
X	X (ex)	8514.90 *†	Parts of industrial or laboratory electric furnaces and ovens or other laboratory induction or dielectric heating equipment	Parts of waste incinerators

List coverage			HS Code ^{1/}	Product description	Additional product specification
OECD	APEC ²				
4 Remediation and cleanup					
4.1 Absorbents					
	X (ex)		2302.10	Bran, sharps and other residues, whether or not in the form of pellets, derived from the sifting, milling or other working of corn	Booms or socks consisting of ground corn cobs contained in a textile covering
4.2 Cleanup					
	X		8516.29	Other electric space heating and soil heating apparatus	
	X		9013.20 *	Lasers	
	X			Vitrification equipment	
4.3 Water treatment equipment					
	X			Surface active chemicals (not finished detergents)	
	X	X (ex)	8543.89 †	Other electrical machines and apparatus with one function	Ozone production system
		X (ex)	8907.10	Inflatable rafts	Inflatable oil spill recovery barges
		X (ex)	8907.90	Other floating structures	Pollution protection booms
	X			Oil spillage cleanup equipment	
5 Noise and vibration abatement					
5.1 Mufflers/silencers					
	X	X (ex)	8409.91	Parts suitable for use solely or principally with the engines of heading No. 8407 or 8408; suitable for use solely or principally with spark-ignition internal combustion piston engines.	Industrial mufflers
	X		8409.99	Parts for diesel or semi-diesel engines	
	X		8708.92	Silencers and exhaust pipes, motor vehicles	
5.2 Noise deadening material					
5.3 Vibration control systems					
5.4 Highway barriers					

List coverage		HS Code ^{1/}	Product description	Additional product specification
OECD	APEC ²			
6 Environmental monitoring, analysis and assessment				
6.1 Measuring and monitoring equipment				
	X (ex)	6903.10	Other refractory ceramic goods (for example, retorts, crucibles, muffles, nozzles, plugs, supports, cupels, tubes, pipes, sheaths and rods), other than those of siliceous fossil meal or of similar siliceous earths; Containing by weight more than 50 % of graphite or other carbon or of a mixture of these products	Laboratory refractory equipment
	X (ex)	6903.20	Other refractory ceramic goods (for example, retorts, crucibles, muffles, nozzles, plugs, supports, cupels, tubes, pipes, sheaths and rods), other than those of siliceous fossil meal or of similar siliceous earths; Containing by weight more than 50 % of alumina (Al2O3) or of a mixture or compound of alumina and of silica (SiO2)	Laboratory refractory equipment
	X (ex)	6903.90	Other refractory ceramic goods (for example, retorts, crucibles, muffles, nozzles, plugs, supports, cupels, tubes, pipes, sheaths and rods), other than those of siliceous fossil meal or of similar siliceous earths; other	Laboratory refractory equipment
	X (ex)	6909.19	Ceramic wares for laboratory, chemical or other technical uses; other	Laboratory equipment
	X	7017.10	Laboratory, hygienic or pharmaceutical glassware, whether or not graduated or calibrated; of fused quartz or other fused silica	
	X	7017.20	Laboratory, hygienic or pharmaceutical glassware, whether or not graduated or calibrated; of other glass having a linear coefficient of expansion not exceeding 5 x 10 ⁻⁶ per Kelvin within a temperature range of 0 °C to 300 °C	
	X	7017.90	Laboratory, hygienic or pharmaceutical glassware, whether or not graduated or calibrated; other	
	X	8414.10	Vacuum pumps	
	X	8414.80	Air or vacuum pumps, air or other gas compressors and fans; ventilating or recycling hoods incorporating a fan, whether or not fitted with filters; other	
	X	8419.40	Distilling or rectifying plant	
	X	8419.60	Machinery for liquefying air or other gases	

List coverage		HS Code ^{1/}	Product description	Additional product specification
OECD	APEC ²			
	X	8421.19	Centrifuges, including centrifugal dryers, other than cream separators and clothes-dryers	
	X (ex)	8421.91	Parts of Centrifuges, Including Centrifugal Dryers	Centrifuges, Accessories & Parts; except clothes dryers and clothes dryer furniture
	X	9015.40	Photogrammetrical surveying instruments and appliances	
	X	9015.80	Other surveying, hydrographic, oceanographic, hydrological, meteorological or geophysical instruments and appliances, excluding compasses	
	X (ex)	9015.90	Parts and accessories of surveying, hydrological, meteorological, or geophysical instruments and appliances, excluding compasses	Photogrammetric instruments; parts and accessories for articles of subheading 9015.40
	X	9022.29	Apparatus based on the use of X-rays or of alpha, beta or gamma radiations for other than medical, surgical, dental or veterinary uses	
	X (ex)	9022.90	Apparatus based on the use of X-rays or of alpha, beta or gamma radiations for other than medical, surgical, dental or veterinary uses	Parts and accessories for goods of subheading 9022.29
X	X	9025.11	Thermometers and pyrometers, not combined with other instruments: liquid-filled, for direct reading	
X	X	9025.19	Thermometers and pyrometers, not combined with other instruments: other than liquid-filled, for direct reading	
X	X	9025.80	Hydrometers and similar floating instruments, thermometers pyrometers, barometers, hygrometers, and psychrometers, recording or not, and any combination of these instruments	
	X	9025.90	Parts and Accessories for Hydrometers and similar floating instruments, thermometers pyrometers, barometers, hygrometers, and psychrometers, recording or not, and any combination of these instruments	
	X	9026.10 †	Instruments and apparatus for measuring or checking the flow or level of liquid	
	X	9026.20 †	Instruments and apparatus for measuring or checking pressure	
X	X	9026.80	Other instruments and apparatus	
X	X	9026.90	Parts and accessories for articles of subheading 9026	

List coverage		HS Code ^{1/}	Product description	Additional product specification
OECD	APEC ²			
X	X	9027.10	Gas or smoke analysis apparatus	
X	X	9027.20	Chromatographs and electrophoresis instruments	
X	X	9027.30	Spectrometers, Spectrophotometers and Spectrographs Using Optical Radiations (Ultraviolet, Visible, Infrared)	
X	X	9027.40	Exposure Meters [including sound-level meters]	
X	X	9027.50	Other instruments and apparatus using optical radiations (UV, visible, IR)	
X	X	9027.80	Other instruments and apparatus for physical or chemical analysis	
X	X	9027.90	Microtomes; parts and accessories	
	X	9028.10	Gas Meters	
	X	9028.20	Liquid Meters	
	X	9028.30	Electricity Meters	
	X	9028.90	Parts and accessories for articles of subheading 9028	
X	X	9030.10	Instruments and apparatus for measuring or detecting ionising radiations	
	X	9030.20	Cathode-ray Oscilloscopes and Cathode-ray Oscillographs	
	X	9030.31	Multimeters	
	X	9030.39	Other instruments and apparatus, for measuring or checking voltage, current, resistance or power, without a recording device	
	X	9030.83	Other instruments and apparatus for measuring or checking electrical quantities, with a recording device	
	X	9030.89	Other Instruments and Apparatus for Measuring or Checking Electrical Quantities	
	X (ex)	9030.90	Parts and accessories (for nominated articles of subheading 9030)	
	X	9031.10	Machines for Balancing Mechanical Parts	
	X	9031.20	Test Benches	
	X	9031.30	Profile Projectors	
X		9031.49	Other optical instruments	
X	X	9031.80	Other Measuring or Checking Instruments, Appliances and Machines, not elsewhere specified in this chapter	
	X (ex)	9031.90	Parts and accessories (for nominated articles of subheading 9031)	
X	X	9032.20	Manostats	
X	X	9032.81	Hydraulic and Pneumatic Instruments and Apparatus	

List coverage		HS Code ^{1/}	Product description	Additional product specification
OECD	APEC ²			
X	X	9032.89	Automatic Regulating or Controlling Instruments, other	
	X	9032.90	Parts and accessories	
	X	9033.00	Parts and Accessories (Not Specified or Included Elsewhere in this Chapter) for Machines, Appliances, Instruments or Apparatus of Ch. 90	
X			Auto emissions testers	
6.2 Sampling systems				
6.3 Process and control equipment				
X	X	9032.10	Thermostats	
	X		Electrical process control equipment	
	X		On-board monitoring/control	
6.4 Data acquisition equipment				
6.5 Other instruments/machines				
B CLEANER TECHNOLOGIES AND PRODUCTS				
1 Cleaner/resource efficient technologies and processes				
			Electrochemical apparatus / plant	
			Extended cooking (pulp)	
			Oxygen delignification	
			Ultrasonic cleaning	
			Fluidised bed combustion	
2 Cleaner/resource efficient products				
			CFC substitutes	
		2847.00 ⁶	Hydrogen peroxide	
			Peat replacements (e.g. bark)	
			Water-based adhesives	
		3209.10	Paints and varnishes, in aqueous medium, acrylic or vinyl	
		3209.90	Other paints and varnishes, in aqueous medium	
			Double-hulled oil tankers	

List coverage		HS Code ^{1/}	Product description	Additional product specification
OECD	APEC ²			
	X		Low-noise compressors	
C			RESOURCES MANAGEMENT GROUP	
1			Indoor air pollution control	
2			Water supply	
2.1			<i>Potable water treatment</i>	
2.2			<i>Water purification systems</i>	
	X	2801.10 *	Chlorine	
	X (ex) ³	8543.89 †	Electrical machines and apparatus, having individual functions, not specified or included elsewhere in this chapter; other	Ozone production system
2.3			<i>Potable water supply and distribution</i>	
	X	2201.00	Water, incl. natural or artificial mineral water	
	X	2851.00	Distilled and conductivity water	
	X	3914.00	Ion exchangers (polymer)	
3			Recycled materials	
3.1			<i>Recycled paper</i>	
3.2			<i>Other recycled products</i>	
4			Renewable energy plant	
4.1			<i>Solar energy</i>	
	X	8419.11	Instantaneous gas water heaters	
	X	X (ex)	8419.19	Other instantaneous or storage water heaters, non-electric
	X	X (ex)	8541.40	Photosensitive semiconductor devices, including photovoltaic cells whether or not assembled in modules or made up into panels; light emitting diodes
4.2			<i>Wind energy</i>	
	X		Windmills	
	X		Wind turbines	
	X (ex)	8413.81	Pumps for liquids, whether or not fitted with a measuring device; other pumps	Wind turbine pump

List coverage		HS Code ^{1/}	Product description	Additional product specification
OECD	APEC ²			
	X	8502.31	Generating sets, electric, wind-powered	
4.3 Tidal energy				
4.4 Geothermal energy				
4.5 Other				
	X	2207.10	Ethanol	
	X	2905.11	Methanol	
	X		Hydroelectric plant	
	X	8410.11 †	Hydraulic turbines and water wheels of a power not exceeding 1,000 kW	
	X	8410.12 †	Hydraulic turbines and water wheels of a power exceeding 1,000 kW but not exceeding 10,000 kW	
	X	8410.13 †	Hydraulic turbines and water wheels of a power exceeding 10,000 kW	
	X	8410.90 †	Hydraulic turbines and water wheels; parts, including regulators	
5 Heat/energy savings and management				
	X	3815.00	Catalysts	
	X	7008.00	Multiple walled insulating units of glass	
	X	7019.90 *	Other glass fibre products	
	X	8404.20	Condensers for steam or other vapour power units	
	X (ex)	8409.99	Parts suitable for use solely or principally with the engines of heading No. 8407 or 8408; other	Industrial mufflers
	X	X	8419.50	Heat exchange units
	X		8419.90	Parts for heat exchange equipment
	X			Heat pumps
	X			District heating plant
	X			Waste heat boilers
	X			Burners: fuel other than oil or gas
	X	8539.31	Fluorescent lamps, hot cathode	
	X		Electric cars	

List coverage		HS Code ^{1/}	Product description	Additional product specification
OECD	APEC ²			
X			Fuel cells	
X	X	9028.10 †	Gas supply, production and calibrating metres	
X	X	9028.20 †	Liquid supply, production and calibrating metres	
X		9032.10 *	Thermostats	
6 Sustainable agriculture and fisheries				
	X (ex) ³	4601.20	Mats, matting, and screens of vegetable materials	(1) Erosion control matting (biodegradable) (2) Ecologically safe ground covers (biodegradable)
	X (ex) ³	8436.80	Other agricultural, horticultural, forestry, poultry-keeping or bee-keeping machinery	Hot-water weed killing system
7 Sustainable forestry				
8 Natural risk management				
8.1 <i>Satellite imaging</i>				
8.2 <i>Seismic instruments</i>				
9 Eco-tourism				
10 Other				

Table endnotes:

1. A single asterisk (*) indicates that the HS code appears previously in the OECD list; a cross (†) indicates that the HS code appears previously in the APEC list.
 2. An "ex" in the column indicates that only the "ex-heading" product (described in the last column) is being nominated.
 3. Classified under "Waste Water Management" in the APEC list.
 4. Classified under "Potable Water Treatment" in the APEC list.
 5. Classified under "Monitoring/Analysis" in the APEC list.
 6. Originally listed as 2801.10 in the OECD list.
- Source: Annex Tables 1 and 2 above.

Annex Table 6. Product coverage of list proposed by Japan in its 20 November 2002 submission to the WTO

Category, HS code	Product description	Add. product specification	
1. Pollution Management			
1.1 Air Pollution Control			
2521.00	Limestone flux; limestone and other calcareous stone, of a kind used for the manufacture of lime or cement		
7019.90	Glass fibres other than slivers, rovings, yarn, chopped strands, webs, mats, thin sheets, mattresses, boards and similar non-woven products	ex	Separators, Precipitators
8404.10	Auxiliary plant for use with boilers of heading No. 84.02 or 84.03		
8404.20	Condensers for steam or other vapour power units		
8405.10	Producer gas or water gas generators, with or without their purifiers; acetylene gas generators and similar water process gas generators, with or without their purifiers	ex	Include only those with purifiers
8414.10	Vacuum pumps		
8414.30	Compressors of a kind used in refrigerating equipment		
8414.40	Air compressors mounted on a wheeled chassis for towing		
8414.59	Fans other than table, floor, wall, window, ceiling or roof fans, with a self-contained electric motor of an output not exceeding 125 W		
8414.80	Air or Vacuum pumps, air or vacuum compressors and fans; other		
8414.90	Parts of HS headings 8414		
8419.40	Distilling or rectifying plant		
8419.60	Machinery for liquefying air or other gases		
8419.89	Machinery, plant or laboratory equipment, whether or not electrically heated (excluding furnaces, ovens and other equipment of heading 85.14), for the treatment of materials by a process involving a change of temperature such as heating, cooking, roasting, distilling, rectifying, sterilising, pasteurising, steaming, drying, evaporating, vaporising, condensing or cooling, other than machinery or plant of a kind used for domestic purposes; instantaneous or storage water heaters, non-electric.	ex	Machinery for treatment of materials by change of temperature
8421.39	Filtering or Purifying Machinery and Apparatus For Gases; other		
8421.99	Parts of Centrifuges, Including Centrifugal Dryers		
8424.90	Parts of Mechanical appliances for projecting, dispersing or spraying liquids or powders; fire extinguishers, whether or not charged; spray guns and similar machines and similar jet projecting machines.		
8509.10	Vacuum cleaners	ex	Jet-turn type cleaner

Category, HS code	Product description		Add. product specification
<i>1.2 Waste Water Management</i>			
7325.10	Other cast articles of iron or steel ;Of non-malleable cast iron		
8413.20	Hand pumps, other than those of subheading No. 8413.11 or 8413.19		
8413.50	Other reciprocating positive displacement pumps		
8413.60	Other rotary positive displacement pumps	ex	Submersible mixer pump to circulate water in wastewater treatment process; sewage pumps, screw type
8413.70	Other centrifugal pumps	ex	Centrifugal pumps lined to prevent corrosion; centrifugal sewage pumps
8421.19	Centrifuges, including centrifugal dryers, other than cream separators and clothes-dryers		
8421.21	Filtering or purifying machinery and apparatus for liquids: for filtering or purifying water		
8421.29	Filtering or Purifying Machinery and Apparatus For Liquids; other		
8421.91	Parts of Centrifuges, Including Centrifugal Dryers	ex	Centrifuges, Accessories & Parts; except clothes dryers and clothes dryer furniture
8423.81	Weighing Machinery having a maximum weighing capacity not exceeding 30 kg		
8423.82	Weighing Machinery having a maximum weighing capacity exceeding 30 kg but not exceeding 5000 kg		
8423.89	Other Weighing Machinery		
8428.33	Other lifting, handling, loading or unloading machinery (for example, lifts, escalators, conveyors, teleferics) ;Other	ex	Belt-type above ground conveyor used to transfer solids or slurries between plants
8436.80	Other agricultural, horticultural, forestry, poultry-keeping or bee-keeping machinery, including germination plant fitted with mechanical or thermal equipment; poultry incubators and brooders ;Other	ex	Hot water weed killing system
8479.82	Mixing, kneading, crushing, grinding, screening, sifting, homogenising, emulsifying or stirring machines	ex	Other than kneading machinery
8479.89	Machines and mechanical appliances having indivisual functions, not specified or included elsewhere in this Chapter	ex	Trash compactors
8481.10	Pressure-reducing valves		
8481.30	Check valves		

Category, HS code	Product description		Add. product specification
8481.40	Safety or relief valves		
8481.80	Other valves		
8543.89	Parts of Electrical machines and apparatus, having individual functions, not specified or included elsewhere in this Chapter.	ex	Ozone production system
<i>1.3 Monitoring/Analysis</i>			
6909.19	Ceramic wares for laboratory, chemical or other technical uses; ceramic troughs, tubs and similar receptacles of a kind used in agriculture; ceramic pots, jars and similar articles of a kind used for the conveyance or packing of goods ;Other	ex	Laboratory equipment
9015.40	Photogrammetrical surveying instruments and appliances		
9015.80	Other surveying, hydrographic, oceanographic, hydrological, meteorological or geophysical instruments and appliances, excluding compasses		
9015.90	Parts and accessories of surveying, hydrological, meteorological, or geophysical instruments and appliances, excluding compasses		
9022.29	Apparatus based on the use of X-rays or of alpha, beta or gamma radiations for other than medical, surgical, dental or veterinary uses		
9022.90	Apparatus based on the use of X-rays or of alpha, beta or gamma radiations for other than medical, surgical, dental or veterinary uses	ex	Parts and accessories for goods of subheading 9022.29
9025.11	Thermometers and pyrometers, not combined with other instruments: liquid-filled, for direct reading		
9025.19	Thermometers and pyrometers, not combined with other instruments: other than liquid-filled, for direct reading		
9025.80	Hydrometers and similar floating instruments, thermometers pyrometers, barometers, hygrometers, and psychrometers, recording or not, and any combination of these instruments		
9025.90	Parts and Accessories for Hydrometers and similar floating instruments, thermometers pyrometers, barometers, hygrometers, and psychrometers, recording or not, and any combination of these instruments		
9026.10	Instruments and apparatus for measuring or checking the flow or level of liquid		
9026.20	Instruments and apparatus for measuring or checking pressure		
9026.80	Other instruments and apparatus		
9026.90	Parts and accessories for articles of subheading 9026		
9027.10	Gas or smoke analysis apparatus		
9027.20	Chromatographs and electrophoresis instruments		

Category, HS code	Product description	Add. product specification
9027.30	Spectrometers, Spectrophotometers and Spectrographs Using Optical Radiations (Ultraviolet, Visible, Infrared)	
9027.40	Exposure Meters	
9027.50	Other instruments and apparatus using optical radiations (UV, visible, IR)	
9027.80	Other instruments and apparatus for physical or chemical analysis	
9027.90	Microtomes; parts and accessories	
9028.10	Gas Meters	
9028.20	Liquid Meters	
9028.30	Electricity Meters	
9028.90	Parts and accessories for articles of subheading 9028	
9030.10	Instruments and apparatus for measuring or detecting ionising radiations	
9030.20	Cathode-ray Oscilloscopes and Cathode-ray Oscillographs	
9030.31	Multimeters	
9030.39	Other instruments and apparatus, for measuring or checking voltage, current, resistance or power, without a recording device	
9030.83	Other instruments and apparatus for measuring or checking electrical quantities, with a recording device	
9030.89	Other Instruments and Apparatus for Measuring or Checking Electrical Quantities	
9030.90	Parts and accessories (for nominated articles of subheading 9030)	
9031.10	Machines for Balancing Mechanical Parts	
9031.20	Test Benches	
9031.30	Profile Projectors	
9031.49	Other Measuring and Checking instruments, appliances and machines, not specified or included elsewhere in this chapter	
9031.80	Other Measuring or Checking Instruments, Appliances and Machines, not elsewhere specified in this chapter	
9031.90	Parts and accessories of Hs headings 9031	
9032.10	Thermostats	
9032.20	Manostats	
9032.81	Hydraulic and Pneumatic Instruments and Apparatus	
9032.89	Automatic Regulating or Controlling Instruments, other	
9032.90	Parts and accessories	
9033.00	Parts and Accessories (Not Specified or Included Elsewhere in this Chapter) for Machines, Appliances, Instruments or Apparatus of Ch. 90	

Category, HS code	Product description		Add. product specification
<i>1.4 Solid Waste Management</i>			
6810.99	Articles of cement, of concrete or of artificial stone, whether or not reinforced ;Other		
7017.10	Laboratory, hygienic or pharmaceutical glassware ;Of fused quartz or other fused silica		
7017.20	Laboratory, hygienic or pharmaceutical glassware ;Of other glass having a linear coefficient of expansion not exceeding 5×10^{-6} per Kelvin within a temperature range of 0C to 300C		
7017.90	Laboratory, hygienic or pharmaceutical glassware ;Other		
7806.00	Other articles of lead		
8417.80	Industrial or laboratory furnaces and ovens, including incinerators, non-electric ;Other	ex	Waste Incinerators
8417.90	Parts of Industrial or laboratory furnaces and ovens, including incinerators, non-electric	ex	Waste Incinerators ;Parts
8462.91	Hydraulic presses	ex	Shredders/balers for metals; hydraulic
8464.90	Machine-tools for working stone, ceramics, concrete, asbestos-cement or like mineral materials or for cold working glass; Other	ex	Machine-tools for cold working glass
8472.90	Other office machines (for example, hectograph or stencil duplicating machines, addressing machines, automatic banknote dispensers, coin-sorting machines, coin-counting or wrapping machines, pencil-sharpening machines, perforating or stapling machines) ;Other	ex	Paper shredders
8474.10	Sorting, screening, separating or washing machines	ex	Machines of a kind for use in screening and washing coal
8474.39	Mixing or kneading machines :	ex	Mixing or kneading machines
8475.29	Machines for manufacturing or hot working glass or glassware :Other		
8479.82	Mixing, kneading, crushing, grinding, screening, sifting, homogenising, emulsifying or stirring machines	ex	Magnetic separator
8479.89	Machines and mechanical appliances having individual functions, not specified or included elsewhere in this Chapter; Other	ex	Radioactive waste press
8479.90	Machines and mechanical appliances having individual functions, not specified or included elsewhere in this Chapter; Parts	ex	Parts of trash compactor
8480.50	Moulds for glass		
8505.90	Electro-magnets; other, including parts	ex	Electromagnet
8514.10	Industrial or Laboratory Furnaces and Ovens; electric, resistance heated	ex	Waste incinerators or other waste treatment apparatus
8514.20	Industrial or Laboratory Furnaces and Ovens; electric, induction or dielectric	ex	Waste incinerators or other waste treatment apparatus
8514.30	Industrial or Laboratory Furnaces and Ovens, electric, other	ex	Waste incinerators or other waste treatment apparatus

Category, HS code	Product description		Add. product specification
8514.90	Parts of Industrial or Laboratory Furnaces and Ovens		
8516.29	Electric space heating apparatus and electric soil heating apparatus ;Other	ex	Electric space heating and soil heating apparatus
8705.90	Special-purpose motor vehicles, other than those principally designed for the transport of persons or goods (for example, breakdown lorries, crane lorries, fire fighting vehicles, concrete-mixer lorries, road sweeper lorries, spraying lorries, mobile work	ex	Refuse disposal vehicles
9013.20	Lasers, other than laser diodes		
9603.10	Brooms and brushes, consisting of twigs or other vegetable materials bound together, with or without handles		
9603.50	Other brushes constituting parts of machines, appliances or vehicles		
9603.90	Brooms, brushes (including brushes constituting parts of machines, appliances or vehicles), hand-operated mechanical floor sweepers, not motorised, mops and feather dusters; prepared knots and tufts for broom or brush making; paint pads and rollers; squee	ex	Mechanical floor sweepers
<i>1.5 Remediation/cleanup</i>			
8418	Refrigerators, freezers and other refrigerating or freezing equipment, electric or other; heat pumps other than air conditioning machines of heading No. 84.15.	ex	Ion refrigerators able to dispose of germs
8907.10	Inflatable rafts	ex	Inflatable oil-spill recovery barges
8907.90	Other floating structures ;Other	ex	Pollution protection booms
<i>1.6 Noise/Vibration abatement</i>			
8409.91	Parts suitable for use solely or principally with the engines of heading No. 84.07 or 84.08	ex	Industrial mufflers
8409.99	Parts suitable for use solely or principally with spark-ignition internal combustion piston engines:	ex	Industrial mufflers
8708.92	Silencers and exhaust pipes		
2. Cleaner Technology and products			
48	Paper and paperboard; articles of paper pulp, of paper or of paperboard	ex	Recycled paper
8415	Air conditioning machines, comprising a motor-driven fan and elements for changing the temperature and humidity, including those machines in which the humidity cannot be separately regulated.	ex	Inverter type air conditioner
8415.90	Parts of Air conditioning machines	ex	Temperature controller

Category, HS code	Product description		Add. product specification
8418	Refrigerators, freezers and other refrigerating or freezing equipment, electric or other; heat pumps other than air conditioning machines of heading No. 84.15.	ex	Non-flon [i.e., no HFC-134a] refrigerator
8418	Refrigerators, freezers and other refrigerating or freezing equipment, electric or other; heat pumps other than air conditioning machines of heading No. 84.15	ex	Inverter type air conditioner
8422.11	Dish washing machines; machinery for cleaning or drying bottles or other containers; machinery for filling, closing, sealing or labelling bottles, cans, boxes, bags or other containers; machinery for capsuling bottles, jars, tubes and similar containers; Householdtype	ex	Ultrasonic dish washing machine
		ex	Dish washing machine capable of saving detergents
		ex	Dish washing machine capable of saving water
8450	Household or laundry-type washing machines, including machines which both wash and dry	ex	Ultrasonic washing machines
		ex	Washing machine capable of saving detergents
		ex	Washing machine capable of saving water
8471.70	Storage units	ex	DVD-ROM
8509.80	Electro-mechanical domestic appliances, with self-contained electric motor.	ex	Gabbage degrader
8516.50	Microwave ovens		Resource efficient type
8516.60	Other ovens ; cookers, cooking plates, boiling rings, grillers and roasters	ex	IH electric cooker
8516.79	Electric instantaneous or storage water heaters and immersion heaters; electric space heating apparatus and soil heating apparatus; electro-thermic hair-dressing apparatus (for example, hair dryers, hair curlers, curling tong heaters) and hand dryers; electric smoothing irons; other electro-thermic appliances of a kind used for domestic purposes; electric heating resistors, other than those of heading 85.45;Other	ex	IH rice cookers
8528.30	Video projectors	ex	LCD Type
8526.91	Radar apparatus, radio navigational aid apparatus and radio remote control apparatus; Radio navigational aid apparatus:	ex	Car navigation system capable of receiving traffic jam information
8528.12	Reception apparatus for television, whether or not incorporating radio-broadcast receivers or sound or video recording or reproducing apparatus ;Color	ex	PDP Type

Category, HS code	Product description	Add. product specification	
		ex	LCD Type
8703.22	Motor cars and other motor vehicles principally designed for the transport of persons (other than those of heading No. 87.02), including station wagons and racing cars; Of a cylinder capacity exceeding 1,000 cc but not exceeding 1,500 cc	ex	Hybrid Car
8703.90	Motor cars and other motor vehicles principally designed for the transport of persons (other than those of heading No. 87.02), including station wagons and racing cars; Other	ex	Cars designed for defusing nuisance
8901.20	Tankers	ex	Double-hulled oil tankers
9013.80	Flat panel displays devices (including LCD, Electro Luminescence, Plasma, Vacuum Fluorescence and other technologies) for products falling within this agreement, and parts thereof.		
3. Resource Management			
8410.11	Hydraulic turbines and water wheels of a power not exceeding 1,000 kW		
8410.12	Hydraulic turbines and water wheels of a power exceeding 1,000 kW but not exceeding 10,000 kW		
8410.13	Hydraulic turbines and water wheels of a power exceeding 10,000 kW		
8410.90	Hydraulic turbines and water wheels; parts, including regulators		
8413.81	Pumps for liquids, whether or not fitted with a measuring device; other pumps	ex	Pumps for windmills
8413.81	Pumps for liquids, whether or not fitted with a measuring device; other pumps	ex	Heat Pumps
8414.80	Pumps for airs, whether or not fitted with a measuring device; other pumps	ex	Heat Pumps
8419.19	Instantaneous or storage water heaters, non-electric ;other	ex	Burner; fuel other than oil or gas
		ex	Solar Water Heaters
		ex	Waste heat boilers
8502.31	Electric generating sets and rotary converters ;Wind-powered		
8506.80	Primary cells and primary batteries ;Other	ex	Fuel Cells
8516.10	Liquid pumps	ex	Water heating machine using heating pumps
8541.40	Photosensitive semiconductor devices, including photovoltaic cells whether or not assembled in modules or made up into panels; light emitting diodes	ex	Solar electric generators
		ex	Solar panel
		ex	Solar cells

Category, HS code	Product description	Add. product specification	
3.2 Heat/Energy savings and management			
7008.00	Multiple-walled insulating units of glass		
8419.50	Heat exchange units		
8419.90	Parts of HS headings 8419	ex	Heat exchange units ;Parts
8539.31	Electric filament or discharge lamps, including sealed beam lamp units and ultra-violet or infra-red lamps; arc-lamps; Fluorescent, hot cathode		
3.3 Other Recycling System			
6309.00	Worn clothing and other worn articles		
6310	Used or new rags, scrap twine, cordage, rope and cables and worn out articles of twine, cordage, rope or cables, of textile materials.		
8422.20	Machinery for cleaning or drying bottles or other containers		
8474.32	Machines for mixing mineral substances with bitumen	ex	Asphalt recycle equipment
8479.82	Mixing, kneading, crushing, grinding, screening, sifting, homogenising, emulsifying or stirring machines	ex	Other than kneading machines

Source: Government of Japan, "Market Access for Non-Agricultural Products — Communication from Japan", WTO document code TN/MA/W/15 & TN/TE/W/17, 20 November 2002, World Trade Organization, Geneva.