Part IV

Negotiations

9 Modalities, formulas and modes

> Mathematicians who are only mathematicians have exact minds, provided all things are explained to them by means of definitions and axioms; otherwise they are inaccurate and insufferable, for they are only right when the principles are quite clear.
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> Blaise Pascal
> *Pensées* Section I, "Thoughts on Mind and on Style" (1660)
> Translation by W.F. Trotter (1910)

Introduction

The conduct of trade negotiations in the WTO shows both continuity and change from the GATT period, but even the two main points of continuity have come under challenge. One is the use of multi-issue, multi-year rounds as the main organizing principle of negotiations, which was the general rule throughout the GATT period. The other is the practice of bundling all of the issues in these rounds into a single undertaking, which was an innovation from the final (Uruguay) round of the GATT period. Members reiterated both of those principles when they launched the Doha Round in 2001, but after more than a decade of desultory negotiations, those principles are increasingly questioned. Some issues have been handled outside of the round, as is discussed in Chapter 10, and both rounds and the single undertaking face critical scrutiny from analysts and some practitioners.

Another point of continuity from the late GATT period is an emphasis on formulas as the principal modality for market access negotiations. These take the form of equations that appear on the surface to be mathematically objective but are in reality the product of a highly subjective process of calculation and negotiations. It is in the devising of those formulas, as well as the exceptions and other flexibilities that modify and supplement them, that modern negotiators most closely resemble the mercantilists that they were supposed to replace. Even the language that negotiators employ carries overtones of the mercantilism that dominated the trade policy of Pascal's seventeenth century, when commerce was treated as the economic adjunct to war: countries have offensive interests (i.e. the improved market access that they aim to achieve in the markets of their trading partners) and defensive interests (i.e. the protective barriers in their own markets that the affected industries demand be preserved). The only important departure from the mercantilist past comes in shifting the focus from results to opportunities. Whereas the objective under mercantilism was to build up a trade

surplus by promoting exports and restricting imports, the objective in modern tariff negotiations is to trade off the least reduction of one's own barriers for the greatest reduction in the barriers of one's partners. Even that distinction shrinks if the changes in opportunities are expected to produce changes in outcomes; it virtually disappears if countries devise and trust econometric forecasts that project the actual results that a given formula may produce for trade, employment and economic growth.

The principal departure from most of the GATT period comes in the new issues that are under negotiation, including market access for services and restrictions on agricultural production subsidies. Both of these issues were introduced in the Uruguay Round, and while that round achieved little actual liberalization in these areas, it did design the basic architecture by which countries might do so in the future. Negotiations on trade in services are conducted according to a request–offer approach that is a carry-over from the way tariff negotiations used to be done, but is also adapted to the multifarious ways in which services may be traded. Negotiations over agricultural production subsidies are conducted according to formulas, but their results have generally not been "binding" (in the sense that economists use that term) and leave even more space than do tariff negotiations for countries to decide how they will implement their commitments. Where tariff commitments are made at the product level, the commitments on production subsidies in the Uruguay Round were sector-wide and allowed considerable leeway in the allocation of the subsidies to specific products.

This chapter is less of an historical presentation than preparatory material for others that follow. Its purpose is to provide a basic introduction to the actual conduct of trade negotiations, and to review the controversies surrounding the ways that negotiations are structured. Like the earlier review of coalition diplomacy, it aims to explain the building blocks of negotiations before we turn to the actual launch and conduct of the Doha Round and other initiatives in the WTO.

How negotiations are conducted: rounds versus separate initiatives

The practice of negotiating in rounds developed at the very start of the GATT period, but it was not inevitable that talks would be organized in this way. In the Anglo-American consultations held during the Second World War, the United Kingdom advocated that future trade negotiations be conducted bilaterally and that the resulting agreements be multilateralized through a universal most-favoured-nation (MFN) principle. This approach would thus globalize the method by which Great Britain and other European countries negotiated a network of bilateral treaties during the latter half of the nineteenth century. The US officials instead favoured multilateral negotiations and maintained that position in the talks that produced GATT and the International Trade Organization (ITO) Charter. In one sense, the UK proposal prevailed for decades, however, insofar as the request–offer approach to tariff negotiations in the early GATT rounds were held in clusters of simultaneous but essentially bilateral exchanges.

The conduct of rounds, and their underlying logic, changed significantly when the scope of these negotiations moved beyond tariffs and other border measures. When there is only one major issue on the table the only possible trade-offs are within that subject, but when there are multiple issues in play, one may make trade-offs between them. One discrete negotiation on protection for intellectual property rights might not advance very far on its own, for example, and another negotiation might get stuck if it is only concerned with market access for textile and apparel products, but a great deal more might be accomplished if these two topics are brought together. That had been the experience in the Uruguay Round, which included such grand bargains as the ten-year phase-in of greater protection for intellectual property (as developed countries demanded) and a ten-year phase-out of protection for textiles and apparel (as developing countries had demanded).

Sir Leon Brittan had that same goal in mind when he began to promote the idea of a new round early in the early WTO period. "Whether it was true or not was debatable," he would later recall, "but the idea was that if you had ten things you wanted, as opposed to two, there was a higher chance [negotiating this way] that you were going to be able to say, 'Well, I've got four of them.' It wasn't much more sophisticated than that."[1] Neither he nor most other negotiators suspected in the early WTO era that what had worked so well in the last round might prove troublesome in a new one. With the benefit of that infallible wisdom that comes with hindsight, however, one can see now how there were at least hints then that rounds were not necessarily the only or best way to package negotiations.

Criticism of rounds

The problem with rounds that was obvious even in the late GATT period is that each one has become longer than its predecessor. None of the first five rounds in the GATT period lasted as long as a year, and on average they took just over seven months. Thereafter, the negotiations grew much longer: the Kennedy Round (1962-1967) took 37 months, the Tokyo Round (1972-1979) lasted precisely twice as long (74 months) and the Uruguay Round (1986-1994) went on for just over a year more than its predecessor (87 months). The growing length of rounds affects not only the speed with which liberalization is delivered multilaterally, but may also affect countries' willingness to deliver it unilaterally or bilaterally. On the one hand, a country may be less likely to undertake autonomous liberalization immediately before or during a round because this might be taken as a form of unilateral disarmament for which it will receive no credit in the negotiations. On the other hand, policy-makers may be under increasing pressure during an apparently interminable round to handle the pent-up demand for liberalization through concurrent negotiations at the bilateral, regional or plurilateral levels. Lengthy rounds might thus not only delay liberalization on an MFN basis, but also push countries towards more discriminatory options that, once in place, create further disincentives for the conclusion of a round that would reduce the margins of preference that countries enjoy under their new free trade agreements (FTAs).

Several authors find additional fault with rounds. Relying on this approach is "fraught with problems," according to Barfield (2001: 39), insofar as they "occur infrequently" and "the big package deals negotiated at the end of trade rounds necessarily contain numerous gaps, ambiguities and even contradictions." Or as Dadush put it (2009b: 5-6), "experience demonstrates conclusively that a good way *not to* [produce enforceable rules] is to have a big, comprehensive trade round." One experienced WTO practitioner argued that "[t]he world of international trade may have become too complex for traditional 'rounds'" (Harbinson, 2009: 20). He suggested instead that "[n]ew negotiating paradigms have to be found," and that:

> A possible avenue for exploration could involve a mode of permanent, manageable, non-comprehensive negotiation with subjects under current negotiation being linked together less formally than in the outdated "round" format. Informal balances would have to emerge, with new subjects coming on to the agenda as others are dealt with. Progress should be gradual and incremental. The needs of economies at different stages of development should be taken into account. "Variable geometry", plurilateral and "critical mass" techniques should be considered. WTO Members should attempt to accommodate different perspectives and different speeds while maintaining the overall integrity of the system.

There is ample precedent for negotiations that are conducted outside of a round and that produce discrete agreements. As is discussed in Chapter 10, the bargains reached during the time of the "built-in agenda", which lasted between the creation of the WTO and the start of the Doha Round, were each negotiated on the basis of a critical mass. The instruments dealt with such diverse subject matter as tariffs on information technology products and alcohol, and the regulation of financial and basic telecommunications services. None of these agreements would be made retroactive parts of the single undertaking. They were ultimately applied on an MFN basis, but no member was obliged to adopt them.

Doing away with rounds would be a radical step. A less jarring move would be to rely more upon "early harvests" in a round, meaning the adoption (provisionally or definitively) of agreements on some matters that can be resolved before the other matters are settled. Several aspects of the Uruguay Round were handled on this basis, including interim reforms in dispute settlement procedures (see Chapter 7) and the Trade Policy Review Mechanism (see Chapter 8). Paragraph 47 of the Doha Ministerial Declaration of 2001 provided that, apart from matters affecting the Dispute Settlement Understanding, "the conduct, conclusion and entry into force of the outcome of the negotiations shall be treated as parts of a single undertaking." Even so, it further stipulated that "agreements reached at an early stage may be implemented on a provisional or a definitive basis" and that these "shall be taken into account in assessing the overall balance of the negotiations."

The main support for rounds and a single undertaking comes from countries, or from interests within countries, that believe that the offensive objectives they pursue face strong resistance and the only way they are likely to get satisfaction from other countries is by packaging

commitments in a larger basket. Any given group's attachments to specific negotiating strategies may be situational, however, and might shift according to changes in the economic and political environment.

How agreements are packaged: the single undertaking versus discrete pacts

Two basic questions must be answered when devising the structure of a negotiation. First, will it deal with a single issue or with more? Second, if the negotiation deals with more than one issue how will those distinct elements be related? The answers to these questions can be arrayed in a two-by-two matrix (see Table 9.1), although in reality only three of those options can be considered practical. All three of those options have been tried at various times in the GATT and WTO periods. The sequence by which negotiations moved from one approach to another was a three-step process: the Kennedy and Tokyo Rounds introduced new issues but allowed countries to decide whether they would sign on to the resulting agreements, the Uruguay Round was based on a single undertaking in the stronger sense of that term (as explained below), and the period that fell between the Uruguay and Doha rounds saw the negotiation of numerous, separate agreements that were reached among a "critical mass" of members, but the benefits of which were extended on an MFN basis to the WTO membership as a whole. The Doha Round then returned to the Uruguay Round pattern. The only one of the four possible combinations that has never been tried would be to make subsequent, discrete agreements a compulsory part of the single undertaking. This would mean obliging all of the members to adopt all new agreements as they are completed, even if they object to these instruments, something that could be done only if the WTO were to abandon the rule of consensus decision-making and the principle of sovereignty.[2] It is impossible to conceive of the WTO taking that direction, but each of the other three options remains, at least hypothetically, viable.

Table 9.1. A taxonomy of approaches to the negotiation of trade agreements

	Discrete negotiations	Multi-issue rounds
Separate agreements	This approach was taken between the Uruguay and Doha rounds, when several negotiations were conducted discretely on a "critical mass" basis, but the concessions were extended on an MFN basis to all WTO members.	Contracting parties could pick and choose among the codes negotiated in the Kennedy and Tokyo rounds. A further distinction may be drawn here between the plurilateral agreements and others for which benefits are extended on an MFN basis.
Single undertaking	Hypothetical only: if all members are required to adopt all new agreements it would be necessary to deal with countries that do not adopt or implement the new agreements (perhaps including expulsion from the WTO).	The Uruguay Round was conducted on the basis of a single undertaking, as has the Doha Round; all members adopt all new agreements.

Notes: The single undertaking as presented here is in the stronger sense of the term (i.e. requiring that all members adopt all agreements in a negotiation) rather than the limited sense (i.e. nothing is decided until everything is decided).

The single undertaking

The term "single undertaking" is one of many used in the WTO that can have a different meaning in different contexts. We may distinguish its original meaning from the later, stronger one, with the term originally referring to the way that negotiations are sequenced and later being used to defined how the results of negotiations are packaged and adopted.

Multi-issue rounds have almost always been conducted by the principle of a single undertaking as that term was originally conceived, meaning that no one part of the final package is definitively settled until all other aspects of the negotiations are finished. The principle that "nothing is agreed to until everything is agreed" is one form of what negotiations theorists call a sequencing strategy. It is to be distinguished from such alternatives as gradualism, a strategy in which the mediator attempts to move the parties from simpler to more complex issues; the boulder-in-the-road approach, in which the more complex issues are handled first; and the agreement-in-principle approach, in which a general agreement is sought early in the process so that the details can be decided at a later stage.[3] Each of these approaches is recognized to have their strengths and weaknesses. This approach, and indeed the specific phrase ("nothing is agreed …"), is a mantra that one hears in a great many different negotiating contexts. It has been used, for example, in such diverse forums as the Copenhagen climate-change negotiations, the peace process between Palestinians and Israelis and negotiations within the US Senate over the terms of domestic labour law.

First in the Tokyo Round and then in the Uruguay Round, two major innovations were designed to ensure a greater consistency in the adoption and application of rules. The innovation of the Tokyo Round was the "fast track" approach to the approval of trade agreements in the United States. As discussed at greater length in Chapter 6, the fast-track rules are a set of domestic procedures by which certain trade agreements are eligible for expedited approval by the US Congress. The fast track has significance beyond US trade politics for two reasons. One is that it provides greater confidence to other countries that might otherwise be reluctant to negotiate with the United States in the WTO or elsewhere. The fast track also provided a demonstration effect, ensuring not only that the US legislative branch would give quick consideration to the approval to the various agreements that come out of a round but that it would also accept or reject them as a unified package. It was thus different from the Kennedy Round, when Congress jettisoned two of the codes (on anti-dumping and customs valuation) that the Lyndon B. Johnson administration submitted for its approval. That aspect of this Tokyo Round-era rule was later multilateralized in the single undertaking of the Uruguay Round, primarily because by the 1980s the United States and other developed countries objected to what they saw as the free-riding of developing countries that accepted the benefits of the multilateral trading system without taking on enough of its burdens. That could be best be remedied by tying the full range of agreements in a round into an indivisible deal.

The main advantage that is claimed for this stronger version of the single undertaking is that bundling agreements into one package may reinforce the way that rounds promote trade-offs

across distinct issue areas. This is especially true when several parties to the negotiations have widely different perceptions of which agreements pose risks and opportunities, but have the confidence to stress the opportunities over the risks. The single undertaking thus acted in the Uruguay Round as a confidence-building measure that lent greater credibility to commitments. These reforms made it possible for the round to produce a unified, "something for everyone" package that responded to the developed countries' demands on the new issues, the developing countries' demands for the dismantling of non-tariff barriers to products in which they have strong comparative advantage, the Cairns Group's demands for agricultural trade reforms and so forth.

The early reviews of the Uruguay Round experience were very favourable, and led some analysts to suggest that the single undertaking must be a permanent feature of the system. "Packaging advantages into one bundle is a promising approach," according to Siebert (2000: 158), "in order to find acceptance for an international institutional framework in cases in which an agreement on [separate issues] cannot be reached." One former Canadian diplomat was adamant in stating that "[t]he WTO inevitably must be understood as a Single Undertaking" because "[t]here is no other mechanism to ensure an appropriate aggregation of issues and participants, with a forcing mechanism to ensure that at some point countries large and small accept the best deal on offer" (Wolfe, 1996: 696-697). Krueger (1998a: 495-406) argued that issue-by-issue negotiations are undesirable not only because "policymakers may be unable to cut 'cross-sector' deals" but also because "the political support for further trade liberalization may diminish" if negotiations are restricted to areas in which only a few countries have export interests.

The single undertaking has not appeared to have the same salutary effect in the Doha Round as it did in the last one. The value of this approach may be situational, such that it works well when pursued in an ambitious atmosphere, but can worsen matters when negotiators play defense. In the Uruguay Round, there was a widely shared view that the pursuit of offensive interests was more important than the safeguarding of defensive interests, and there the single undertaking helped to achieve a three-fold gain: it advanced liberalization by encouraging agreements that were both wide and deep, it enhanced fairness by reducing the prospects for free-riding, and it promoted clarity by ensuring that all countries understood what agreements they needed to adopt. In the Doha Round, however, these positive attributes seem more questionable. Some analysts go beyond the argument that the single undertaking has failed to be the solution to the bolder position that it may be one of the problems. If every country knows that it must adhere to every agreement, it may devote more attention to its defensive than its offensive interests. "[I]nstead of encouraging bold deals by causing each country to focus on those parts of the package that they most dearly desire," according to VanGrasstek and Sauvé (2006: 858), "the single undertaking might promote timidity by causing each country to focus on those things that they most fear." That could lead not only to efforts to dilute agreements individually but also make countries more reluctant to enter the end-game if they foresee it producing some undesirable agreements that they could be obligated to adopt.

One negotiator from Singapore argued that the utility of the single undertaking is partly a function of the number of countries in the system. In the Uruguay Round, "it made a lot of sense to look at the issues on the negotiating agenda in a holistic manner," but in the Doha Round with an enlarged WTO membership "it has aggravated matters by allowing the negotiating process to be held hostage by members unwilling to liberalize or wanting to do so only if they can extract a concession in a different sector of the negotiations" (Menon, 2011: 96). Numerous commissions and authors have made recommendations regarding the single undertaking. Both the Warwick Commission and the Sutherland Report addressed the topic with some caution. The Warwick Commission came out not in favour of an across-the-board replacement of the single undertaking by a critical-mass approach to negotiations, but instead suggested seven points to be considered when deciding whether a given agreement should be negotiated on this basis. One of the more important points was that benefits should be extended to all members, with the commission thus explicitly rejecting a return to the code reciprocity approach.

Optional agreements: plurilaterals, critical mass and early harvests

The meaning of "plurilateral," unlike other terms such as "critical mass" and "variable geometry", has a formal status in the WTO. That comes only through enumeration rather than definition, however, as the agreements listed in Annex 4 of the Agreement Establishing the World Trade Organization are formally called the "Plurilateral Agreements". These include two agreements that still remain in effect (the Agreement on Government Procurement and the Agreement on Trade in Civil Aircraft) and two others that were scrapped in 1997 (the International Dairy Agreement and the International Bovine Meat Agreement). Beyond that specific meaning in WTO law the word is often used to denote other agreements reached either inside or outside the WTO that are more than bilateral but less than global; the Trans-Pacific Partnership, for example, is intended to be a plurilateral *regional* trade arrangement but would not be a plurilateral in the WTO sense of the term. It is not always clear when this label is applied whether the intended meaning concerns the way that an agreement is being negotiated, the scope of the countries that are expected to adopt it, or both.

WTO members can be roughly categorized in three groups vis-à-vis the three most important optional agreements, with half of them not signing any of these agreements, most of the others adopting a few and only a handful approving all of them. In addition to the two remaining plurilateral agreements we may include here the Information Technology Agreement (ITA). The ITA is not a plurilateral agreement,[4] but shares in common with them the quality of being a "critical mass" agreement that is not a part of the single undertaking. Appendix 9.1 shows that as of 2012 only 34 of the 158 WTO members (21.5 per cent) adhered to the Agreement on Trade in Civil Aircraft, the Agreement on Government Procurement and the ITA; the European Union and its 27 member states accounted for the great majority of these exceptional cases. By contrast, 80 of the members (50.6 per cent) adhere only to the minimum required by the single undertaking, not signing on to any of the plurilaterals. The remaining 43 countries, accounting for 27.2 per cent of the membership, adhere to either one or two of the three optional agreements. Depending on one's expectations for the system, these numbers could be read either pessimistically (i.e. noting the infrequency of members' adoption of

commitments when they are not mandatory) or optimistically (i.e. the WTO membership has a high tolerance for free choice in the adoption of commitments).

The question then arises as to whether the system as a whole would be improved if plurilaterals or other "critical mass" agreements were to make a comeback, being the preferred mode over multi-issue rounds and a single undertaking. The Sutherland Report took a cautious approach to this issue. Rather than lay out a specific reform, it tentatively proposed that:

> Possible plurilateral approaches to WTO negotiations should be re-examined – outside the context of the Doha Round. There should be particularly sensitive attention to the problems [identified in the report]. If there is political acceptance of the principle it is suggested that an experts group be established initially to consider and to advise on the technical and legal implications (Sutherland Report, 2004: 66).

This consultative board also suggested that "[i]n certain circumstances, a GATS approach would be an appropriate alternative – in developing new disciplines – to a plurilateral negotiation" (*Ibid.*: 67).

Other authors have been more direct in calling for a return to plurilateralism or a critical mass approach. Low (2009: 12) argued for critical mass because it allows for "more efficient differentiation in the levels of rights and obligations among a community of highly diverse economies" and serves "as a mechanism for promoting greater efficiency at lower cost in multilaterally-based negotiations on trade rules, and perhaps, sectoral market access agreements." Among the other authors who have expressed support for a plurilateral approach over a strict single undertaking, one finds former negotiators such as Stoler (2008), former international civil servants such as Dadush (2009b) and journalists such as Blustein (2009). The single undertaking nevertheless appeals to those *demandeurs* who expect that it would be difficult or impossible for them to win support for their proposed issue if the topic were to be handled on its own. It may also appeal in a cynical way to countries that do not want a deal to be reached and count on the single undertaking to promote the desired deadlock. Conversely, this approach is least attractive to those who believe that an agreement on their chosen issue could be achieved more rapidly if it were not tied to a larger outcome. The view that a particular group takes towards this issue may thus be more a matter of short-term tactics than permanent strategy.

Early harvests are something of a compromise between the single undertaking and plurilaterals. They allow for the temporary separation of specific negotiations from the round, permitting them to be concluded and to enter into effect before other matters are settled. Once the rest of a round is concluded, however, any items that were in an early harvest become part of the final package. One may nonetheless question whether the dynamics of a round will permit an early harvest for anything that matters more to some members than to others. If any one member or group of members were to identify Agreement X as an item of

real significance to them, and one that has thus far not encountered real resistance from other members, that very identification of interests could create the resistance. This then becomes an invitation to others to use approval of that agreement as leverage to obtain something else. This may be why the experience with early harvests has so far been limited to agreements that are systemic in nature, rather than beneficial to specific sectors or members. In the case of the Uruguay Round, the only items on which an early harvest was achieved were in the Functioning of the GATT System talks and the Dispute Settlement Understanding. Similarly, the only significant early harvest to come out of the Seattle Ministerial Conference was agreement to support the creation of the Advisory Centre on WTO Law, which provides legal assistance to developing countries in dispute settlement cases (see Chapter 7); even that accomplishment is best seen as one that ran parallel to, but was not formally a product of, negotiations in the WTO.

How tariff negotiations are conducted: request–offer and formulas

The principle of the single undertaking should not be mistaken for uniformity in countries' commitments. Members schedule their specific commitments separately, not just for tariffs on goods (agricultural and non-agricultural) and the more complex measures affecting trade in services but also in other, quantifiable areas such as agricultural subsidies. A country's schedules might specify such precise commitments as a bound tariff on automobiles of 5 per cent (among thousands of similarly specific tariff concessions), a commitment to impose no restrictions on foreign banks (among many dozen similarly specific services concessions), a cap of US$ 10 billion on its agricultural production subsidies and so forth. As long as specific commitments are scheduled, and the schedules of individual members are produced through the give-and-take of negotiations, there will always be an element of critical-mass bargaining in WTO negotiations. That is to say, all members may be obliged to sign on to all of the agreements on the basis of a single undertaking, but the specific commitments that they make will be tailored in a process that does not demand that all members be subject to identical obligations. Some developing countries are asked to provide less than full reciprocity (perhaps with a greater deal of "water" separating their bound from their applied rates) and still others are exempt from binding commitments altogether. The final result may be based on the single undertaking in principle but significant parts of it will be more like plurilateralism in practice.

There are several different ways that tariff negotiations might be structured. The main questions are: whether they aim merely to reduce tariffs or to eliminate them altogether; whether they will make some products or sectors subject to deeper or shallower cuts; and whether developing and developed countries will be obliged to make the same degree of cuts. No matter how each of these subsidiary questions are answered, the single most important structural question is whether the principal form of bargaining is the bilateral exchange of requests and offers, or if negotiations will instead be based on the application of formulas (the results of which might then be adjusted through some process of negotiation).

In addition to deciding what to cut, and by how much, countries also have to determine how quickly the cuts will be made. It is unusual for all cuts to take effect upon an agreement's entry into force, and phase-ins are commonly employed. Even Adam Smith recognized their necessity, noting that in lifting protection for specific products "[h]umanity may … require that the freedom of trade should be restored only by slow gradations" lest "cheaper foreign goods of the same kind might be poured so fast into the home market as to deprive all at once many thousands of our people of their ordinary employment and means of subsistence."[5] Phase-ins are typically set at a ten-year period, as was the case in the Uruguay Round, but might be shorter or longer for some products. A schedule will often provide for equal annual cuts during the phase-in period, but might also specify that some products are subject to the full cut upon the agreement's entry into force, while others might not be cut until much later or even all at once in the very last stage (what is known as a "back-end loaded" approach).

Bound rates, applied rates and water

One point that is easily misunderstood by those who are not conversant in the often arcane nature of trade negotiations is that commitments typically concern not countries' *applied* tariffs (i.e. those actually imposed on imports) but rather their *bound* tariffs (i.e. the maximum they are permitted to impose). Or to put it another way, negotiations focus not on precise definition of what countries' policies will be but rather on the range within which their policies may be set. The only time that an applied tariff must by definition be equal to the bound tariff is when the latter is set at zero; any other number leaves at least a little room for manoeuvre. While some countries will opt to set most or all of their applied tariffs at the bound rate, others will exercise that room for manoeuvre by setting most or all of their applied tariffs somewhere below the bound rate. The difference between the bound and applied rates is generally referred to as the "water" in a country's schedule, such that (for example) if a country has a bound rate of 25 per cent, but an applied rate of 10 per cent, there are 15 percentage points of water in its schedule.

Not all tariffs in a country's schedule need be bound; while the countries that accede to the WTO are obliged to bind their entire schedule, most of the incumbent members have at least some (and often many) unbound tariff lines in their schedules. When tariffs on a given product are unbound, a country is legally free to impose any tariff that it wishes. For example, the applied US tariff on crude oil is very low, being just 5.25¢ or 10.5¢ per barrel (depending on the grade), but the tariff is also unbound in the WTO. This means that the United States would be free in some future contingency to impose a high surcharge on oil imports, which might variously be done for reasons of energy, environmental, fiscal or foreign policy. Developed countries generally have only a small number of unbound tariff lines in their schedules, but developing countries often have kept large swaths of their schedules unbound.

Tariff negotiations in the WTO are generally based on the bound rate. Depending on the amount of "water" in a country's bindings, this often means that commitments that appear to

be substantial have little or no impact on the applied rate, limiting only what the country might do in the future. For example, imagine that a country has a bound rate of 10 per cent on product X, but its applied rate on that same product is just one per cent. The country could cut its tariff by as much as 90 per cent and still do nothing more than take out the "water" in the binding. Only a reduction of more than 90 per cent would actually oblige the country to reduce the applied rate below one per cent. Some analysts (especially economists) argue that commitments that merely take out the water are insignificant, while others (especially lawyers) take the view that such a commitment amounts to liberalization insofar as it reduces uncertainty regarding a country's potential tariff rates in future.

Appendix 9.2 summarizes the tariff structures for the Quad (Canada, the European Union, Japan and the United States), emerging economies and several other members that are more or less representative of regional and income groups in the WTO as a whole. The data show the average bound and applied tariffs, as well as the water between them, for agricultural, non-agricultural and all products. Three generalizations may be made on the basis of these numbers. First, tariffs tend to be much higher in developing than in developed countries, whether one looks at agricultural or non-agricultural products. Second, tariffs on agricultural products tend to be higher than those on non-agricultural products, whether one looks at the bound or the applied. Third, developing countries tend to have more water in their schedules than do the developed. There are notable exceptions shown in the table for all three of these generalizations. No WTO member has lower tariffs than Hong Kong, China, for example, protection is lower on agricultural than on non-agricultural products in Australia and Brazil, and there is very little water in the schedules of China and the Kingdom of Saudi Arabia. All of these considerations, including the generalizations as well as the exceptions, influence the positions that countries have taken in the Doha Round.

One factor affecting the level of water in a county's schedule is the time elapsed since its accession. As a general rule, those countries that either acceded to the WTO or acceded in the late GATT period were obliged to bind 100 per cent of their tariff lines, had to make extensive commitments in their tariff schedules and were left with much less water in their schedules than most of the incumbent members. A "recently acceded member" such as China, for example, had close to zero water left in its schedule when the Doha Round reached a critical point in 2008. By contrast, Brazil – which was among the original GATT contracting parties – had a great deal of water left. This meant that the deals then on the table would affect these two members differently. Both countries would be obliged to reduce their bound tariffs, but Brazil would likely be obliged to change few if any of its applied tariffs while China might have had to cut a great many of them (depending on the exceptions allowed).

Request–offer and sectoral negotiations

Request–offer is the oldest approach to the conduct of tariff negotiations, having been the practice in centuries of bilateral tariff negotiations, and it was used in the first several GATT rounds. It entails the exchange of commitments on a product-by-product basis between two countries. For example, Japan might offer to reduce its MFN tariff on wine while requesting that

New Zealand reduce its MFN tariff on televisions. The items that one country places on the request list it submits to the other party might number in the dozens or even the hundreds, and working their way from those lists to a final agreement might involve numerous rounds of requests and offers. If these two countries ultimately struck a bargain, they would extend the concessions made to one another to all other GATT contracting parties on a non-discriminatory basis, as required by the MFN principle of GATT Article I. From the late 1940s to the early 1960s, each GATT round consisted primarily of multiple bilateral bargaining sessions of this sort, all of which would be bundled together in a package of national schedules that identified not just the products and the new rates but also which countries had negotiated for the reduction or had otherwise been granted the "initial negotiating rights" (INRs) of the concession. That last point is an important consideration in the event that the country making a concession were later to seek to renegotiate its commitment, as the INRs determine which partners are eligible for compensation.

The request–offer approach to negotiations is often portrayed as being too slow and time-consuming for modern trade negotiations, considering the much larger number of countries that are now in the WTO and the growing array of products that countries trade. From the original GATT in 1947 to the WTO in 2012, the membership grew nearly seven-fold, and negotiating on a request–offer basis in the much larger WTO membership would be more difficult. There are nonetheless three ways in which this approach has carried over from the early GATT period. One is as a back-up or supplement to the formula approach to negotiations that is discussed below. That was the case in the Uruguay Round, for example, in which countries aimed to conduct negotiations on the basis of formula cuts but in some cases ultimately fell back on the old-fashioned, "hand-made" agreements. The agreed procedure in that round was to target a 30 per cent average reduction on industrial products, but the distribution among tariff lines was then negotiated bilaterally on a request–offer basis. Second, the request–offer approach remains the principal means by which negotiations are conducted over trade in services; GATS negotiations are described later in this chapter. Third, request–offer lives on, albeit in modified and plurilateralized form, in the negotiation of sectoral deals.

Sectoral tariff negotiations, which are also called zero-for-zero negotiations when their ambitions are sufficiently high, aim to reduce or eliminate tariffs in a specific product or sector. The method here is not based on the bilateral exchange of concessions across a heterogeneous range of products but is instead a negotiation in which a group of countries eliminate tariffs in a narrower range of goods. This approach developed in the late GATT period, with the Tokyo Round producing deals such as the Agreement on Trade in Civil Aircraft, just as the Uruguay Round led to the Pharmaceutical Agreement and other sectorals. These deals can come in different levels of formality. Some produce explicit, signed agreements that may go beyond country schedules to include additional rules that (for example) provide for the accession of new countries to the agreement or later rounds of negotiation in the same sector. The Information Technology Agreement (ITA) is just such a deal. Zero-for-zero agreements can also be reflected simply in the results of countries' tariff schedules without any additional rules or even a formal acknowledgement that the products in question had been the subject of a special negotiation. That was the case for Uruguay

Round negotiations conducted on agricultural equipment, beer, chemicals, construction equipment, distilled spirits, medical equipment, paper, steel and toys. These agreements were primarily reached between developed members such as Canada, the European Union, Japan, Norway, Switzerland and the United States. There are some developing economies that signed onto them, as Egypt, Georgia and Chinese Taipei did for the aircraft agreement and Macao, China did for the pharmaceutical agreement. The negotiations over these sectoral packages are generally conducted on the basis of a "critical mass", with the participating countries aiming to obtain commitments from countries that together account for some agreed, minimum percentage of global trade in the products in question. In the case of the ITA, for example, the goal was to reach an agreement with members that accounted for 90 per cent of trade in the covered products. The benefits of these deals are then extended on an MFN basis to all WTO members, with other countries urged to join as well.

The Doha Round also saw numerous sectoral initiatives. Among the sectors for which some members placed especially high priority were chemicals, industrial machinery, electronics and electrical products, forest products, raw materials and gems and jewellery. Like the rest of the round, however, those negotiations stalled over disagreements regarding the level of commitments that emerging economies should make.

The request–offer method was relatively easy to conduct as long as the number of countries and products remained small, but as the system grew and diversified along both of these dimensions the negotiations became increasingly difficult. Bilateral deal-making was a time-consuming and fairly random way of producing commitments, and relied heavily on the initiative of individual countries. It also left relatively little role for countries that were small or developing, insofar as only the principal supplier of any given product was supposed to make requests. That rule is especially unattractive to smaller countries that might not be the principal supplier of anything. Even a country that is heavily dependent on exports of one or two goods might still be only the tenth or twentieth largest supplier worldwide, and can thus be relegated to the sidelines if the principal supplier rule is vigorously enforced.

Linear and non-linear formulas

The formula approach to tariff-cutting is more efficient and inclusive than request–offer, provided that it is relatively easy to reach agreement over the terms of the formula. It also has the virtue of being, or at least appearing to be, more mathematically objective. First used in the Kennedy Round (1962-1967) of GATT negotiations, the formulas facilitate matters by subjecting most or all tariffs to an equation that specifies the cut. The main questions then are: (1) how the formula should be devised; (2) what means might be established for either accelerating or (more often) decelerating or exempting specific products from the basic formula; and (3) whether some countries or groups of countries might be asked to provide less than full reciprocity or even be exempt from making commitments. Those exemptions or reduced burdens might be devised for developing countries in general, least-developed countries in particular, or other subsets of the membership that share some characteristic that merits special

consideration (e.g. a particular type of vulnerability). Negotiators also need to decide what they will do for tariff lines that are not bound, or for which quotas or tariff-rate quotas are in place.

The simplest formula is known either as a linear cut or a horizontal cut, and consists of a straight percentage reduction. The basic Kennedy Round formula was a 50 per cent cut for industrial products, but also allowing for negotiated exceptions, with the goal being an overall average reduction of 30 per cent. The advantage of this approach is that it is conceptually and computationally simple; the disadvantage of such cuts is that they do not do well in reducing "peak" tariffs. The only way they could do so would be to set the coefficient of reduction (i.e. the percentage) at an especially high level. There is no universally agreed definition as to what constitutes a peak, but they are often quite apparent when one sees them. In some countries' schedules there may be a great many items that are duty-free on an MFN basis, and average tariffs on dutiable products may be somewhere in the 3 per cent to 6 per cent range, but there are other, exceptional products on which tariffs might be 25 per cent, 50 per cent, 75 per cent or even higher. If one starts with a tariff that is (for example) 50 per cent and applies a seemingly ambitious linear cut of 50 per cent, the resulting tariff will still be 25 per cent. That means going from one level of peak tariff to another that is, by any reasonable definition, still a peak tariff.

The principal method adopted for the Tokyo Round (1972-1979) was the Swiss formula, the main virtue of which is that it attacks the peak tariffs aggressively. This approach to formula cuts is expressed as:

$$T_1 = \frac{a \times T_0}{a + T_0}$$

where T_1 is the new tariff, T_0 is the base rate, and a is the coefficient of reduction. The Swiss formula that negotiators agreed upon for industrial products in the Tokyo Round had a coefficient of 16. For example, if one started with a tariff of 50 per cent, the Swiss formula would, with an a coefficient of 16, produce the following results:

$$T_1 = \frac{16 \times 50}{16 + 50} = \frac{800}{66} = 12.1\%$$

While by some standards the resulting 12.1 per cent tariff might still be considered a peak, it is not an insuperable one, and the 75.8 per cent cut is significantly more ambitious than the roughly 30 per cent to 50 per cent cuts that negotiators made when they relied either on request-offer or on linear formulas.

For those who are not mathematically inclined, there are two very simple rules of thumb for understanding the effects of the Swiss formula. The first is that this is a formula in which ambitions rise as the coefficient falls: the lower the a value, the deeper the cuts will be from the base rates. An a coefficient of 5, for example, is significantly more ambitious than 10. In this way, the Swiss formula is just the opposite of a linear cut, where ambitions move in the same direction as the coefficient of reduction (e.g. a 50 per cent cut is more ambitious than a

25 per cent cut). The second rule concerns the maximum rate that will remain in place after a cut is made: the value of the *a* coefficient is the highest value that will ever be yielded by the formula, no matter how high the base rate. When *a* is 10, for example, all of the tariffs subject to this cut will end up less than or (if they start from a high enough level) equal to 10 per cent. Even a base rate of 1,000 per cent will lead to a new tariff rate of 9.9 per cent if the *a* coefficient is set at 10; if the base rate is 10,000 per cent the new tariff rate will be 9.99 per cent (which rounds up to that maximum rate of 10 per cent).

The differences between a linear (straight percentage) and non-linear Swiss cut can be seen in Table 9.2. The illustrative cuts show how the Swiss formula makes a very modest reduction to a low tariff rate such as 2.5 per cent, even when the *a* coefficient is very ambitious (e.g. 5), and has a negligible impact on a very low base tariff rate such as one per cent. At those low levels, even a relatively modest linear cut makes a bigger difference than does the Swiss formula. The higher the base rate is, however, the larger the reduction. The cuts that the Swiss formula makes to peak tariffs at the 50 per cent and 100 per cent levels are especially impressive, even when the *a* coefficient is modest (e.g. 20), but a seemingly ambitious linear cut of 50 per cent still leaves peak tariffs in place when one starts at that high a base rate. The overall result of a choice between one type of formula and another is thus situational and depends on one's objectives. Suppose for example that Country A is a developed country that has generally low and fairly uniform tariffs, and trades with Country B, a developing country that has a great many peak tariffs. Country A is likely to favour a Swiss formula because it would serve both its defensive interests (leaving much of its own tariffs largely intact) and its offensive interests (lowering the peak tariffs in Country B), while Country B would prefer a linear formula that allows it to retain those peaks and that might also make deeper cuts in Country A's tariffs.[6]

Table 9.2. Tariff cuts under linear, Swiss and tiered formulas, in %

		Linear cuts		Swiss formula		Tiered formula	
	Base rate	25	50	*a* = 20	*a* = 5	% cut	Result
	1.0	0.8	0.5	1.0	0.8	50	0.5
	2.5	1.9	1.3	2.2	1.7	50	1.3
	5.0	3.8	2.5	4.0	2.5	50	2.5
	10.0	7.5	5.0	6.7	3.3	50	5.0
	25.0	18.8	12.5	11.1	4.2	57	10.8
	50.0	37.5	25.0	14.3	4.6	57	21.5
	100.0	75.0	50.0	16.7	4.8	66	34.0
Unweighted average	27.6	20.8	13.8	8.0	3.1	–	10.8
Average % cut	–	25.0	50.0	71.0	88.7	–	60.9

Notes: The tiered formula illustrated here is the one in the 2008 draft of the NAMA modalities. Values are rounded.

The tiered cut is yet a third approach, and can be seen both structurally and practically as a compromise between the linear and Swiss formulas. In this type of formula, tariffs are cut by a percentage that rises with the level of the base rate, such that relatively low tariffs are cut by a

certain percentage and higher tariffs are cut more aggressively. A tiered formula may stack the tiers at whatever dividing lines the negotiators might choose, and they can assign whatever level of linear cut to each tier that they wish. The example shown in Table 9.2 is based on a tiered cut proposed in 2008 for the agricultural tariffs of developed countries in the Doha Round. This proposal called for a cut of 50 per cent on all tariffs that were 20 per cent or less, a 57 per cent cut in tariffs greater than 20 per cent but less than or equal to 50 per cent, a 64 per cent cut for those in the range above 50 per cent but less than or equal to 75 per cent and a cut of either 66 per cent or 73 per cent for those above 75 per cent. That last value was bracketed in the text (i.e. negotiators had not definitively decided to use it), but for purposes of this illustration, we may use the 66 per cent figure.

As in any formula, the actual ambition of the cuts will depend both on the base rate and the level of the coefficient of reduction, but in this instance one can see that the results do indeed fall between those of the selected linear and Swiss examples shown here. The unweighted average in the example is cut to 10.8 per cent, which is higher than the levels that the two Swiss examples would produce, but lower than the results one would get from the two linear cuts. The results for the highest tariff are also a compromise, in which the cuts are deeper than one gets from a straight percentage, but not nearly as deep as in even a modest Swiss formula.

Because these cuts are made to the bound rate, they will not always lead to reductions in the actual rates that are applied on imports. If one applies a formula that is not very ambitious against a schedule of concessions that is full of water, it is possible that the negotiations will result in no actual change in the level of applied tariffs, serving only to limit the ability of a country to raise its tariffs in the future by "boiling off" some of the water in the tariff. This point can be understood by examining the hypothetical cases shown in Table 9.3, which are based on proposals under consideration in the Doha Round non-agricultural market access (NAMA) negotiations. One option would subject the bound tariffs of developing countries to a Swiss formula with an *a* coefficient of 20 and the bound rates of developed countries to an *a* coefficient of 8. In both cases there would be further flexibilities to exempt, or otherwise treat on a special basis, some types of products, but for the purpose of illustration we may suspend consideration of the exceptions or variations in order to concentrate on the general rule.

Table 9.3 shows what these formulas and coefficients would do to the bound rates of developing countries at various levels, and what the result would be in cases where the tariff in question variously has a lot of water (the country has a "ceiling binding" of 100 per cent), a moderate amount of water (between 5 and 25 points in this example), or no water at all (the applied and bound rates are equal). The illustration further assumes that countries will reduce their applied rates only if they are obliged to do so as the result of a new binding that is below the level of the current applied rate. We can see that in several scenarios the developing countries would not be required to reduce their applied rates. The question of whether and by how much they need to reduce those tariffs depends on the level of ambition in the formula and the amount of water in the tariff. As for the developed countries that are subject to the *a* coefficient of 8, the fact that many of them have little or no water in their tariffs – a description that is generally more accurate for non-agricultural than for agricultural tariffs – means that the deal on the table would lead to actual reductions in most or all of their applied rates.

Table 9.3. Illustration of the Swiss formula's effects on bound and applied tariffs

	Bound (A)	Applied (B)	Water (A-B)	New bound (C)	New applied (D)	Applied change (B-D)
High water, *a* = 20						
Example A-1	100.0	25.0	75.0	16.7	16.7	8.3
Example A-2	100.0	15.0	85.0	16.7	15.0	*
Example A-3	100.0	10.0	90.0	16.7	10.0	*
Example A-3	100.0	5.0	95.0	16.7	5.0	*
	Unweighted average: 13.8		*New unweighted average: 11.7*			
Moderate water, *a* = 20						
Example B-1	30.0	25.0	5.0	12.0	12.0	13.0
Example B-2	30.0	15.0	15.0	12.0	12.0	3.0
Example B-3	30.0	10.0	20.0	12.0	10.0	*
Example B-4	30.0	5.0	25.0	12.0	5.0	*
	Unweighted average: 13.8		*New unweighted average: 9.8*			
No water, *a* = 20						
Example C-1	25.0	25.0	0.0	11.1	11.1	13.9
Example C-2	15.0	15.0	0.0	8.6	8.6	6.4
Example C-3	10.0	10.0	0.0	6.7	6.7	3.3
Example C-4	5.0	5.0	0.0	4.0	4.0	1.0
	Unweighted average: 13.8		*New unweighted average: 7.6*			
No water, *a* = 8						
Example D-1	25.0	25.0	0.0	6.1	6.1	18.9
Example D-2	15.0	15.0	0.0	5.2	5.2	9.8
Example D-3	10.0	10.0	0.0	4.4	4.4	5.6
Example D-4	5.0	5.0	0.0	3.1	3.1	1.9
	Unweighted average: 13.8		*New unweighted average: 4.7*			

Notes: *Because the resulting bound rate is equal to or greater than the applied rate, there is no change made to the applied rate. Examples assume that in cases where the new bound rate remains above the current applied rate the country makes no changes in that applied rate.

The consequences of formulas

Like almost any other tool, formula cuts are neither inherently good nor bad, but instead depend on the use to which they are put. The use of formulas has simplified market access negotiations in one respect but complicated them in two others.

One problem is that formulas can be computationally difficult, especially if they go beyond the conceptually simple linear cut. Much depends on the capacity of a country to figure out how a given formula would affect its own tariffs and those of its trading partners. Some trade ministries have the capacity to perform sophisticated, computable general equilibrium forecasts in-house, or can call on the expertise of some cooperating government or academic agency that has this

capacity. This is especially true in developed countries and in the larger and more analytically sophisticated emerging economies. Their counterparts in many other developing countries are limited to static, back-of-the-envelope calculations of how specific tariff lines would be affected, and some are entirely in the dark and know only what outside analysts tell them. The same point might be made regarding individual policy-makers, especially those who, by training or disposition, are not very comfortable with numbers and formulas. Anyone who has ever bargained over the price of a car or a house can understand the basics of request-offer, but the Swiss formula – even though it is no more complex than a simple quadratic equation in a high school algebra course – can strike fear in the heart of an arithmophobic lawyer or politician.[7] This is one way that the increasing sophistication of trade negotiations has contributed to the need for capacity-building in trade ministries (see Chapter 5), and has also increased the risk of widening the distance between specialists and the policy-makers whom they are tasked to advise.

A second and less soluble problem with formulas is that the haggling over their structure and terms can become just as elongated as was the case for request–offer negotiations, or even more so. Even if they agree in principle to negotiate on the basis of a formula, negotiators can then wrangle for years over questions both large and small. Will it be a linear or a non-linear formula? If it is non-linear, will it be Swiss, tiered or something else? What coefficients will be used, and will there be different coefficients used for different types of countries (primarily developed versus developing)? Will any credit be given to those members that have acceded during or just before the round and hence made commitments more recently than the incumbent members? Negotiators will start from the assumption that the formula deals with bound rather than applied rates, but what basis is to be used for items on which the member has no binding? How will *ad valorem* equivalents be calculated for products that are subject to specific or compound tariffs?[8] What allowance will be made for either exempting certain products or subjecting them to a less ambitious formula? Will any sectoral negotiations be conducted outside the scope of this formula, either in zero-for-zero deals or other forms?

With all of those seemingly technical issues to decide, it is quite easy for negotiators to get bogged down for years. Matters are only made worse when some of the participating countries use every available opportunity to safeguard their defensive interests, sometimes to the point that they may be unwilling to contemplate any actual cuts in their current applied rates, and others are so unenthusiastic that they may favour delay or even defeat of the entire enterprise. Concerns of this sort led one key participant in the Doha Round to pin part of the blame for the stall in these negotiations on the use of formulas. "[T]he framework of rigid formulas and ill-defined, largely non-negotiable flexibilities," according to former US Trade Representative Susan Schwab (2011: 110), "put all the negotiators in a defensive posture from the outset" and led them "to assume that their own import-sensitive constituencies would face severe tariff cuts" while leaving them "unable to point to the kind of concrete gains in market access necessary to build domestic support."

Agricultural production subsidies

WTO negotiators treat agricultural products differently than their non-agricultural cousins in several ways, although arguably the real difference comes down to one: this sector is more

socially and politically sensitive in most countries, and leads negotiators and their masters to be more cautious about making commitments that may prove unpopular with powerful constituencies. That caution is principally expressed in two ways. One is that agricultural products are isolated from the non-agricultural goods in market access negotiations, and are generally subject to less ambitious formulas such as linear cuts or a tiered formula. (This point is elaborated upon in Chapter 12.) The second is that production subsidies in this sector are permitted but subject to commitments that are aimed (in theory if not necessarily in practice) at their reduction or elimination. That latter distinction is highlighted here.

A third pillar of the agricultural negotiations concerns export subsidies. These are discussed in Chapter 12.

In the Uruguay Round, negotiators agreed to a framework by which production subsidies can be quantified, capped and reduced. Little or no actual reduction was achieved in that round, however, as there was a great deal of water in the commitments that most countries made. These results were "binding" in one sense but not in another: they are legally binding commitments in the way that lawyers mean that term, but they were not practically binding in the sense that economists mean (see Box 9.1).

The Uruguay Round agreement on domestic support (i.e. agricultural production subsidies) had three components. The first was to create a taxonomy of subsidies that distinguished between four types, based on the degree to which they are said to distort markets; each of these categories is then subject to different types of commitments. The second was the definition of the quantitative commitments that would be imposed on one category of subsidies, which would be based on the aggregate measurement of support (AMS). The third was the scheduling of individual members' commitments by which they were limited in the AMS they could provide in any year. Each of these points merits closer examination.

The Uruguay Round negotiators mixed their metaphors by providing for what is either called the "semaphore system" or the "boxes" of agricultural support (summarized in Table 9.4). Both of these images referred to the colour-coding of support programmes according to their degree of distortion and hence their status under the Agreement on Agriculture's scheme of commitments and restrictions. At one end of this rainbow spectrum are the red-coloured subsidies that members are prohibited from offering, but this is a purely theoretical construct. Although it was agreed in principle that members may outlaw certain types of subsidies, in the Uruguay Round they opted not to place anything in this red box. At the other end of the spectrum are the blue and green boxes, each of which contain the exempt forms of support. These are two categories of programmes that the Uruguay Round negotiators determined to be less distorting and thus outside the scope of commitments. Between the red and the blue-green parts of the spectrum lies the amber box, and it is here that the commitments matter most. These are the trade-distorting forms of support that were made subject to caps and reduction in the Uruguay Round.

Box 9.1. The multiple meanings of the term "binding"

In order to understand the restrictions that WTO members place on their agricultural production subsidies, one must first grasp a potentially confusing matter of terminology. The term "binding" is one of those words that, like "reciprocity", has different meanings when used by different specialists and can lead to confusion if one is not clear about the sense in which it is being employed. When used by tariff negotiators, the word "binding" is a noun and a synonym for "bound rate". It might be employed in a sentence such as, "the country's binding on fresh apples is 5 per cent." When used by lawyers, it is an adjective that describes any commitment that is legally obligatory, as in the example, "the country made a binding commitment not to subsidize its exports." The term is also an adjective when used by economists examining quantitative restrictions such as quotas or (as used here) disciplines on subsidies. Where lawyers use the word in an absolute sense (a commitment either is or is not binding), economists see a quantifiable spectrum.

To an economist, a restriction is binding if the country might have done something else but for the presence of this rule. A quota or other restriction is typically deemed to be binding if a country utilizes at least 90 per cent of what it is allowed. This is an admittedly arbitrary benchmark that nonetheless permits us to distinguish strict commitments from those that have only a hypothetical or contingent significance. Consider the hypothetical statement, "the quota that Country A imposed on apparel imports from Country B appears to be binding, insofar as Country B shipped 98 per cent of what it was allowed and could presumably have shipped more." (This is a point to which we will return in the discussion of textile and apparel quotas in Chapter 13.) Country B not only "left money on the table" by not shipping that last 2 per cent but, we may conjecture, might also have been able to ship much more than that.

For an example that is pertinent to the present discussion, consider the following sentence: "the commitments that Country C made on its production subsidies for wheat are not binding, as it has never utilized more than 30 per cent of what it is allowed." Limits on subsidies that are set far above the level that a country actually provides to its producers, or that it might reasonably provide in the foreseeable future, are directly comparable to "water" in the tariff. In Country C's case, there were 70 percentage points of water in the commitments it made on production subsidies. If it had provided 90 per cent or more of what it was allowed, however, we might assume that policy-makers in Country C were constrained by the limits to which they had agreed.

Twenty-eight of the participants in the Uruguay Round provided non-exempt (i.e. amber box) domestic support during the base period, and thus had reduction commitments specified in their schedules; several of the countries that subsequently acceded to the WTO also made commitments on domestic support.[9] These reduction commitments were expressed as a total AMS that included in one figure all product-specific support and non-product-specific support. Developed members had to reduce support by 20 per cent over six years and developing members by 13.3 per cent over ten years, after which their AMS caps would remain in effect until further modification (e.g. as the result of a new round of negotiations).

Table 9.4. The semaphore system of agricultural production subsidies

	Definition	Examples	Uruguay Round commitments
Red box	Prohibited policies that are illegal.	No forms of domestic support are currently in the red box.	Not allowed.
Amber box	Non-exempt, trade-distorting policies that are subject to review and reduction over time.	Market price support, direct payments and import subsidies.	*De minimis* supports were allowed up to certain limits; caps were set on the support of members that historically had above *de minimis* levels, which were then subject to reduction by 20 per cent for developed members over five years and by 13.3 per cent for developing members over ten years.
Blue box	Exempt forms of support, including payments made in conjunction with production-limiting programmes.	Production is required in order to receive the payments, but the actual payments do not relate directly to the current quantity of that production.	No limits.
Green box	Exempt policies that are not subject to limitations.	"Decoupled" payments not linked to production decisions, research or training, pest and disease control, inspection services, marketing and promotion services, certain food aid etc.	No limits.

Source: WTO Secretariat.

To what extent did these Uruguay Round commitments reduce subsidies? One way to answer that question is to look at actual AMS usage. Appendix 9.3 shows in relative terms the domestic support that ten members gave to their producers, expressed as percentages of what they were permitted under their commitments. The data are marked up in the table to indicate which members in which years provided 90 per cent or more of what they were permitted; any amount in that range means that the commitments of the member in question would meet the economists' definition of a "binding" constraint (see Box 9.1). There are 145 data points shown in the table (the other five being empty due to late notifications), but only nine of them (6.2 per cent) fell within that binding range. The Republic of Korea provided support at 90 per cent or more of its AMS level during eight of the first ten years of the WTO period, but its support fell rapidly thereafter (due principally to the elimination of a single programme providing support to rice farmers). Among the remaining nine members, South Africa was the only one to provide support in the binding range, and then only in one year. The data are further coded to highlight years in which members provided support in the 50 per cent to 89.9 per cent range. They did so in 41 of these 145 member-years (28.3 per cent); Mexico is the only one of these members never to have reached that level. Taken as a whole, these ten members provided less than half of their allowable subsidies just about two thirds (65.5 per cent) of the time, and were below the binding level 93.8 per cent of the time. The commitments that members made in the Uruguay Round were thus far more important in principle and potential than they were in actual practice.

The changes in members' support levels over time are also interesting. Some countries did increase their levels of subsidization in the years between the end of the Uruguay Round and

the start of the Doha Round, notably the United States but also Australia and Canada (both of which are Cairns Group members), while others reduced their subsidies either modestly (e.g. the European Union and Switzerland) or very substantially (e.g. Japan and South Africa). Taken as a whole, the subsidy problem as measured by AMS levels was higher when the Doha Round was launched in 2001 than it was either before or since. At that time, one major country subsidized at greater than the 90 per cent level (the Republic of Korea) and five (including the European Union and the United States) at the 50 per cent to 89.9 per cent level. For all of the debate over the levels at which these members might subsidize with or without a new deal, by 2008 – which was the last year (at the time of writing) that the round appeared close to being resolved – none of these members were in that highest category of subsidization and only one broke the 50 per cent barrier.

There are three different influences that affect these levels of support. One is the numerical limits that members agreed to in the Uruguay Round. The strength of this influence is questionable, given the fact that members not only "left money on the table" but, in most years, left a great deal of it there. A second influence is global price levels for commodities. There is in general an inverse relationship between commodity prices and countries' domestic support programmes, such that policy-makers will want to help farmers more when prices fall but are less prone to spend the taxpayers' money when farmers are doing well. Much of the decline in AMS usage in the most recent years shown in the table may be attributed to the higher prices that commodities have fetched during this period.

The third influence on these AMS levels is box-shifting. This is a practice by which a member responds to the restrictions imposed by the Agreement on Agriculture not by reducing subsidies but by reforming them. This may be achieved by eliminating or reducing the funding for programmes that are classified in the amber box while also creating or providing increased funding for programmes that are classified in the blue or green boxes. For example, a member that has hitherto provided most of its support to farmers by way of market price supports (amber box) might shift instead towards a programme of payments that are "decoupled" from farmers' production decisions (green box). In this way, it is possible for a country to provide as much or even more support to farmers than it did before, and for the apparent level of subsidization (as measured by the AMS) to drop to as low as zero. The practice of box-shifting might be seen through any one of three lenses. Some may see in it a step towards reform, insofar as the terms of the Agreement on Agriculture have at least prompted countries to move away from those programmes that most heavily distort agricultural markets. Others see in it a cynical means of gaming the system, allowing countries to put on the appearance of reform while still maintaining high subsidies. Still others look to the domestic sphere and see a practice that may not be politically sustainable, insofar as decoupled payments may be perceived as a potentially corrupt system in which people who own farmland (but might no longer be called farmers) are paid not to grow anything.

It is difficult to sort out the degree to which these three different influences might account for the general trend towards relatively lower levels of AMS usage. What is certain is that the compromises reached in the Uruguay Round came under criticism from both non-subsidizing countries and from some of the subsidizers, both of which hoped that more could be achieved

in the Doha Round. As is discussed in Chapter 12, in the new round the AMS became the basis for a concept known as Overall Trade-Distorting Domestic Support, which represents a further sharpening of the distinction between types of subsidies. It is calculated according to a formula that takes the AMS as its base.

Trade in services

The General Agreement on Trade in Services (GATS) closely mimics the principles and structure of the goods-oriented GATT. Trade in services is nonetheless conceptually far more complex than trade in goods. To begin with, the way in which commitments are negotiated and expressed is entirely different. Compared to goods, where countries are assumed to trade via just one mode (cross-border trade) and make simple commitments in the form of numerically precise tariff bindings, the GATS is based on a wider range of transactions (four modes of supply) and commitments can be made in more nuanced ways. As a result, the negotiation of commitments is a more time-consuming process not just of bargaining between negotiators but of consultation between those negotiators and the experts in their regulatory agencies.

Before considering the modalities by which commitments are negotiated and recorded in GATS, it is important to draw a larger distinction. Commitments in GATS are made on the basis of a "positive list", meaning that a member makes commitments only in those sectors that are explicitly listed in its schedule. This is to be distinguished from the approach taken in some free trade agreements that are based on a negative list. In those agreements, a party makes commitments across-the-board in all sectors except those for which exceptions are listed. The positive-list method is generally considered to be less ambitious than the negative-list method, but substantially similar results can be obtained in both methods if one takes a precise and comprehensive approach to scheduling the commitments and exceptions.

GATS distinguishes between four "modes" under which services are traded. As shown in Table 9.5, the four modes might be compared to the means by which goods are exchanged: what is formally termed cross-border supply (Mode 1) is analogous to the ordinary way that goods are traded; consumption abroad (Mode 2) occurs when consumers travel to the point of supply; commercial presence (Mode 3) means foreign direct investment; and in movement of natural persons (Mode 4) the individual suppliers travel to the customer. In each case the same type of service is provided – in this example, Australian students learn a language from Japanese teachers – but the different ways that the service gets delivered may be subject to different types of regulations and thus may be subject to different types of commitments. These four modes allow countries to specify any restrictions that they wish to make on their commitments. For any given service, a country can set limits mode-by-mode with regard to its market access and national-treatment commitments. In other words, countries have eight separate opportunities to indicate how they will treat foreign service providers in any given sector (i.e. two types of reservations in each of four modes of delivery).

Table 9.5. An illustration of the four modes of supply for international trade in services

	Definition	Examples
Mode 1 Cross-border supply	The supply of a service "from the territory of one Member into the territory of any other Member." The service crosses the border, but both the provider and the consumer stay home. This mode is comparable to the export of a good.	Japanese language teachers provide training to Australian students via an on-line "distance learning" programme.
Mode 2 Consumption abroad	The supply of a service "in the territory of one Member to the service consumer of any other Member." The consumer physically travels to another country to obtain the service.	Australian students travel to Japan to receive language lessons.
Mode 3 Commercial presence	The supply of a service "by a service supplier of one Member, through commercial presence in the territory of any other Member" (i.e. investment through the establishment of a branch, agency, or wholly-owned subsidiary).	A Japanese language school establishes training centres in Australia.
Mode 4 Presence of natural persons	The supply of a service "by a service supplier of one Member, through presence of natural persons of a Member in the territory of any other Member." Private persons temporarily enter another country to provide services.	Individual Japanese teachers travel to Australia to tutor students.

Notes: In this scenario teachers of foreign languages who currently live in Japan seek to market their services to prospective students in Australia.

Countries may decline to make any commitments in a given sector, which is most easily indicated by simply excluding any reference to that sector from their schedules, or may limit commitments only to certain modes of supply. If a country makes commitments in a sector but wants to limit those commitments – for example, if it wishes to retain the authority to restrict the provision of services in that sector by foreign firms that seek to establish a permanent presence in their markets – it may do so by entering the term "unbound" in Mode 3. In any mode of supply in which it wishes to make a full commitment it will instead use the term "none", meaning that it commits to impose no restrictions on foreign providers in that sector. The use of that term is counter-intuitive, as one might naturally think that "none" means "no commitments", but it instead means "no limits on the extent of the member's commitments".[10] A country's schedule may also list almost anything in-between those extremes of "unbound" (no commitments) and "none" (full commitments).[11] For example, the country might establish limitations on foreign investment, or set limits on the number of service suppliers, the total value of service transactions or assets, or the total number of natural persons employed in a particular sector. Members also make "horizontal" commitments that apply to all services across-the-board. For example, many countries have listed horizontal limitations on the commitments for the movement of persons.

These schedules are produced through a process of negotiation. A member might want its own schedule to leave it with a great deal of "policy space", which might variously be achieved by leaving a sector out of the schedule altogether, by inserting "unbound" in most of the cells, or defining the commitments in a way that is less liberal than the applied laws and policies. That same member might have offensive interests of its own in services, however, and will want other members either to reduce the policy space allowed in their schedules or, more ambitiously, to make commitments that require actual liberalization. As in the case of tariffs

on goods, it is the interplay between the offensive and defensive interests of members that shapes the schedules and determines whether and to what degree they achieve actual liberalization. The two main differences between negotiations on goods and services are that the services negotiations are still conducted on the basis of request–offer negotiations, and the GATS negotiations result far less often in actual liberalization (i.e. commitments in the bound schedule that require changes in the applied measures).

It is more difficult in services than it is in goods to gauge whether and to what degree a country's commitments actual does achieve liberalization. Unlike trade in goods, where it is easy to determine whether there is any difference between a country's bound and applied tariffs, knowing the "applied rates" for a service sector would require that one compare all of the relevant laws, regulations and policies against a commitment. Looking at a members' GATS schedules, one cannot readily tell if a given commitment is more liberal than its current practices, is bound at the levels at which measures are already applied, or sets a binding above that level of restrictiveness and thus would permit a country to become more restrictive than it presently is (i.e. there is water in the schedule). Analyses in this field are sometimes limited to crude measures, such as counting the sheer number of sectors in which commitments have been made. That can yield deceptive results, as it is possible (for example) that Country A made commitments in only ten sectors but all of them required actual liberalization, versus Country B's commitments in 50 sectors that each contained a great deal of water.

Matters are further complicated by the fact that there is no universally accepted nomenclature for services. In the case of goods, all WTO members adhere to the Harmonized System (HS) nomenclature, meaning that apples (HS item 0808.10) are apples and oranges (HS item 0805.10) are oranges for everyone, no matter whose tariff schedule is compared to whose. Many members use the Central Product Classification (CPC) for classifying services, but unlike the mandatory HS for goods the CPC is neither compulsory nor universally applied. The way one member defines a specific services sector for purposes of its commitments may be broader or narrower than the definition employed by another member. Consider the case of legal services, which is typically the first sector listed in any schedule. Israel's commitment under CPC 861 covers "legal services" pure and simple, without any further language to limit or qualify that commitment. Many other members, however, have made commitments under CPC 861 that are then defined in narrower terms in their schedules (sometimes following the "861" with one or more asterisks that indicate that only a portion of that sector is covered by the commitment). Among the ways that other members define the scope of their commitments in this sector variously relate to the type of law being practiced or the type of legal practitioner, as in Australia's "home country law, including public international law," Norway's "legal advice on foreign law" and Japan's "legal services supplied by a lawyer qualified as *Bengoshi* under Japanese law." These distinctions tend to be blurred over in the summaries that are made of countries' commitments, despite the fact that the Israeli commitment covers a much wider range of legal services than do the Australian, Norwegian or Japanese commitments.

Negotiating on trade in services is also made more complicated by the fact that even the most economically advanced countries' statistics on trade in services are at best incomplete. Whereas most countries' data on trade in goods allow one to determine the value and volume of the precise goods that they trade with specific partners, most statistics on trade in services are aggregated at a high level of abstraction, typically cover only some of the modes through which services are traded and may miss many of the transactions that are made in the covered modes.

Endnotes

1 Author's interview with Lord Brittan on 17 January 2013.

2 In such a system, the members would thus be in a position similar to EU member states that are outvoted on matters that are approved by the rest of the common market, or US states that object to laws adopted by Congress.

3 See Weiss and Rosenberg (2003).

4 The ITA was negotiated in a plurilateral fashion and is outside the scope of the single undertaking, but its benefits are extended on an MFN basis to all members.

5 See Smith (1776), Book IV Chapter 2.

6 These calculations are made more complicated when one takes into account the preferences that countries extend to one another under agreements and programmes. That is a complication that we will hold in abeyance for now, to be taken up in Chapter 13.

7 The author bases this statement on several years of experience in teaching the Swiss formula and related subjects to professionals and would-be professionals in this field. It is not at all uncommon for otherwise confident and intelligent people to approach with great dread a mathematical operation that actually requires only three, simple steps: one addition, one multiplication and one division.

8 A specific tariff is one denominated according to a given quantity, such as US$ 1 per liter, € 1 per dozen and so forth. A compound tariff has both an *ad valorem* and a specific component (e.g. ¥ 10 per kilogram plus 5 per cent). *Ad valorem* equivalents can be readily calculated for these rates by plugging in prices, but one must first agree on what source will be used for the price data, using what base years, what further types of adjustments might be made to these values, among others. In the Doha Round, it took years for members to agree on just how this would be done.

9 Ten of those original participants are shown in Appendix 9.3. The other members that have made domestic support commitments include eight that later acceded to the European Union and hence fall within its limits (Bulgaria, Cyprus, the Czech Republic, Hungary, Lithuania, Poland, the Slovak Republic and Slovenia). Those EU-wide commitments were, through a process of negotiation, expanded to account for the AMS values that had earlier accrued to its newly acceded members. The other WTO members that have AMS commitments are: Argentina, Colombia, Costa Rica, Croatia, Iceland, Israel, Jordan, the Republic of Moldova, Morocco, New Zealand, Norway, Papua New Guinea, the Kingdom of Saudi Arabia, Chinese Taipei, Thailand, the former Yugoslav Republic of Macedonia, Tunisia, Ukraine, the Bolivarian Republic of Venezuela and Viet Nam.

10 In at least a few instances, negotiators have reportedly mistaken these terms and made unlimited commitments in a sector in which they had intended to specify no commitments at all.

11 A guide to reading the GATS schedules of specific commitments can be found at www.wto.org/english/tratop_e/serv_e/guide1_e.htm.

Appendix 9.1. Signatories to optional agreements in the WTO, 2012

Signatories to the Agreement on Trade in Civil Aircraft, the Agreement on Government Procurement, and the Information Technology Agreement

	None				One or two		All three
Developed countries	—				Australia		Canada
					New Zealand		European Union*
					Iceland		Norway
					Liechtenstein		Switzerland
							United States
Developing countries	Angola	Cyprus	Malta	Sierra Leone	Albania	Kyrgyz Rep.	Chinese Taipei
	Antigua and Barbuda	Dem. Rep. of the Congo	Mauritania	Solomon Islands	Armenia	Macao, China	
	Argentina	Djibouti	Mongolia	South Africa	Aruba**	Malaysia	
	Bangladesh	Dominica	Montenegro	Sri Lanka	Bahrain, King. of	Mauritius	
	Barbados	Ecuador	Mozambique	Suriname	China	Moldova, Rep. of	
	Belize	Fiji	Myanmar	Swaziland	Colombia	United Arab Emirates	
	Benin	Gabon	Namibia	Tanzania	Costa Rica	Morocco	
	Bolivia, Pluri. State of	The Gambia	Nepal	Fmr Yugoslav Rep. of Macedonia	Dominican Rep.	Nicaragua	
	Botswana	Ghana	Niger	Togo	Egypt	Oman	
	Brunei	Grenada	Nigeria	Tonga	El Salvador	Panama	
	Burkina Faso	Guinea	Pakistan	Trinidad and Tobago	Georgia	Peru	
	Burundi	Guinea-Bissau	Papua New Guinea	Tunisia	Guatemala	Philippines	
	Cambodia	Guyana	Paraguay	Uganda	Honduras	Russian Fed.	
	Cameroon	Haiti	Qatar	Uruguay	Hong Kong, China	Saudi Arabia, King. of	
	Cape Verde	Jamaica	Rwanda	Venezuela, Boliv. Rep. of	India	Singapore	
	Central African Republic	Kenya	St Kitts and Nevis	Zambia	Indonesia	Thailand	
	Chad	Lesotho	St Lucia	Zimbabwe	Israel	Turkey	
	Chile	Madagascar	St Vincent and the Grenadines		Jordan	Ukraine	
	Congo	Malawi	Samoa		Korea, Rep. of	Viet Nam	
	Côte d'Ivoire	Maldives	Senegal		Kuwait, State of		
	Cuba	Mali					

Notes: Signatories to the Agreement on Trade in Civil Aircraft, the Agreement on Government Procurement, and the Information Technology Agreement. *The signatory status of the European Union extends to all 27 of its member states (some of which were signatories to one or more of these agreements prior to joining the European Union. **The Netherlands is a signatory to the Agreement on Government Procurement for Aruba.

Appendix 9.2. Average bound and applied tariffs of selected WTO members, in %

	Agricultural products			Non-agricultural products			All products		
	Applied (A)	Bound (B)	Water (B-A)	Applied (A)	Bound (B)	Water (B-A)	Applied (A)	Bound (B)	Water (B-A)
Developed									
European Union	12.8	12.3	-0.5	4.0	3.9	-0.1	5.1	5.0	-0.1
United States	4.9	4.8	-0.1	3.3	3.3	0.0	3.5	3.5	0.0
Japan	17.3	20.9	3.6	2.5	2.5	0.0	4.4	4.9	0.5
Switzerland	27.2	48.2	21.0	1.9	2.0	0.1	5.2	8.1	2.9
Canada	11.3	16.7	5.4	2.6	5.3	2.7	3.7	6.8	3.1
Australia	1.3	3.4	2.1	3.0	11.0	8.0	2.8	10.0	7.2
Norway	49.4	131.0	81.6	0.5	3.1	2.6	7.0	20.1	13.1
Emerging economies									
China	15.6	15.7	0.1	8.7	9.2	0.5	9.6	10.0	0.4
South Africa	9.0	39.5	30.5	7.5	15.8	8.3	7.7	19.0	11.3
Brazil	10.3	35.4	25.1	14.2	30.7	16.5	13.7	31.4	17.7
Mexico	21.5	44.2	22.7	7.1	34.9	27.8	9.0	36.1	27.1
India	31.8	113.1	81.3	10.1	34.6	24.5	13.0	48.7	35.7
Other developing									
Hong Kong, China	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Saudi Arabia, Kingdom of	5.6	15.4	9.8	4.7	10.5	5.8	4.8	11.1	6.3
Egypt	66.1	95.2	29.1	9.6	27.7	18.1	17.0	36.7	19.7
Jamaica	17.8	96.9	79.1	5.9	42.4	36.5	7.5	49.6	42.1
Nigeria	15.5	150.0	134.5	11.2	48.6	37.4	11.7	119.1	107.4
Least developed									
Haiti	8.0	21.1	13.1	4.2	18.2	14.0	4.7	18.7	14.0
Nepal	14.1	41.1	27.0	12.0	23.7	11.7	12.3	26.0	13.7
Angola	10.0	52.9	42.9	6.9	60.1	53.2	7.3	59.2	51.9
Mozambique	13.8	100.0	86.2	9.5	11.3	1.8	10.1	97.5	87.4
The Gambia	16.5	104.3	87.8	13.7	57.6	43.9	14.0	102.6	88.6

Source: Tabulated from WTO data accessed from www.wto.org/english/thewto_e/whatis_e/tif_e/org6_e.htm.

Notes: Bound rates are from 2011, applied rates are from 2009 or 2010. Data arranged within categories by levels of water. It is not clear from the source whether the case of negative values for water (thus meaning that average applied rates were above average bound rates) was the result of rounding and other computational quirks or whether it indicates some degree of non-compliance with tariff commitments.

Appendix 9.3. Utilization of allowable aggregate measurements of support by selected WTO members

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Australia	26.6	26.2	24.8	23.4	12.6	45.3	65.4	45.1	44.0	43.8	43.8	43.9	43.8	0.0	0.0
Brazil	0.0	0.0	8.3	0.0	0.0	0.0	0.0	0.0	0.0	12.8	0.0	37.5	57.1	32.1	29.5
Canada	15.0	12.3	10.8	16.7	20.2	19.7	65.7	80.2	36.9	31.6	18.5	13.9	19.7	39.2	32.4
European Union	63.8	67.0	68.0	65.4	69.3	65.4	58.7	42.6	46.0	46.5	42.3	36.9	17.1	16.3	12.1
Japan	73.1	71.8	70.9	17.8	18.1	17.8	16.8	18.4	16.2	15.3	14.9	14.4	10.5	13.1	14.2
Korea, Republic of	95.1	93.4	95.5	80.1	82.8	94.1	94.8	94.3	97.1	97.9	2.2	65.4	2.5	2.2	–
Mexico	4.8	0.0	0.8	0.9	0.8	1.3	4.0	2.6	2.5	1.9	3.6	–	–	–	–
South Africa	67.4	82.4	97.0	37.6	37.6	21.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Switzerland	83.3	73.8	71.9	71.0	62.3	72.6	64.7	64.8	64.6	71.5	55.1	55.5	59.2	69.4	60.6
United States	26.9	26.5	29.0	50.2	84.7	88.2	75.8	50.4	36.4	60.9	67.7	40.5	32.8	32.7	22.3

Source: Calculated from data notified by each member in the G/AG/N/ series.

Notes: Actual AMS as a percentage of maximum allowed under a member's commitments; members providing 50.0 per cent to 89.9 percent of the allowable AMS shown in blue shade; members providing 90.0 per cent or more of the allowable AMS shown in grey shade. – Data not available. China is not included in the table because, as noted in WTO document G/AG/N/CHN/21, "China's AMS commitment is nil in the Schedule made in its accession. All domestic support measures are provided through measures that are exempt from reduction according to the Agreement on Agriculture." India is not included in the table because, as noted in WTO document G/AG/N/IND/7, "India has no specific total AMS reduction commitments in its schedule" and "[a]ll support is covered by the domestic support categories which are exempt from reduction commitments under the Agreement on Agriculture."