Introduction
The literature on subsidies and their pernicious effects is large and growing. In particular in relation to trade in agricultural products there appears to be little doubt that subsidies in OECD countries are causing extensive damage to the economies of developing countries, which would consequently benefit dramatically by their removal. Indeed, there are a number of studies that put monetary values to the subsidies, to the damage, and to the potential benefits. The figures involved are impressive. Most analyses stop at that point, assuming that the case has been made and all that remains is to find ways to remove the subsidies. Yet understanding the rules that may govern subsidies and their removal as well as the likely impact of these rules on implementation is perhaps even more important than calculating the damage done by these subsidies.

The experience with the Uruguay Round (UR) should provide cause for caution: similar studies predicted similarly large benefits from the UR. The deal that was ultimately struck, however, covered much more than the elements that could be modeled so actual results were not as expected. In particular there were no models for the agreements on intellectual property rights, services, and non-tariff barriers to trade. The agreements presumably contributed to economic growth, yet their overall impact and, more importantly, their distributional effects are impossible to quantify. Moreover the Agreement on Agriculture was carefully crafted to permit
the continuation of a wide range of subsidies; the result may have been more a shifting of subsidies than their elimination. The overall result of the UR may have nullified many of the benefits expected by developing countries from tariff reductions and market access, at least that is the assumption underlying the pre-Doha negotiations on “implementation issues,” which are still continuing. The important lesson from this experience is that economic benefits no longer accrue automatically from trade agreements.¹ The precise wording of rules that are negotiated is at least as important as the economic theory they are based on. It has also become necessary to monitor the results to ensure that the goals that were articulated are actually being met.

This problem is reminiscent of one encountered in most international environmental agreements: it may be possible to identify a goal for an agreement; there may be consensus on the measures to be adopted in light of that goal; yet there is no assurance that the goal will actually be attained². This is a dilemma that trade agreements have not generally confronted. It should give particular pause to those who advocate the abolition of subsidies as a strategy for environmental improvement. Seeking environmental benefits through subsidy reduction adds yet another layer of uncertainty to what is already a frighteningly complex system of environmental management. It can turn out that an agreement succeeds in reducing or eliminating subsidies but that may not solve the environmental problems caused by those subsidies, or it may simply replace one set of environmental problems with another.

¹ The term “trade agreement” has come to encompass all the WTO agreements, some of which are only marginally related to the original purpose of the trade regime, namely trade in goods. One of the paradoxes of the language of the WTO is that agreements that carry the term “trade related” in their title are actually signaling that they address matters that are not trade related.
This system of uncertainty is one of the reasons why in the late eighties environmental interests in Europe shifted from opposition to the Common Agricultural Policy (CAP) to a more concerted effort to utilize the resources devoted to the CAP for purposes of conservation and environmental management. Removal of the CAP—an extremely unlikely eventuality—would presumably have removed certain incentives for over production. But many other environmental impacts of agriculture would not have been eliminated. This logic is now also reflected in certain provisions of the AoA.

Subsidies in the WTO
While the evil of subsidies appears to be beyond discussion, their proper reduction and control poses significant dilemmas from the perspective of rule making. “The problem of subsidies in international trade policy is perhaps the single most perplexing issue of the current world trading system, and one that is very complex.”

Subsidies are covered in the General Agreement on Tariffs and Trade (GATT) Art XVI as amended in the 1955 GATT review session. These rules were further elaborated in the Subsidies Code that was part of the Tokyo Round. Many developing countries did not sign either the 1955 amendments or the Subsidies Code in particular because they exempted “primary product(s),” not only agriculture, from their disciplines.

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2 There exists an extensive literature on the effectiveness of international environmental agreements. See Oran Young,
The UR included substantive provisions on subsidies in two areas. An Agreement on Subsidies and Countervailing Measures (SCM) was negotiated to replace the Subsidies Code from the Tokyo Round. It removed the exception for primary goods but recognized that the Agreement on Agriculture (AoA) applied to subsidies for agriculture\(^4\). The UR also identified the issue of subsidies in relation to trade in services but provided no substantive rules\(^5\).

The Doha Declaration sets a modest agenda for the SCM Agreement\(^6\) and an ambitious one for the AoA\(^7\). Its aim for the SCM is “clarifying and improving disciplines…while preserving the basic concepts, principles and effectiveness of these Agreements and their instruments and objectives, and taking into account the needs of developing and least-developed participants.” It leaves the determination of an actual agenda within this restrictive language to the initial phase of the negotiations. For the AoA the objective is “reductions of, with a view to phasing out, all forms of export subsidies; and substantial reductions in trade-distorting domestic support.” This language was widely interpreted as embodying the most important concession by the European Union, namely the goal of phasing out export subsidies.

The Doha Declaration also states that participants shall also aim to clarify and improve WTO disciplines on fisheries subsidies, taking into account the importance of this sector to developing countries.” Initial indications are that this could result in a new agreement on fisheries subsidies.

In light of the importance of subsidies in the trade regime and their potential importance for the Doha Round it is remarkable that the WTO approach to the

\(^4\) The definition of “agriculture” is contained in an Annex to the AoA.  
\(^5\) General Agreement on Trade in Services (GATS) Art. XV.  
\(^6\) Doha Ministerial Declaration paragraph 28.
issue of subsidies has not received much analytical attention—as opposed to the analysis of subsidies and their economic consequences. Yet the manner in which subsidies are reduced is no less important than whether they are reduced at all. Moreover the negotiating process at the WTO, based on a system of demand and offer, is singularly unsuited to dealing with matters that require technically precise measures or that have distributive consequences. Parties with an interest in ambiguity have the ability to introduce it to any agreement. Since the ability to appropriate rents and economic power are closely related, countries whose economic actors currently control rents generally have the power to protect their position or even—as in the case of TRIPS—to strengthen it.

**Definition of Subsidies.**

The definition of a subsidy remains elusive. In practice economic researchers must define subsidies in ways that can be calculated. Negotiators may find calculations useful but in practice they are seeking to develop language that can attract a consensus. Even when negotiations are informed by economic calculations, the final outcome may be literally incalculable since the focus is on the text, on the priorities that have been identified by individual participants in the negotiations, and not on broad systemic calculations.

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7 Doha Ministerial Declaration paragraph 13.
8 “Perhaps no testimonial has been more often quoted to summarize the frustration researchers feel whenever they try to pin down the concept of a subsidy than that of Hendrik S. Houuthakker: ‘My own starting point was an attempt to define subsidies. But in the course of doing so, I came to the conclusion that the concept of a subsidy is just too elusive.’ (JEC, 1972: 7). Houuthakker, writing three decades ago, could have just as well described the situation today.” Ronald Steenblik, “Subsidy Measurement and Classification: Developing a Common Framework.” Paper for the OECD Workshop on Environmentally Harmful Subsidies, Paris 7-8 November 2002. Document SG/SD(2002)17.
The SCM includes the first definition of subsidies in the trade regime. It is “a financial contribution by a state where it: transfers funds or liabilities (e.g. loans or loan guarantees); forgoes revenue (e.g. tax credits); provides goods and services other than for general infrastructure; or entrusts a private body to conduct the above and in doing so confers a benefit.” The definition is not one employed in most studies on subsidies. It also does not include policy failure as a subsidy, for example the failure to impose necessary environmental requirements.

The SCM does not ban subsidies. It distinguishes between prohibited, actionable and permitted subsidies. “Non-specific” subsidies (that is subsidies not aimed at individual recipients or a particular economic activity) are permitted, as well as specific subsidies involving assistance to industrial research and pre-competitive development activity, assistance to disadvantaged regions, or certain types of assistance for adapting existing facilities to new environmental requirements imposed by law or regulations. Export subsidies only are prohibited. All other subsidies are “actionable,” that is they are only subject to restraint if it can be shown that they are causing serious injury to other members of the WTO, a fairly onerous requirement.

The Agreement on Agriculture (AoA) distinguishes between export subsidies and domestic measures of support. It approaches export subsidies much as the GATT dealt with tariffs: by forcing members to schedule their export subsidies and then subjecting them to a process of progressive reduction. Domestic measures of

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11 This issue has been indirectly been an issue in a long-running dispute between the United States and Canada on softwood lumber, with the United States alleging that low stumpage rates represent a subsidy. Stumpage, payments for the right to cut timber, can be seen as a tool to internalize environmental costs. Canada has consistently won all US challenges to its practices with respect to stumpage.
support are divided into three categories, generally termed the Green, Amber and Blue Boxes, which are respectively permitted, subject to reduction commitments, or prohibited.

This extraordinarily complex set of agreements is the result of negotiation, not of any economic calculation. In some respects it defies precise calculation, presumably that too an intended effect of the negotiation process, representing a “veil of ignorance”\(^{12}\). Such uncertainty can promote consensus since none of the participants can be certain of the costs of agreement.

The definition of depletion of natural capital as a subsidy remains contested in the economic literature\(^{13}\); what is clear is that this does not fall within either the SCM or the AoA definition. From an environmental perspective, the WTO definitions of subsidies omit those subsidies whose elimination promise the greatest and most direct benefits.

**Are There Good Subsidies?**

It is generally recognized that subsidies are an essential tool of government policy. They can serve to counteract both market and policy failure and have played a critical role in the development process of many countries. Subsidies can be essential to counteract unexpected events. Non-production related impacts of agriculture on biodiversity and the environment can often only be dealt with by subsidies. Indeed, as markets grow more efficient and fewer rents are available to market participants it may become more important for governments to be able to

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12 The original theory behind the “veil of ignorance” was articulated by L. Rawls, A Theory of Justice, pp. 136-142, assuming that it will promote the development of optimal institutional arrangements. It has subsequently been applied to the desire to shroud certain impacts of international agreements so as to facilitate consensus.
provide payments to protect essential public goods, payments that are in practice indistinguishable from subsidies.

In this regard subsidies differ from tariffs. There are no good tariffs (including tariffs imposed as countervailing measures). That simplifies the process of negotiating a reduction of tariffs. When it comes to subsidies, the need to provide for necessary subsidies leads to the distinction between permitted subsidies and other subsidies. Yet this opens a door on efforts to continue subsidies that harm other countries.

Export Subsidies and Domestic Support.

From the time of the GATT, the trade regime has focused on export subsidies, those that require recipients to meet certain export targets or to use domestic instead of imported goods. These subsidies are more obviously trade distorting than those provided to all production of a particular product. Yet the distinction makes less sense once markets are not subject to other forms of distortion. While it can be viewed as a pragmatic step in attempting to eliminate subsidies, the distinction between export subsidies and domestic subsidies creates incentives to shift rather than to eliminate subsidies. To counter this tendency, the AoA introduces the concept of Aggregate Measure of Support (AMS), which becomes the tool for reduction commitments on domestic support.

In general, the SCM regime deals with trade distorting subsidies, a concept that introduces an additional level of complexity to the topic. Export subsidies are considered trade distorting on the face of it but other actionable subsidies require proof of damage to the interests of other countries, a concept that involves several

steps that are technically demanding. Subsidies can cause damage by hurting a domestic industry in an importing country; they can hurt rival exporters in third markets; and they can hurt exporters trying to compete in the subsidizing country’s market. There is a lengthy process to determine whether subsidies are causing damage but if the dispute settlement body rules that the subsidy does have an adverse effect, the subsidy must be withdrawn or its adverse effect removed. There is also the option of countervailing action.

**The Boxes**

The AoA introduces what are generally called “boxes,” to classify domestic support, a modification of the distinction in the SCM Agreement between prohibited, actionable and non-actionable subsidies (the term “box” does not actually occur in the AoA). The Amber Box is the most restrictive and includes most domestic support measures considered to distort not only trade directly but also production and thus indirectly trade. Amber Box subsidies are subject to negotiated reduction commitments. The Blue Box includes subsidies that would otherwise fall into the Amber Box, except that they also require farmers to limit production. The assumption is that these limits will counteract the distortions of production that would otherwise occur. The status of the Blue Box is an issue that is subject to negotiation but for now the AoA imposes no limits on spending on Blue Box subsidies. Green Box subsidies are those that do not distort trade, or at most cause minimal distortion, but Annex 2 AoA lists a number of subsidies that are considered non-distorting even though it could be argued that this is not assuredly the case.

Reduction commitments are not tied to the AMS for individual products but to the Amber Box and the Total AMS, leaving countries with significant discretion as to the actual distribution of subsidies. Moreover the specified base period for
calculation of the AMS (1986-1988) was chosen to maximize the flexibility of countries with high levels of support.

Once “boxes” are accepted as a modality, negotiations will focus on the definitions governing these boxes and the results are more likely to be conventional, in the sense that whatever is agreed counts, than strictly in accordance with enunciated criteria. The existence of the Blue Box has effectively put all subsidies listed in the Green Box out of reach of negotiations (other than reductions mandated by the Total AMS, should it be reduced to a level that actually constrains the use of Green Box subsidies—an eventuality in the distant future).

The use of “boxes” represents both an achievement and a limitation of the AoA. On the one hand the boxes introduced a measure of flexibility into the negotiations that was presumably essential for their success. On the other, the definitions used tend to shield a number of subsidies that are in fact noticeably trade distorting.

**Actionable Subsidies.**

Actionable subsidies are central to the functioning of the SCM Agreement since they represent its most dynamic part. To succeed with a complaint, a country must show that a subsidy in another country has an adverse effect on its interests. Sometimes that is possible, as the number of cases that have come to the dispute system attest. But in general, the burden of proof is heavy so that countries are liable to act only when vital interests are affected or the damage is gross. In practice, most subsidies will not be subject to action in the WTO.

The need to prove harm confronts the paradox that, not unlike in the case of tariffs, the country that engages in subsidy frequently suffers economic harm while some other countries may actually benefit. As in the case of tariffs, the calculation
of harm differs strikingly, depending on whether one takes the point of view of a producer or of a consumer. By and large, consumers will benefit from subsidies because prices will be lower than they would otherwise have been; taxpayers in the subsidizing country carry the financial burden of the subsidy; and producers in other countries are liable to be harmed. In some instances, consumers in other countries may benefit even as producers are harmed. Governments will generally focus on the interests of producers and their employees. Yet governments with large, potentially restless urban populations may find that it is more important to provide low cost products (food in particular) to their urban constituency than to protect the interests of producers (in particular when these are dispersed in the rural environment) A subsidy involves government expenses (and thus reduced prices, often in both the country of export and the country of import) while a tariff entails government revenues (and raised prices in the country of export).

Unlike many trade disputes, where the issues often involve questions of interpretation of the agreements that are of general interest, and that have the ability to change the way countries behave, most disputes concerning subsidies are highly specific since they revolve around the question whether payments have been made (or revenue foregone) and adverse effects have been caused. Because the interests are often time sensitive, and the process of determining adverse effects can be time consuming, followed by a dispute settlement procedure that take more time, governments may be tempted to impose subsidies that they know to cause adverse effects in other countries. By the time the process has run its course, significant harm may have been caused.

The effect of the SCM Agreement is likely to be the elimination of prohibited subsidies, the limiting of subsidies that are manifestly damaging to other countries but not the limiting of subsidies in general, whether these are actionable or not. It can be argued that this is a significant achievement, that this is as much as can be
expected, perhaps even that this is the only appropriate goal for international action. Yet from the perspective of the broader economic literature on subsidies, the WTO Agreements do little more than scratch the surface.

**Special and Differential Treatment**

Developing countries are generally too poor to indulge in economically counterproductive subsidies. Indeed, they are often too poor even to provide economically desirable subsidies. The subsidies provisions of the SCM and the AoA are largely directed at subsidies of wealthy countries, plus large developing countries under certain circumstances. They contain significant limits on the action expected from developing countries—which generally benefit from longer transition periods—and least developed countries—which are largely exempt from the restrictions imposed on other Members. Yet environmental damage does not correlate in a simple manner with wealth. Some of the most serious environmentally damaging subsidies, for example for the harvesting of tropical timber or in the energy sector, are to be found in developing and least developed countries. These subsidies are unlikely to be affected by the WTO Agreements.

**Countervailing Action.**

According to the SCM, prohibited subsidies are to be withdrawn immediately, actionable ones must be withdrawn once the Dispute Settlement Body has ruled or their adverse effect removed. In either case countervailing duties can be imposed if domestic producers are hurt by imports of subsidized products.

The paradox of countervailing action is that it contradicts the principle of comparative advantage: in protecting domestic producers prices are raised for domestic consumers. At a theoretical level, countervailing action is unlikely to generate net welfare benefits, even though it may inflict pain on certain economic actors. In the case of subsidies, countervailing action is less problematic since the
benefits that are withdrawn from domestic consumers are lower prices caused by foreign subsidy. In principle the net result should be the maintenance of proper market prices, provided the countervailing measures are appropriately chosen and dimensioned, in practice a difficult task.

As always, small and poor countries encounter difficulty using countervailing measures because their trade flows are insufficient, there are no suitable products from the country that is causing the harm against which to countervail, and they are liable to be much more sensitive to the welfare implications of countervailing action.

**Dispute Settlement.**
Implementation of the SCM and the subsidy provisions of the AoA is multi-unilateral, in other words each member of the WTO is obligated to implement the agreements but each member is also the initial judge of the appropriateness of implementation. There is no multilateral mechanism that can determine whether subsidies are prohibited, actionable or not, short of a formal dispute that requires the complaining member to undertake the necessary assessment in advance of launching the dispute so as to be able to prove its case.

It is hard to overstate the significance of the dispute settlement system, in particular following the UR, which required all members to adhere to all agreements and substantially raised the technical level of the agreements, creating additional scope for conflicting interpretations. The WTO dispute settlement system is unique, as has often been pointed out. It is also designed to supplement a system that is presumed to be largely self-executing. In other words disputes are expected to be the exception rather than the norm. The norm is implementation of the WTO Agreements by the members individually, each with a significant degree of flexibility based both on the text and the fact that dispute settlement is
cumbersome. Self-executing (multi-unilateral) agreements assume that the individual agreements, or at least the overall balance between agreements, were in the interests of all members and that they would not impact on vital matters of national policy. This is an assumption originally rooted in the theory of comparative advantage, which postulates that (trade) liberalization agreements are in the interests of all parties, in their role either as producers or as consumers of the relevant goods. To the extent that some members determine that the balance of advantages is seriously skewed, or that the WTO is infringing on vital interests of domestic policy, the WTO remains vulnerable since it possess no institutional means to address such a situation.

Dispute settlement is the only multilateral implementation tool that is available. It is not a tool that is readily used since it requires a domestic process to determine adverse effects, followed by a demanding WTO process that will typically include both a panel and an Appellate Body phase.

There has been a significant number of disputes concerning the SCM. The AoA included a “peace clause” that provided that most disputes would not be initiated in a transition period. A list of the relevant disputes is appended.

**Institutional Characteristics of the WTO**

In approaching negotiations on subsidies in the WTO it is important to keep in mind, what the organization is designed to do and what it may find particularly difficult to undertake.

The WTO remains what the GATT was: a place for negotiation of agreements, or as Article I of the WTO Agreement puts it: “The WTO shall provide the common institutional framework for the conduct of trade relations among its Members…”
The institutional resources of the WTO regime are large. In addition to a modest secretariat with a limited budget, the regime includes a large number of persons, in Geneva and in specialized agencies at home, entirely devoted to the functioning of the regime. Indeed, all the critical functions of regime governance, with the exception of the Appellate Body of the dispute settlement system, are fulfilled by persons who are not employees of the Secretariat. Thus the total resources devoted to the trade regime are large by any standard. Most of these resources are focused on negotiation of agreements.

It is consequently not surprising that the institutional procedures that have evolved are also focused on the negotiation of agreements. Indeed, even much of the implementation process including the resolution of disputes once they have gone through the Dispute Settlement Body is transformed into a negotiation. In this environment any agreement tends to be preferable to no agreement. In the environment of the GATT there was even a justification for this attitude. Operating under the principle of comparative advantage, negotiators could assume that any agreement that liberalized trade would bring benefits to all participants. The fight against protectionism, perceived as ubiquitous and insidious, became a common endeavor of the negotiators so that the process evolved into a mutual assistance club. Negotiators would help each other take decisions that were politically difficult but economically beneficial.

The WTO Agreements have moved the process far beyond the relatively straightforward issues of liberalizing trade in goods. Inexorably the trade regime has been drawn into a wide range of domestic policy issues that entail a complex balancing of conflicting interests, often of private economic rights against public goods. In this environment, agreements can do both harm and good and it becomes necessary to monitor their outcome much more closely to ensure that the benefits outweigh the costs, not only at the global level but also within most countries.
That is a task the WTO is not yet equipped to handle but one that many of the items that are currently on its agenda—ranging from the reduction of subsidies to the environment, from human rights to the need for precautionary action, and from intellectual property rights to public health—increasingly require the WTO to engage in.

Any attempt to negotiate the reduction of subsidies in a more focused and effective manner needs to take these institutional characteristics of the WTO system into account.