International Agricultural Trade
Research Consortium

Options for Agriculture:
From Framework to Modalities in Market Access/
Domestic Support/Export Competitiveness

DISCIPLINES ON DOMESTIC SUPPORT IN THE DOHA ROUND

by
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Trade Policy Issues Paper #1 - 2005

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Disciplines on Domestic Support in the Doha Round

The International Agricultural Trade
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Preface

This paper was authored by David Blandford of The Pennsylvania State University, University Park, PA 16802, USA (dblandford@psu.edu) as part of a project commissioned by the International Food & Agricultural Trade Policy Council, and funded by the German Marshall Fund and the William and Flora Hewlett Foundation.

This final version benefited from discussion by task forces established by the International Policy Council, as well as by the International Policy Council itself, and from comments by members of the IATRC. However, the author takes full responsibility for the contents of the paper. Papers reflecting the full input of the task forces and the International Policy Council have been published on the International Policy Council's website at agritrade.org, along with the International Policy Council's advice and cautions to negotiators.

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DISCIPLINES ON DOMESTIC SUPPORT IN THE DOHA ROUND

David Blandford[1]

July 2005

EXECUTIVE SUMMARY

The elements of a new agreement relating to domestic support for agriculture are set out in the WTO Framework document of July 2004. This introduces the concept of the Overall Trade Distorting Support (OTDS), which is to be disciplined and subject to reduction. In addition, some of the individual components of the OTDS will be subject to minimum required reductions and other elements will be capped. The caps and reduction percentages will define each country's future "entitlement" to Amber and Blue Box support.

A base period OTDS will be calculated as the sum of the current bound Total Aggregate Measure of Support (TAMS), resulting from the Uruguay Round Agreement, plus an allowance for product specific and non-product specific *de minimis*, plus an additional allowance for Blue Box support. The latter three elements will be defined as a percentage of the total value of agricultural production in the base period. There will also be caps on the product specific AMS. Information from the Framework document and the Harbinson modalities are combined with data from notifications to the WTO to examine the implications of the overall reductions in the OTDS and its components for a selection of countries – Canada, the European Union, Japan, Korea, Norway and the United States.

Detailed analysis reveals that the new approach has the potential to increase significantly the constraints on support entitlements for WTO countries. The implications of the new rules are complex, and may create new opportunities for strategic behavior on the part of individual countries. The likelihood that the approach will actually constrain domestic support policies in WTO countries will vary considerably, depending on a country's future composition of support and how this will relate to support entitlement at the end of the implementation period. The analysis indicates that significant reduction percentages of 60 percent or more in the permitted OTDS and the Total AMS binding will be required to create the need for significant reform of existing agricultural policies in many countries. In addition, the rules for calculating the AMS may need to be strengthened in order to prevent countries from making strategic changes in domestic policies that would allow them to avoid effective reductions in that component of support.

Many developed countries have increased the use of Green Box payments in recent years. The Framework proposes a tightening of the rules for inclusion. Changes in some income support measures will be required as a result of the Cotton Case ruling in the WTO, but important issues relate to the eligibility of other support measures and environmental payments. A formal WTO review process would seem to be desirable in order to

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determine whether any particular payment actually qualifies for inclusion in the Green Box.

Developing countries will face less stringent restrictions and reduction requirements for domestic support in a new agreement, and will have a longer period in which to phase in reductions in their support entitlements. Whether all developing countries should be treated equally in this regard is an important question. Large middle income developing countries that wish to increase the support they provide to agriculture will have some flexibility to do so under the new rules, and this could create problems for the trading system in the future.

DISCIPLINES ON DOMESTIC SUPPORT IN THE DOHA ROUND

INTRODUCTION

One of the innovative features of the Uruguay Round Agreement on Agriculture (AoA) under the General Agreement on Tariffs and Trade (GATT) was an attempt to impose disciplines on the domestic support provided to agriculture. There was recognition that subsidies that stimulate domestic production can lead to reduced imports or increased exports. These subsidies, whose levels were subject to restrictions and to negotiated reductions, are popularly categorized as "Amber Box" support to distinguish them from other forms of support.

The central concept in the definition of Amber Box support is the Aggregate Measure of Support (AMS). This was derived from the earlier concept of the Producer Subsidy Equivalent (PSE) developed by Josling (FAO 1975), and used by the Organization for Economic Cooperation and Development (OECD) in its influential study of the relationship between domestic agricultural policies and trade distortions (OECD 1987).[2] The AoA provided for the calculation of a Total AMS (TAMS) for a base period (1986-88) to include three elements: market price support, non-exempt direct payments and other subsidies that were not exempt from reduction commitments. Countries agreed to reduce the base period TAMS by 20 percent to a final bound level by the year 2000 (2004 for developing countries), and to maintain their actual TAMS below the bound level in subsequent years. The final bound TAMS applying to each of the relevant WTO member countries is shown in Table 1. Policies that were judged to have no or minimally distorting effects on trade or production were exempt from reductions (so-called Green Box payments) as were payments under production-limiting programs (so-called Blue Box payments).

An important feature of the method use to evaluate whether countries are meeting their TAMS commitment is the exclusion of certain subsidies from the calculation under the *de minimis* provisions. Under those provisions, trade-distorting domestic support that does not exceed 5 percent of a given commodity's value of production is not counted against the TAMS commitment. In addition, support that is not specific to any product and amounts to less than 5 percent of the total value of agricultural production is not counted against the TAMS commitment. Developing countries were given 10 percent exemptions under both *de minimis* provisions.[3]

[2] The key difference between the AMS and the PSE (now renamed the Producer Support Estimate) is that annual calculations of the former are made using a fixed set of world reference prices for the period 1986-88. The PSE uses world prices prevailing in the actual year the calculation is made.

[3] In China's accession agreement to the WTO in 2001, its *de minimis* exemption was set at 8.5 percent of the relevant production value.

Table 1 – Final Bound Total AMS under the Uruguay Round Agreement

Member	Final Implementation Year	Currency	Final Bound AMS
Argentina	2004	In $ of 1992	75,021,292.4
Australia	2000	$A million	471.9
Brazil	2004	US$'000	912,105.2
Bulgaria	2001	ECU million	520.0
Canada	2000	Can$ million	4,301.0
Colombia	2004	US$'000	344,733.0
Costa Rica	2004	US$'000	15,945.0
Croatia	2004	€	134,116,772.0
Cyprus	2004	£C million	50.6
Czech Republic	2000	Kč million	13,611.3
EC (15)	2000	€ million	67,159.0
FYR Macedonia	2003	€ million	16.3
Hungary	2000	Ft million	33,808.0
Iceland	2000	SDR million	130.1
Israel	2004	US$'000	568,980.0
Japan	2000	¥ billion	3,972.9
Jordan	2006	JD	1,333,973.0
Korea, Republic of	2004	W billion	1,490.0
Lithuania	2005	US$ million	94.6
Mexico	2004	Mex$ 1991 million	25,161.2
Moldova	2004	SDR million	12.8
Morocco	2004	DH million	685.0
New Zealand	2000	$NZ million	288.3
Norway	2000	Nkr million	11,449.0
Papua New Guinea	2004	US$ million	34.2
Poland	2000	US$ million	3,329.0
Slovak Republic	2000	Sk million	10,140.0
Slovenia	2000	ECU '000	61,845.7
South Africa	2000	R million	2,015.4
Switzerland - Liechtenstein	2000	Sw F million	4,257.0
Chinese Taipei	2000	NT$ million	14,165.2
Thailand	2004	B million	19,028.5
Tunisia	2004	D million	59.3
United States of America	2000	US$ million	19,103.3
Venezuela	2004	US$'000	1,130,667.0

Source: WTO. Total Aggregate Measurement of Support. TN/AG/S/13. January 27, 2005.

THE STARTING POINT FOR REDUCTIONS IN DOMESTIC SUPPORT

The Doha Ministerial Declaration calls for "substantial reductions in trade distorting domestic support" (WTO 2001). The Framework document (WTO 2004) – herein after referred to as the "Framework" – specifies the following:

1. A substantial reduction in the overall level of trade-distorting support (defined as the bound TAMS, plus permitted *de minimis*, plus Blue Box support) from base period levels in developed countries with a strong element of harmonization, in which higher levels of permitted trade-distorting support will be subject to deeper cuts.
2. In addition to the overall reduction commitment, a substantial reduction in the bound TAMS and permitted *de minimis* levels; the capping of Blue Box support at 5 percent of the average value of total agricultural production for an historical period; and the capping of product-specific AMS at their respective average levels according to a methodology to be agreed.
3. Special and differential treatment (S&D) for developing countries to include longer implementation periods and lower reduction coefficients for all types of trade-distorting domestic support, plus continued access to the provisions under Article 6.2 of the AoA (exemption for direct or indirect assistance for agriculture and rural development). The Least-Developed Countries (LDCs) are not required to make any reduction commitments.

In the context of domestic support, the Framework contains provisions relating to the following elements:

1. The overall reduction in the OTDS
2. The final bound TAMS
3. Product specific AMS
4. *De Minimis* support
5. Blue Box support
6. Green Box support
7. Special and differential treatment for developing countries (S&D).

The analysis in this paper relies primarily on the Framework, but also draws on selected elements from the First Draft of Modalities (WTO 2003). Those modalities are generally associated with the name of the then-chairman of the WTO Committee on Agriculture, Stuart Harbinson, and I shall refer to them as the Harbinson Modalities.

CLARIFICATION OF SOME BASIC ISSUES

At the outset, it is essential to clarify the basic approach used for WTO disciplines on domestic support. The final bound TAMS represents a commitment on the maximum amount of support that a country can provide through the Amber Box, calculated using conventions established in the AoA . The actual Amber Box support measured using those conventions can be larger than that under the bound TAMS due to the *de minimis* provisions. The final bound TAMS plus the *de minimis* allowances can be interpreted as support entitlements. Countries are entitled to provide up to that amount of support, as

measured under AoA conventions, but the amount of support that they actually provide, again measured on the basis of those conventions, can be less.[4]

The amount of support that is counted against the TAMS entitlement is determined by computing the current AMS for each commodity, using the rules set out in the AoA. If the AMS is more than 5 percent of the value of the production for that commodity, it is included in the current TAMS. If it is not, it is excluded by virtue of the commodity specific *de minimis*. In addition, a calculation is made of the non-commodity specific AMS. If that is greater than 5 percent of the total value of production it is included in the current TAMS. If it is less than 5 percent of the total value of agricultural production, it is excluded under the non-commodity specific *de minimis* provision.

It is important to note that the amount of support for an individual commodity that is calculated under the provisions of the AoA in a given year may differ from the actual amount of support provided for that commodity. One of the principal reasons for this is that fixed external reference prices (world prices) for the period 1986-88 are used to calculate market price support for commodities for which domestic/international price comparisons can be made. Because the base period reference prices may not correspond to actual world prices in the current year, the calculated level of support for the AMS can differ from the actual level of support provided.

In discussing options under the current round of negotiations, it is important to distinguish between bindings or commitments on the various elements of support (i.e., maximum permitted values) which define allowable amounts of support (entitlements) and the actual support provided. The impact of potential reductions in the OTDS entitlement cannot be determined without considering how the components of the OTDS will be treated and how that treatment relates to an individual country's actual use of its components. In terms of the OTDS entitlement, key factors are: the percentage reduction in the bound TAMS; limitations on the AMS for individual commodities; the value of production limits placed on support that can be excluded from reductions under the *de minimis* provisions; and limitations on Blue Box support. The impact of the rules established for each of these components on individual countries will largely be determined by the extent to which countries actually make use of the various elements in supporting agriculture.

To examine the issues, WTO data for a selection of countries are used. The primary countries covered are: Canada, the European Union, Japan, Korea, Norway, and the

[4] The term "entitlement" is not used in official WTO documents. However, it is a convenient short-hand term to characterize bound or maximum permitted levels of support under a WTO agreement. The term is used in this paper to denote the amount of support (e.g., OTDS, TAMS, AMS, *de minimis*, or Blue Box) that a country would be entitled to provide under an agreement. The calculation of these various elements of support will depend on the conventions set out in the AoA and future WTO agreements. It can be misleading to compare levels of support derived from national data sources with the entitlements established under WTO agreements, due to differences in methodology. In this paper, references to support entitlements and the potential use of those assume measurements of support that are based on the rules embodied in WTO agreements.

United States.[5] These represent a range of member countries of the WTO. Members are required to provide data (notifications) relating to the various elements of the AoA, including the amount of domestic support they provide in a given year.

BASE PERIOD DATA AND WHAT THEY REVEAL

It would highly desirable to be able to compare potential changes in domestic support resulting from a new WTO agreement with respect to a common base period for all countries. Unfortunately, WTO member countries vary in the timeliness of their notifications to the WTO. As a result, the base periods that can be used for analysis vary. I have chosen to employ an average of the latest three years of data available from the WTO notifications. The years involved are: 1998-2000 for Canada and Korea, 1999-2001 for the European Union, Norway and United States, and 2000-2002 for Japan. For the sake of brevity, I shall refer to "the base period" for these data, recognizing the fact that the actual years can differ among countries. It should also be noted that some country notifications do not contain data on the value of agricultural production – which is key information in conducting the analysis. In such cases, figures on the total value of production were obtained from the OECD's PSE/CSE database.

Table 2 contains base data on domestic support and an analysis of some reduction formulas for the OTDS and its components.

Table 2. Domestic Support for Selected Countries, Base Data

	Canada 1998-00 Million $	EU 1999-01 Million €	Japan 2000-02 Billion ¥	Korea 1998-00 Bill Won	Norway 1999-01 Mill Kr	US 1999-01 Million $
Base data						
Bound Total AMS	4,301	67,159	3,973	1,490	11,449	19,103
Current Total AMS	983	43,607	717	1,602	10,593	16,026
Product specific *de minimis*	205	110	15	598	0	102
Non product specific *de minimis*	1,009	467	20	448	0	7,171
Blue Box	0	21,914	90	0	7,558	0
Green Box	1,788	20,812	2,472	5,342	4,076	50,159
Production value	29,705	241,159	8,978	31,499	17,430	190,919
Current OTDS	2,196	66,098	843	2,648	18,151	23,299
As percent of production value	7%	27%	9%	8%	104%	12%
Maximum permitted OTDS	8,757	113,188	5,320	9,365	20,750	47,741
As percent of production value	29%	47%	59%	30%	119%	25%

The bound Total AMS is the final value under the URA. Other figures relate to actual averages for the period indicated (the base period). The current OTDS is current Total AMS + actual *de minimus* (product and non product specific) + actual Blue Box

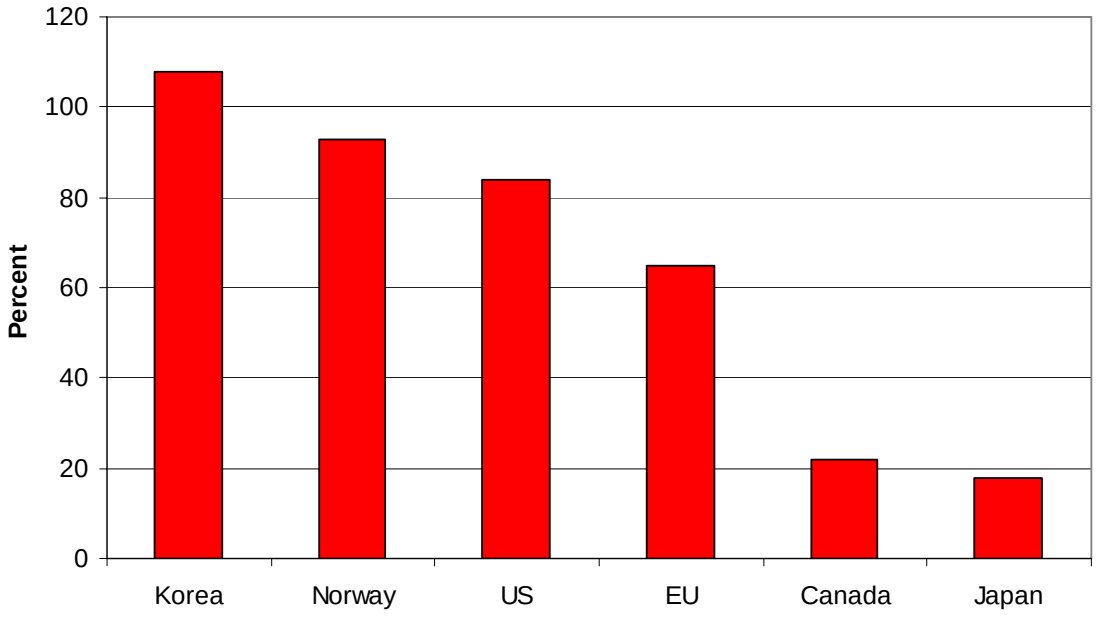
Source: Computed from data in country notifications to the WTO. Additional data on production values from the OECD PSE/CSE database (2004)

[5] As large countries and key players in the negotiations, the inclusion of the EU, Japan and the United States is self evident. Canada and Norway provide insights into the potential impact of support reductions on smaller countries with substantially different levels and compositions of domestic support. Korea is of interest because it is likely to be able to take advantage of special and differential treatment accorded to developing countries.

The first row of base data in Table 2 contains the final bound TAMS resulting from the Uruguay Round Agreement. The second row is the current average TAMS reported to the WTO for the base period. It excludes the following two items in the table (the product specific and non product specific *de minimis*).

The first point to observe is the substantial variation among the countries in the degree to which they used their TAMS entitlement (Figure 1). Korea reported that its current TAMS exceeded its bound TAMS by an average of 8 percent for 1998-2000. Norway and the United States were within 10 percent and 20 percent, respectively of their bound levels. The European Union had a 35 percent margin of difference. Canada and Japan were both substantially below their bindings.

Figure 1. Current TAMS as a Percent of the Bound Level



Note: data relate to 1998-00 for Canada and Korea, 1999-01 for the EU, Norway and the United States, and 2000-02 for Japan.

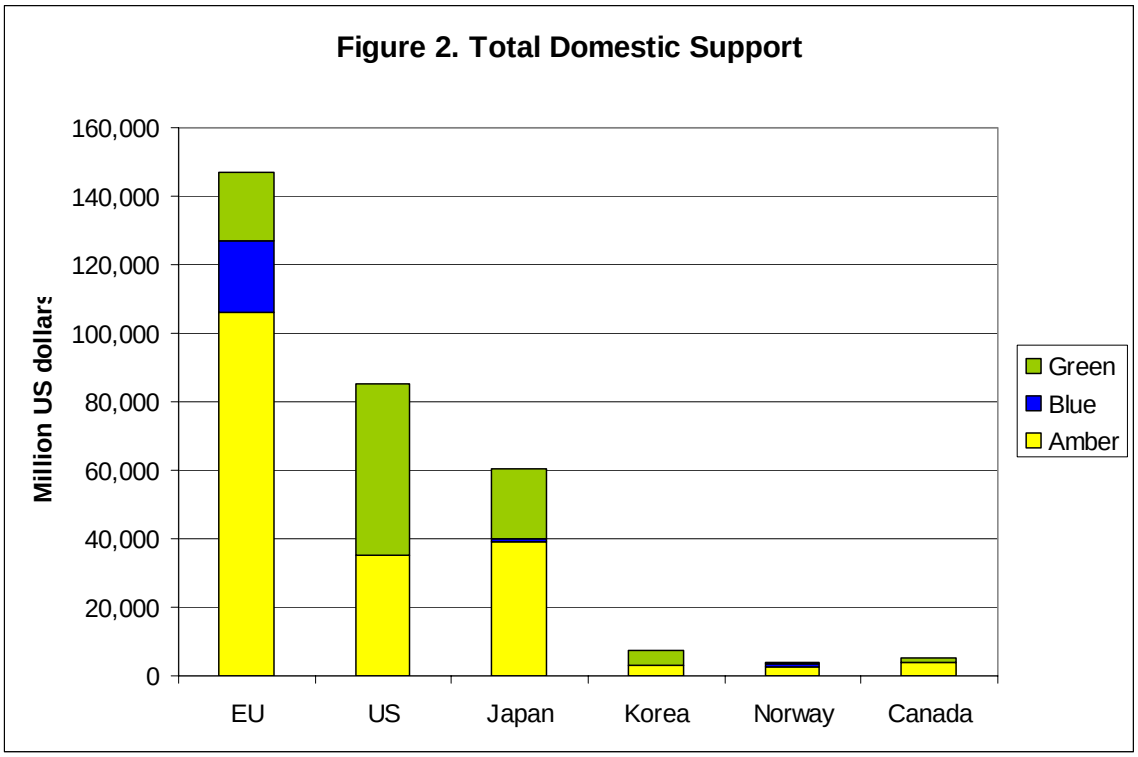
The second point to note is the substantial variability in the relative importance of the *de minimis* exclusions among countries. Norway and Canada represent two extremes in this regard. Norway reported no *de minimis* exemptions in the base period. In contrast, Canada's total *de minimis* (product and non product specific) was larger that the current base period TAMS. Among the large countries in the WTO, the *de minimis* exemptions were particularly significant for the United States, being equivalent in size to 45 percent of the current TAMS. The *de minimis* is also significant for Korea, which benefits from the 10 percent exemption rule for developing countries; Korea's *de minimis* exemptions were equivalent in size to 65 percent of its current TAMS. It should also be noted that for two of the countries for which the *de minimis* exemptions are important (Canada and the

United States), the non product specific exemption is the more significant. In Korea the non product specific exemption is larger, but both exemptions are significant.

The Blue Box category of support was of major importance for the European Union and Norway in the base period. The magnitude of Blue Box support in the EU was half the size of its current TAMS. In Norway it was equivalent in size to 70 percent of the current TAMS. Recent changes in policy will affect the future size of Blue Box support in both the European Union and the United States. This complicates the interpretation of any analysis based on historical data. The issues are discussed in greater detail in the section below that deals with the Blue Box.

The final category of support – the Green Box – is extremely important for several of the countries included in Table 2. The value of support under this category is more than three times as large at the current TAMS in Japan, Korea and the United States.[6] It is relatively less significant in comparison to the current TAMS in Canada, the European Union and Norway, although total Green Box payments exceeded the current TAMS by more than 50 percent in Canada.

Figure 2. Total Domestic Support

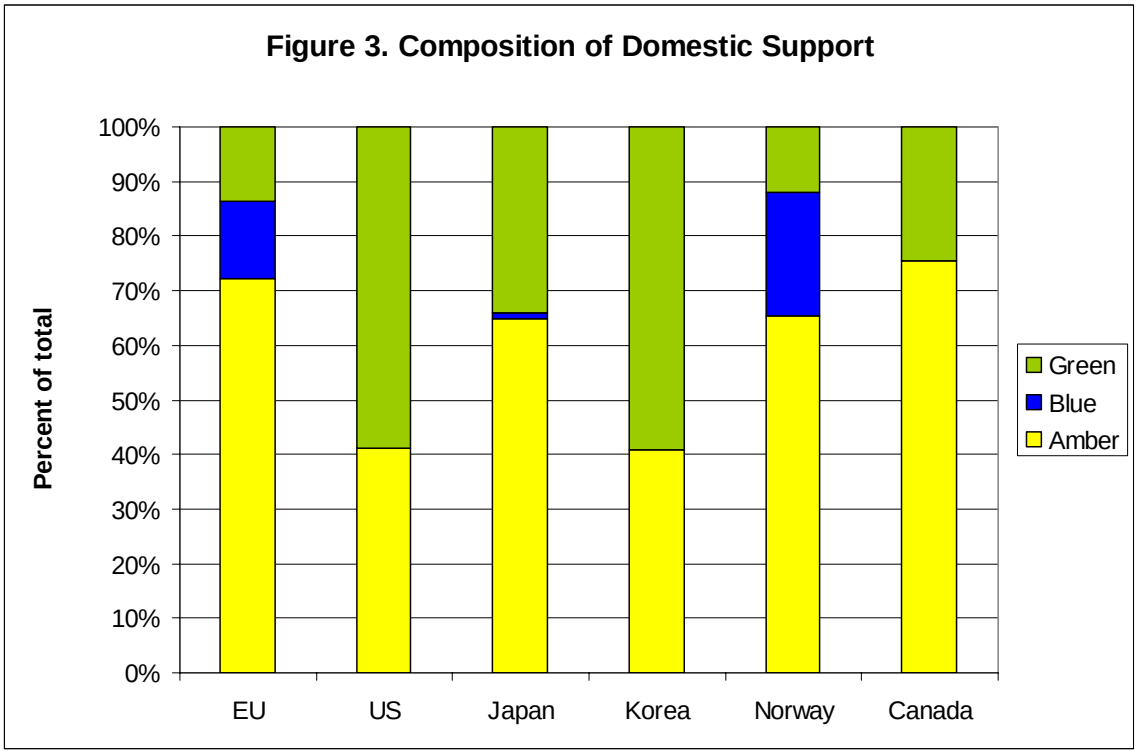


Note: data relate to 1998-00 for Canada and Korea, 1999-01 for the EU, Norway and the United States, and 2000-02 for Japan. National currency values converted to U.S. dollars at the average exchange rate applicable to the base period for each country.

[6] The figure for Korea includes expenditures under development programs that are exempt under special and differential treatment. These were roughly 1 percent of the total of Green plus S&D exempt.

Figures 2 and 3 summarize the overall situation in the base period with respect to the levels of domestic support and its composition for the countries in Table 2. Both graphs depict the three components of support: 1. total Amber Box (defined as the current TAMS plus *de minimis*); 2. Blue Box; and 3. Green Box. Figure 2 shows the components of support for each country expressed in U.S. dollars, using exchange rates corresponding to the respective base periods for each country. The European Union has the highest total support, with the United States and Japan in the next two positions. The United States has the second place position by virtue of a large amount of Green Box support. Figure 3 provides a clearer picture of the differing composition of support among the countries. It illustrates the importance of Green Box support in Japan, Korea and the United States, and the importance of the Blue Box in the European Union and Norway.

Figure 3. Composition of Domestic Support

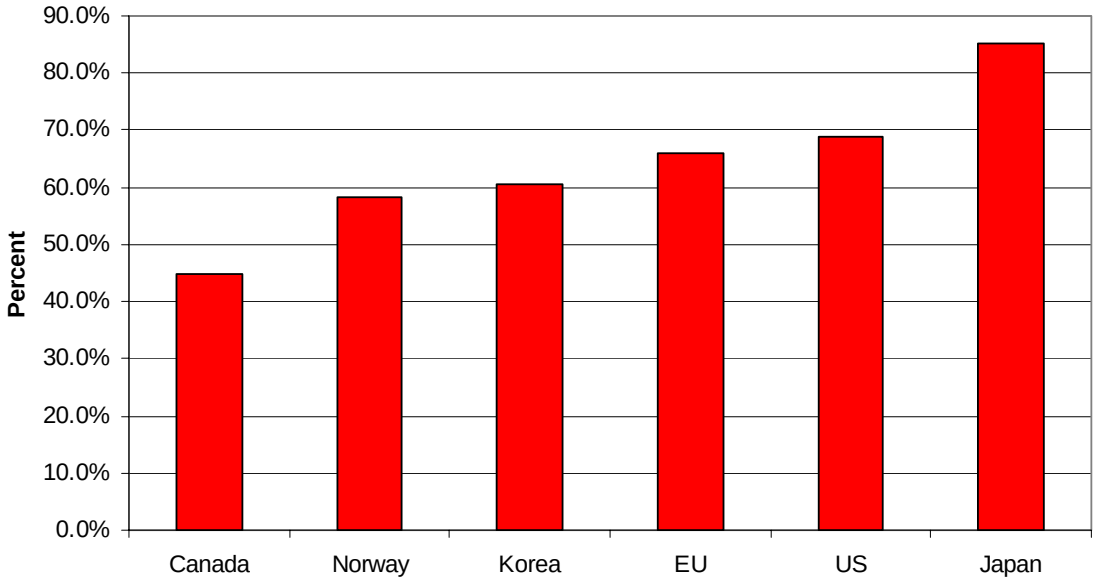


Note: data relate to 1998-00 for Canada and Korea, 1999-01 for the EU, Norway and the United States, and 2000-02 for Japan.

As noted earlier, an important innovation in the Doha Round proposals is a widening of the support that is to be disciplined, beyond that counted in the TAMS. The concept of the Overall Trade Distorting Support (OTDS) – the sum of the bound TAMS, permitted *de minimis* and capped Blue Box support, is the embodiment of this broader coverage. Under a new agreement countries will undertake commitments on the maximum OTDS, as well as its components. The fulfillment of those commitments will be monitored on the basis of the evolution of the actual OTDS. As a starting point for the comparison of future options for reductions, the current OTDS (actual TAMS plus *de minimis* plus Blue Box payments) in the base period for each of the countries is given in the base data section of Table 2.

The size of the current OTDS in the base period relative to the value of production varies considerably among the countries. The most startling case is Norway, for which the current OTDS exceeds the value of production in the base period. This is due to the relatively large amount of both Amber and Blue Box support provided to Norwegian agriculture (as depicted in Table 2 and Figure 3). With the exception of the European Union, for which the OTDS was 27 percent of the value of production in the base period, the other countries in Table 2 had ratios of the actual OTDS to production of around 10 percent.[7]

Figure 4. Current TAMS as a Proportion of Current OTDS



Note: data relate to 1998-00 for Canada and Korea, 1999-01 for the EU, Norway and the United States, and 2000-02 for Japan.

What is potentially significant for a future WTO agreement is the extent to which limitations on the OTDS has the potential to exert greater discipline on the **actual** support provided by individual countries. Some insight into this can be obtained by comparing the ratio of the current support subject to WTO disciplines (as reflected by the current TAMS) to the current OTDS (Figure 4). Other things being equal, the smaller the percentage in the graph the higher the potential for greater discipline on support through the use of OTDS reductions. Whether that potential actually applies in practice will depend on the nature of the disciplines imposed by a new agreement (specifically the reduction percentages for the OTDS and its components) and whether these are actually binding. In Canada's case, a key issue is whether reduced caps on *de minimis* will have a

[7] Since the value of production includes all commodities, whether or not these receive government support, a country which provides support to most of its agricultural commodities, such as Norway, is likely to have a higher OTDS ratio than countries for which parts of their agricultural sectors receive relatively little support, such as the United States. This partly explains some of the differences in the percentages. The other key factor is the level of the support for supported commodities.

significant impact. The same is true for Korea and the United States, since the difference between the current OTDS and the current TAMS is attributable to *de minimis* exclusions. For the European Union and Norway, a major factor is the inclusion of Blue Box support in the OTDS. The likely shift of some of the support provided by the United States to the Blue Box under current agricultural legislation means that the future of that component of support will also be of importance of the United States.

THE KEY FACTORS IN THE FRAMEWORK AGREEMENT

Key factors with respect to reductions in domestic support in the Framework are:

1. The application of separate and complementary reduction formulas for the OTDS, TAMS, and *de minimis,* but not for Blue Box payments.
2. A commitment that the reduction of the OTDS will not to be applied as a ceiling, should the separate formulas for reductions in the TAMS and *de minimis* apply a greater total cut in the OTDS.

One implication of these factors it that options for countries to behave strategically in responding to reductions in the OTDS (in particular, to reduce the impact of reductions on Blue Box payments) may be limited, depending on the nature of the individual reduction requirements for the components of the OTDS.

OVERALL TRADE-DISTORTING DOMESTIC SUPPORT

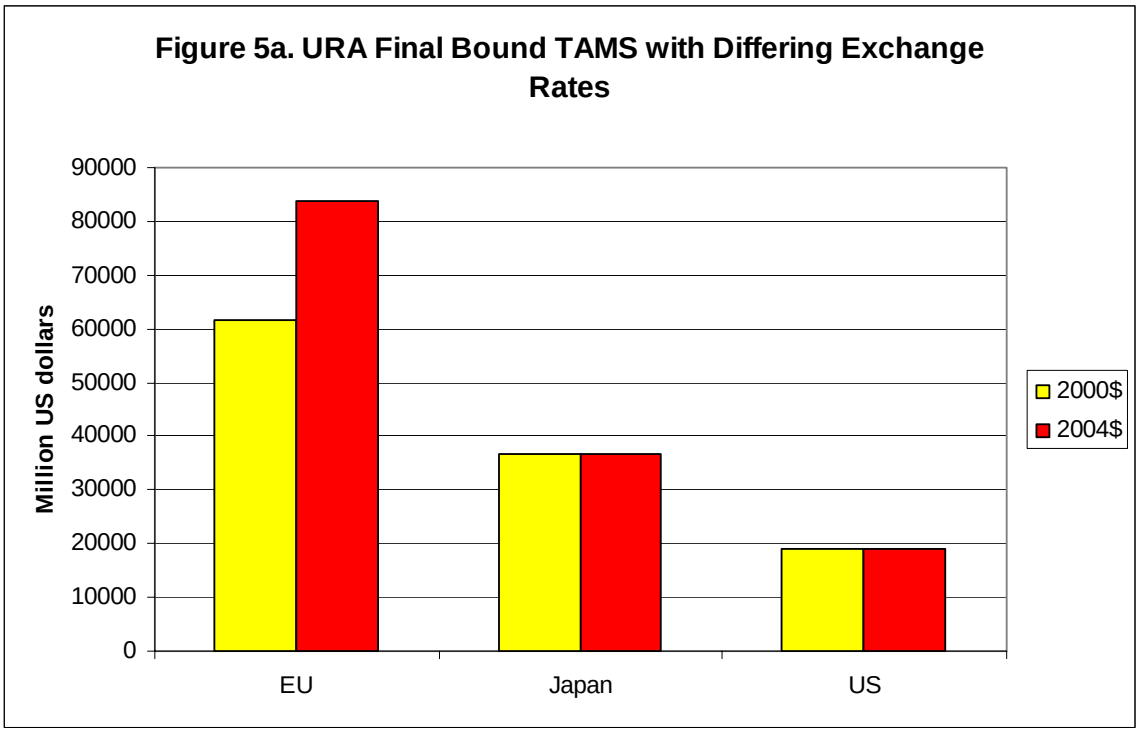
It should be recalled that Overall Trade Distorting Support (OTDS) is defined as the final bound TAMS, plus permitted *de minimis*, plus capped Blue Box. In the Framework, the capped Blue Box value was defined as 5 percent of the value of domestic production. However, there is a special provision for countries whose Blue Box payments are particularly large, the importance of which will be illustrated subsequently. It should also be noted that the Framework refers to "permitted *de minimis* levels" in reference to reductions in individual components (paragraph 6) but a "permitted *de minimis* level" in respect of the use of a tiered formula for reductions (paragraph 7). While this introduces some apparent ambiguity, it seems reasonable to assume that the OTDS will include separate elements for both product specific and non product specific *de minimis.* This assumption is employed in subsequent calculations in the paper.

The Framework agreement indicates that "Members having higher levels of trade-distorting domestic support will make greater overall reductions in order to achieve a harmonizing result". This implies the use of a tiered approach to the reduction percentage; it appears to imply that the tiers will be based on the **absolute level** of support in a base period.

In order to establish the tiers it is necessary to compare the OTDS entitlement across countries. To do so, requires the use of a common currency (e.g., Euros or U.S. dollars). The choice of currency may not be a simple issue from a political perspective, not only because of the sensitivity that might be associated with according a particular currency the status of a global numeraire, but also because of the implications of changes in exchange rates among the currencies of certain WTO members. It is not possible to conduct a simple analysis of the effects of currency variations and the choice of a base

period for the OTDS entitlement because available data in the country notifications are relatively dated and (as noted earlier) it is difficult to make comparisons for a uniform base period. Nevertheless, the basic issue can be illustrated by comparing changes in the final bound TAMS expressed in U.S. dollars for recent years. Figure 5 presents such a comparison using currency values for 2000 and 2004. Comparing these years, the value of the final bound TAMS for the European Union has risen by 36 percent, while that for Japan has barely changed (Figure 5a). In dollar terms, the final bound TAMS in the Union was more that four times as large as that in the United States using the value of the dollar in 2004, compared to roughly three times as large using the value of the dollar in 2000.[8] The bound TAMS of many other countries that have a lower absolute bound TAMS has also increased (Figure 5b).

Figure 5a. URA Final Bound TAMS with Differing Exchange Rates

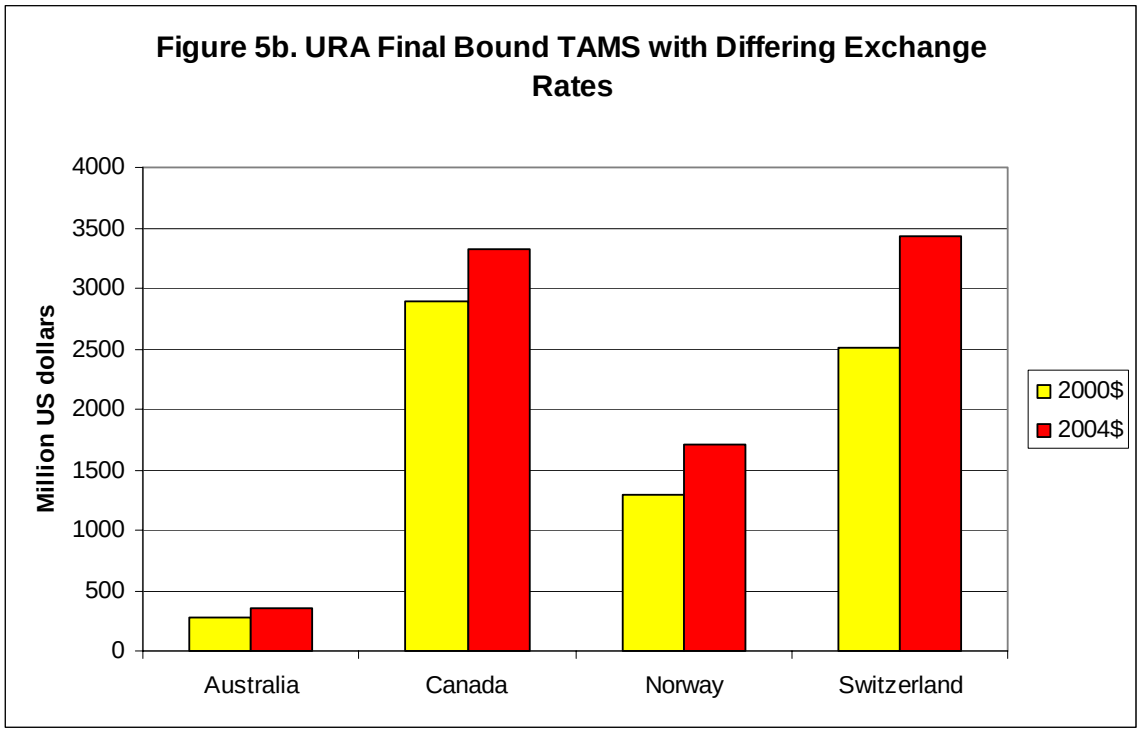


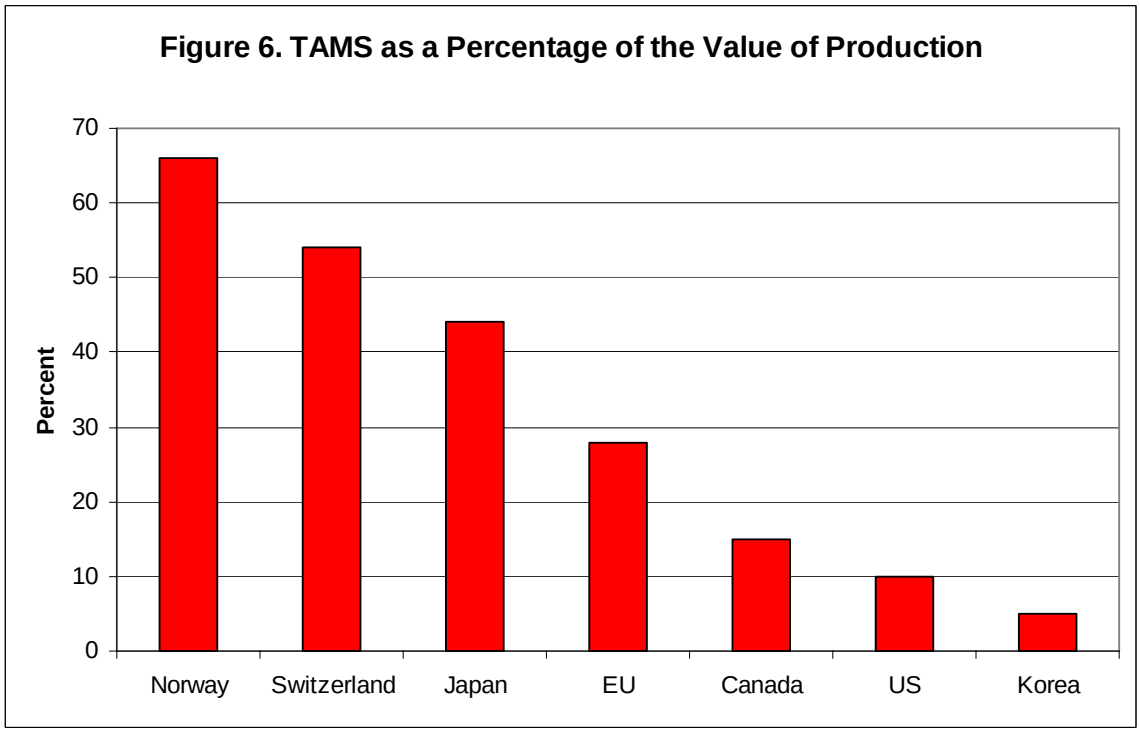
Based on the overall size of the bound TAMS in the European Union, the relative magnitude of the difference between the next largest bound TAMS (that of Japan) as shown in Figure 5a, it might be argued that the European Union should be in a class of its own when tiers for reductions in support are determined.[9] However, if one compares the bound TAMS of each country to the average value of production, one might come to a different conclusion (Figure 6). Some smaller countries, such as Norway and Switzerland, have a high bound TAMS relative to the value of their domestic agricultural production. It is noteworthy that under this comparison, of the larger countries depicted

[8] A comparison based on Euro would yield a decline in the value of the TAMS in Japan and the United States. The qualitative conclusion of a widening gap between the TAMS of these countries and that of the European Union would still hold.

[9] This is the assumption made by Brink (2005). Presumably a final determination on the countries to be included in the tiers would be based on the OTDS rather than the TAMS, on the assumption that the relevant data were made available by the Member countries to the WTO.

in Figure 5a, Japan has a high relative entitlement to support. The European Union ranks second; the United States ranks behind Canada.





Note: data relate to 1998-00 for Canada and Korea, 1999-01 for the EU, Norway and the United States, and 2000-02 for Japan.

If one accepts the logic of an approach to future reductions in support that is linked to the absolute level of support, countries will a larger total OTDS entitlement in the base period would be subject to a larger total reduction. To the extent that a larger total value of support equates with a larger absolute effect of that support on the volume of trade, this would place the emphasis on achieving the greatest reductions in the entitlements to support for countries that *ceteris paribus* would account for the largest distortions in world trade. One characteristic of such an approach is that small developed countries that do not contribute significantly to the absolute level of distortion in world trade, but have an entitlement to provide a large amount of trade-distorting support relative to the value of their domestic production (e.g., Norway and Switzerland), may be less affected, since they would presumably be in a lower tier.[10] As we shall see, with respect to Norway, this would not necessarily mean that such countries would be less affected, in practice, given the approach being considered for reducing the domestic support entitlement in the negotiations.

Brink (2005) provides an analysis of a tiered reduction in the bound TAMS and OTDS entitlement based on an absolute approach. Using information similar to that in Figure 5, he suggests that the European Union would be in the highest tier (tier 1); Japan and the United States would be in a second tier (tier 2); and remaining countries would be in subsequent tiers. He notes that the actual number of tiers would need to be decided in the negotiations. Brink suggests that one option would be for other developed countries to be in a third tier, with developing countries in a final tier, in line with the principle of special and differential treatment for such countries. Even though in absolute terms (measured in any currency) the EU's OTDS entitlement is substantially larger than in any other country, as noted earlier, it might prove politically difficult to place the European Union in a tier of its own.

THE FINAL BOUND TOTAL AMS

The Framework specifies the use of a tiered formula with greater reductions for larger values of the bound TAMS in order to achieve a harmonizing effect. Greater than formula reductions are possible in order to achieve a given overall reduction in trade distorting support (i.e., to permit smaller cuts in Blue Box, since this is not subject to an explicit reduction formula – see below). The Framework also indicates that Members that have a higher bound TAMS will make larger reductions in the bound TAMS. The Harbinson Modalities included a specification for a 60 percent reduction in the final bound TAMS in equal annual installments over a period of five years with 40 percent for developing countries over 10 years. It also indicated that TAMS commitments could be made in national currency, a foreign currency, or a basket of currencies.[11]

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[10] A mixed approach (with absolute and relative support criteria) could be adopted in which countries whose current OTDS entitlement exceeds some critical proportion of production, for example, 50 percent would be placed in a higher reduction tier. The tiers for the TAMS reduction could also be determined using such an approach.

[11] This condition is designed to address the problems that can be faced by countries whose currencies are unstable. It opens up the possibility for strategic behavior based on expectations of future currency movements, but this issue is not analyzed in the paper.

An important issue is whether the reduction percentage for the bound TAMS will differ from that for the OTDS. If the TAMS percentage is larger than that for the OTDS entitlement, this would reduce the adjustment that would have to be made in other components of the OTDS entitlement, particularly Blue Box support, in order to meet the OTDS commitment. It could mean that the reduction percentage in the OTDS would not be binding, i.e., that the reduction in the bound TAMS and *de minimis* would exceed the required reduction in the OTDS.[12] Conversely, if the reduction percentage for the bound TAMS were set lower than that for the OTDS, the OTDS reduction would probably be binding, and this could force a country to reduce its actual TAMS below the bound level in order to meet the OTDS reduction commitment. The implications of separate reduction percentages for the various components of the OTDS and for the OTDS as a whole are relatively complex for **future entitlements** to support. Their actual impact is further complicated by how these entitlements relate to **the actual level of support provided and its composition**. Some of the complexities are illustrated subsequently through examples.

PRODUCT-SPECIFIC AMS

The Framework specifies that the product-specific AMS will be capped at average levels to be agreed, with "reductions of some product-specific support". It is not clear if this relates to the aggregate of such support or that for each individual product category. The latter would seem to be more likely since the Harbinson Modalities specified that the current AMS for individual products would not exceed average levels for 1999-2001. It also appears to be likely that the cap would be expressed in absolute terms, rather than as a percentage, in line with the approach used for establishing the TAMS binding.[13]

A key argument for the capping of the product-specific AMS is that it prevents an escalation of support for individual commodities. Countries whose current TAMS is substantially less than the bound level (Figure 1) have substantial flexibility to increase the amber box support for individual commodities.

Some of the issues associated with the use of product-specific caps are illustrated by data for the United States in Table 3. This contains the average AMS for some of the most important supported commodities in the United States for the most recent three years notified to the WTO (1999-2001). The three-year average AMS as a percentage of production is also given, as is the highest percentage for the three years. The first point to

[12] The actual outcome would depend on the relative reduction percentages for the OTDS entitlement and the bound TAMS, and the relative size of the current TAMS and *de minimis*. A key factor is the proposed fixed reduction in the *de minimis* exemptions of 50 percent.

[13] Note that the proposed cap on Blue Box payments is an absolute cap, but one whose initial value is to be determined on the basis of a percentage of the value of production in the base period (see the section on the Blue Box below). In implementing caps for the product specific AMS it would be possible to use a similar approach to the product specific *de minimis*, i.e., to evaluate the annual product specific AMS in terms of a capped percentage of the value of production for that commodity. This would provide more flexibility for countries to meet their commitments when the value of production is varies from year to year. As argued subsequently, such variability may make it difficult for countries to meet these commitments, if they are based on historical averages of actual AMS levels.

note is the substantial variation in the average value of the AMS across commodities. For the commodities listed, the range is from 12 percent of the value of production for corn (maize) and wheat to 57 percent for rice.[14] The average AMS for all supported commodities was 14 percent of the value of their production. The second point to note is that there is substantial year-to-year variability in the relative amount of support provided to some commodities. For example, even though the average AMS for cotton was equivalent to 47 percent of the value of production for the three years, it was as high as 74 percent in one of those years. Similarly, while the average AMS for rice was 57 percent over this three year period, in one year it was 82 percent. The variation in the relative level of support (and whether a product is counted in the TAMS or in product specific *de minimis*) can be due to changes in the amount of support provided and/or in the value of production.

Table 3. Bindings on the Product Specific AMS and Changes in de Minimis for the United States (1999-2001 Notifications)

	Average AMS Million dollars	Average AMS Percent	Highest AMS Percent
Corn	2,193	12%	15%
Cotton	2,071	47%	74%
Dairy	4,738	21%	24%
Peanuts	364	38%	49%
Rice	607	57%	82%
Soybeans	3,358	27%	29%
Sugar	1,149	55%	57%
Tobacco	481	24%	39%
Wheat	670	12%	17%
Average non-product specific AMS	7,171	4%	
Average AMS on supported products		14%	
Average AMS 5% de minimis	16,026		
Average AMS 2.5% de minimis	23,273		

Note: Only selected commodities are shown. AMS percentages are with respect to the value of production

On the basis of the year-to-year variability in the product specific AMS revealed by these figures, one might conclude that the United States might have great difficulty in complying with a cap on each product specific AMS. It should be noted that the period 1999-2001 was one of considerable policy instability in the United States. During those

[14] As noted subsequently in the discussion of product specific *de minimis*, wheat actually qualified for a *de minimis* exclusion in one year of the base period.

years the U.S. Congress was actively involved in providing various forms of emergency or special assistance to farmers. The year 2000 was one in which actual expenditures on various forms of agricultural support reached an all-time record of over $32 billion.[15] The variation illustrated by the U.S. figures for this period may be atypical. However, it is possible that even during periods of greater stability in agricultural policies, the United States and other countries would have difficulty in living with the limitations on policy flexibility imposed by rigid product-specific caps on the AMS

It is worth noting that the use of fixed reference prices for the calculation of market price support has interesting implications for "large" countries – those whose production volumes can be expected to influence world prices, particularly when their production is subject to random fluctuations due to weather conditions. The use of a fixed reference price is likely to overstate the actual amount of support in such countries if poor weather causes their domestic production to fall and world prices to rise; and to understate support if good weather causes production to rise and world prices to fall. Since market price support is calculated as the difference between a domestic support price and a world reference price multiplied the volume of production eligible for support, all countries, both large and small, could find that they breach a product specific AMS cap without any change in the per unit support provided, simply because domestic production is higher than normal. This may add to the difficulty that countries may face in meeting their commitments with commodity specific AMS caps.

In implementing product specific AMS caps, the choice of the base period could be important. For example, as indicated above, a period that included the high support year of 2000 would be advantageous for the United States. In fact, it could be argued that since the cap would be linked to actual levels of support, those countries that had refrained from providing support and consequently had a low product-specific AMS would be penalized, while countries with high product-specific AMS would be rewarded.[16] To some extent AMS caps build in an entitlement on the basis of previous "bad behavior". In order to address this issue a formula reduction requirement could be specified for each product specific AMS. This would probably have to be similar in magnitude to the reduction percentages associated with the OTDS or the TAMS. The use of such an approach would have the advantage of ensuring that trade distorting support was reduced proportionately across the range of supported commodities.

A key feature of the use of product-specific caps and a product-specific reduction formula would be to limit the ability of countries to reallocate their AMS to protect more sensitive sectors, although it would not prevent this (countries could still reallocate actual support to maintain the capped value on sensitive products, even if they could not exceed the cap). As we have seen with the AMS itself in recent years, fixing maximum values

[15] The figure cited refers to net outlays by the Commodity Credit Corporation (CCC), which is a federally owned and operated corporation within the U.S. Department of Agriculture created to stabilize and support agricultural prices and farm income by making loans and payments to producers, purchasing commodities, and by various other operations. The CCC handles all money transactions for agricultural price and income support and related programs. Note that changes in the expenditures incurred by the CCC do not necessarily translate into changes in the AMS for individual commodities.

[16] This criticism might also be leveled at the original TAMS entitlements under the Uruguay Round.

for support can create an entitlement mentality among agricultural producers who then pressure policymakers to provide the full amount of their "entitlement" of the specified level of support. This was the experience with the 2002 Farm Bill in the United States. The use of caps, therefore, may actually impede the process of policy reform. For example, there might be little incentive for U.S. dairy or sugar producers to give up current forms of support that are included under the capped AMS entitlements, even if less-distorting policies were on offer as part of a new Farm Bill.

It could certainly be argued that the creation of tighter discipline on the amount of support that can be provided for individual commodities would be desirable, particularly from the perspective of producers of those commodities in other countries who are trying to compete with subsidized production. A major advantage of product specific caps is that they prevent the escalation of subsidies for individual commodities. However, as noted above it might be difficult for policymakers to stay within these caps due to year-to-year fluctuations. The establishment of a discipline which policymakers might be unable to satisfy might not make a positive contribution to the WTO process, unless one were to judge the value of that process in terms of the volume of litigation. For this reason, an alternative might be to focus on aggressive reduction percentages for the OTDS entitlement and tightening the rules for the calculation of support to force a reorientation of policies in countries that provide significant support to agriculture.

Finally, it should be noted that the requirement for reductions in "some product specific support" as specified in the Framework would seem to be virtually inevitable providing that sufficiently high reduction percentages are specified for the OTDS entitlement and the bound TAMS. This is particularly so for countries whose current TAMS is relatively close to the current bound level. In the reduction formula examples presented subsequently, the likelihood that broad reductions in actual support would be necessary is evaluated, using percentages that have been mentioned previously in the negotiations. For countries that are concerned about imposing greater discipline on domestic support, the major priority might be to achieve "aggressive" reduction percentages in the OTDS entitlement and its components that would actually be binding on the amount of support that countries actually provide. An indication of the magnitude of such reduction percentages is given subsequently in the paper.

DE MINIMIS

The Harbinson Modalities proposed that the 5 percent *de minimis* exemptions for developed countries be reduced to 2.5 percent in equal installments over a period of five years. The 10 percent *de minimis* for developing countries would to be maintained, with credit for negative product-specific support up to a maximum of 10 percent of the value of production for that commodity. The Framework simply calls for negotiated reductions to take into account S&D; and an exemption for those developing countries that allocate almost all *de minimis* support to subsistence and resource-poor farmers. It notes that greater than formula reductions should be possible to meet overall reduction requirement for trade-distorting support. Of the countries analyzed in this paper, only Korea qualified for developing country status under the AoA. In the empirical analysis conducted

subsequently in this paper it is assumed that this will continue to apply, but that the *de minimis* for non-exempt developing countries will be reduced to 5 percent.

As noted earlier, there are two components to the *de minimis* – a product specific component and a non product specific component. The importance of these varies among countries, as illustrated by the data in Table 2. For most countries, a reduction in the *de minimis* cap is likely to be potentially more significant for non product specific support. Korea is the only country in Table 2 for which the actual support provided under the product specific *de minimis* provision exceeded that under the provision for non product specific support.

It is important to note that under the AoA separate *de minimis* calculations were applied to product and non product specific support. This meant that in the limit a country could maintain a support level of just under 10 percent (5 percent for each category of support) without such support being counted against its commitments. The OTDS approach seems to imply that a cap of 2.5 percent will apply to each *de minimis* category (with the exception of developing countries), meaning that the total level of support under the *de minimis* provision could be maintained at just under 5 percent. The use of a 5 percent cap for non-exempt developing countries would imply that the total level of support under this provision could be maintained at just under 10 percent.

Countries have greater flexibility in the use of the non-product specific *de minimis* than the product specific category. Since the non product specific *de minimis* is an aggregate of various forms of support the composition of that support can be varied substantially within the capped level. The situation is different for product specific *de minimis*, since as in the U.S. example discussed above with respect to a product specific AMS, the amount of support that can be provided for each commodity is disciplined by the product specific cap. For the countries examined in this paper the non product specific *de minimis* exceeded 2.5 percent of the value of production for some commodities in some years (5 percent for Korea). Unfortunately, the notifications do not permit a complete analysis because production values are not provided for 1999 for the EU or 1998 for Korea.[17] However, it appears that relatively few commodities would be affected by a reduction in the *de minimis* percentage in the base period, and then only in certain years. The commodities concerned are summarized in Table 4.

The variability in the level of support in the United States during the base period, which was noted earlier in the discussion of caps on the product-specific AMS, is again apparent. Commodities move into and out of the *de minimis* category from year to year depending on the level of support and changes in the value of production.

One important implication of the inclusion of a product specific *de minimis* in the OTDS entitlement is an issue of "double counting" (Roberts 2005). This relates to the fact that the *de minimis* allowance in the base OTDS refers to 5 percent of the <u>total</u> value of production, rather than to the value of production for those commodities for which a

[17] The 1999 production values were not given in the original notification, but were subsequently provided to the Committee on Agriculture at its meeting of 28-29 June 2001 (see the summary record G/AG/R/27).

product specific *de minimis* exemption is claimed in the base period. While the eligibility of each particular commodity for the exemption is evaluated on a year-to-year basis with respect to its value of production in that year, and this imposes some discipline on its use, the use of the 5 percent figure provides some extra "padding" in the base period OTDS.[18]

Table 4. Products Affected by a Reduction in the Product Specific *de Minimis* during the Base Period

Country	Product
Canada	Barley (*de minimis* in 1998 and 2000, counted in the TAMS in 1999) Wheat and durum, and Dry Beans above 2.5 percent in 2000
	Oats (*de minimis* in 1997 only, counted in the TAMS for the two remaining years)
Korea	Garlic, Maize, Other Cereals and Silkworm (AMS was 5 percent or more of the value of production in 2000)
United States	Barley (de minimis in 2001 only)
	Safflower (*de minimis* only in 1999, counted in the TAMS in 2000, no support recorded for 2001)
	Sheep and Lamb (*de minimis* in 1999 and 2000, counted in the TAMS in 2001)
	Wheat (counted in the TAMS in 1999 and 2000, *de minimis* in 2001).

While the reduction in the maximum *de minimis* from 5 percent of the value of production to 2.5 percent imposes a greater constraint on its use than under the AoA, the inclusion of two separate allowances for each category means that these are a significant proportion of the base period OTDS entitlement (twice the value of the blue box for countries that are allowed the standard 5 percent blue box cap). Countries that do not use their *de minimis* exemptions may still benefit from their inclusion, since this may dilute the effective reduction required in other elements of the OTDS for any given reduction in the overall OTDS entitlement. Conversely, an aggressive reduction an aggressive reduction percentage for the OTDS could force additional reductions in actual *de minimis* support, regardless of the nominal entitlement.

BLUE BOX

The Framework calls for the capping of Blue Box support at 5 percent of the average value of total agricultural production for an historical period. However, it does not

[18] It should be noted that this is only the case if the TAMS is non-zero. In the limit, if the TAMS were reduced to zero, all product specific support would be *de minimis*, the support for each product would not exceed the allowable *de minimis* percentage, and total support would be less than the permitted percentage of the value of total production. It is not clear whether Roberts is suggesting that the aggregate value of production used in determining the total product specific *de minimis* in the OTDS commitment should be variable, rather than fixed, but that would mean that the level of the product specific *de minimis* included in the OTDS commitment (or the value of the bound TAMS) would have to change through time in line with changes in the composition of products included in the TAMS and the product specific *de minimis*. Such a provision might be difficult to implement.

indicate that a specific reduction formula will be used for this category of support.[19] In calculating the reduction in the OTDS entitlement, the measurement of the Blue Box component will be the higher of existing payments in a representative period or the capped value. It is important to note that all countries, whether or not they currently use Blue Box payments, will be entitled to include the 5 percent Blue Box cap in their OTDS entitlement. This provides some additional padding for countries that do not use Blue Box payments. It is unclear whether countries that are forced to change existing policies by virtue of reductions in their bound TAMS or the product specific caps on the AMS would find it attractive to modify existing programs to qualify for the Blue Box to take advantage of the support entitlement under that category, but there is clearly a possibility for such strategic behavior.

The Framework extends the definition of Blue Box payments to those made under production limiting programs or payments that do not require production (to be negotiated). It also specifies that such payments must be made on "fixed and unchanging" areas or number of animals. This expansion of the Blue Box definition is intended to capture the Counter-Cyclical Payments (CCPs) introduced by the United States as part of the 2002 Farm Act.

The payments vary with current market prices, but not with current production.[20] They differ from the deficiency payments used by the United States prior to the 1996 Farm Act in a key aspect. Those payments, and the EU compensatory payments which are covered by the Blue Box, had a production limitation condition attached (e.g., a compulsory set-aside of part of the area that would otherwise be planted to the supported crop) or were made on the basis of a fixed number of animals (in the EU case). The logic was that such restrictions could help to offset the potential production enhancing effect of the payment. However, it should be noted that even though such payments were associated with a production-limitation provision, there is no actual requirement that this should actually be imposed, or, if it were, that the restriction should be at such a level that it would offset the output-enhancing effect of the payment. Furthermore, a payment linked to a fixed number of animals would likely distort trade if there were a requirement to produce in order to receive the payment. Consequently, the extent to which such payments are actually implemented in such a way as to minimize their impact on trade is unclear.

It is difficult to determine the potential impact of CCPs on production, and how that effect compares to the earlier U.S. deficiency payment scheme. Abler and Blandford (forthcoming) review a range of empirical studies of the effects of so-called decoupled payments under the 1996 U.S. Farm Act and related legislation. Some of those payments, the Marketing Loss Assistance (MLA) payments, operated in a similar way to the CCPs.[21] The key difference is that the CCPs are explicitly included in continuing

[19] This is in contrast to the Draft Modalities which proposed that Blue Box payments be capped at their most recent notified level and reduced by 50 percent in equal installments over a period of five years; with a 33 percent reduction for developing countries.

[20] They are linked to historical production. The level of payments for an individual producer is unaffected by variations in current output, unlike conventional price support programs.

[21] The payments were ostensibly provided to compensate producers for the "loss of markets", but in reality they provided *ex post* compensation for reductions in prices during the period 1999-2001.

legislation (the Farm Act that runs through 2007) whereas the MLAs were legislated on a year-to-year basis. One could therefore argue that the availability of CCPs is considered to be more certain by producers than were the MLAs and that this might affect their response to the payments. Abler and Blandford conclude that empirical evidence provides some support for the view that so-called U.S. decoupled payments had some impact on production (this is relevant to the Green Box discussion below) even though the estimated impacts are modest in comparison to conventional price supports. Nevertheless, it is probable that CCPs have some impact on production and trade.[22]

One might argue that this is not such an important issue given that the Framework will impose some discipline on Blue Box payments for the first time. As noted earlier, Blue Box payments are to be included in the OTDS entitlement and, while they are not subject to a specific reduction percentage, they are likely to be affected by a reduction requirement for the OTDS. In addition, they are subject to the 5 percent cap on the value of agricultural production. From a U.S. perspective there is a clear advantage in the expansion of the Blue Box definition to include CCPs, since otherwise they would be included in the TAMS. Other things being equal, that would impose more immediate and explicit discipline on such payments since they would have to be accommodated within the TAMS ceiling of $19.1 billion. At 5 percent of the value of production, the separate Blue Box provision adds an additional $9.5 billion of support entitlement for the base period considered in Table 2. Expenditures on CCPs in 2002-3 averaged around 1 percent of the value of total agricultural production in the United States.[23] Again, as is demonstrated subsequently, the application of an aggressive OTDS reduction percentage could substantially reduce the flexibility open to the United States in using CCPs.

Other countries that use Blue Box payments under the existing AoA provisions are affected by the 5 percent limitation in different ways. For Japan, the limitation does not seem to be much of an issue if recent policies continue, since in the base period its Blue Box payments only amounted to roughly 20 percent of the capped value. EU payments were more than 80 percent above the capped value, but the European Union is in the process of changing its policies which should result in switching much of the support previously provided under the Blue Box to the Green Box category.[24] The greatest challenge seems to face Norway. Its Blue Box support was more than eight times the size of the 5 percent production cap in the base period. The Framework allows for some flexibility in cases where an exceptionally large percentage of trade-distorting support is in the Blue Box to avoid "a wholly disproportionate cut". If this category of support is going to continue to be of importance for Norway, it would appear that some relaxation of the 5 percent cap would have to be granted to that country.

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[22] The principal argument for the production effect relates to the risk-reducing impact of the payments. However, fixed direct payments (which are included in the Green Box) have a wealth effect that may be at least as important for production decisions. This could strengthen the argument for moving all income support payments to the Blue Box as some commentators have suggested (see below).

[23] Figures obtained from the OECD's PSE/CSE database.

[24] See the Green Box section of the paper on the current uncertainties created by the recent Cotton case in the WTO for future EU and US policies.

As noted, the Blue Box is the only element of trade-distorting support for which no formula reduction is proposed. Perhaps this is in line with the view that such payments are proportionately less distorting than those in the Amber Box. In any event, the Blue Box appears to be subject to more degrees of freedom than other components. The fact that the required reduction percentage in the Blue Box will be determined by the combined effect of reduction percentages in the OTDS and its other elements, introduces some uncertainty into the extent to which future Blue Box payments will actually be disciplined. A modest reduction in the OTDS entitlement, in particular, would reduce the pressure to reduce the Blue Box entitlement below the capped value. In addition, it should be noted that countries will have the option of reducing their final bound TAMS or the *de minimis* components beyond the levels implied by the formulas, rather than reducing Blue Box payments, in order to meet their formula reduction commitment on OTDS (providing that such payments do no exceed the 5 percent value of production limitation). It might also be noted that while the overall level of Blue Box support will be capped and the bases upon which payments will be made will be fixed, payment rates can still be varied to alter the distribution of payments across commodities. Thus if CCPs are included under the Blue Box category, this will allow considerable flexibility in *ex post* income stabilization on a product-by-product basis.[25] The issues associated with attempting to provide a product-by-product cap on Blue Box payments parallel those associated with product-by-product limitations on the AMS discussed earlier.

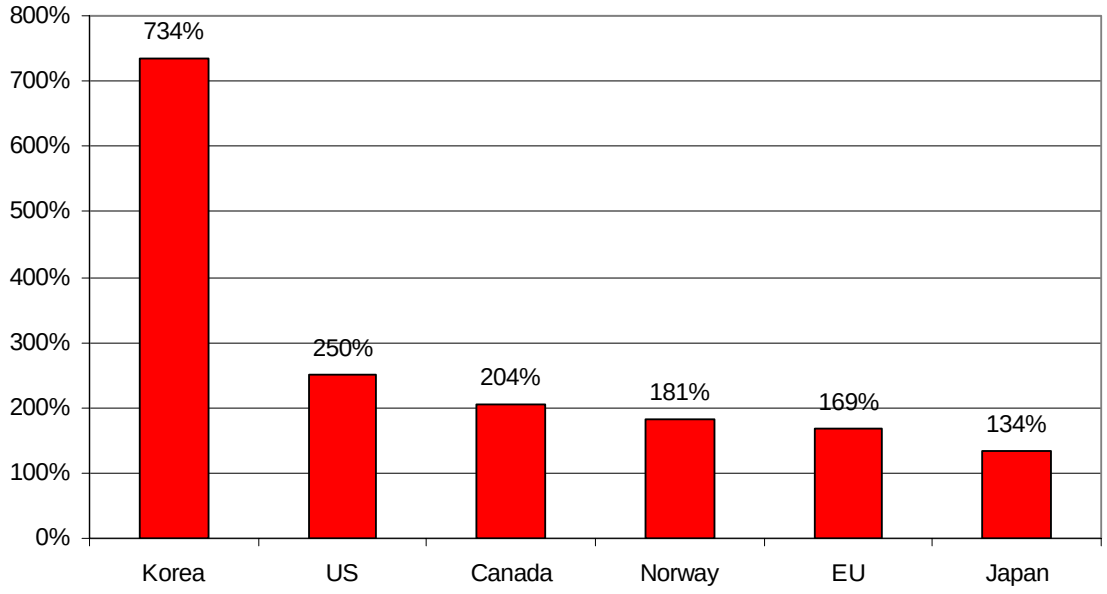
Finally, it should be noted that criteria for inclusion in the Blue Box have been tightened. Payments must now be based on "fixed and unchanging" areas, yields or number of animals. This is presumably to stop rebasing (which occurred under the 2002 U.S. Farm Act) – rebasing expectations have been identified as a possible reason for rigidity in production response (farmers keep more of their area in supported crops in order to maintain their future entitlement to payments). The new requirement will introduce some rigidity into the distribution of payments (although the payment rates for the various commodities could presumably be varied), but if the payments are only a transitional measure "in promoting agricultural reforms" (as indicated in the Framework), perhaps we should not too be concerned about this.[26] The Framework indicates that "additional criteria" will be negotiated (to take account of the balance of WTO rights and obligations, and will not have the perverse effect of undoing ongoing reforms), but it is unclear exactly what this will involve.[27] One possibility would be to tighten the rules that apply to payments that involve production restrictions, to ensure that such restrictions are actually binding and of sufficient magnitude to offset the production-enhancing effect. As noted above, this is not currently required.

[25] From the perspective of trade distortions, this is only an issue if the expectation of receiving the payments influences production decisions significantly. As indicated above, this is still an open question.
[26] Skeptics might argue that the transitional period might turn out to be of infinite duration.
[27] Some of the possibilities could include capping the support for individual commodities; restrictions on the provisions of multiple forms of support linked to prices; and greater transparency in the setting of payment rates.

IMPLICATIONS OF A FORMULA APPROACH TO REDUCTIONS

The use of the OTDS as the basis for determining reductions in support has the effect of increasing significantly the amount of eligible support in the base period. Figure 7 shows the base period OTDS entitlement relative to the Bound TAMS. The inclusion of the *de minimis* and Blue Box allowances means that Korea's support entitlement in the base period increases more than six fold. In the United States, the inclusion of *de minimis* and Blue Box allowances mean that the support entitlement more than doubles. The smallest impact of the switch from the TAMS to the OTDS is Japan, but as will be seen from subsequent analysis that country is likely to be the least affected by required reductions in the OTDS entitlement.

Figure 7. Base Period OTDS Relative to the Bound TAMS



Note: data relate to 1998-00 for Canada and Korea, 1999-01 for the EU, Norway and the United States, and 2000-02 for Japan.

Table 5 contains two examples of the application of a formula approach to the reduction in the domestic support entitlement that may help to illustrate some of the issues involved.[28] The first example, which is termed an "equal reduction approach", is intended to provide a point of reference for the tiered example. The equal reduction approach assumes that each country would be required to reduce its OTDS entitlement and bound TAMS by 60 percent. It assumes that the *de minimis* components would be reduced from 5 to 2.5 percent of production, with the exception of Korea for which the reduction is

[28] I only analyze linear reductions. Other more aggressive approaches are possible conceptually, although their acceptance may be less likely politically. Brink (2001) analyzed the application of an aggressive harmonization of domestic support based on the Swiss Formula.

from 10 to 5 percent. The Blue Box value included in the base OTDS is 5 percent of the value of production, except for the European Union and Norway in which it is the actual

Table 5. Domestic Support Reduction Scenarios for Selected Countries

	Canada	EU	Japan	Korea	Norway	US
	1998-00	1999-01	2000-02	1998-00	1999-01	1999-01
	Million $	Million €	Billion ¥	Bill Won	Mill Kr	Million $
Equal Reduction	60%	60%	60%	60%	60%	60%
Maximum OTDS	3,503	45,275	2,128	3,746	8,300	19,096
Bound Total AMS	1,720	26,864	1,589	596	4,580	7,641
Maximum PS *de minimis*	743	6,029	224	1,575	436	4,773
Maximum NPS *de minimis*	743	6,029	224	1,575	436	4,773
Maximum permitted Blue Box	1,485	12,058	449	1,575	871	9,546
Maximum OTDS/production	12%	19%	24%	12%	48%	10%
Actual maximum Blue Box	1,485	12,058	449	1,575	871	6,580
Cuts required to meet:						
Maximum OTDS	-1,307	20,823	-1,285	-1,098	9,851	4,202
Bound Total AMS	-738	16,743	-872	1,006	6,014	8,385
Required % cut in AMS	0%	38%	0%	63%	57%	52%
Maximum PS *de minimis*	-538	-5,919	-209	-977	-436	-4,671
Maximum NPS *de minimis*	266	-5,562	-204	-1,127	-436	2,398
Actual maximum Blue Box	-1,485	9,856	-359	-1,575	6,686	-6,580
Tiered Reduction	50%	60%	60%	40%	50%	60%
Maximum OTDS	4,378	45,275	2,128	5,619	10,375	19,096
Bound Total AMS	2,151	26,864	1,589	894	5,725	7,641
Maximum PS *de minimis*	743	6,029	224	1,575	436	4,773
Maximum NPS *de minimis*	743	6,029	224	1,575	436	4,773
Maximum permitted Blue Box	1,485	12,058	449	1,575	871	9,546
Maximum OTDS/production	15%	19%	24%	18%	60%	10%
Actual maximum Blue Box	1,485	12,058	449	1,575	871	6,580
Cuts required to meet:						
Maximum OTDS	-2,182	20,823	-1,285	-2,971	7,776	4,202
Bound Total AMS	-1,168	16,743	-872	708	4,869	8,385
Required % cut in AMS	0%	38%	0%	44%	46%	52%
Maximum PS *de minimis*	-538	-5,919	-209	-977	-436	-4,671
Maximum NPS *de minimis*	266	5,562	-204	-1,127	-436	2,398
Actual maximum Blue Box	-1,485	9,856	-359	-1,575	6,686	-6,580
Assumptions						
Base maximum permitted OTDS	8,757	113,188	5,320	9,365	20,750	47,741
Value of production	29,705	241,159	8,978	31,499	17,430	190,919

The equal reduction approach assumes a cut of 60 percent in the maximum OTDS and Bound Total AMS and a *de minimis* of 2.5 percent (5 percent for Korea) for each of the product and non product specific components.
The tiered approach assumes reductions of 60 percent in the maximum OTDS and Bound Total AMS for the EU, Japan and the United States; 50 percent for Canada and Norway and 40 percent for Korea, with a *de minimis* of 2.5 percent (5 percent for Korea) for each of the product and non product specific components

Source: Computed from data in country notifications to the WTO. Additional data on production values from the OECD PSE/CSE database (2004)

value of Blue Box payments in the base period. As noted above, the Framework called for the OTDS to include the higher of 5 percent of the value of production or actual Blue Box payments in the base period for the purposes of calculating reductions. In both the European Union and Norway, Blue Box payments exceeded 5 percent of the value of production in the base period.

The first block of figures in the table contains the maximum allowable amount for each type of support. The second block of figures indicates the cuts required in each component from actual base period values. If the required cut is negative, no actual reduction would be required.

It should be recalled that Blue Box payments are subject to a cap of 5 percent of the value of production, but the maximum allowable payments can be less depending on the net effect of the reductions in other components. If the reductions in allowable payments for other components are generally binding, then the percentage reduction in the OTDS will have a significant impact on the amount of permitted Blue Box support. Conversely, if a country has a lot of "unused credits" in the other components, these will then be applied to the Blue Box residual. It follows from this that the actual maximum permitted Blue Box payments can be less than the capped value.

In order to calculate the maximum Blue Box payment entitlement, the following methodology is applied:

1. If a reduction in the Total AMS or either of the *de minimis* components yields an entitlement that is less than that actually applying in the base period, the reduction is assumed to be binding.
2. If a reduction in the Total AMS or either of the *de minimis* components results in an entitlement that is greater than that actually applying in the base period, the unused amount of support (difference between the maximum allowed and that actually applying in the base period) is assumed to be potentially transferable to the Blue Box entitlement.
3. The components under 1 and 2 are summed and then subtracted from the OTDS entitlement. The smaller of that figure or 5% of the value of production is assumed to define the actual Blue Box entitlement. This is denoted by "Actual Maximum Blue Box" in the table.

It should be noted that this methodology may generate an underestimate of permitted Blue Box payments. This is because the reduction in the product specific *de minimis* can cause some support that was previously under that category to move into the AMS (if the AMS for those products is above the relevant production percentage). This would have the effect of generating some additional Blue Box credits. The only country actually affected by this in Table 5 is the United States, since its Blue Box entitlement is less than the capped value.

From Table 5 it may be observed that the separate reduction formulas for overall domestic support and its components have differential effects across countries. For

example, only three of the countries (the EU, Norway and the United States) would face a binding reduction in the OTDS. These three countries plus Korea would face a binding reduction in the Total AMS. Only two countries (Canada and the United States) would face a binding reduction in the non product specific *de minimis.* The figures in the table suggest that no country would face a binding reduction in the product specific *de minimis,* but as noted above that is not necessarily accurate since some commodities may move from that category to the Total AMS as result of the reduction in the allowable production percentage. Two countries (the EU and Norway) would be required to make reductions in their Blue Box payments.

With respect to the Blue Box it should also be noted that only one country (the United States) would face a payment maximum that is less than the 5 percent production value cap. The Blue Box cap would give a maximum level of payments of roughly $9.5 billion. However, the binding reduction in the OTDS for the United States implies that it would reduce the maximum permissible payments to around $6.6 billion. As noted in the Framework, countries would have the option of reducing other elements of the OTDS below the required bindings in order to protect their Blue Box entitlement. It is unclear whether the United States would choose to reduce the other components of support by the roughly $3 billion that would be needed to do this.

For an OTDS entitlement reduction to be potentially binding on the non Blue Box components, its reduction percentage must exceed those applied to the components. If that is not the case, the OTDS entitlement reduction merely has the potential to determine the reduction in the Blue Box component. The sequencing of reductions in the OTDS entitlement (e.g., the suggested 20 percent reduction in the first year in the Framework) could accelerate reductions in the actual TAMS and *de minimis* in some countries, but the final reduction percentage in the OTDS entitlement is likely to have no additional impact on them.

The second two blocks of figures in Table 5 present a tiered approach to the reduction in the OTDS entitlement and the bound TAMS. In this scenario, the reduction percentage of 60 percent for both components is maintained for the European Union, Japan and the United States. A reduction percentage of 50 percent is applied for Canada and Norway, and Korea has a 40 percent reduction.

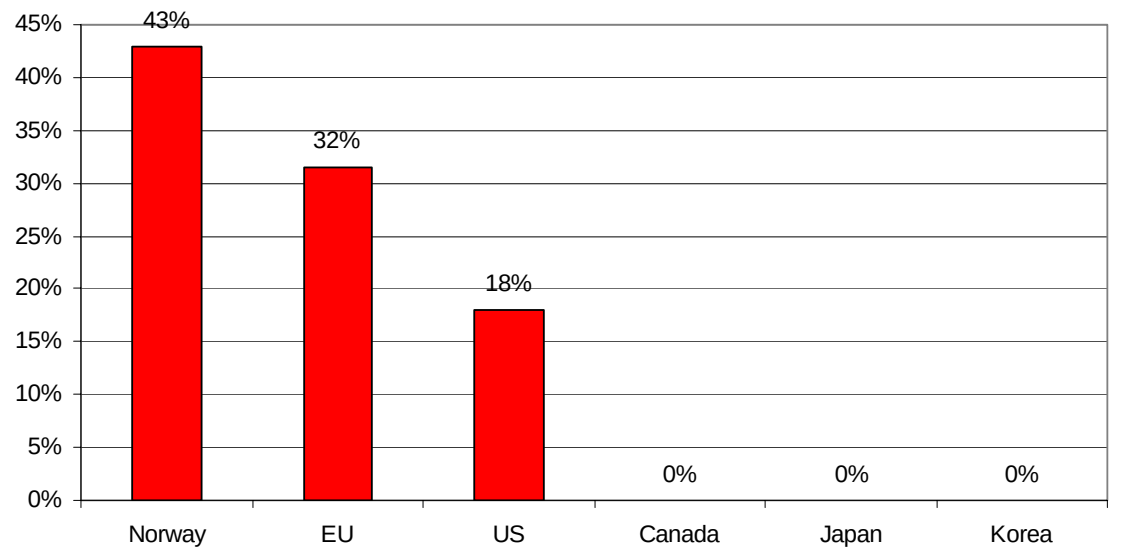
The lower reduction percentages for Canada, Korea and Norway, compared to the earlier scenario, provide some additional flexibility. Korea, for example, reduces its actual AMS by around 700 billion Won (44 percent), compared to roughly 1 trillion Won (62 percent) under the earlier scenario.

The percentage OTDS entitlements relative to the value of production indicate that the tiered approach leads to limited harmonization in relative support entitlements across the countries considered. Entitlements vary from a low of 10 percent in the United States to 60 percent in Norway. For the three major countries (EU, Japan and the United States) the ratio varies from 10 to 24 percent.

A major point to note is that the reductions in support entitlements have very different impacts across the countries. This is illustrated graphically in Figure 8 which shows the percentage reduction from the actual OTDS in the baseline that is required in each country to meet the OTDS entitlement ceiling under the tiered approach. It may be seen that since Canada, Japan and Korea are all below their entitlement ceiling, they would not be required to make any reduction in actual support (that provided in the base period). Norway, the European Union and the United States were all above their entitlement ceilings in the base period and would be required to make such reductions. The largest (over 40 percent) applies in Norway.

A second point to note is that even with the magnitude of reductions assumed, Norway's Blue Box payments in the base period would still be substantially above the entitlement of 5 percent of the value of production (actually in excess of 20 percent). The EU's Blue Box entitlement would be roughly 29 percent of the base period value of those payments – which should be more than sufficient to accommodate recent changes in EU policy.[29] The U.S. entitlement of $6.6 billion would be sufficient to accommodate CCPs in recent years, but might not be so if prices in the United States declined significantly.[30]

Figure 8. Percentage Reduction from Baseline OTDS under the 60/50/40 Reduction Formula

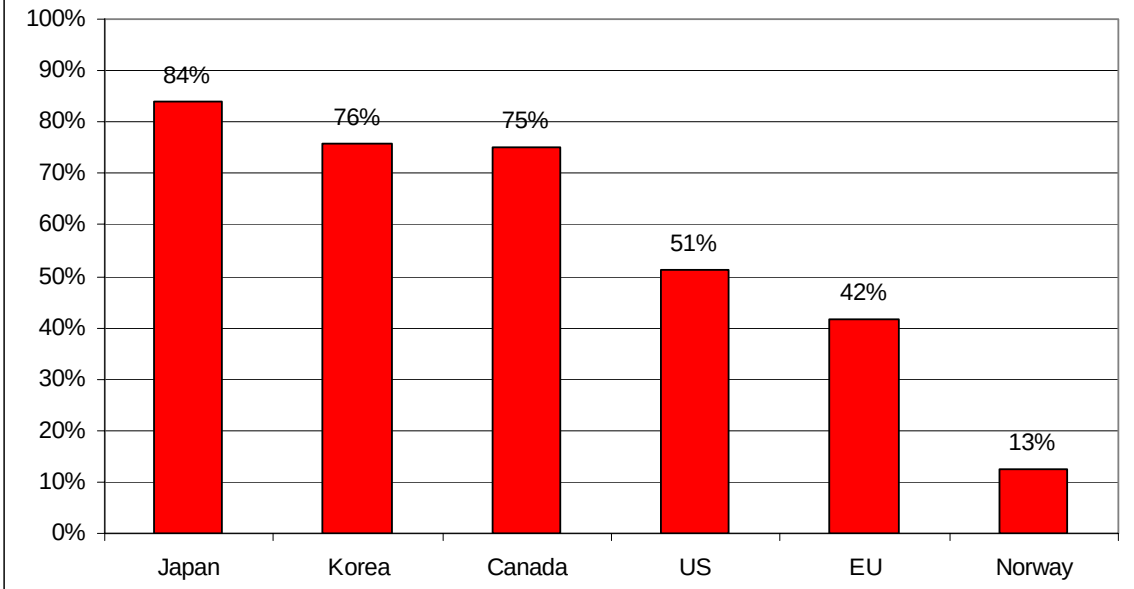


Note: data relate to 1998-00 for Canada and Korea, 1999-01 for the EU, Norway and the United States, and 2000-02 for Japan.

[29] These changes mean that a large proportion (in excess of 75 percent) of former Blue Box payments will move to the Green Box. This assumes that the Green Box compatibility of the new Single Farm Payment scheme in the Union is not challenged or alternatively that the rules for the receipt of payments are changed to conform to the results of the ruling in the Cotton Case (see the discussion of the Green Box below).
[30] CCC net outlays on CCPs were $1.7 billion in Fiscal year (FY) 2002 (October 2001 – September 2002) and $0.8 billion in FY 2003. Budget estimates for FY2005 assume expenditures of $6.0 billion.

Figure 9 sheds some additional light on the implications of a tiered approach. This shows the percentage reduction in the base period OTDS entitlement that is required before actual reductions in the base period OTDS are necessary. In other words, it shows when those reductions would actually become binding on the provision of support to agriculture. The graph illustrates clearly the policy flexibility that countries like Japan, Canada and Korea appear to have in comparison to a country like Norway. A reduction of roughly 13 percent in the bound OTDS would become binding in that country, whereas a reduction of more than 80 percent would be required in Japan. As has been the case under the Uruguay Round Agreement, the initial starting conditions (i.e., the level of allowable support) that apply to each individual country are crucial in determining whether an agreement is likely to have any effect on the levels of support actually provided to agriculture.

Figure 9. Binding Percentage Reduction in OTDS



Note: data relate to 1998-00 for Canada and Korea, 1999-01 for the EU, Norway and the United States, and 2000-02 for Japan.

The effects of the reductions assumed in Table 5 might be overstated since they are based on historical data. The future evolution of domestic support policies could affect the actual adjustments that would be necessary as a result of a new WTO agreement. To evaluate this would require assumptions about the future impact of changes in policies on the variables in Table 5. This paper does not attempt to derive such projections. However, an analysis of this type has been performed by Brink (2005). He assesses the impact of a reductions in the OTDS entitlement across four country tiers – Tier 1 (EU) 90 percent; Tier 2 (Japan and the United States) 80 percent; Tier 3 (Canada as an example) 70

percent; Tier 4 (Brazil as an example[31]) 60 percent. Brink indicates that cuts of this magnitude would constrain the future ability of the European Union and the United States to increase trade-distorting support, but would not require major changes in existing policies.[32] He estimates that the European Union and the United States could make reductions of 76 percent in their OTDS entitlement without having to change their policies significantly in the future. The projections take into account the changes in the EU agricultural programs under the Mid-term review, in particular the shift from Blue Box to Green Box payments, and the continuation of the current U.S. Farm Act beyond 2007 (with CCPs being included in the Blue Box). Using market price projections developed by the U.S. Department of Agriculture, Brink concludes that the European Union and the United States could absorb 72 percent and 61 percent cuts, respectively, in their total AMS commitment without a significant change in policies. Brink's results support the conclusion reached through an analysis of recent historical data in this paper, that aggressive reduction percentages in the bound TAMS and the OTDS entitlement would be required in order to generate the need for significant changes in support policies in these countries.

Conclusions about the impact of reduction formulas on policies need to be qualified in the light of inherent weaknesses in the measurement of the AMS. These may provide countries a means of avoiding the apparent discipline of an aggressive reduction in allowable support. The problem is illustrated by the case of rice in Japan. Figure 10 shows the notified AMS for rice and the corresponding market price support (MPS) calculation from the OECD PSE/CSE database.

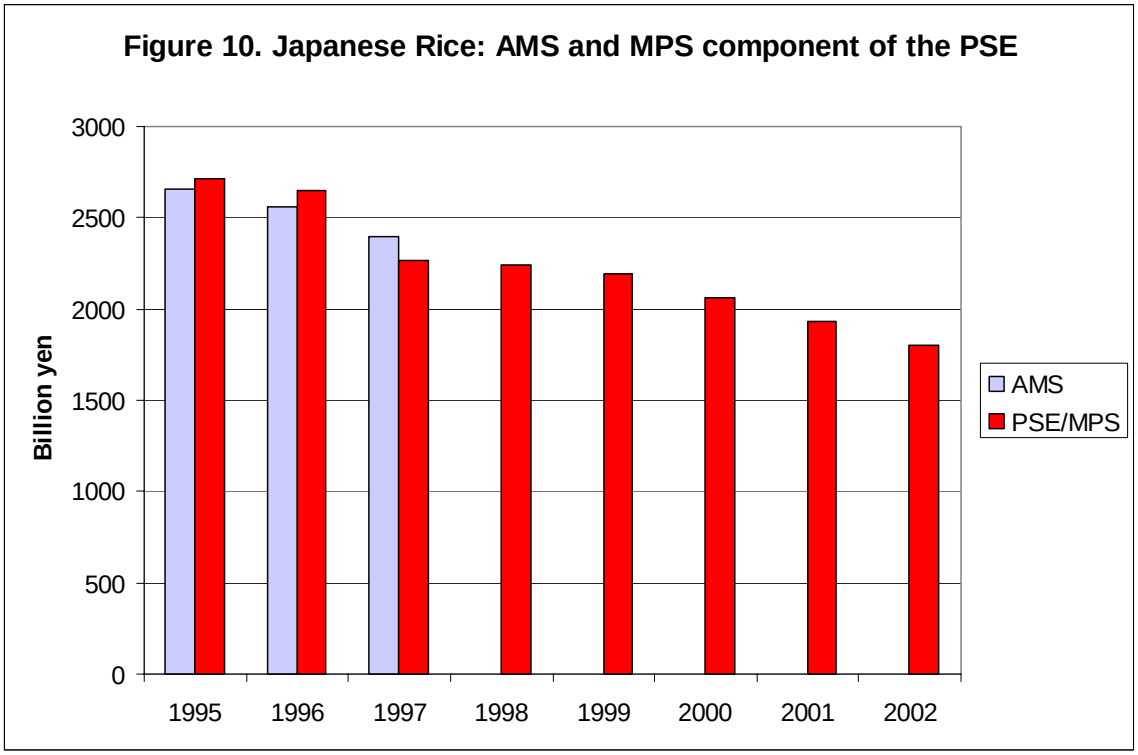
The reported AMS for rice was reduced to zero from 1998 onwards. This was because Japan changed its rice policy in that year, announcing that future purchases of rice would only be made for the purposes of maintaining food security stocks, rather than to support market prices (Fukuda *et al.* 2003). As a result of this change, Japan has not included an AMS for rice in any of its subsequent notifications to the WTO. OECD data for market price support, as calculated in the Producer Support Estimate (Figure 10), suggest that e support (measured on the basis of the difference between domestic and world prices) for rice declined over the relevant period (1995-2002), but remained significant.

This illustrates that countries may be able to stay within the current rules for calculating the AMS but manage to avoid effective reductions in support. In the specific case of Japan significant reductions in rice tariffs could offset the effects of the redefinition of domestic policy, by causing reductions in internal market prices. The same approach could be used for protected commodities in many other countries. However, if there is a desire to ensure that negotiated AMS reductions are potentially binding, there may need

[31] He notes that China, which has no AMS commitment would maintain a very large OTDS entitlement if this method were to be applied – 2.5 times larger than that for the US and almost twice as large as that for the EU by the end of the reduction period.

[32] The US could face problems in low-price years through expanded loan deficiency payments and counter-cyclical payments. This could require discretionary adjustments in loan rates and payment rates by the Secretary of Agriculture. Note also that Brink's analysis is for the EU15; there may be potential implications for future payments resulting from the recent enlargement of the Union, or from potential future enlargement.

to be a change in the agreed methodology, for example, requiring countries to calculate the AMS using either an administered support price or an internal reference market price.



Data from WTO notifications and the OECD PSE/CSE database 2004.

TREATMENT OF THE GREEN BOX

The AoA exempted certain types of payments from reduction if they meet "the fundamental requirement that they have no, or at most minimal trade-distorting effects or effects on production." Policy specific criteria and conditions are specified in Annex 2 of the AoA. As may be noted from Table 2 and Figure 3, Green Box payments are of considerable significance for a number of countries. The Framework indicates that a review and clarification of criteria will be conducted to ensure no, or at most minimal, trade-distorting effects or effects on production and to provide for improved monitoring and surveillance of Green Box payments. The Harbinson Modalities suggested amendments to Annex 2 of the Agreement on Agriculture, clarifying the characteristics of payments with respect to income insurance and safety-net programs; disaster payments; structural adjustment assistance; and payments under environmental programs (with these to be extended to include animal welfare payments). There are clearly concerns among some countries that payments that are currently declared by countries as falling under the Green Box heading may be less than minimally distorting with respect to production and trade.

The future of Green Box payments is currently uncertain because of the recent ruling under the Cotton Case in the WTO. In that case, Brazil brought a complaint against certain aspects of the cotton policies of the United States. A key aspect of the complaint,

for the purposes of the current discussion, was the panel's finding that U.S. direct payments and the legislative and regulatory provisions which establish and maintain the direct payments program do not fully conform to the conditions set out in Annex 2 of the AoA. Following an appeal by the United States, the Appellate Body upheld the original panel decision.

A key issue in the decision was whether the payments provided by the United States actually have an impact on production. Annex 2 of the AoA states that the amount of decoupled income support payments in a given year shall not be related to, or be based on, the type or volume of production undertaken in any year after the base year used in establishing the payments. The panel concluded that since the payments were conditional on producers not planting certain commodities (specifically fruits and vegetables) on the land upon which payments were based, and that producers were subject to penalties if they chose to do so, there was indeed a link to production decisions after the base period. This is an important decision not only for the United States, but also for the European Union, whose single farm payment (SFP), which is currently being introduced as a result of the Mid-term review in 2003, involves a similar requirement. One might conclude that a simple solution to this problem would simply be to relax the restriction on the ability of producers to devote their land to other crops, and that may indeed be the case. However, the decision appears to open up a broader set of issues.

In both the European Union and the United States there appears to be a desire to link the provision of income support for agriculture to specific uses of agricultural land. The conditions for the SFP, for example, involve a definition of arable land that involves land cultivated for crop production, under set-aside or maintained in good agricultural and environmental condition. Although the implication of these particular conditions was not considered in the Cotton Case, such requirements might be interpreted as linking the provision of payments to agricultural activity (i.e., to production). To the extent that it could be demonstrated that such a requirement increases agricultural output directly or indirectly (the emphasis in the Green Box is on marketable agricultural output), the requirement might be challenged on the basis that it does not satisfy the condition of being minimally production and trade distorting. The broader implications of the Cotton Case for the provision of income support to agriculture remain to be determined, but may put into question support that is linked in any way to the continuance of agricultural activities that lead (directly or indirectly) to additional marketable output by the recipients of such support.

A separate element of the Green Box that appears to recognize the legitimacy of such a linkage relates to the provision of payments under environmental programs. Annex 2 acknowledges that producers may be required to meet certain conditions relating to production methods or inputs as part of such a program, but specifies that the amount of any payment made must be limited to the extra costs or loss of income involved in complying with the conditions of the program. The underlying assumption appears to be that governments may provide payments in order to secure the supply of environmental benefits associated with agriculture's use of the land, but it is unclear whether some of the environmental programs that are being developed would conform to the Green Box

conditions. The thrust of those conditions appears to be on programs that compensate producers for the private costs of complying with environmental regulations or conditions set by the government, they do not appear to condone an approach that would reward producers for the social value of those services, i.e., on the basis of what the general public would be prepared to pay for the provision of such services if there were actually a market for them.

The underlying assumption behind the concept of multifunctionality (agriculture as a source of both commodities and non-commodity outputs), seems to be that the optimal supply of agriculture's non-commodity outputs, such as landscape, wildlife habitat, biodiversity, and cultural heritage can only be guaranteed by providing farmers a sufficient economic incentive to provide those attributes. That incentive may need to cover the opportunity costs faced by farmers (their potential earnings in non-agricultural activities or use of the land for alternative purposes), rather than simply covering the additional costs that environmental programs may impose due to their impact on specific agricultural or land-use practices. Blandford and Boisvert (2005a) argue that payments for such services that are established through competitive bids, as in the Conservation Reserve Program of the United States, may satisfy the income foregone condition of the AoA, since it can be argued that farmers' individual bids will be related to the opportunity costs of the use of their land, i.e., to income foregone. However, it is by no means clear that incentive payments that are set by governments for producers to participate in environmental schemes or the provision of direct income payments that have environmental conditions attached to them would conform to current Green Box rules.

A more general and difficult issue with the Green Box, as currently defined, is that some categories of payments may, of necessity, have an impact on production. This is particularly true for environmental payments and proposed animal welfare payments. These are often designed to help support a particular production process or level of output in order to generate positive externalities or public goods. While considerable confusion exists in the policy debate on these issues, there is little doubt that the correction of market failures associated with agriculture (where they exist) will affect land use and production, either positively or negatively (Blandford and Boisvert 2005b). The concern is that such payments will become a new mechanism for supporting otherwise agriculturally uncompetitive activities under an environment of freer trade. The domestic redistributive effects of Green Box payments may be an issue for the countries involved (e.g., because of the efficiency implications of deadweight taxation losses and equity concerns), and such payments may generate "subsidy envy" among countries that are not able to afford them, if such payments can indeed be made minimally distorting one might question whether it would be worth the effort to try to cap them in a new agreement.

What is clear is that the current Green Box includes many different types of payments, some of which are likely to be more distorting than others. One might argue that there should be an attempt to move some of these payments that *a priori* are likely to have the greatest impact on production (in particular, those relating to direct income supports, income insurance and income safety-net programs, and crop insurance) into a more

conditional Box that will be subject to reduction – perhaps into the Blue Box.[33] As noted earlier, in connection with the discussion of other Blue Box measures, so-called decoupled payments may indeed have an impact on production that cannot be justified on the grounds of correcting for market failure.

Even with a clearer elaboration of the characteristics of Green Box payments, the ability to impose greater discipline on the types of payments provided will be problematical. One problem is that the AoA refers to payments not programs – there is considerable flexibility to change payment names and forms (e.g., the changes in U.S. payments between the 1996 and 2002 Farm Acts) while keeping the fundamental instruments the same.

A final issue is how to improve monitoring and surveillance, as called for in the Framework. One option would be to have a formal WTO review process for new payments with a panel to review their conformity with the minimally distorting requirement. In such a process the responsibility would rest on the country proposing to create a new program to demonstrate that it is minimally distorting (Blandford 2001). If it were judged not to be so, the support under such a program would be included in the Amber Box and counted against the OTDS commitment.

SPECIAL AND DIFFERENTIAL TREATMENT (S&D)

The Framework Agreement calls for special and differential treatment (S&D) for developing countries to include longer implementation periods and lower reduction coefficients for all types of trade-distorting domestic support and for continued access to the provisions under Article 6.2 (the exemption for direct or indirect assistance for agriculture and rural development). Least Developed Countries will not be required to make any reduction commitments.

The Harbinson Modalities included draft amendments to Article 6.2 of the Agreement on Agriculture, clarifying the forms of assistance to encourage agricultural and rural development in developing countries that would be exempt from domestic support reduction commitments. It also proposed a 10 year implementation period for commitments, compared to a 5 year period for developed countries.

The Framework specifies that the negotiated reductions in *de minimis* should take into account S&D; with an exemption for developing countries that allocate almost all *de minimis* support to subsistence and resource-poor farmers. It is not clear exactly how (if at all) that will be determined as part of a final agreement. The Harbinson Modalities proposed that the 10 percent *de minimis* for developing countries be maintained, with credit for negative product-specific support up to a maximum of 10 percent of the value of production for that commodity.

As indicated in the earlier analysis for Korea, the approach to reductions in support proposed under the Framework may not have much impact on the ability of developing

[33] This is the suggestion made for direct income payments by de Gorter *et al.* (2003).

countries to support agriculture, even if they have a bound TAMS. Countries that have no such commitments will find themselves in a truly preferential position. This point is made by Brink (2005) with respect to the Peoples Republic of China (PRC). He argues that even without a TAMS binding, the PRC will have substantial flexibility should it decide to provide support to its agricultural sector in the future. The 15 percent value of production in China's OTDS entitlement will provide considerable room for maneuver.

The substantial and rapid economic growth of China and that of a number of other developing countries raises the question as to whether such countries should be granted the same special and differential treatment as poorer developing countries. In particular, there will be an issue as to whether all developing countries who are required to reduce non-exempt support will be placed in the same (lowest) tier for reductions and subject to the lowest reduction percentage. Brink (2005) assumed a common lower tier of 40 percent for reductions in the ODTS entitlement and bound TAMS by developing countries. Whether all developing countries should be treated equally is an important issue in other areas, particularly market access, or whether different groups of developing countries (differentiated on the basis of per capita income, for example), should be treated differently in a final agreement. In particular, if much of the future potential growth in agricultural imports is likely to be in the middle income developing countries, it may not be desirable to exempt such countries from a significant expansion of market access for agricultural products. This is a central issue in the current negotiations.

OTHER ISSUES

There are some other issues relating to the treatment of domestic support that are relevant to other components of a final agreement. Presumably the choice of the base period or periods used in capping or determining reductions in domestic support will not be independent of base periods in the parts of a final agreement relating to market access and export competition. As has been noted above, variations in the base period may have differing implications for key countries in the negotiations.

Finally, it should be noted that the implementation periods for reductions in domestic support are likely to be linked to other elements of the agreement. It has already been established that there will be a shorter implementation period for concessions by developed country members of the WTO and a longer period for the developing country members. The Harbinson Modalities foresaw an implementation period of 5 years for the former and 10 years for the latter.

CONCLUSIONS

The introduction of the concept of Overall Trade Distorting Support in the current WTO negotiations appears to be a positive development for those who would like to see a reduction in distortions in international agricultural trade created by domestic agricultural policies. The OTDS will bring forms of support that were previously exempt from reduction commitments, specifically *de minimis* and Blue Box support, under WTO disciplines. Questions still remain over the workability of product specific caps on the

AMS, the method used to calculate the AMS, and the future of the Green Box – at the very least there will need to be a significant improvement in the monitoring and surveillance of payments made under that category of support. Questions also remain over the treatment of support in developing countries and, in particular, the way in which special and differential treatment will be handled.

The implications of a formula approach to the reduction of permitted support are complex. As has been illustrated, the final effects of a reduction formula will depend on the initial permitted levels of support and how these relate to the actual support provided, as well as on the percentages applied. One of the major conclusions from an analysis of data from recent country notifications is that aggressive reduction percentages of at least 60 percent will be required in the OTDS entitlement and bound TAMS if an agreement is to translate into future reductions in the actual level of domestic support provided to agriculture in many countries. In the absence of such an approach, such countries will be able to conduct their agricultural policies on a "business as usual" basis. It that happens critics of the Doha round of negotiations may well come to a similar conclusion as the critics of the Uruguay round – much progress on paper, but relatively little in practice.

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