

Options for Reforming Domestic Support

The URAA made an important distinction between domestic agricultural support that significantly distorts production and trade (amber box subsidies), and those subsidies that were agreed to have minimal or no distorting impacts (green box subsidies). Only amber box subsidies were made subject to reduction commitments. (Blue box subsidies were also exempted from reduction commitments because they are linked with offsetting production limits.) Reduction commitments during the URAA implementation period were made from a base AMS, defined for each country as the average of its total amber box support for all commodities during 1986-88.

In 1998 (the base year for this analysis), OECD countries provided levels of amber box domestic support below their ceilings (table 11). Some countries, including the United States and Mexico, achieved these levels by shifting some of their domestic support programs into less trade-distorting programs that satisfied the criteria for being exempt from URAA commitments. Higher world prices during the early implementation period also provided more or less automatic reductions in support levels, making it easier for countries to meet their WTO ceiling commitments.

The URAA left in place an uneven playing field of domestic support across countries and commodities.

Those countries with relatively high support levels in the base period continue to have AMS ceilings that allow relatively high support levels, while countries with no support in the base period face constraints in introducing it. In addition to the disparity among countries in total levels of support, there is dispersion in the level of support provided to commodities. Many countries provide most of their support to a small number of commodities.

In the AMS framework, the measurement of domestic support includes both government subsidy expenditures on agriculture, as well as the value of trade policies (measured as the gap between domestic and fixed international reference prices) for commodities that receive administered or guaranteed price supports. Domestic subsidies include output subsidies and intermediate input subsidies. Output subsidies directly stimulate increased production by increasing the expected returns from the subsidized commodity. Subsidies can also be used to provide price support to the farmer through direct payments that achieve a guaranteed return. By not actually forcing market prices in the current period to be equal to the guaranteed price to farmers, these payments may be somewhat less distorting of consumer demand than when market prices are fixed by the government. Subsidies on intermediate and capital inputs raise output by lowering input costs.

Table 11—Reduction commitments if AMS is lowered an additional 20 percent from Uruguay Round ceiling

	Percent AMS ceiling used in 1998	Percent cuts in AMS required to reach additional 20 percent reduction in Uruguay Round 1986-88 ceiling
Australia	23.4	0.0
Canada	8.6	0.0
European Union	74.5	-7.1
Japan	77.2	-10.4
Korea	80.1	-13.5
Mexico	6.6	0.0
Norway	87.8	-21.1
New Zealand	0.0	0.0
Poland	8.3	0.0
Switzerland	71.0	-2.5
United States	44.7	0.0

Only OECD countries represented in the OECD model are included in this table.

AMS = Aggregate Measurement of Support.

Source: Young et al. (2001).

The Link Between Trade Policies and Domestic Price Support in the AMS

The calculation of the AMS explicitly accounts for the operational linkage between trade policies and market price support. The AMS captures how these policies actually work: An effective market price support program requires trade policies to restrict imports and may require export subsidies. In the absence of such a program, domestic price support and storage programs would become too costly. If the new negotiations continue within the framework of the URAA, market access (tariffs and other trade barriers) and export subsidies will be addressed separately from domestic support, but reforms of the three policies are linked. Constraints on trade policies alone could either reduce the effectiveness and current subsidy value of market price support programs as domestic prices fall, or lead to a higher current subsidy value if countries respond with larger expenditures on stock building or price subsidies.⁴ On the other hand, constraints on a domestic support program would not necessarily lead to a dismantling of trade barriers. Such barriers can be beneficial to the domestic sectors without the need for administered prices, although the administered prices provide an additional layer of short-run protection to producers. Administered prices create a strong incentive for governments to maintain effective trade barriers, and there can also be greater flexibility to lower trade barriers when administered price supports are constrained.

We analyze AMS reductions by proportionally reducing all amber box domestic subsidy expenditures as well as the applied tariffs and export subsidies whenever commodities benefit from administered market price support programs.⁵ This approach is consistent with the AMS accounting framework, which incorporates the operational link between trade and price support policies. In effect, this approach implies that constraints on administered price support programs are achieved through lowering trade barriers.

⁴Technically, the calculation of the AMS as defined in the URAA would not change since it uses the gap between the administered price and a fixed base reference price, instead of the current market price, to calculate the effective level of support.

⁵In this report, we quantify domestic subsidies by applying the AMS concept of amber box domestic support to data from the OECD's PSE database. While the AMS and the PSE are both measures of domestic support, the concepts differ. The PSE is a more up-to-date and comprehensive measure of domestic support, but it includes policies exempt from URAA disciplines and has a broader measure of market support than the AMS. Without further manipulation, the PSE database cannot be used to analyze options for AMS reductions in the WTO. See appendix 2 in the full report for a more detailed discussion.

Lowering AMS Ceilings Versus Leveling the Playing Field

We analyze two approaches to further reform of domestic support policies. These are alternative, generic approaches to reform rather than specific WTO proposals. Similar to the analysis of tariffs, we analyze and compare the effects of reducing countries' overall levels of domestic support with the effects of reducing the dispersion of domestic support across countries and commodities. The first scenario is a continuation of the Uruguay Round's 20-percent reduction of AMS ceilings on aggregate domestic support from uneven 1986-88 base levels of support (to 40 percent below the base). A further cut in ceilings will affect countries differently, depending on the relationship between their current total AMS expenditures and their current commitment levels (table 11). Many countries would not be affected by a further 20-percent reduction in AMS ceilings, including the United States, Canada, Mexico, Australia, and New Zealand. This scenario also leaves in place a dispersion of support across commodities, since it assumes that all program and commodity benefits are reduced proportionally if their current AMS exceeds the new ceiling.

In the second scenario, we "level the playing field" by requiring countries to limit the level of commodity-specific support to no more than 30 percent of their value of production, which is approximately the same level of aggregate support that the EU would be allowed in the first scenario (table 12). Countries that provide less than the maximum levels of support are assumed not to increase their subsidies. Proportional cuts are assumed for all policies for a commodity if the overall subsidy for a commodity exceeds 30 percent of the value of production. Most countries have commodity programs that would be affected by this approach, including the EU, Japan, United States, Canada, and Mexico. This approach achieves significant liberalization in commodities that tend to be most protected, including sugar and dairy.

Tables 13 and 14 show the effects on U.S. bilateral trade under the two scenarios. A further reduction in AMS ceilings would affect the United States mostly through increased demand for U.S. agricultural products by those countries that would be affected by ceiling reductions. U.S. export growth would be largest in oilseeds, meats, wheat, and coarse grains, with most exports going to the EU and Japanese markets. Total U.S. agricultural exports would increase by \$900 mil-

Table 12—Commodity-specific AMS: Reduction needed to keep commodity-specific AMS less than 30 percent

	Total	Wheat	Rice	Course	Oilseeds	Sugar
<i>Percent change from base AMS</i>						
Australia	0	0	0	0	0	0
Canada	0	0	0	0	0	0
European Union	0	0	0	0	0	-28
Japan	-19	-65	-64	-56	-17	-51
Korea	0	0	-57	-57	-61	0
Mexico	0	0	0	0	0	-9
Norway	0	-37	0	-31	0	0
New Zealand	0	0	0	0	0	0
Poland	0	0	0	0	0	0
Switzerland	-41	-35	0	-36	-52	-47
United States	0	0	0	0	0	-19
	Milk	Beef & sheep	Other meat	Wool	Horticulture	Miscellaneous
<i>Percent change from base AMS</i>						
Australia	0	0	0	0	0	0
Canada	-48	0	0	0	0	0
European Union	-44	-15	0	0	-16	0
Iceland	-63	0	-70	0	0	0
Japan	-62	-6	-11	0	0	0
Korea	0	-27	0	0	0	0
Mexico	0	0	0	0	0	0
Norway	-10	0	-20	0	0	0
New Zealand	0	0	0	0	0	0
Poland	0	0	0	0	0	0
Switzerland	-43	-36	-40	0	0	-40
United States	-49	0	0	0	0	0

Source: Based on WTO notifications, OECD PSE data, and ERS calculations.

lion, an increase of about 0.2 percent from 1999 exports. U.S. imports would decline by \$20 million.

When commodity support is leveled across countries and commodities, the global reform becomes more broad-based, and the effects on U.S. agricultural trade are slightly larger. Assuming a 30-percent ceiling on commodity subsidies (with subsidies below that level assumed not to increase) the largest export gains for the United States will be for beef, rice, and dairy, mainly to Japan, the EU, and Canada. This analysis does not take into account the potential impacts of other policies, such as EU restrictions on hormone-treated beef. Total U.S. agricultural exports under this scenario will increase by \$1 billion. Total U.S. imports will increase slightly (\$245 million).

Most of the value of domestic farm support is provided through price support programs, and most price support programs are implemented through trade restraints and export subsidies rather than stock holding or payments to farmers. The dependence of domestic support on trade policies has led some to argue for a strategic approach to negotiations: focus on reducing tariffs and export subsidies, and let tighter trade policy rules force reforms on domestic farm programs. Assuming that countries respond to constraints on domestic support by dismantling related import barriers and export subsidies, the trade policy component of both the AMS scenarios considered here accounts for 83 percent of their global trade effects. This suggests that targeting trade policies alone can implicitly lead to significant reform of domestic support.

Table 13—Changes in U.S. agricultural trade from a 20-percent reduction in URAA AMS ceilings

	Canada	Mexico	EU	Exports EFTA	Japan	Korea	Row	Total exports	Total imports
<i>Change from base in \$US million</i>									
Rice	0.0	-0.1	6.1	0.1	17.0	0.0	0.7	23.9	-0.2
Wheat	0.1	1.6	55.8	3.1	15.0	1.6	63.2	140.5	-1.1
Coarse grains	1.0	-1.4	87.4	3.2	-6.7	-1.1	53.6	136.0	-13.9
Oilseeds	1.3	8.8	190.1	0.7	9.4	4.1	8.1	222.4	-0.2
Sugar	0.0	0.0	1.0	0.0	0.2	0.0	0.1	1.3	-0.4
Cotton and fiber	0.1	-0.1	0.1	0.0	0.6	0.4	0.7	1.8	0.0
Fruit and vegetables	0.0	-0.8	18.4	2.1	40.2	8.9	-3.8	65.1	7.8
Other crops	-0.8	-0.5	-12.6	0.4	3.6	3.4	-5.6	-12.1	11.3
Beef	2.0	-0.3	52.8	1.0	50.6	9.8	10.2	126.0	-13.4
Other livestock	5.2	0.9	17.0	1.4	37.8	14.3	68.4	145.0	-0.5
Dairy products	1.2	4.1	7.0	1.0	20.7	5.7	10.8	50.5	-0.6
Processed foods	3.1	1.5	16.6	0.0	-27.8	-2.7	12.6	3.3	-7.6
Total	13.3	13.8	439.6	13.0	160.5	44.3	219.0	903.5	-18.7

Source: Young et al. (2001).

Table 14—Changes in U.S. agricultural trade from reducing commodity-specific AMS to no more than 30 percent of the value of production

	Canada	Mexico	EU	Exports EFTA	Japan	Korea	Row	Total exports	Total imports
<i>Change from base in \$US million</i>									
Rice	-0.3	-0.4	-1.7	0.6	265.4	0.3	-0.9	263.0	1.6
Wheat	0.1	-0.7	-5.7	9.2	87.9	1.4	41.7	134.0	3.7
Coarse grains	1.6	-0.4	-11.0	8.9	-18.5	-0.4	83.0	63.4	-25.4
Oilseeds	-0.1	-1.6	-19.1	4.2	29.7	21.3	7.3	41.6	0.0
Sugar	0.7	0.3	0.4	0.0	1.2	0.0	2.1	4.9	111.3
Fiber	0.4	0.2	1.1	0.1	2.5	1.6	10.0	15.9	-0.1
Fruit and vegetables	0.9	-0.3	75.0	5.0	-14.3	0.1	8.8	75.4	-2.1
Other crops	-0.2	-0.3	-15.4	-0.5	-2.4	-0.4	-1.5	-20.8	3.7
Beef	10.4	3.2	216.2	5.5	-4.4	23.7	31.5	286.2	-39.0
Other livestock	0.6	0.9	-2.0	1.1	9.5	4.9	8.4	23.5	-1.6
Dairy products	58.6	-21.4	40.0	2.2	164.6	-2.6	-44.4	197.0	173.8
Processed foods	-1.3	0.7	-19.0	-0.6	-19.7	-3.9	4.4	-39.5	18.1
Total	71.4	-19.6	259.0	35.9	501.4	45.9	150.5	1,044.5	244.0

Source: Young et al. (2001).