Implications of the February 2008 WTO Draft Agricultural Modalities for the United States

By David Blandford, David Laborde, and Will Martin

ICTSD
INTERNATIONAL CENTRE FOR TRADE AND SUSTAINABLE DEVELOPMENT

International Food & Agricultural Trade Policy Council

IFPRI
INTERNATIONAL FOOD POLICY RESEARCH INSTITUTE
sustainable solutions for ending hunger and poverty
Supported by the CGIAR

Executive summary[1]

The February 2008 draft agricultural modalities (WTO 2008) are the result of seven years of hard negotiations. Their structure, if not every detail, seems likely to be the basis for the final proposals that must either be ratified or rejected by governments. The modalities cover the three pillars of domestic support, market access, and export competition. In this paper we examine their implications for the United States.

The imposition of additional WTO disciplines on domestic support is a major issue for the United States. Higher world prices for major export commodities have reduced the amount of support provided to U.S. farmers in recent years but the long drawn-out process of trying to conclude a new Farm Bill reflects the continued political importance of farm programs. Analysis of the most ambitious provisions of the draft modalities suggests that if a relatively high price environment continues the United States will be able to adapt to the new WTO domestic support commitments by making modest adjustments in its domestic policies. There are issues with a limited number of commodities. Cotton poses problems for meeting product-specific bindings on blue box support and dairy and sugar pose problems for meeting product-specific AMS commitments. These could be addressed by changing support programs in order to reduce notified support.

The strengthened disciplines on domestic support would have the effect of squeezing out a lot of the "water" in the amount of support that the United States can provide to U.S. farmers and stay within its WTO commitments. The United States would still have the option of changing the composition of support – expanding the use of the green box and making use of non product-specific support up to the limit imposed by *de minimis* and the overall OTDS binding. Nevertheless, significant reductions in the OTDS and the total AMS severely constrain the room to maneuver for support that is most closely linked to prices. However, if the optimistic price environment assumed by the U.S. Department of Agriculture does not materialize, limits on the total AMS and some product-specific AMS limits could well be exceeded unless alternatives to current support policies were found.

With respect to market access, while U.S. agricultural tariffs are relatively low on average there are some high tariffs on products such as sugar, meats, dairy products and beverages and tobacco. The relatively low tariff average means that around 90 percent of the tariff lines fall in the first band of the proposed tariff-cutting formula in the draft modalities, and hence are subject to the lowest proposed reductions. Despite this, the cuts in agricultural tariffs resulting from application of the formula are relatively substantial, with the trade-weighted average MFN applied rate falling from 7.9 percent to 3.5 percent. Application of the proposed tariff escalation formula has virtually no impact on the average tariff, while application of the tropical products formula would reduce the post-round tariff from 3.5

---

[1] The authors are Professor, The Pennsylvania State University, University Park, PA 16802, U.S.A. dblandford@psu.edu; Postdoctoral Fellow, International Food Policy Research Institute, 2033 K Street, NW, Washington, DC 20006-1002, U.S.A. d.laborde@cgiar.org; and Lead Economist, The World Bank 1818 H Street, NW, Washington, DC 20433 USA. Wmartin1@worldbank.org,. Tim Josling made a major contribution to the development of the domestic support simulator used in this paper, which was developed with financial support from the World Bank. The analysis of domestic support also draws on work under an IFPRI project on shadow WTO notifications. The helpful comments of Charlotte Hebebrand and David Orden are gratefully acknowledged, although they should not be held responsible for any remaining errors or omissions.

percent to 3.2 percent with the largest impact on sugar, dairy products and tobacco. The sensitive product option is likely to have a relatively small impact on U.S. tariffs. This is largely because of the requirement for a minimum average-cut of 54 percent on all products, including sensitive products. As the number of sensitive products subject to smaller-than-formula cuts increases, cuts on other products must be increased proportionally to meet the 54 percent average requirement.

With respect to market access for the United States, we find that the proposed tariff formulas in the modalities would sharply reduce average tariffs facing U.S. exports – from 15.7 percent to 9.6 percent. Most of this reduction comes from a sharp fall in the tariffs applied by other industrial countries. The provisions of the tariff formula for developing countries; the higher binding overhang; and lower initial rates of applied protection imply a much smaller reduction in the tariffs facing U.S. exports in developing countries. The sensitive and special product exceptions have a relatively small marginal impact on the tariff average.

The elimination of export subsidies used by other countries (particularly, the European Union) has been a major U.S. objective in the current round of WTO negotiations. This would require the elimination of two U.S. programs (EEP and DEIP) that have not been active in recent years. The draft modalities would also require changes in U.S. export credit programs, but these have already been modified to bring interest rates in line with those charged by commercial lenders. Some additional modifications in financing terms would probably be required to ensure full cost recovery. Activity under U.S. food aid programs has been declining in recent years. The draft modalities foresee reduced emphasis on the provision of in-kind aid. This can be expected to result in less support for food aid programs among farm groups and increasing difficulties in obtaining Congressional appropriations for food aid programs.

Introduction

The February 2008 agricultural modalities (WTO 2008) are the result of seven years[2] of hard negotiations, and their structure, if not every detail, seems likely to be the basis for the final proposals that must be ratified or rejected by governments. In this paper we examine the implications of the draft modalities for the United States.

As a major exporter of agricultural products, the United States has a substantial offensive interest in obtaining significant reductions in applied tariffs through a new WTO agreement on agriculture. With the exception of a few products, such as dairy and sugar, U.S. agricultural tariff protection is relatively low. On the defensive side, market access is frequently seen as less sensitive than domestic support in the United States for several reasons. The first is the considerable U.S. comparative advantage in many key agricultural products. The second, related to the first, is the fact that tariffs are ineffective in providing support to export-oriented industries. A third is the apparent willingness of policy makers to make budget transfers to a sector that is small relative to the total economy and the total workforce. These three factors have contributed to the United States offering proposals for much greater liberalization of market access than those of other negotiating groups, such as the European Union and the G-20. The impacts of a potential agreement on agricultural market access in the United States are important because a number of products are subject to relatively highly protection. These include sugar, ethanol, dairy products, beef and a range of specialty products such as vegetables and fruit. Many of these products are protected using non-transparent policy instruments such as non *ad-valorem* tariffs and Tariff-Rate Quotas (TRQs), which make it difficult to assess the impact of liberalization. As noted by de Gorter and Kliauga (2006), non *ad valorem* products and TRQs account for most of the import protection for agriculture in the OECD countries.

The U.S. attitude to domestic support is largely defensive. Domestic agricultural support is provided through a range of programs for major products such as corn (maize), rice, soybeans and wheat that are not subject to significant tariff protection. Domestic support for dairy and sugar are major components of total domestic support and these sectors are both politically influential. Both sectors are also protected by tariffs and TRQs and would be affected by the market access provisions of a new agreement. While domestic support programs in general have been the subject of much criticism, particularly among developing countries, the U.S. support program for cotton has been particularly contentious. The imposition of tighter WTO disciplines on domestic support could imply that the U.S would need to modify its domestic farm programs or it might simply mean that changes would be needed in the way that programs are handled under WTO rules. The United States has signaled its willingness to accept tighter disciplines on domestic support, providing that this is balanced by increased market access in other countries. This position is supported by key farm organizations, such as the American Farm Bureau. Other groups, such as environmentalists, would like to see a movement away from commodity support and increased expenditure on other programs.

The United States has both offensive and defensive postures on export competition. It supports the elimination of agricultural export subsidies. Direct export subsidies were important in the past for some commodities, but have not been used by the United States in

[2] Not counting the negotiations between 1999 and 2001 that preceded the signing of the Doha Declaration.

recent years. However, export credit guarantees are used for some commodities, and these may be subject to tighter disciplines. Food aid, particularly aid in kind, has political support among commodity groups in the United States, and this will also be affected by a new agreement. Again, the offensive objective of eliminating direct export subsidies by other countries might be a prize worth pursuing, even if this will limit future U.S. export assistance options.

Whether a Doha agreement is ultimately acceptable to the United States will depend in large measure on whether market access provisions perform the needed balancing act of reducing tariffs enough in other countries, while allowing enough residual flexibility to permit smaller reductions in U.S. tariffs on commodities with politically strong domestic constituencies. Furthermore, a key determinant of the acceptability of a Doha Agreement in the United States will be whether it provides sufficient agricultural market access to compensate for potential political pain in other areas, especially reductions in agricultural domestic support and some non-agricultural tariffs.

Domestic support

The imposition of additional WTO disciplines on domestic support is a major issue for the United States. Tariff protection for much of U.S. agriculture is relatively low in comparison to some other major countries, but substantial support can be provided through a range of government programs for a range of products that have limited tariff protection, particularly when domestic prices fall.

Figure 1 graphs support notified to the WTO under the green and blue box categories, and the amber box (defined as the sum of the total AMS and *de minimis*). Total notified support has risen from roughly $60 billion in the mid-1990s to over $90 billion in the most recent year (2005). Note that amber box support can vary substantially from year to year depending on prices and production volumes. In periods when prices are low, such as 1999-2000, support can increase markedly in comparison to periods, such as 1996-1997, when the price of farm products was relatively favorable. Blue box support was eliminated as a result of the 1996 Farm Act, but green box support has shown fairly steady growth (from $46 billion in 1995 to $72 billion in 2005). Green box support now accounts for roughly 80 percent of total support (figure 2 and table 1).

Table 2 shows that the most rapidly growing category of green box expenditure is for domestic food aid, which accounted for 70 percent of the green box total in 2005. In addition to direct income support, whose status is being questioned in the WTO, disaster relief and environmental payments have been important components of this support, totaling roughly $10 billion annually in recent notifications.

The *de minimis* allowances have proved to be important for the United States. Table 1 shows that *de minimis* has accounted for up to 10 percent of total notified support. Most of this has been in the non product-specific category. The size of the *de minimis* exemption was equivalent to over 40 percent of the notified total AMS on average and almost reached 70 percent in 2002. If the United States had not been able to use the *de minimis* exemption, it would have exceeded its total AMS binding in 1999-2001. Table 3 shows the composition of

de minimis. Non product-specific *de minimis* has been the more important – averaging over 90 percent of the total over the notified period.

The U.S. notifies several important categories of support under the non product-specific (NPS) category (table 4). In addition to countercyclical payments, which were over $4.7 billion in 2005, other emergency payments and crop and revenue insurance have been important components of this support. The relevance of the NPS for future U.S. policy options will be examined subsequently.

An important issue for the United States is the notification status of some of its programs in the light of the Brazilian cotton case (WTO, 2005). The WTO ruling cast doubt on whether direct payments, which are currently notified as green box, qualify for that category. If direct payments had been notified in the amber box, the United States would have violated its total AMS commitment in some years. Table 1 shows that if direct payments were notified as non product-specific support (following the approach used by the United States for countercyclical payments) the total AMS binding would have been exceeded in four of the eleven years for which notifications have been provided to the WTO.

The draft modalities for domestic support

Analysis of the implications of new WTO modalities for domestic support (and export competition) is complicated by the fact that U.S. agricultural legislation is in a transitional phase. At the time of writing the House of Representatives and the Senate had yet to agree on a new Farm Bill (originally foreseen for implementation in 2007) that will be acceptable to the Bush administration. The delay in reaching agreement under the Doha Development Agenda (DDA) has complicated the process of reaching agreement on new U.S. agricultural legislation. The current House and Senate versions of the Farm Bill pay little regard to the implications of any future WTO commitments and do not address issues that have been raised by recent WTO panel rulings, in particular the consistency of U.S. direct payments with the Annex 2 of the Uruguay Round Agreement on Agriculture (the green box category of support).

The February 2008 draft modalities (table 5) are especially complicated in the case of the United States, involving several provisions that are either unique or of particular relevance to the U.S. situation. Of note are:

1. a special provision for the calculation of product-specific AMS limits as described in the table
2. the expansion of the blue box criteria to include payments based on fixed and unchanging crop bases and yields, or number of head of livestock, based on 85 percent of a fixed and unchanging base level of production – this implies that current U.S. countercyclical payments would be eligible for inclusion in the blue box, rather than being notified as non product-specific AMS as is currently the case
3. a special provision for the calculation of product-specific blue box limits, as described in the table
4. a larger reduction in the AMS limit for cotton than for other commodities, with an accelerated reduction schedule.

The implications of the proposed modalities for the United States are summarized in tables 6-8.

Table 6 contains the base values for the value of production, overall trade distorting support (OTDS) and the total and cotton AMS. The U.S. total AMS was just over 5 percent of the value of production, so the United States is not subject to the additional effort (additional reduction) requirement of paragraph 14 of the draft modalities.

The table also gives the final bindings for the OTDS under the two alternative reduction percentages (73 and 66), the total AMS (60 percent reduction), cotton AMS (82.2 percent reduction) and the total blue box binding. The final bound OTDS would be either just over $13 billion or $16.4 billion. Again, the ratio of the OTDS to production is around 25 percent, so the United States would not have to make an additional reduction as required by paragraph 4 of the draft modalities. The total AMS would be $7.64 billion, compared to the Uruguay Round Agreement (URA) value of just over $19.1 billion, and the blue box binding would be $4.85 billion. The cotton AMS would be roughly $143 million, compared to its base value of $800 million.

Table 6 gives the year-by-year implementation schedule for OTDS, total AMS, and cotton AMS and the various proposals for the reduction in *de minimis* in the draft modalities. The accelerated reduction for the cotton AMS may be noted (reduction of 82.2 percent over 20 months) compared to the five-year implementation (completion by the end of year 5) proposed for the OTDS and total AMS. The *de minimis* reductions differ by size (50 or 60 percent cut from the current allowable percentage of production) and whether these are effective immediately or phased-in over five years.

Table 7 contains calculations for the product specific AMS bindings. The modalities (Table 5) imply the following:

1. Sixteen of the 45 commodity categories for which an AMS was notified by the United States for at least one year since 1995 would have a zero AMS binding. These are several livestock categories (beef and veal, cattle and calves, hogs and pigs, livestock); fruit (blueberries, grapes, lychee, orchards and vineyards, peaches, pears); vegetables (onions, potatoes, and tomatoes); olives and pecan trees; and one grain crop - rye.
2. Seven of the commodities would be subject to the three-year phase-in for the reduction specified by paragraph 26 (barley, corn, dairy, dry peas, lentils, sorghum and sugar); all but dairy and sugar would be subject to an additional reduction in their AMS limit implied by the 130 percent restriction in paragraph 26.
3. The cotton binding would be superseded by additional provisions (table 5). In the absence of these provisions the cotton AMS binding would be reduced from a base value of roughly $1.5 billion to a bound value of roughly $1.1 billion over a period of 3 years. The additional provisions result in a reduction from a base value of $800 million to a bound value of $142 million over a period of 20 months.

Table 8 contains information on blue box product-specific bindings and their relationship to the product-specific AMS bindings. The legislated maximum permissible expenditure under

the 2002 Farm Bill for each of the commodities is given in column D.[3] The application of the shares of the total represented by these numbers to 110 percent and 120 percent of the total blue box binding results in the product-specific bindings in columns B and C, respectively. Note that these result in figures that are substantially below the legal maxima. The binding under the 120 percent figure yields a reduction of roughly 40 percent from legislated maximum expenditure; the 110 percent figure gives a reduction of roughly 45 percent.

The draft modalities indicate that countries can elect to increase the blue box binding for individual products by reducing that product's corresponding AMS binding. This is done on a dollar for dollar basis, except for cotton where the rate is two-to-one. Table 8 analyzes the effect of this provision. Column E shows the required cut in the product-specific AMS that would be required to increase the blue box binding to the legislated maximum expenditure under the 110 percent blue box binding. Column F flags those cases where this is not feasible because the AMS binding is too low. Column G shows the initial product-specific AMS that would result if either the blue box binding for that product is increased to meet the legislated maximum expenditure (if the AMS binding is sufficient to allow this), or the maximum feasible blue box binding (if all the available AMS amount for that commodity is used). Columns H through L repeat these calculations for the case of the 120 percent blue box binding.

We may draw the following conclusions from this analysis:

1. The United States could shift product-specific support from the AMS to blue box to meet the legislated maximum expenditure under the 2002 Farm Act for countercyclical payments for barley, minor oilseeds, oats, peanuts, rice, soybeans and wheat.
2. It would be unable to create a blue box binding for corn, cotton, sorghum, and wheat that would meet the legislated maximum expenditure. The most restrictive conditions apply to cotton (30 percent of the maximum). The wheat and sorghum bindings would be around 70 percent of the maximum and corn would be around 90 percent. To achieve these, of course, the PS AMS binding would be reduced to zero and any amber box support for these commodities would have to fall below the *de minimis* threshold.

Impact of the domestic support modalities

To examine the potential impact of the support modalities the domestic support simulator developed by Blandford and Josling (2007) is employed. In the current application the following assumptions are made:

1. The first year for implementation of a new agreement is 2010 with complete implementation by the end of 2014
2. OTDS is reduced by 73 percent and total AMS by 60 percent according to the schedule in table 6
3. The additional reduction in cotton AMS and accelerated reduction schedule is applied as in table 6
4. There is an immediate reduction in *de minimis* to 2 percent
5. The product-specific AMS bindings included in table 7 are imposed

[3] The maxima are calculated as (target price-direct payment rate – loan rate) x CCP yield per acre x base CCP acres x 0.85.

6. The 110 percent product-specific blue box bindings (column B in table 8) are applied
7. No allowance is made for the transfer of product-specific AMS to product-specific blue box
8. The parameters of U.S. support programs are those defined in the House of Representatives version of the 2008 Farm Bill (Committee on Agriculture 2007).[4]

The projections data for production and prices are derived from the most recent USDA baseline that provides projections to 2017 (USDA 2008). Cotton price projections are derived from a study by Ethridge *et al.* (2006).

These assumptions correspond to an "ambitious" scenario in which the maximum reduction percentages and the lowest bindings in the draft WTO modalities are applied.

Figure 3 summarizes actual and projected notifications in terms of the DDA concepts of the OTDS, the expanded blue box, the green box and the total AMS (after *de minimis*). The green box is assumed to increase in line with historical trends, due primarily to increased expenditures on domestic food programs. The switch of countercyclical payments from non product-specific AMS leads to modest blue box payments. The OTDS and total AMS are below those in recent years, and are consistent with the price environment at the time of the 1996 Farm Act. A range of factors, including domestic demand for bio-energy and strong overseas demand for U.S. commodities due to income growth, dietary change, and a weak dollar, result in a reduction in projected expenditures, particularly on support linked to prices.[5]

Figure 4 shows how reductions in the bindings on the OTDS and total AMS, and the binding on the blue box relate to projected notifications. The reduction in the OTDS does not become binding even by the end of the implementation period, but the "water" is substantially reduced. Our projections suggest that in the first year of implementation of the agreement there would be a roughly $23 billion "cushion" between the actual OTDS and the bound level. By 2015 this would have declined to around $4 billion. The reduction in the total AMS binding is even more significant – reducing the support cushion from roughly $8 billion in 2010 to less than $1 billion by 2015. The overall blue box limit does not have much of an effect in our projections. High prices mean that countercyclical payments are low and only about $1 billion dollars of the almost $5 billion dollar binding is used each year during the assumed implementation period of the agreement.

We are able to analyze the implications of the product-specific AMS and blue box bindings for some of the most important commodities (dairy, sugar, barley, corn, cotton, peanuts, rice, soybeans and wheat). Our projections suggest that the AMS binding would become operative for dairy and sugar from the first year of the implementation period and throughout. There is a gradual increase in the amount by which the PS AMS binding is exceeded (figure 5) from around $400 million (8 percent) for dairy and $190 million (16 percent) for sugar in 2010 to

[4] No account is taken of the impact of introducing a revenue-based countercyclical program as foreseen in both the House and Senate versions of the Farm Bill. The adoption of such a program could lead to additional support that would likely be notified under the non product-specific AMS. The "policy space" provided by that category of support for the United States is discussed later in the paper.

[5] The baseline projections do not include the effects of the Energy Independence and Security Act of 2007, which mandates increased production of corn ethanol to 2022.

over $700 million (15 percent) for dairy and $260 million (23 percent) for sugar by 2015.[6] The blue box binding is exceeded by a major amount for cotton in all years of the implementation period. At the beginning of the period blue box cotton payments are projected to exceed the binding by almost 350 percent ($1.1 billion). That figure declines due to a projected strengthening in cotton prices to around 160 percent ($670 million) by 2015. Even the maximum feasible blue box binding for cotton identified in table 8 ($418 million) would be insufficient to accommodate projected payments.

Implications for agricultural policy

If the economic environment that is foreseen in current USDA projections materializes, it seems that the United States will be able to adapt to the new WTO domestic support modalities by making some modest adjustments in its domestic policies. Dairy and sugar pose problems for AMS commitments that could be resolved by changing the nature of those programs to reduce the amount of support notified under the AMS.[7] Changes in market access (tariffs and tariff-rate quotas) could imply that existing support programs for these commodities would have to be modified in any case. However, the question of whether the United States would be required to make substantive or merely cosmetic changes to dairy and sugar programs in order to satisfy future domestic support commitments is an issue which is not explored further in this paper. The more stringent modalities for cotton create issues, particularly in terms of meeting blue box commitments.

Overall, large reductions in the OTDS and the reduction in the total AMS severely constrain the room for maneuver for support that is most closely linked to prices. The optimistic price environment used in the projections may not materialize. In that case, limits on the total AMS and some product-specific AMS limits could well be exceeded unless some other alternative to current support policies was found.

One option for U.S. policymakers might be to use the NPS and the green box to alter the composition of farm support. Green box support for farmers could be expanded, particularly under the environmental category, although other categories such as disaster relief or direct payments might be more politically attractive. The future status of U.S. payments under the latter category is, of course, in doubt as a result of recent and ongoing WTO cases, but payment rules could be modified to ensure green box compliance.

The other possibility is to expand the use of non product-specific support up to the limit imposed by *de minimis* and the overall OTDS binding. This category of support, unlike AMS and blue, increases in line with the value of production. The value of the exemption is projected to be between $8 billion and $10 billion by 2015 depending on whether the rate is set at 2 percent or 2.5 percent of the value of production. The movement of countercyclical payments into the blue box under the DDA provides a significant extra margin for support to be included in the NPS, for example, through the sort of revenue insurance schemes that are contained in the House and Senate versions of the Farm Bill, providing that the non product-

[6] Note, however, that the Senate version of the Farm Bill contains a higher increase in the loan rate for sugar than the House version. This would result in a larger excess of the current AMS over the binding.

[7] The House and Senate versions of the farm bill contain provisions that would redefine the support program for dairy as one based on products rather than milk. This would reduce, substantially, notified domestic support for the sector.

specific nature of such support was not challenged successfully by other countries. However, the potential for box shifting is limited by the total OTDS binding which would be roughly $13 billion under the higher OTDS reduction percentage of 73 percent, and $16 billion under the 66 percent reduction. Figure 6 illustrates the situation implied by our projections under the lower OTDS binding. If nothing were done to change the projected notified support for dairy and sugar, a maximum of roughly $5 billion would be available for NPS support. However, if the higher OTDS binding were applied in the DDA agreement our projections imply that roughly $8 billion of the *de minimis* allowance could be used in 2015, i.e., the full amount under 2 percent *de minimis*, but $2 billion less than that under the 2.5 percent *de minimis*.

In conclusion, the strengthened disciplines on domestic support in the proposed modalities would have the effect of squeezing out a lot of the "water" in the amount of support that the United States can provide to U.S. farmers and still meet its WTO commitments. Several commodities, most notably cotton, but also dairy and sugar, pose problems in meeting product-specific commitments. There may be room for maneuver for dairy by changing the nature of the support program. The option of moving support into the non product-specific category (for example, by changing the cotton countercyclical payment program from a price to a revenue basis) could also provide some policy space for meeting future WTO commitments. However, it should be stressed that our projections assume a relatively high price environment for major U.S. crops. If prices were to fall substantially, so that major price-support payments were triggered, the likelihood of meeting WTO commitments on domestic support under a continuation of existing programs would be substantially different from the assessment presented here.

Market Access

The U.S. agricultural trade regime is simpler than the European Union's regime in that tariff preferences on agricultural products are much less extensive (Dean and Wainio 2008; Candau and Jean 2008; Hoekman, Martin and Braga 2008). However, there are substantial complexities associated with the very finely disaggregated tariff schedule, non *ad valorem* tariffs and TRQs. The impact of tariff reductions depends on the nature of the tiered formula, with larger proportional cuts in higher tariffs. The impact on applied tariffs, and hence on market access and economic efficiency, depends on the relationship between the bound tariffs emphasized in WTO negotiations and applied tariffs.

A key factor in any analysis of the effects of tariff reform is an understanding of the nature of the tariff regime. If tariffs are *ad valorem* their effects are relatively transparent and analysis of a tariff-cutting formula, such as the tiered formula being used in the Doha negotiations, is relatively straightforward. In contrast, if non *ad valorem* tariffs such as specific or mixed/compound tariffs predominate, then the effects of anything other than a proportional cut will depend on the nature of the process used to transform these tariffs into *ad valorem* equivalents (AVEs). Non *ad valorem* tariffs, particularly if high, also have implications for the tariff simplification objective in the modalities. Simplification of non *ad valorem* tariffs—as proposed in the modalities—is highly desirable, but needs great care if "dirty tariffication" of the type seen in the Uruguay Round (Hathaway and Ingco 1996) is not to result in higher bound tariffs than would otherwise be justified.

One particularly important factor is the effect of different weighting schemes on summary measures of tariffs. The widely used simple average is easy to compute, but fails to reflect the fact that some goods are much more important in trade than others. The trade-weighted average tariff corrects this problem, but suffers from potential bias in that high tariffs tend to reduce the volume of imports, and hence to assign low weights to tariffs on highly protected products. The MacMApHS6 reference group methodology (Bouët *et al* 2008) deals with the problem by using weights for a reference group of countries, potentially at the cost of using weights that are less relevant to a country's own potential imports. If the reference group as a whole has a large share of imports in the country's highly protected goods, then the reference group average is likely to be higher than the trade weighted average.

Table 9 shows the *ad valorem* equivalents of U.S. bound tariffs using each of the weighting schemes. *Ad valorem* tariffs average around 4 percent under each scheme but there are large differences for each tariff type irrespective of the method used. The mixed-compound tariffs are four times as high as the average for all tariffs. Pure specific tariffs are at an intermediate level, with a trade weighted average of 7 percent. The importance and the height of non *ad valorem* tariffs means that particular attention must be paid to the *ad valorem* equivalents (AVEs) used in analyzing tariff reform. Moreover, tariff simplification provisions in the draft modalities, requiring that 90 percent of tariff lines are bound using *ad valorem* tariffs, will mean that modifications will be necessary for more than one third of the lines in the U.S. tariff schedule. Provisions for the elimination of the most complex forms of tariffs (mixed and compound) will necessitate reformulation of virtually all over-quota tariffs on TRQ products.

An interesting feature of table 9 is that the overall trade-weighted average tariff is higher than the simple average tariff, despite the tendency for the former to yield estimates that are biased downwards. Two factors contribute to this outcome. The first is that high tariffs are imposed on some relatively important imports. The second is the importance of goods subject to TRQs. If a TRQ regime stimulates imports by providing a low-tariff regime, but the out-of-quota tariff is used to assess the protective effect of the tariff, this will lead to an estimated average tariff well above that based on tariff revenue collections. The reference group methodology yields a higher average tariff, suggesting that highly protected products in the United States have a larger share of imports in the reference group.

In most of the analysis presented in this paper, we focus on trade-weighted data at the Harmonized System (HS) chapter level. Table 10 presents these data for the chapters included in the WTO definition of agriculture, together with the agricultural elements of chapters that contain both agricultural and non-agricultural products.

The first column of table 10 shows the percentage of agricultural tariff lines by HS chapter. The second gives the percentage of imports covered by that chapter. The third shows the share of implied tariff revenues (applied tariff times trade value) contributed by each chapter. The fourth shows the weighted average bound tariff applied on that tariff line. The next two columns provide additive components showing the percentage average tariff due to the AVE of non *ad valorem* tariffs, and the percentage due to *ad valorem* tariffs. The final column shows the binding overhang—the gap between the bound tariff in column three and the weighted average MFN applied rate for the chapter.

The first two columns show that agricultural imports are widely distributed across HS chapters. Beverages and tobacco is by far the largest chapter in terms of imports. Other important chapters are meat and fruit and nuts. Turning to the bound tariff rates in column three, we find that the chapters with the highest tariffs are sugar, dairy products, tobacco, and live animals. Cotton also has a relatively high tariff – 11.6 percent. Sugar, dairy products and tobacco have much lower import shares than many other products, such as meat and fruit, which have lower tariffs.

The implied tariff revenue shares in the third column of the table provide a rough measure of the importance of protection for each good. If the good is important and tariffs are high, then this measure will tend to be high—although if tariffs are sufficiently high, imports may become small enough to reduce the measure. Our calculations suggest that protection for six chapters accounts for over two thirds of the incidence of total U.S. agricultural protection. Sugar is the highest on this measure, accounting for nearly 21 percent of the total. Meat and offal, tobacco and the two chapters covering vegetables (vegetables and vegetable preparations) each account for 12-13 percent of total implied revenues, while dairy products account for a further 9.3 percent. These six chapters account for over two thirds of the total burden of protection on agricultural imports.

Another important feature of Table 10 is that the chapters with the highest tariffs—such as live animals, dairy products, sugar and cotton—receive most of their protection from non *ad valorem* tariffs. Of the high-tariff products shown in the table, only tobacco is primarily protected by *ad valorem* tariffs. A final feature revealed by the last column of Table 10 is that binding overhang is relatively small in most chapters. The average bound rate of 8 percent, combined with an average applied rate of 7.9 percent leads to a binding overhang of 0.1 percentage points.

Tariff rate quotas (TRQs) are an important component of the agricultural protection in industrial countries (de Gorter and Kliauga 2006). Table 11 shows the importance of imports under U.S. TRQs for each HS chapter and for agriculture as a whole. On casual examination, TRQs might appear to be a relatively minor source of protection, since they cover only 8 percent of agricultural tariff lines and 18.4 percent of agricultural imports. However, the average bound tariff rate on these commodities is six times that for agriculture as a whole. Tariff rates for many of the chapters containing TRQ products are extremely high, with rates of 132 percent on oilseeds, 70 percent on tobacco products, and 57 percent on sugar. Moreover, comparing the official fill rate (from the Quota Weekly Commodity Status Report of the U.S. Customs Office) to the effective flow of imports shows that significant out-of-quota imports take place. Many imports enter under the over-quota tariff even when the quota fill rate is below 90 percent. For example, in 2004, only 11 quotas were close to being completely filled: beef from New Zealand and Uruguay; dairy products from Australia; sugar from Fiji, Mozambique and Papua New Guinea; peanut butter from Argentina and Canada; chocolate from some EU countries and ice cream (all countries). The monitoring of TRQs proposed in the draft modalities appears to be very important for ensuring that real market access is provided by an expansion of tariff-rate quotas.

The tariff on ethanol raises some special issues. The bound tariff is low – between 1.9 percent and 2.5 percent. The main source of protection comes from an additional duty and charge of 14.27 cents per liter (the AVE ranges between 30 and 50 percent). Since this is not a tariff, it would not be cut under a tariff reduction formula agreed in the WTO negotiations. This may be an important issue for ethanol exporters such as Brazil.

Assessing the impact of the market access modalities

In order to analyze agricultural reform worldwide, it is necessary to make some simplifying assumptions about the extent of protection and the effects of liberalization. One of these is to use *ad valorem* equivalents (AVEs) to assess the effect of non *ad valorem* tariffs. A second is the standard set of assumptions in our database (MAcMapHS6) regarding TRQs—that the out-of-quota tariff of a TRQ regime imposes an effective constraint on imports when they are more than 98 percent filled; that the in-quota tariff is effective when they are less than 90 percent filled; and that the average is relevant for TRQ commodities where the quota is between 90 and 98 percent filled.

The modalities for agricultural market access liberalization are complex, and the details of the draft modalities are extremely important in determining the outcome. We therefore spell out in some detail the nature of the proposal, and the way that we have examined its implications.

The centerpiece of the market access modalities is a tiered reduction formula, which provides for larger proportional cuts on higher tariffs. Many key issues that were undetermined in the earlier framework (WTO 2004) have now been resolved. There is agreement on four bands in each case, and on the boundaries between these. While there are ranges associated with the depth of cut in each band, the ranges are now sufficiently narrow that it seems reasonable to focus analysis on the center of each range. The boundaries of the four tariff bands for developed and developing countries are given in table 12, together with the proportional cuts to be made in bound agricultural tariffs in each band.

It is evident from the table that the tariff cutting formula is quite aggressive, particularly relative to URA tariff cuts. In the Uruguay Round, countries were required to meet a target only in terms of the average cut in their tariffs, a procedure that encouraged them to make large cuts in small tariffs. If the Doha negotiations are concluded successfully, virtually all tariffs would be cut by more than the average URA reduction. Further, the tariff cuts would have the economically desirable feature of involving larger cuts in higher (and hence more restrictive) tariffs. In line with long-standing practice, developing country cuts in each band are two-thirds of those for industrial countries. The bands are also wider, in part to allow for the fact that many developing countries would otherwise have more tariffs included in the higher bands.

Tariff escalation provisions apply. The general principle is that processed products subject to tariffs higher than their raw or intermediate product counterparts are moved into the next highest band. If they are in the top band, a cut of 1.3 times the reduction in the highest band is proposed. If the gap between the processed and unprocessed product tariff is less than 5 percentage points, then the tariff escalation procedure is not applied, so that the tariff cutting rule does not bring the tariff on the processed product below that on intermediates. A list of

tropical products will be subject to deeper-than-formula cuts, while developed countries will provide duty-free access on cotton.

All countries are permitted to make some smaller cuts on "sensitive" products. The modalities include a limit on the number of such products, and provisions for increases in market access under TRQs for products where smaller-than-formula cuts are made. The amount of tariff lines allowed to be treated as sensitive is to be between 4 and 6 percent for industrial countries, except if they have more than 30 percent of their tariffs in the top band, or have scheduled their tariffs at the six digit level, in which case it will be between 6 and 8 percent. If the formula cut is reduced by two thirds, then market access must be increased by 4-6 percent of domestic consumption; if the reduction is by one third, then the increase in market access will be between 3 and 5 percent.[8] Part of the resulting increase in market access will derive from reductions in tariffs, while part reflects the fact that securing an increase in market access for a TRQ commodity requires an increase in TRQs as well as a reduction in tariffs. Developing countries have the right to declare one third more products as "sensitive" than developed countries.

A key issue in assessing the impact of the draft modalities is how sensitive products will be chosen. One approach assumes that these products will be the ones with the highest bound tariffs (Sharma 2006); a second assumes that they will be those with the highest applied tariffs (Vanzetti and Peters 2008); and a third uses a tariff-revenue-loss criterion under which products are selected on the basis of the value of imports times the reduction in the tariff rate (Jean, Laborde and Martin 2006).

The three approaches produce very different results. The use of the highest bound tariff approach suggests that sensitive products will have a modest impact on the reduction in average tariffs; the highest-applied tariff criterion suggests a slightly larger impact; and the tariff-revenue-loss criterion suggests that even small numbers of sensitive products can greatly diminish potential reductions in applied tariffs. In our view, an approach based on the height of the tariff alone (bound or applied) results in the selection of many products as "sensitive" that are inherently unimportant[9], and are unlikely to be strong candidates for inclusion on the sensitive list. Conversely, much more important products are excluded. Unfortunately, all of the procedures are *ad hoc*, making it difficult to distinguish among them, despite the policy importance of their different impacts.

Jean, Josling, Laborde and Swinbank (2008) use an approach grounded in the willingness of policy makers to retain higher and hence more costly tariffs on some products. They take into account the fact that high protection on an important product such as sugar is more costly than high protection on a minor commodity. They use the estimated cost of these tariffs to work out the extent of the policy makers' preference for protecting industries. With this information, they develop selection approaches to help identify which products are likely to be chosen as sensitive. While this information is not needed by policy makers at home—who know which products they plan to choose as sensitive—it is likely to be particularly valuable

[8] The TRQ expansion may be smaller if the initial TRQ is more than 10 percent of consumption; particularly if it is more than 30 percent of domestic consumption.

[9] The corn used for making brooms has a relatively high tariff, but seems unlikely to be chosen over products like butter or sugar if the list of sensitive products is short.

to foreign policy makers, who must guess the implications of sensitive products for their market access opportunities abroad.

Use of this simplified criterion implies a tendency to select products that have significant shares of total imports (at domestic prices); have high initial applied tariffs; and would face large cuts in applied rates if the reduction formula were applied without exceptions. While decisions about sensitive products should, in principle, be made for all products simultaneously, the authors show that examining tariff lines one at a time provides a good approximation to the results obtained by considering all possibilities together. They also show that the consequences for product selection are likely to be similar to those of the tariff-revenue loss rule—that is, even the exclusion of small numbers of tariff lines is likely to cause a large reduction in the average tariff cut.[10]

We base our computations on 2004 tariff and trade data. We use the WTO approach to computing the ad-valorem equivalents (AVE) of specific tariffs (WTO 2007). Even though no agreement has been reached so far on the computation of AVEs for the sugar sector, we use the general rule adopted for other products. Our main source of information is the U.S. Uruguay round schedule and the USITC tariff schedule of applied protection harmonized at the HS6 level following the MAcMapHS6 methodology (Bouët *et al.* 2008). Although the U.S. tariff schedule is defined at the ten-digit level, we work at the six-digit level to facilitate international comparisons. It should be noted that in spite of the need to promote transparency in the WTO negotiations, information on several key elements needed to perform detailed analysis at the tariff line level are not publicly available, for instance the mapping between the Uruguay Round schedule nomenclature and the current applied tariff schedule and the official AVEs computed by each WTO delegation.[11]

Implications of the formulas for applied U.S. tariffs

While WTO negotiations are based on bound tariff rates, the implications of an agreement for market access and economic welfare depend on the impact on applied rates. To provide a preliminary assessment of the implications of the modalities for applied protection, we begin with the MAcMapHS6 v2 database for 2004 together with a set of bound tariff rates for which *ad valorem* equivalents have been calculated on the same basis. We first cut the bound tariff rates using the approaches considered in the modalities, and then assess their implications for applied rates. In this preliminary analysis, we use the conventional assumption that applied rates are not reduced unless the new bound rate falls below the applied rate. Where ranges are provided in the draft modalities, we generally take the mid-point of the range.

We incorporate three other important elements of the modalities: (i) the special provisions for dealing with tariff escalation; (ii) the provisions for liberalization of tropical and/or diversification products; and (iii) the agreement to liberalize completely imports of cotton from least developed countries (LDCs). The details of the assumptions used for tariff

[10] The specific criterion that they propose is $s_i\left[\frac{f_i t_i}{(1+t_i)}\right]^2\left(1-c^2\right)$ where t_i is the initial tariff; s_i is the share of the import at domestic prices in domestic spending; f_i is the tariff cut implied by the formula; and c_i is the reduction in the formula cut permitted for sensitive products.

[11] See appendix table A.1 for information on the implications of using different methods for calculating AVEs.

reductions are given in table 13. The final list of tropical (and diversification) products is still to be determined. In the light of this we use the tropical product list from the Uruguay Round.[12]

A key determinant of the effects of the tiered formula is where individual tariff lines lie in the bands. From table 14, it is clear that the vast majority of U.S. tariff lines fall in the lowest band of the tiered formula. It is also clear that this result holds whether attention focuses on the share of tariff lines cut; the trade-weighted average; or tariffs weighted by a reference group. This means that these tariffs are subject to the lowest reductions of around 50 percent. It also implies that the 54 percent minimum average cut is likely to be binding, particularly if a significant number of products are classified as sensitive and hence subject to smaller tariff cuts.

Table 15 shows the implications for average tariffs by chapter, and for all agricultural products, of applying the formula and the additional provisions that do not involve discretion on the part of the importing country—the tariff escalation and tropical product provisions. From the table, it is clear that application of the formula is likely to result in substantial reductions in trade-weighted average applied tariffs. The tiered formula alone would reduce average tariffs from 7.9 to 3.5 percent. The proposal for additional cuts to mitigate tariff escalation has relatively little impact at the aggregate level, or for any chapter as a whole. Additional liberalization of tropical products would, however, have a noticeable impact on the overall average tariff and on chapters for such products as edible fruit, cereals, oilseeds, gums, and tobacco. The complete package of formula cuts would reduce average applied rates from 7.9 percent to 3.2 percent, a cut of 58 percent. The corresponding simple average cut would be 61 percent.

The first two columns of table 16 show the implications of the tariff-cutting formula, including the provisions for tariff escalation and tropical products, for effective applied tariff rates—that is tariff rates that take into account the tariff preferences received by some exporters to the United States. The third and fourth columns show the implications of these tariff cuts for preference margins. As is clear from the table, the average preference margin on U.S. agricultural products is relatively small, at 1.6 percent, even prior to cutting the tariffs. This is less than half the margin applying in the European Union (Jean and Laborde 2008).

The tariff reductions by chapter in table 16 show some interesting patterns. The tiered formula would bring about substantial reductions in tariffs on the product groups with the highest tariffs, such as sugar, dairy products, tobacco and meat. In sugar and tobacco, the tariff reduction would be almost two-thirds, while tariffs on dairy and meat products would be reduced by over half. The reductions in preference margins on most of these highly protected categories would be relatively small, except for sugar and tobacco.

[12] A new list (the Cairns list) that has been the focus of discussion includes fewer tariff lines than the Uruguay Round list since products that face zero MFN tariffs in the developed markets have been deleted. For this reason, even if the number of products is smaller, the scope of liberalization is not reduced. Moreover, the Cairns list adds other products that are not tropical (e.g., onions) but are considered as diversification products.

In the upper part of the table, we present figures by groups of countries. Developing countries and LDCs currently benefit from a preferential margin of 2.5 percentage points on average. However, because of product specialization, they face higher average barriers in the U.S. than developed country exporters. This is particularly true for LDCs, who face a 14.5 percent tariff compared to 6.2 percent for developed countries. We do not incorporate a duty free-quota free (DFQF) initiative in the core formula, but we do include the cotton initiative. The formula has a similar effect for developed and developing country exporters and a stronger effect for LDCs, for whom the applied tariff is cut from 14.5 percent to 5.1 percent. However, preference erosion takes place and the preferential margin is reduced from 2.5 percent to 0.8 percent. The final tariff faced by LDCs is 5.1 percent, suggesting that a full DFQF in agriculture could be of significant value to these exporters.

Implications of sensitive product provisions

As indicated above, sensitive products were selected using the formula suggested by Jean, Laborde and Martin (2008), which takes into account the importance of the good in domestic demand, the cut in prices implied by the formula, and the extent to which treatment as a sensitive product reduces the size of that cut. In addition, we took into account the requirement that tariffs be reduced by an average of 54 percent in industrial countries. When this constraint is binding, reductions in each category need to be scaled up proportionately until the minimum average-cut of 54 percent is achieved.

The 54 percent average-cut constraint is binding for the United States. To retain any product initially selected as sensitive requires an additional cut in tariffs on other agricultural products. The size of the additional tariff cut was computed and the political welfare benefits of this selection compared with the costs of raising the formula cuts on all agricultural products. Our analysis suggests it would be optimal for the U.S. to limit the number of sensitive products instead of using the full flexibility and then having to increase cuts on non-sensitive products. This result is consistent with the initial U.S. proposals to allow a limited number of sensitive products (1 percent). In our analysis, the size of the tariff cut on sensitive products was set at two-thirds of the formula cut because of the need to meet the 54 percent overall average-cut requirement, and because larger deviations from the formula require larger TRQ expansions (WTO 2008, p.14).

The result of this procedure is the list of 18 six-digit sensitive products shown in table 17. This is roughly 2.4 percent of the agricultural tariff lines considered—less than half the number of sensitive products initially allowed. The first column of the table shows the HS six-digit code for each product. The second gives a brief description of the product. The third shows the applied MFN tariff on the product after application of the formula. The fourth shows the tariff after applying two-thirds of the formula cut. The fifth column shows the volume of imports under the TRQ category of which this sensitive product is a part. And the final column shows the size of the TRQ. The TRQ categories are frequently broader than the tariff line, but it is the degree of quota fill or over-fill that determines whether the out-of-quota tariff, the in-quota tariff, or the quota itself determines the level of protection.

A key feature of the table is that, for many of the selected products, even the one-third deviation from the formula considered here results in a post-round tariff that is much higher than would otherwise be the case. The figures on quota fill suggest that, for most of these

products, out-of-quota imports take place, suggesting that these out-of-quota tariffs are the key determinants of protection. In the few cases, such as frozen orange juice, where the quota is not filled, it is likely that either the in-quota tariff or constraints resulting from quota administration are determining the level of imports. Finally, the low apparent quota fill rates suggest that the monitoring TRQ provisions of the modalities are likely to be important in ensuring that enlargement of the TRQs for sensitive products will actually increase market access.

We do not expect that the products actually selected as sensitive by the United States will correspond exactly to the list in table 17, since that will depend on the outcome of domestic political negotiations. Some of the factors taken into account in the political process will go beyond those incorporated in our simple selection rule. If, for instance, one industry has become better organized politically since the last revision of the tariff schedule, it may be able to prevail over industries whose political influence has declined. Industries that are more concerned than others about the potential use of adjustable tariffs to reduce the variability of domestic prices might similarly prevail over some on our list. However, we think it likely that the factors incorporated in our criterion for sensitive products—the importance of imports at domestic prices; the height of the initial tariff; the depth of the formula cut; and the extent to which sensitive product treatment allows tariff cuts to be reduced—will be important in product selection.

One other potentially important interaction is that between the choice of sensitive products and the proposed reduction in the number of products eligible for Special Safeguard (SSG) treatment. Currently, more than 10 percent (186 lines) of the U.S. agricultural schedule is covered by SSG provisions; 165 lines at the 8 digit level are eligible for SSG application, including beef and mutton; nearly all dairy products and derivatives; peanut and peanut butter; cocoa products and cotton. Most of these products appeared in our sensitive products list, even through that is based on non-contingent protection. Reducing the number of SSG lines to 1.5 percent (around 25 lines) will require careful choices and may reduce drastically the level and uncertainty of protection faced by many exporters of these products.

Table 18 shows the importance of allowing sensitive products for the MFN tariffs applied by the United States. The first column of the table shows the initial MFN tariffs; the second gives the tariffs after application of the formula, including treatment for tariff escalation and tropical products; the third shows the tariff after the application of the formula and sensitive product treatment.

Table 18 shows that the provision for sensitive products reduces the size of the reduction in U.S. agricultural tariffs. Without sensitive products, the tariff average would be reduced by 4.6 percentage points, from 7.9 to 3.3 percent. With sensitive products, the reduction is 3.8 percentage points, from 7.9 to 4.1 percent. The resulting diminution in market access is much less than indicated by Jean, Laborde and Martin (2006, p. 98), who saw the cut in applied tariffs resulting from the formula essentially disappear when just two percent of sensitive products were included. There are two key reasons for this difference. The first is the much greater effort required on sensitive products under the current modalities. Instead of being cut by 15 percent as in Jean, Laborde and Martin (2006), they are to be reduced by two thirds of the formula cut, which implies reductions of close to 50 percent for products in the highest

tier. The second reason is the requirement for a 54 percent average-cut in bound tariffs, enforced through proportional increases in tariff cuts on all products, which we find likely to make selecting a shorter list of sensitive products more attractive to U.S. policy makers. In this case at least, the provision has the desirable effect of imposing a "price" on the use of sensitive products and requiring careful balancing between the interests of different industry groups.

The second and third rows of table 18 show that the initial tariffs and the tariff cuts differ enormously between the products likely to be chosen as sensitive and those not on the sensitive list. The weighted average tariff on sensitive products is more than ten times as high as that on non-sensitive products, at 50 percent. For these products, sensitive product treatment has a large impact on the required tariff cut. The reduction in the average tariff on sensitive products falls from 32.2 percentage points to 21.1 percentage points. By contrast, the cut in average tariffs on non-sensitive products is 2.3 percentage points.

Turning to the individual chapters, we find very large differences in the tariff cuts with and without sensitive products. For dairy products, we find that sensitive product treatment causes a reduction in the tariff cut from 15.7 percentage points to 11.6 percentage points. For sugar and products, the reduction is from 30.3 to 22 percentage points. For tobacco and products, the reduction is from 29.8 to 20.1 percentage points.

Impacts on tariffs facing the United States

The impact of the modalities on the tariffs facing U.S. exports is extremely important for policy makers seeking to overcome political resistance to reductions in U.S. tariffs and the imposition of additional constraints on domestic support. Table 19 provides some initial estimates of the tariffs facing U.S. exporters in industrial country markets, developing country markets, and three subgroups of developing countries for which the modalities provide for different tariff treatment.

The first column of the table shows that the market access barriers facing U.S. agricultural exports are much higher in WTO developed country markets than in developing countries. The average tariff facing U.S. exporters in developed countries is 20.46 percent; it is just over a third of that level (7.25 percent) in developing country markets applying the tariff formula, that is excluding small and vulnerable economies (SVEs), recently acceded members (among them China), LDCs and South Korea. While the tariff facing U.S. exporters in the small and vulnerable markets and recently acceded members is somewhat higher than the developing country average, it remains well below the average for developed countries.

The case of the Republic of Korea is particularly important since it is a highly protected, large, high-income market that is treated as a developing country in the WTO negotiations on agriculture. If we follow the standard MAcMap methodology, we use the out-of-quota tariff because the official TRQs are more than filled, and two products in this market, namely corn (maize) and soybeans—with large trade volumes and tariffs of around 400 percent, appear to account for over 20 percent of the global agricultural trade barriers[13] faced by the United States. Although the South Korean market is highly regulated, it appears that the authorities ensure the TRQs are expanded sufficiently to meet the demand from their livestock sector

[13] Measured by the tariff rate times the value of imports.

and crushing industries.[14] For this reason, we adjust the MAcMapHS6 methodology so that maize and soybeans imported for feed use face only the in-quota tariff.

In preparing the estimates presented in table 19, we used the same approach in partner markets as in the United States. That is, we first apply the tariff-cutting formula for that group of countries together with any adjustments (WTO 2008): such as the minimum average-cut for industrial countries and the maximum cut for developing countries; the increased cuts for tariff escalation and tropical products; the 10 percent smaller cuts allowed in small and vulnerable economies; and the 7.5 percentage points smaller cuts in recently acceded members.[15] We also allow for the impact of the provisions for sensitive and special products. Sensitive products are selected using the methodology discussed previously; assuming that the formula cut is reduced by 33 percent. The draft modalities allow for a range of alternatives for special products (e.g., percentage of special products between 13 percent and 20 percent, degree of shielding from liberalization to be defined and adjusted to the scope of coverage). We use an approach similar to that for sensitive products[16] with 6.5 percent of products having no cut and 6.5 percent of products having half the formula cut.

The second column of table 19 shows that the tariff-cutting formula would reduce the average tariff facing U.S. agricultural exports from 15.7 percent to 9.6 percent in the absence of provisions for sensitive and special products, a reduction of around 40 percent from initial levels. Once sensitive and special products are incorporated, however, the reduction becomes much smaller. In that case, the tariff facing U.S. exports declines from 15.7 percent to 12.5 percent, a reduction of 3.2 percent or 20 percent from the initial level.

By applying the tariff cutting formula without the flexibilities for sensitive and special products, the tariff facing U.S. exports to developed country markets would be cut by more than half, from 20.5 to 10 percent. By contrast, the tariff reduction in developing country markets (including Korea as a developing member for agriculture) would be from 10.2 percent to 9.42 percent, a reduction of 8 percent. The reduction of 10.5 percentage points in the industrial country markets would cut prices of imports from the United States by substantially more than the reduction in developing country markets.

As previously noted, the treatment of the Republic of Korea has an enormous impact on the aggregate figures. If we exclude Korea from the set of developing countries, the average tariff rate facing the United States is 7.3 percent prior to application of the formula and 5.9 percent afterwards. These figures make clear that the provisions of the tariff formula for developing countries; the higher binding overhang in developing countries; and the lower initial rates of applied protection in the developing countries imply a much smaller reduction in the tariffs facing U.S. exports in developing countries than in industrial countries. The smaller effect of the developing country formula on their applied rates means that sensitive and special

[14] We thank Ed Allan, Lyn Hofmann and John Dyck of USDA-ERS for their advice on the operation of these policies.
[15] Except the very recently acceded members who are not required to make any tariff cuts.
[16] It is obvious than with the broad categories of guidelines for selecting special products (from poverty reduction to tariff revenue losses and sector competitiveness), it will be easy for countries to select freely the products they want.

products have much less impact on developing country tariffs than tariffs in industrial countries.

The sensitive and special product provisions appear, on the face of it, to provide much greater flexibility for developing countries. As noted previously, we assume that developing countries are allowed to classify 13 percent of their tariffs as special products, and an additional 6.65 percent as sensitive products.[17] In addition, much smaller cuts in tariffs on special products are assumed.

Despite these differences in the treatments of industrial and developing country tariffs, it is clear from table 19 that much of the impact of the flexibilities on post-round tariffs facing U.S. exports comes from sensitive products in the industrial countries, rather than from sensitive and special products in developing countries. When sensitive products are allowed in developed countries, the average post-Round tariff facing U.S. agricultural exporters rises from 10 percent to 14.6 percent. This is an increase of 50 percent, or 4.6 percentage points in the average tariff. By contrast, allowing for sensitive and special products in the developing countries, excluding South Korea, allows them to maintain a tariff of 6.8 percent, rather than 5.9 percent, against U.S. imports.

Table 20 provides results at the chapter level for U.S. exports on global markets. Major market opportunities will be created in meat, oilseeds, cereals, vegetable preparations, tobacco and food residues. At the same time, due to sensitive and special products, more than 60 percent of the formula effect has been neutralized for cereals, oilseeds, dairy products, gums, food preparations and cotton.

Concluding comments on the market access provisions

Our analysis shows that U.S. agricultural tariffs are relatively low on average, with average bound rates of 8 percent, and applied preferential rates of 6.3 percent. However, there are some high tariffs on products of interest to developing countries, such as sugar, meats, dairy products and beverages and tobacco. Over half of protection is provided through relatively non-transparent measures such as specific and mixed tariffs, and these non *ad valorem* measures are predominant on products with relatively high tariffs. Tariff Rate Quotas (TRQs) cover almost 20 percent of imports, and the applied rates of protection on these products are four times as high as for other agricultural products, making them particularly important.

The relatively low rate of U.S. agricultural tariffs and their distribution means that around 90 percent of the tariff lines fall in the first band of the proposed tariff-cutting formula for a new WTO agreement, and hence are subject to the lowest cuts. Despite this, the cuts in agricultural tariffs resulting from application of the formula are relatively substantial, with the trade-weighted average MFN applied rate falling from 7.9 percent to 3.5 percent. Application of the tariff escalation formula is found to have virtually no impact on the average tariff, while application of the Tropical Products formula would reduce the post-round tariff from 3.5 percent to 3.2 percent. The formula would bring about the largest reductions in protection on highly protected products such as sugar, dairy products and tobacco.

[17] We consider also the additional sensitive products for countries with Uruguay Round tariff schedules at the 6 digit level and for the ones having more than 30% of their tariffs in the highest band.

We choose sensitive products on the basis of the observed political strength of domestic industries. This leads to a simple selection criterion based on the share of a good in the value of domestic consumption, the initial tariff rate, the depth of cut required by the formula, and the extent to which this cut can be abated by the sensitive product treatment. Using this firmly based selection criterion, we find that the sensitive product option is likely to have a relatively small impact on U.S. tariffs. This is partly because of an interaction with the requirement for a minimum average-cut in tariffs of 54 percent on all products, including sensitive products. As the number of sensitive products subject to smaller-than-formula cuts increases, the tariff cuts on other products must be increased proportionally to meet the 54 percent average-cut requirement.

Turning to market access for U.S. agricultural exports, we find that the tariff formulas in the modalities would sharply reduce the average tariffs facing U.S. exporters. The average tariff would fall from 19.5 percent to 11.6 percent following application of the formulas. Most of this reduction would come from a sharp fall in the tariffs applied by other industrial countries. The average tariff faced by the United States in WTO developing countries is 10.25 percent. Excluding Korea from the developing country group, we find that the formula would cut developing country tariffs on U.S. agricultural exports from 7.3 to 5.9 percent. Adding sensitive and special products would allow only an increase from 5.9 percent to 6.8 percent. Since the cuts in tariffs resulting from the formula are low, the sensitive and special product exceptions have a relatively small impact on developing country tariffs.

Export Competition

The United States currently has four types of programs that are designed to increase exports of agricultural products: 1. export market development programs; 2. direct export subsidies; 3. export credit guarantees; and 4. food aid. The principal programs and their characteristics are summarized in table 21.

The most contentious programs internationally are those that involve direct export subsidies. A summary of U.S. notifications for subsidized exports is given in table 22. Most of the notified export subsidies have been used for dairy products. With the exception of poultry meat there has been relatively little reported activity for other products. However, the United States exceeded its WTO bindings on several dairy products in 1998 and 1999. Since that time, strengthening domestic prices have meant that export subsidy activity has declined substantially. No funding allocations have been announced by USDA for the export subsidy program for dairy products (the Dairy Export Incentive Program: DEIP) since FY2007. The other major export subsidy program, (the Export Enhancement Program: EEP) has been inactive for several years.

Following the 2005 WTO panel ruling in the Brazilian cotton case, the United States took action to address issues raised with respect to cotton export subsidies, in particular, and credit guarantee programs, more generally. Cotton export subsidies under the Step 2 program were eliminated and a general one percent cap on the fees that could be charged under the export credit guarantee program was relaxed. The GSM-103 program that provided intermediate-term credit for exports was suspended. The CCC now uses a risk-based fee structure for the Export Credit Guarantee Program (GSM-102) and the Supplier Credit Guarantee Program

(SCGP). Fee rates are based on the country risk that the CCC is undertaking, as well as the repayment term (tenor) and repayment frequency (annual or semiannual) under the guarantee. The new structure responds to a key finding by the WTO panel that the fees charged by the programs should be risk based.

If expectations of continued high prices for agricultural commodities are realized it is likely that the EEP and DEIP programs will remain dormant. This could provide an opportunity to eliminate these programs as part of a DDA agreement, as foreseen in the draft DDA modalities.

A second set of issues relates to U.S. export guarantee programs. Expenditures under these programs (GSM102/103) have been declining in recent years. Recent CCC data indicate that net guarantees outstanding fell by more than 60 percent between FY2006 and FY2007 to roughly $0.5 billion. In line with this reduction, CCC expenditures on guarantee-related interest subsidies declined from roughly $1 billion to $0.2 billion.

The United States has a more than fifty-year history of providing food aid through direct donations and concessional programs. Public Law 480 (P.L.480) [space, P.L. 480?] is perhaps the best know program, but there are others as detailed in table 21. The need to dispose of surplus commodities has declined in recent years as domestic prices have strengthened. It has become increasingly difficult to secure political support for Food Aid programs. As a result, no new funding has been approved by the Congress for P.L.480 Title I and Title III and Section 416(b) have both been inactive.

The draft modalities for export competition

The draft modalities for export subsidies, credit guarantees and related measures and food aid are summarized in table 23. The modalities imply the elimination of direct export subsidies, tighter conditions on the use of export credits, and a general shift towards a cash-basis for food aid, rather than the use of donated commodities.

Implications for agricultural policy

As noted, the modalities for export subsidies would require the elimination of EEP and DEIP. Dairy farm groups still view DEIP to be an important complement to domestic price support programs. However, many believe that the U.S. dairy industry would gain if market access were to increase, particularly in developing countries, so the elimination of DEIP might be acceptable to dairy farmers if expanded market access resulted from a new WTO agreement. The elimination of EEP would probably be easier, particularly if high prices for the products involved (primarily wheat and wheat flour) were to continue.

The draft modalities require that the maximum repayment term for export financing be no more that 180 days. Since the United States has already eliminated its intermediate financing program, this would require that the current minimum financing period for GSM-102 of six months would become the maximum. As noted above, interest rates have already been modified to reflect the degree of risk involved, i.e. to bring the rates more in line with those that would be charged by commercial lenders, but this may not be sufficient to meet the requirement that in future schemes should be “self-financing”. Although the draft modalities are unclear on this point, this could require that export credit operations cover all their costs, including administrative overhead. It is difficult to calculate the total costs of U.S. export

financing schemes from currently available data, so the extent to which interest charges or fees might have to be increased to meet the self-financing requirement cannot be determined. It seems likely, however, that some additional modifications in the terms of existing programs would be required to ensure full cost recovery.

As noted earlier, activity under U.S. food aid programs has been declining in recent years. Nevertheless, farm groups are willing to support these programs providing that they are linked to the provision of U.S. commodities. The draft modalities foresee reduced emphasis on the provision of in-kind aid. This can be expected to result in even less support for food aid programs among farm groups and increasing difficulties in obtaining Congressional appropriations for food aid programs.

In conclusion, the elimination of the potential use of export subsidies by other countries (particularly the European Union) has been a major U.S. objective in the current round of WTO negotiations. If the achievement of that objective requires changes in export credit and food aid programs, the price to be paid might be politically acceptable domestically.

References

Blandford, D. and Josling, T. (2007). "U.S. and EU Domestic Support Notifications, 2007-2012", paper presented at a workshop sponsored by the German Marshall Fund of the United States, Washington, DC, September 11.

Bouët, A., Decreux, Y., Fontagné, L., Jean, S. and Laborde, D. (2008). "Assessing applied protection at the world level", *Review of International Economics*, in press.

Candau, F. and Jean, S. (2008). "What Are EU Trade Preferences Worth for Sub-Saharan Africa and Other Developing Countries?" in Hoekman, B., Martin, W. and Braga, C. (eds). *Preference Erosion: the Terms of the Debate*, Palgrave-Macmillan and the World Bank, New York and Washington DC, forthcoming.

Committee on Agriculture, U.S. House of Representatives. (2007). Title I – Commodity Programs. Comparing H.R. 2419, as passed by the House and the Senate amendment thereto." http://agriculture.house.gov/inside/2007FarmBill.html

Dean, J. and Wainio, J. (2008). "Quantifying the value of U.S. tariff preferences for developing countries", in Hoekman, B., Martin, W. and Braga, C. (eds). *Preference Erosion: the Terms of the Debate*, Palgrave-Macmillan and the World Bank, New York and Washington DC, forthcoming.

de Gorter, H. and Kliauga, E. (2006). "Reducing tariffs versus expanding tariff rate quotas" in Anderson, K. and Martin, W. (eds). *Agricultural Trade Reform and the Doha Development Agenda,* Palgrave-Macmillan and the World Bank, New York and Washington, DC.

Ethridge, D., Welch, M, Pan, S., Fadiga, M. and Mohanty, S. (2006). "World Cotton Outlook: Projections to 2015/16", Texas Tech University, Lubbock, TX.

Hathaway, D. and Ingco, M. (1996), "Agricultural liberalization and the Uruguay Round" in Martin, W. and Winters, L.A. (eds). *The Uruguay Round and the Developing Countries,* Cambridge University Press, Cambridge.

Hoekman, B., Martin, W. and Braga, C. (2008), *Preference Erosion: the Terms of the Debate*, Palgrave-Macmillan and the World Bank, New York and Washington DC, forthcoming.

Jean, S. Josling, Laborde, D. Swinbank (2008). *The Consequences for the European Union of the WTO Revised Modalities for Agirculture,* ICTSD, IFPRI and IPC, Geneva and Washington DC, forthcoming.

Jean, S., Laborde, D. and Martin, W. (2006). "Consequences of alternative formulas for agricultural tariff cuts" in Anderson, K. and Martin, W. (eds). *Agricultural Trade Reform and the Doha Development Agenda*, Palgrave-Macmillan and the World Bank, New York and Washington DC.

Jean, S., Laborde, D. and Martin, W. (2008). "Formulas and flexibilities in trade negotiations: the case of sensitive agricultural products in the WTO", Mimeo, IFPRI, INRA and the World Bank.

Schnepf, R. (2008a). "Brazil's WTO case against the U.S. cotton program".
CRS Report for Congress RL32571, Congressional Research Service, Washington DC, January 25.

Schnepf, R. (2008b). "Brazil's and Canada's WTO cases against U.S. agricultural support". CRS Report for Congress RL34351, Congressional Research Service, Washington DC, February 1.

Sharma, R. 2006. "Assessment of the Doha Round Agricultural Tariff Cutting Formulae." Paper prepared for the FAO workshop on WTO Rules for Agriculture Compatible with Development, February 2-3, 2006. http://www.faologe.ch/Tariff-cuts20-20Sharma20-20Jan2006b.pdf

U.S. Department of Agriculture (2008). USDA Agricultural Projections to 2017. Office of the Chief Economist, World Agricultural Outlook Board, Long-term Projections Report OCE-2008-1, Washington, DC.

Vanzetti, D. and Peters, R. (2008). "Do sensitive products undermine ambition?" Mimeo, Australian National University, Canberra.

WTO (2004), *Doha work programme*, World Trade Organization, Geneva, WT/L/579, August 2.

WTO (2005). *United States—Subsidies on Upland Cotton,* World Trade Organization, Geneva, Reports of the Appellate Body, WT/DS265/AB/R, WT/DS266/AB/R, & WT/DS267/AB/R, March, 21.

WTO (2007) Negotiating *Group on Market Access - Draft Guidelines for the Conversion of Non-Ad Valorem Duties of Non-Agricultural Products into Ad Valorem Equivalents - Note by the Secretariat*, TN/MA/20, January, 16.

WTO (2008). *Revised draft modalities for agriculture*, World Trade Organization, Geneva, Committee on Agriculture, Special Session, TN/AG/W/4/Rev 1, February, 8.

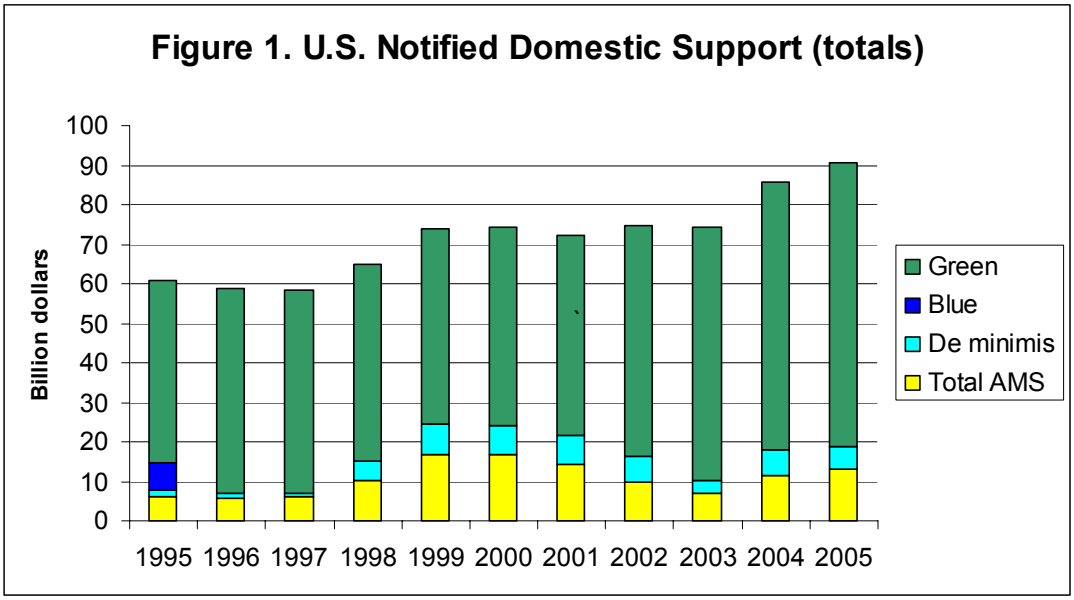
Figure 1. U.S. Notified Domestic Support (totals)
Billion dollars
100
90
80
70
60
50
40
30
20
10
0
1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005
Green
Blue
De minimis
Total AMS

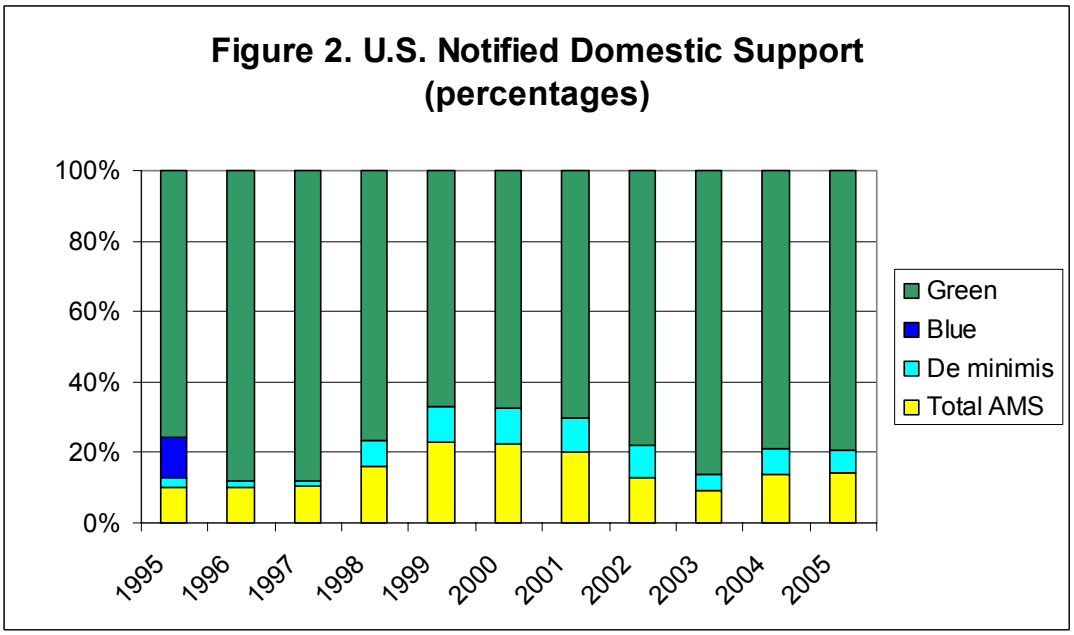
Figure 2. U.S. Notified Domestic Support (percentages)
100%
80%
60%
40%
20%
0%
1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005
Green
Blue
De minimis
Total AMS

Table 1. Summary of U.S. Domestic Support Notifications

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
					Billion dollars						
Total AMS	6.21	5.90	6.24	10.39	16.86	16.80	14.41	9.64	6.95	11.63	12.94
De minimis	1.64	1.15	0.80	4.74	7.43	7.34	7.04	6.69	3.24	6.46	5.98
Blue	7.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Green	46.04	51.83	51.25	49.82	49.75	50.06	50.67	58.32	64.06	67.43	71.83
Total support	60.93	58.88	58.29	64.95	74.05	74.20	72.13	74.65	74.25	85.51	90.75
					Share of total support						
Total AMS	10%	10%	11%	16%	23%	23%	20%	13%	9%	14%	14%
De minimis	3%	2%	1%	7%	10%	10%	10%	9%	4%	8%	7%
Blue	12%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Green	76%	88%	88%	77%	67%	67%	70%	78%	86%	79%	79%
Total support	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
URA AMS Binding	23.08	22.29	21.49	20.70	19.90	19.10	19.10	19.10	19.10	19.10	19.10
Total AMS + de minimis	7.85	7.05	7.04	15.13	24.30	24.14	21.46	16.33	10.19	18.09	18.92
As percent of binding	34%	32%	33%	73%	**122%**	**126%**	**112%**	85%	53%	95%	99%
De minimis/total AMS	26%	20%	13%	46%	44%	44%	49%	69%	47%	56%	46%
De minimis/total amber	21%	16%	11%	31%	31%	30%	33%	41%	32%	36%	32%
Total AMS+NPS inc. DPs (1)	6.21	5.90	6.24	20.63	29.74	29.15	25.34	20.04	6.95	11.63	12.94
As percent of binding	27%	26%	29%	100%	**149%**	**153%**	**133%**	**105%**	36%	61%	68%

(1) direct payments only count against the Total AMS limit if their inclusion in the NPS causes this to exceed the de minimis level

Table 2. U.S. Green Box Notifications (billion $)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
General services	6.42	6.55	6.80	7.23	7.69	8.55	9.21	10.26	10.94	11.20	11.35
Public stockholding/food security	0	0	0	0	0	0	0	0	0	0	0
Domestic food aid	37.47	37.83	35.96	33.49	33.05	32.38	33.92	38.01	42.38	45.86	50.67
Decoupled income support	0	5.19	6.29	5.66	5.47	5.07	4.10	5.30	6.49	5.27	6.16
Income insurance/safety nets	0	0	0	0	0	0	0	0	0	0	0
Disaster relief	0.10	0.16	0.16	1.41	1.64	2.14	1.42	2.12	1.69	1.96	0.17
Producer retirement	0	0	0	0	0	0	0	0	0	0	0
Resource retirement	1.73	1.73	1.69	1.69	1.43	1.48	1.62	0	0	0	0
Investment aids	0.08	0.09	0.09	0.09	0.13	0.13	0.11	0.12	0.11	0.09	0.08
Environmental payments	0.23	0.28	0.27	0.26	0.33	0.31	0.29	2.51	2.45	3.04	3.40
Regional assistance	0	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0	0
Total	46.04	51.83	51.25	49.82	49.75	50.06	50.67	58.32	64.06	67.43	71.83

Table 3. Composition of U.S. de minimis

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
						Million dollars					
Product specific	97	40	236	158	29	63	215	1,590	436	680	118
Non product-specific	1,386	1,115	567	4,584	7,406	7,278	6,828	5,101	2,801	5,778	5,862
Total	1,483	1,155	804	4,742	7,435	7,341	7,043	6,690	3,237	6,458	5,980
						Percentage of total					
Product specific	7%	3%	29%	3%	0%	1%	3%	24%	13%	11%	2%
Non product specific	93%	97%	71%	97%	100%	99%	97%	76%	87%	89%	98%

Table 4. U.S. non product-specific support

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
						Billion dollars					
Irrigation projects	0.380	0.380	0.349	0.349	0.316	0.316	0.300	0.300	0.300	0.269	0.269
Livestock grazing	0.045	0.050	0.051	0.051	0.055	0.051	0.065	0.047	0.041	0.047	0.039
Crop and revenue insurance	0.913	0.636	0.119	0.747	1.514	1.396	1.770	2.889	1.862	1.123	0.756
Rio Grande water loss assistance								0.010			
Tree assistance program (CA/NY)									0.002		
Multi-year crop disaster payments				0.577							
State credit programs	0.049	0.049	0.049	0.049	0.049	0.049	0.049				
Crop market loss assistance payments				2.811	5.468	5.463	4.640				
Emergency loans for seed producers					0.003			0.049	0.049	0.049	0.049
Farm storage facility loans					0.001	0.003	0.004	0.001	0.003	0.002	0.000
Countercyclical payments								1.804	0.544	4.288	4.749
Total	1.386	1.115	0.567	4.584	7.406	7.278	6.828	5.101	2.801	5.778	5.862

Table 5. Domestic Support Modalities for the United States

Item	Initial Values	Reduction
OTDS	Final Bound Total AMS + 15% of the average value of domestic production (VOP) for 1995-2000	Total reduction of [66%] [73%]. Initial reduction of one third with remaining amount in equal annual steps over five years
Total AMS	Final bound URA value	Total reduction of 60%. Initial reduction of [25%] with remaining amount in equal annual steps over five years
Product-specific AMS	Derived by applying PS AMS averages for [1995-2004] to total PS AMS average for 1995-2000	Implemented in full on first day of implementation period, except when PS AMS in two most recent years is higher. Then limits implemented in three equal installments with starting point being the lower of the two year average or 130% of the scheduled limit
De minimis	Current allowance of 5% of current VOP	Reduction of [50%] [60%] in allowance [immediately] [through five equal annual installments]. Additional reduction if necessary to satisfy OTDS binding
Total blue box	Caps would qualify. Overall limit = 2.5% of average VOP for 1995-2000	
Product-specific blue box	[110] [120]% of amounts derived from applying proportionately legislated maximum permissible expenditure under 2002 Farm Act to 2.5% average VOP for 1995-2000	Scheduled limit can be increased with corresponding decrease in PS AMS (2 to 1) ratio for cotton Limit can be increased during implementation period subject to overall blue box limit being respected
Additional product-specific blue box proposals		A. [When PS blue box support is in excess of the scheduled limit the entire amount to be included in the Current Total AMS, providing that product-specific AMS and Total AMS limit are not exceeded] B. [When overall blue box support is in excess of the limit, regardless of whether PS limits are exceeded, that entire support to be included in Current Total AMS provided that PS AMS and Total AMS limits are not exceeded]
Additional cotton provisions		AMS reduction of 82.22% over two years PS blue box limit one third of that otherwise applicable

Table 6. U.S. domestic support base values and reductions

Base values										
Average value of production (1995-2000) $ billion	194.14									
URA bound Total AMS $ billion	19.10									
Notified AMS/production 1995-2000	5.4%									
Base AMS for cotton $ billion	0.80									
Base OTDS $ billion	48.22									
Base OTDS/production	24.8%									
New final bindings ($ billion)										
OTDS (73% reduction)	13.02									
OTDS (66% reduction)	16.40									
Total AMS (60% reduction)	7.64									
AMS for cotton	0.14									
Blue box	4.85									
						Year/date				
Implementation schedule	1-01	1-02	2-01	2-02	3-01	3-02	4-01	4-02	5-01	5-02
OTDS (33% initial; 73% total) $ billion	32.31	28.45		24.59		20.74		16.88		13.02
OTDS (33% initial; 66% total) $ billion	32.31	29.13		25.94		22.76		19.58		16.40
Total AMS (25% initial; 60% total) $ billion	14.33	12.99		11.65		10.32		8.98		7.64
Cotton AMS (25% initial; 82.22% total) $ billion	0.60			0.14						
De minimis 50% immediate reduction	2.5%									
De minimis 60% immediate reduction	2.0%									
De minimis 50% phased reduction	4.5%		4.0%		3.5%		3.0%		2.5%	
De minimis 60% phased reduction	4.4%		3.8%		3.2%		2.6%		2.0%	

Note: 1-01 denotes the beginning of the first year; 1-02 denotes the end of the first year. One third of the general implementation period is specified for the cotton AMS making the final reduction due after 20 months

Table 7. AMS bindings

	Year		
	1	2	3
	Million dollars		
Apples	27.18	27.18	27.18
Apricots	0.22	0.22	0.22
Barley	32.89	30.15	27.41
Beef and veal	0.00	0.00	0.00
Blueberries, wild	0.00	0.00	0.00
Cattle and calves	0.00	0.00	0.00
Chickpeas	0.03	0.03	0.03
Corn	1,327.73	1,217.09	1,106.44
Cotton	600.40	142.49	142.49
Cranberries	1.95	1.95	1.95
Dairy	4,864.22	4,822.54	4,780.85
Dry peas	5.49	5.03	4.57
Grapes	0.00	0.00	0.00
Hogs and pigs	0.00	0.00	0.00
Honey	2.89	2.89	2.89
Lentils	0.28	0.26	0.24
Livestock	0.00	0.00	0.00
Lychee	0.00	0.00	0.00
Minor oilseeds:	0.00	0.00	0.00
Canola	15.12	15.12	15.12
Crambe	0.33	0.33	0.33
Flaxseed	4.92	4.92	4.92
Mustard seed	0.10	0.10	0.10
Rapeseed	0.03	0.03	0.03
Safflower	0.54	0.54	0.54
Sesame	0.01	0.01	0.01
Sunflower	35.54	35.54	35.54
Mohair	3.14	3.14	3.14
Oats	9.41	9.41	9.41
Olives	0.00	0.00	0.00
Onions	0.00	0.00	0.00
Orchards & vineyards	0.00	0.00	0.00
Peaches	0.00	0.00	0.00
Peanuts	249.19	249.19	249.19
Pears	0.00	0.00	0.00
Pecan trees	0.00	0.00	0.00
Potatoes	0.00	0.00	0.00
Rice	313.68	313.68	313.68
Rye	0.00	0.00	0.00
Sheep and lamb	4.43	4.43	4.43
Sorghum	51.12	46.86	42.60
Soybeans	1,123.72	1,123.72	1,123.72
Sugar	1,202.38	1,164.19	1,126.01
Tobacco	142.92	142.92	142.92
Tomatoes	0.00	0.00	0.00
Wheat	231.39	231.39	231.39
Wool	10.09	10.09	10.09

Note: the effective binding for cotton is that implied by the special reduction provisions for that commodity

Table 8. Blue box product-specific bindings and the trade-off with AMS product-specific bindings

					Reduction of the initial PS AMS to meet the legislated maximum CCP for each commodity							
	AMS binding (1)	Blue binding 110%	Blue binding 120%	Legis. Max. CCP	Reqd. cut in AMS with 110% blue binding		New initial PS AMS	Max feasible blue binding (2)	Reqd. cut in AMS with 120% blue binding		New initial PS AMS	Max feasible blue binding (2)
	Column											
	A	B	C	D	E	F	G	H	I	J	K	L
	Million $						Million $				Million $	
Barley	27.4	29.7	32.4	54.0	24.3		3.1	54.0	21.6		5.8	54.0
Corn	1,106.4	1,871.7	2,041.9	3,402.9	1,531.1	**INF**	0.0	2,978.2	1,361.0	**INF**	0.0	3,148.3
Cotton	142.5	252.2	275.1	1,389.4	2,274.4	**INF**	0.0	394.7	2,228.6	**INF**	0.0	417.6
Minor oilseeds												
Canola	15.1	2.9	3.2	5.3	2.4		12.7	5.3	2.1		13.0	5.3
Crambe	0.3	0.0	0.0	0.0	0.0		0.3	0.0	0.0		0.3	0.0
Flaxseed	4.9	0.5	0.5	0.9	0.4		4.5	0.9	0.4		4.6	0.9
Mustard seed	0.1	0.0	0.0	0.0	0.0		0.1	0.0	0.0		0.1	0.0
Rapeseed	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0
Safflower	0.5	0.4	0.4	0.7	0.3		0.2	0.7	0.3		0.3	0.7
Sesame	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0
Sunflower	35.5	8.1	8.8	14.6	6.6		29.0	14.6	5.9		29.7	14.6
Oats	9.4	6.5	7.1	11.8	5.3		4.1	11.8	4.7		4.7	11.8
Peanuts	249.2	110.6	120.6	201.0	90.4		158.7	201.0	80.4		168.8	201.0
Rice	313.7	178.4	194.6	324.3	145.9		167.8	324.3	129.7		184.0	324.3
Sorghum	42.6	202.1	220.5	367.4	165.3	**INF**	0.0	244.7	147.0	**INF**	0.0	263.1
Soybeans	1,123.7	674.8	736.1	1,226.8	552.0		571.7	1,226.8	490.6		633.1	1,226.8
Wheat	231.4	1,489.0	1,624.3	2,707.0	1,218.0	**INF**	0.0	1,720.3	1,082.7	**INF**	0.0	1,855.7

INF = infeasible

(1) it is assumed that the applicable figures for the calculation are the bindings that result after the application of any reduction provisions

(2) where insufficient PS AMS entitlement exists to reach the legislated maximum CCP, the maximum PS AMS entitlement is applied to the blue box

Note that in the case of cotton, a $1 increase in the blue box entitlement requires a $2 reduction in the PS AMS; this is applied to the figure in column 1

Cotton blue box bindings are reduced substantially by the paragraph 56 condition in the February 2008 draft modalities

Note that these increases in blue box limits only apply if initially scheduled; any subsequent changes would require reductions elsewhere, such that the initial overall blue box limit is not exceeded (paragraph 45).

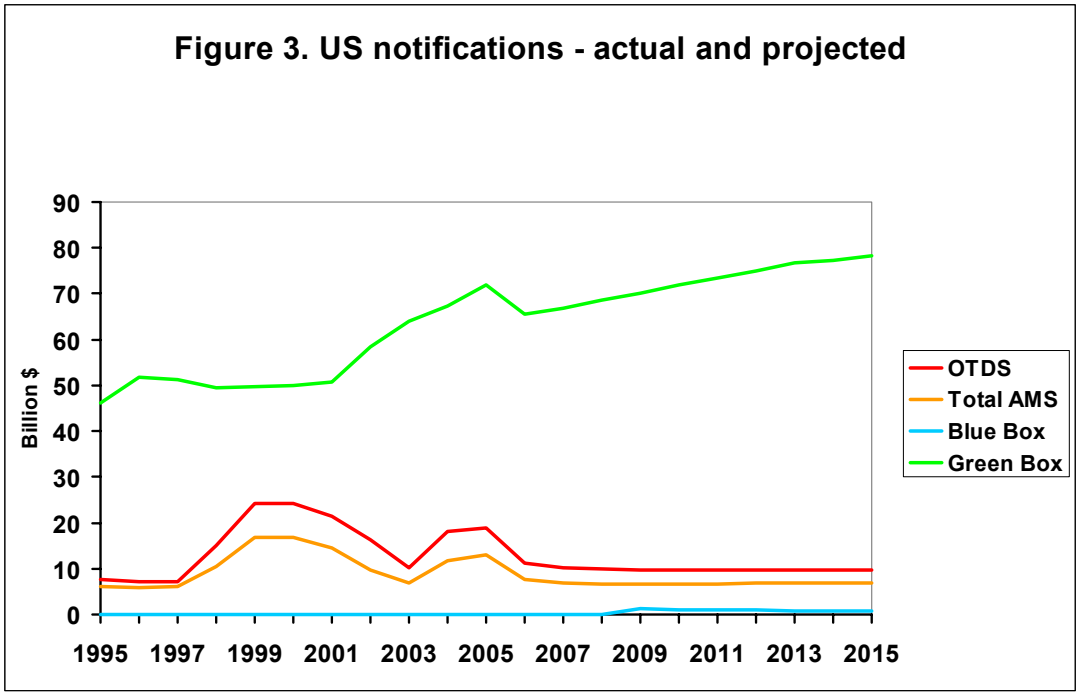
Figure 3. US notifications - actual and projected
Billion $
90
80
70
60
50
40
30
20
10
0
1995
1997
1999
2001
2003
2005
2007
2009
2011
2013
2015
OTDS
Total AMS
Blue Box
Green Box

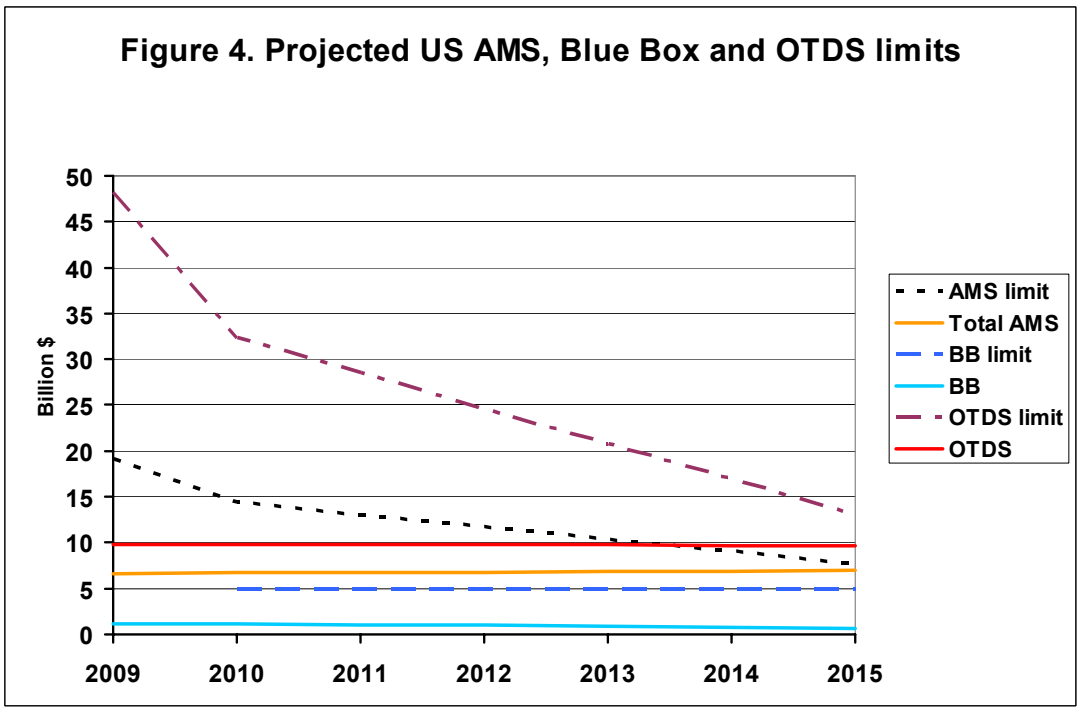
Figure 4. Projected US AMS, Blue Box and OTDS limits
Billion $
50
45
40
35
30
25
20
15
10
5
0
2009
2010
2011
2012
2013
2014
2015
AMS limit
Total AMS
BB limit
BB
OTDS limit
OTDS

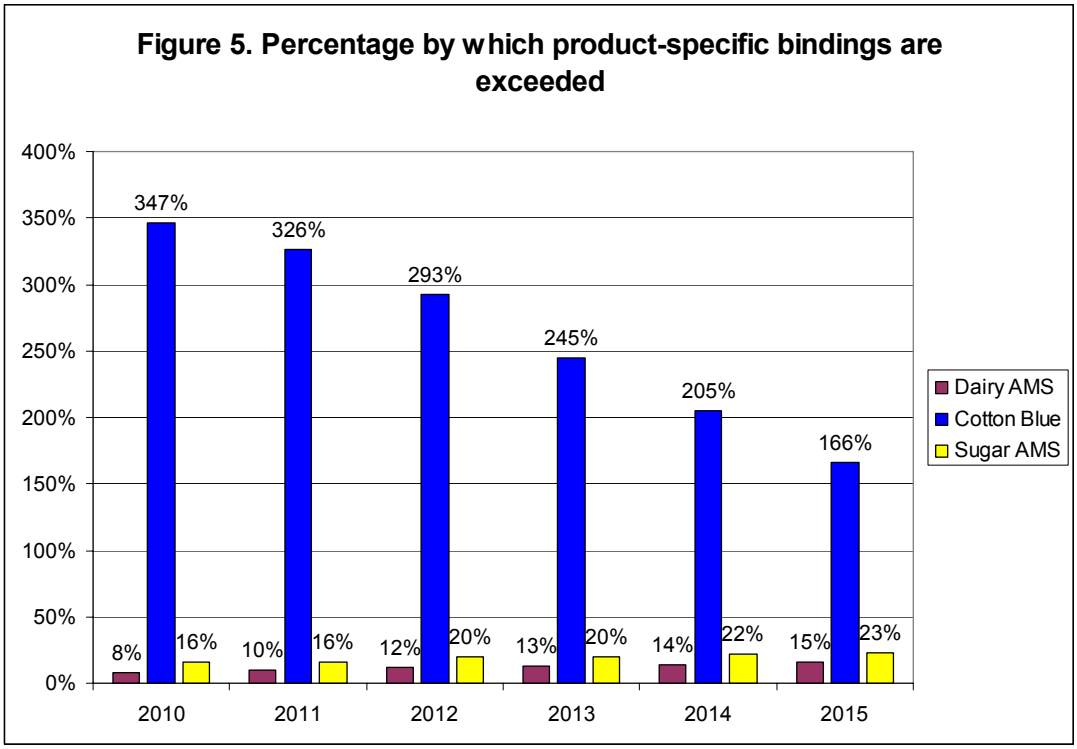
Figure 5. Percentage by which product-specific bindings are exceeded
400%
350%
300%
250%
200%
150%
100%
50%
0%
347%
326%
293%
245%
205%
166%
8%
16%
10%
16%
12%
20%
13%
20%
14%
22%
15%
23%
2010
2011
2012
2013
2014
2015
Dairy AMS
Cotton Blue
Sugar AMS

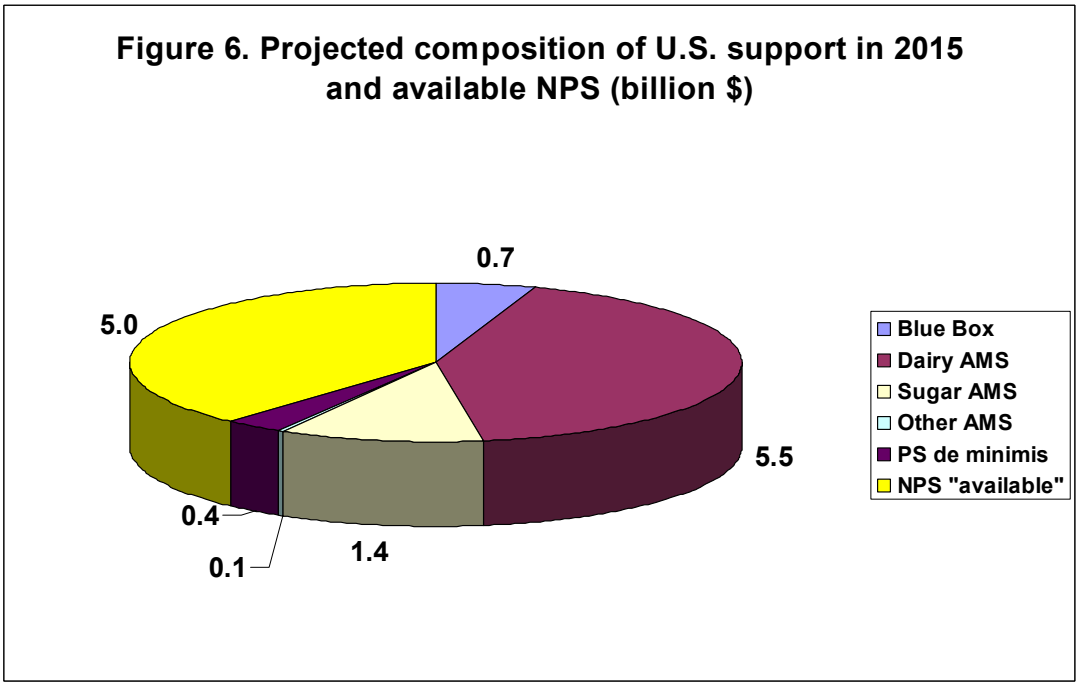
Figure 6. Projected composition of U.S. support in 2015 and available NPS (billion $)
0.7
5.0
5.5
0.4
0.1
1.4
Blue Box
Dairy AMS
Sugar AMS
Other AMS
PS de minimis
NPS "available"

Table 9. Types of Tariffs in the U.S. Agricultural Trade Regime

	Average Bound Tariffs		
	Simple. Av.	Trade Weighted	Reference Group
	%	%	%
Ad Valorem	4.1	4.1	4.7
Mixed-Compound	22.9	17.9	20.9
Specific	6.3	7.0	10.6
All tariffs	7.6	8.0	11.1

Note: *Ad valorem* equivalents measured using the WTO methodology

Table 10. U.S. Tariffs and Imports by HS Chapter

	Chapter size			Average	Decomposition		
	HS6 lines	Agri. Imports	Tariff Revenue	Bound Tariffs	AVE	*Ad valorem*	Binding Overhang
	%	%	%	%	%	%	%
Agriculture: total	100	100	100	8.0	4.3	3.7	0.1
Live animals	2.5	3.4	0.1	0.1	0.0	0.1	0.1
Meat and offal	7.8	8.3	13.7	13.0	0.2	12.8	0.0
Dairy products	4.0	2.6	9.3	28.1	24.7	3.4	0.0
Other animal products	2.1	0.8	0.0	0.1	0.0	0.1	0.0
Live trees	1.8	3.1	1.6	4.0	0.1	4.0	0.0
Vegetables	8.3	7.4	5.3	5.7	2.5	3.2	0.0
Edible fruit and nuts	8.1	8.5	2.7	2.6	1.2	1.4	0.0
Coffee and tea	4.7	4.7	0.1	0.2	0.1	0.1	0.0
Cereals	2.4	1.6	0.6	3.2	1.7	1.5	0.0
Milling products, starch	5.0	0.9	0.3	2.9	0.9	2.0	0.3
Oil Seeds	6.5	1.6	0.5	2.8	0.5	2.3	0.2
Gums and resins	1.8	0.9	0.1	0.7	0.0	0.7	0.0
Vegetable plaiting	1.5	0.1	0.0	0.5	0.0	0.5	0.0
Animal/vegetable fats	6.5	3.2	1.3	3.3	1.7	1.6	0.0
Prepared meat or fish	1.6	1.1	0.4	2.7	0.2	2.5	0.0
Sugar	2.4	3.5	20.8	46.8	42.5	4.2	0.0
Cocoa and preparation	1.6	4.3	4.3	8.0	5.3	2.7	0.0
Cereal preparations	2.5	4.9	3.5	5.6	2.5	3.1	0.0
Vegetable preparations	6.5	6.3	6.9	8.7	2.8	5.9	0.0
Miscellaneous food	2.4	3.7	5.8	12.7	8.5	4.2	0.4
Beverages and spirits	3.2	20.3	6.1	2.4	2.3	0.1	0.0
Food residues	3.5	1.4	2.6	15.0	14.0	1.0	0.0
Tobacco	1.3	2.4	12.7	43.5	9.2	34.3	0.9
Organic chemicals	0.4	0.2	0.0	1.6	0.4	1.2	0.0
Essential oils/perfumes	2.2	2.3	0.3	1.2	0.2	1.0	0.0
Albuminoids	1.5	1.5	0.3	1.7	0.3	1.5	0.0
Misc chemicals	1.0	0.5	0.2	3.3	0.3	3.0	0.0
Hides and skins	1.8	0.2	0.0	0.0	0.0	0.0	0.0
Furs	1.3	0.1	0.0	0.3	0.0	0.3	0.0
Silk	0.6	0.0	0.0	0.5	0.0	0.5	0.0
Wool	1.5	0.1	0.0	2.1	1.4	0.7	0.5
Cotton	0.7	0.1	0.1	11.6	11.3	0.3	0.0
Other vegetable fibers	0.9	0.0	0.0	0.1	0.0	0.1	0.0

Table 11. The importance of U.S. Tariff-Rate-Quotas

	% of TRQ products		Average applied MFN	
	By HS6 lines	by Trade	TRQ	Non-TRQ
	%	%	%	%
All agriculture	8.0	18.4	30.6	2.8
Meat and offal	11.3	62.8	20.4	0.6
Dairy products	59.3	81.8	32.3	9.1
Edible fruit and nuts	1.8	3.4	10.2	2.3
Oilseeds	2.3	1.3	131.8	1.1
Sugar	31.3	75.6	56.6	16.2
Cocoa	36.4	38.6	19.5	0.7
Cereal preparations	17.6	13.1	26.9	2.4
Vegetable preparations	9.1	21.6	19.0	5.9
Miscellaneous food	25.0	69.3	16.8	3.5
Food residues	4.2	33.9	42.8	0.7
Tobacco	66.7	55.0	71.3	9.5
Cotton	60.0	93.1	12.4	0.8

Table 12. The tiered formula for agricultural tariff cuts

	Developed		**Developing**	
Band	*Range*	*Cut*	*Range*	*Cut*
	%	%	%	%
I	0-20	48-52	0-30	32-34.6
II	20-50	55-60	30-80	36.6-40
II	50-75	62-65	80-130	41.3-43.3
IV	>75	66-73	>130	44-48.6
Average cut	**Min**	**54**	**Max**	**36**

Table 13. Key elements of the tariff cuts used in the analysis

Bands	0/20/50/75
Proportional cut	50/57.5/63.5/68.5
Tariff escalation	Use the cut from the next higher band for escalation products, or 1.15 times the cut for products in the highest band for products in Annex D of WTO (2008).
Tropical products	Products selected according to the Uruguay Round list in WTO (2008, p47). Tariffs less than 25 percent reduced to zero. Tariffs above 25 percent cut by 85 percent of their initial rate.
Sensitive products	Up to 5% -of tariff lines chosen on political sensitivity to be cut by 2/3 the formula cut.
Minimum cut	An average cut of 54 percent on all products, including sensitive products, required

Table 14. Where the cuts fit in the bands

	Band I	**Band II**	**Band III**	**Band IV**	**Dutiable**
	%	%	%	%	%
Simple Average HS6	92.8	3.8	1.5	1.9	71.6
Simple Average 8 digit	90	5.7	2.1	2.2	76.5
Trade Weighted Average	90.8	6.2	1.0	2.0	73.3
Reference Group	88.0	6.3	2.3	3.4	79.8

Table 15. Implications of the formula for trade-weighted applied MFN tariffs

	Initial	Tiered Formula	Formula+Tariff Escalation	Formula + Trop. Prods	Complete Formula
	%	%	%	%	%
Agriculture: total	7.9	3.5	3.5	3.3	3.2
Live animals	0.2	0.1	0.1	0.1	0.1
Meat and offal	13.0	5.9	5.9	5.9	5.9
Dairy products	28.1	12.4	12.4	12.4	12.4
Other animal products	0.1	0.1	0.1	0.1	0.1
Live trees	4.0	2.0	2.0	0.1	0.1
Vegetables	5.7	2.8	2.8	2.8	2.8
Edible fruit and nuts	2.6	1.3	1.3	0.7	0.7
Coffee and tea	0.2	0.1	0.1	0.0	0.0
Cereals	3.2	1.6	1.6	0.6	0.6
Milling products, starch	2.7	1.4	1.4	1.3	1.3
Oilseeds	2.6	1.0	1.0	0.8	0.8
Gums and resins	0.7	0.3	0.3	0.0	0.0
Vegetable plaiting	0.5	0.3	0.3	0.0	0.0
Animal/vegetable fats	3.2	1.6	1.6	1.4	1.3
Prepared meat or fish	2.7	1.3	1.3	1.3	1.3
Sugar	46.8	16.5	16.5	16.5	16.5
Cocoa and preparations	8.0	3.7	3.7	3.7	3.7
Cereal preparations	5.6	2.7	2.7	2.7	2.7
Vegetable preparations	8.7	4.0	4.0	3.4	3.4
Miscellaneous food	12.3	6.3	6.3	6.1	6.1
Beverages and spirits	2.4	1.7	1.7	1.7	1.7
Food residues	15.0	6.4	6.4	6.3	6.3
Tobacco	42.6	15.1	15.1	12.8	12.8
Organic chemicals	1.6	0.8	0.8	0.8	0.8
Essential oils/perfumes	1.2	0.6	0.6	0.4	0.4
Albuminoids	1.7	0.9	0.9	0.9	0.9
Misc chemicals	3.3	1.7	1.7	1.7	1.7
Hides and skins	0.1	0.0	0.0	0.0	0.0
Furs	0.3	0.2	0.2	0.2	0.2
Silk	0.5	0.3	0.3	0.3	0.3
Wool	1.7	1.1	1.1	1.1	1.1
Cotton	11.6	5.8	5.8	5.8	5.8
Other vegetable fibers	0.1	0.0	0.0	0.0	0.0

Table 16. Implications of the formula for trade-weighted applied tariffs

	Effectively Applied Duty		Preference Margin	
	Initial	Complete Formula	Initial	Complete Formula
	%	%	%	%
Agriculture: total	6.3	2.8	1.6	0.6
Applied to developed countries	6.2	2.8	0.9	0.4
Applied to developing countries	6.4	2.6	2.5	0.9
Applied to LDCs	14.5	5.1	2.5	0.8
Live animals	0.0	0.0	0.2	0.0
Meat and offal	12.7	5.8	0.3	0.1
Dairy products	27.6	12.3	0.6	0.2
Other animal products	0.1	0.0	0.1	0.0
Live trees	0.6	0.1	3.4	0.0
Vegetables	0.6	0.3	5.1	2.5
Edible fruit and nuts	0.5	0.2	2.1	0.5
Coffee and tea	0.1	0.0	0.1	0.0
Cereals	1.3	0.2	1.9	0.4
Milling products, starch	1.2	0.5	1.4	0.7
Oilseeds	2.2	0.7	0.4	0.1
Gums and resins	0.5	0.0	0.2	0.0
Vegetable plaiting	0.2	0.0	0.3	0.0
Animal/vegetable fats	1.8	0.8	1.5	0.6
Prepared meat or fish	1.0	0.6	1.7	0.9
Sugar	41.8	15.1	4.9	1.8
Cocoa and preparations	7.1	3.5	0.9	0.4
Cereal preparations	3.9	1.9	1.7	0.8
Vegetable preparations	5.5	2.1	3.1	1.3
Miscellaneous food	10.5	5.7	1.8	0.9
Beverages and spirits	2.2	1.6	0.2	0.1
Food residues	14.5	6.2	0.5	0.1
Tobacco	37.1	12.1	5.4	1.3
Organic chemicals	1.2	0.6	0.4	0.2
Essential oils/perfumes	1.1	0.4	0.1	0.0
Albuminoids	1.5	0.8	0.3	0.1
Misc chemicals	2.8	1.4	0.6	0.3
Hides and skins	0.0	0.0	0.1	0.0
Furs	0.3	0.1	0.0	0.0
Silk	0.5	0.2	0.0	0.0
Wool	1.6	1.0	0.1	0.0
Cotton	10.1	4.7	1.5	0.8
Other vegetable fibers	0.1	0.0	0.0	0.0

Table 17. Products selected as sensitive, tariff cuts and import levels.

HS96-Code		Post-formula	With 2/3 cut	Current Imports	Current TRQs
		%	%	Tons	Tons
020130	Fresh or chilled boneless beef	11.2	16.3	106,603	16,609
020230	Frozen boneless beef	22.2	35.1	11,040	5,138
040510	Butter	26.6	42.1	7,608	296
040590	Milk fats	23.9	41.3	42,237	7,102
040690	Cheese, excl fresh cheese	41.2	71.0	57,518	6,081
120220	Shelled groundnuts	17.9	26.0	28,202	232
170111	Raw cane sugar	12.4	16.5	372,408	133,403
170199	Cane or beet sugar	38.9	71.6	4,025	41,629
170490	Sugar confectionary	42.2	72.8	2,940,309	1,043,480
180620	Chocolate	28.1	48.5	199,331	0
190120	Mixes and doughs of flour	10.9	15.8	39,176	17,184
200811	Groundnuts	12.4	18.0	18,745	5,418
200911	Frozen orange juice	38.9	71.6	23,390	35,817
210690	Food preparations nec	18.2	26.4	118,844	7,558
230990	Animal feed preparations	16.2	29.7	176,133	30,159
240110	Tobacco not stemmed	24.0	44.2	206,882	112,801
240120	Tobacco stemmed	33.0	60.7	98,306	690
240310	Smoking tobacco	37.7	65.0	2,837	7,671

Note : There is a TRQ covering chocolate but giving its current country allocation and its multi tariff line coverage, we estimate that the TRQ currently used for 180620 is very small.

Table 18. Effects of sensitive products on trade-weighted applied MFN tariffs

	Initial	Complete Formula	Formula+Sensitive Products
	%	%	%
Agriculture: total	7.9	3.3	4.1
Non-sensitive products	4.3	2.0	2.0
Sensitive products	50.4	18.2	29.3
Live animals	0.1	0.1	0.1
Meat and offal	13.0	5.9	7.2
Dairy products	28.1	12.4	16.5
Other animal products	0.1	0.1	0.1
Live trees	4.0	0.1	0.1
Vegetables	5.7	2.8	2.8
Edible fruit and nuts	2.6	0.7	0.7
Coffee and tea	0.2	0.0	0.0
Cereals	3.2	0.6	0.6
Milling products, starch	2.6	1.3	1.3
Oilseeds	2.6	0.8	1.2
Gums and resins	0.7	0.0	0.0
Vegetable plaiting	0.5	0.0	0.0
Animal/vegetable fats	3.2	1.3	1.3
Prepared meat or fish	2.7	1.3	1.3
Sugar	46.8	16.5	24.8
Cocoa and preparation	8.0	3.7	4.4
Cereal preparations	5.6	2.7	3.0
Vegetable preparations	8.7	3.4	3.8
Miscellaneous food	12.3	6.1	6.1
Beverages and spirits	2.4	1.7	1.7
Food residues	15.0	6.3	9.0
Tobacco	42.6	12.8	22.5
Organic chemicals	1.6	0.8	0.8
Essential oils/perfumes	1.2	0.4	0.4
Albuminoids	1.7	0.9	0.9
Misc chemicals	3.3	1.7	1.7
Hides and skins	0.0	0.0	0.0
Furs	0.3	0.2	0.2
Silk	0.5	0.3	0.3
Wool	1.7	1.1	1.1
Cotton	11.6	5.4	5.4
Other vegetable fibers	0.1	0.0	0.0

Table 19. Impacts on applied tariffs facing U.S. exports

		Post cut tariffs	
	Initial protection	W/o sensitive & special	With sensitive & special
	%	%	%
All WTO members	15.72	9.62	12.54
WTO Developed	20.46	9.95	14.63
WTO Developing (non SVE, RAM and LDC)	10.20	8.00	9.42
Developing excl Korea	7.25	5.93	6.82
WTO Small & Vulnerable	11.74	11.40	11.66
WTO Recently Acceded	16.03	12.36	14.33
WTO Least Developed	9.71	9.71	9.71

Table 20. Impacts on applied tariffs facing U.S. exports by chapter.

		Post cut tariffs		U.S. Exports
	Initial protection	*W/o sensitive & special*	*With sensitive & special*	*Average 2002-2003-2004, Milion USD*
	%	%	%	
Live animals	6.56	3.33	4.73	654
Meat and offal	34.71	15.50	22.43	5,711
Dairy products	31.35	22.61	28.49	970
Other animal products	5.15	3.98	4.38	436
Live trees	1.83	1.12	1.13	273
Vegetables	6.16	3.77	4.51	1,890
Edible fruit and nuts	6.11	3.78	4.30	4,480
Coffee and tea	3.98	2.59	2.92	329
Cereals	27.77	17.84	24.78	11,214
Milling products, starch	9.29	6.11	7.31	679
Oilseeds	4.09	3.62	3.89	8,683
Gums and resins	11.60	7.20	9.82	339
Vegetable plaiting	2.30	1.85	1.92	30
Animal/vegetable fats	9.15	7.22	7.65	2,001
Prepared meat or fish	33.59	15.09	22.56	614
Sugar	7.87	5.06	5.41	673
Cocoa and preparations	30.08	15.02	23.14	651
Cereal preparations	11.89	6.93	9.47	1,661
Vegetable preparations	10.38	6.40	6.81	2,115
Miscellaneous food	14.78	10.95	13.25	3,188
Beverages and spirits	10.08	6.47	7.47	2,066
Food residues	12.87	5.36	8.06	3,814
Tobacco	22.19	16.46	18.50	3,212
Organic chemicals	4.85	2.62	2.87	59
Essential oils/perfumes	6.46	5.11	5.51	897
Albuminoids	6.97	4.34	4.72	669
Misc chemicals	2.88	2.20	2.20	210
Hides and skins	1.95	1.62	1.62	1,523
Furs	2.41	1.93	1.93	169
Silk	3.65	2.99	3.13	4
Wool	4.71	3.62	3.62	44
Cotton	12.55	9.03	11.30	3,281
Other vegetable fibers	2.68	2.48	2.48	3

Table 21. U.S. Export Competition Programs		
Program type/name	Characteristics	WTO status
Market development programs		Green box
Market access program (MAP)	Advertising and consumer promotion, market research, technical assistance and trade servicing. Primarily oriented to value-added products.	
Foreign market development program (FMDP)	Similar to MAP but oriented to bulk commodities.	
Export subsidies		Disciplined under the URA. To be eliminated under proposed DDA modalities (IIIB)
Export enhancement program (EEP)	Cash payments to exporters of specific commodities to targeted countries	
Dairy export enhancement program (DEIP)	Similar to EEP but for dairy products	
Export credit guarantees		To be disciplined under proposed DDA modalities (Annex J)
GSM-102	GSM-102 guarantees export financing for 6 months to 3 years. Supplier credit guarantee program (SCGP) is for importers. The facilities guarantee program (FGP) provides guarantees for projects to improve facilities for imports of U.S. products.	
GSM-103	Guarantees financing to exporters for up to 10 years	
Food aid		To be disciplined under proposed DDA modalities (Annex L)
P.L.480	Title 1: long-term, low interest loans for the purchase of U.S. commodities. Title 2: emergency donations. Title 3: grants to support growth in least-developed countries.	
Section 416(b)	Donations of surplus commodities by the Commodity Credit Corporation (CCC)	
Food for progress (FFP)	Donations of surplus or purchased commodities by the CCC	
McGovern-Dole International Food for Education and Child Nutrition	Commodities and technical assistance for pre-school, school, maternal, infant and child nutrition programs	
Bill Emerson humanitarian trust (BEHT)	Provides a commodity and cash reserve to help fulfill P.L.480 commitments	

Table 22. U.S. export subsidies relative to WTO commitments, 1995-2002

	Value			Volume		
Product	Maximum % of binding notified	Average % of binding notified	Years in which binding exceeded	Maximum % of binding notified	Average % of binding notified	Years in which binding exceeded
Wheat and wheat flour	0%	0%		3%	0%	
Coarse grains	2%	0%		1%	0%	
Rice	0%	0%		4%	0%	
Vegetable oils	0%	0%		0%	0%	
Butter and butter oil	45%	15%		36%	12%	
Skim milk powder	110%	47%	1998	120%	77%	1998
Cheese	104%	52%	1999	101%	84%	1999
Other milk products	141%	37%	1999	144%	38%	1999
Bovine meat	0%	0%		0%	0%	
Pigmeat	0%	0%		0%	0%	
Poultry meat	32%	9%		65%	15%	
Live dairy cattle	0%	0%		0%	0%	
Eggs	0%	0%		25%	3%	

Source: Computed from WTO notifications

Table 23. Summary of draft modalities for export competition as applicable to the United States	
Export subsidies	1. Elimination of remaining export subsidy entitlements by 2013. 2. 50% reduction in budgetary outlay commitments by the end of 2010 with equal annual installments for the remainder. 3. Quantity commitments to be reduced to zero in equal annual installments from current levels with either a standstill during the implementation period of actual applied levels or bound levels minus 20%
Export credit, credit guarantees or insurance	1. Maximum repayment term for export financing 180 days. 2. Export credit guarantee, insurance and other risk coverage programs to be self-financing (a test of coverage of operating costs and losses for a rolling 4 or 5 year average will be used to determine this).
Food Aid	1. Needs-driven and in grant form, not linked to commercial exports of agricultural or other products and not linked to market development objectives 2. Cash or in-kind aid protected in emergency situations (the so-called safe box) with monetization restricted to aid to least-developed countries for transport and delivery only. 3. Non-emergency in-kind aid to be subject to needs assessment by international or regional intergovernmental organizations, targeted to food insecure groups, and to have minimal displacement effect. Monetization either to be prohibited or permissible only to fund the transportation or delivery of aid, or procurement of agricultural inputs for low-income or resource-poor producers,

Appendix Table

Table A. 1. Implications of Different Methods of Calculating AVEs

Trade weighted	Initial Bound Tariff	Post Formula Bound Tariff	Cut ratio	Bound tariff distribution			
				Band I	Band II	Band III	Band IV
Importer UV	7.50	3.38	55.0	91.3	5.6	1.2	2.0
World UV	8.01	3.23	59.6	92.6	4.4	1.0	2.0
WTO UV	7.95	3.39	57.3	92.6	4.4	1.0	2.0