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Implications of a GATT Agreement on Agriculture: The Known, the Unknown and the Unknowable

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Implications of a GATT Agreement on Agriculture: The Known, the Unknown and the Unknowable

Abstract

International negotiations under the General Agreement on Tariffs and Trade (GATT) seek to set rules governing trade in agricultural products as well as a wide variety of other products and services. The outcome of the negotiations is uncertain at this time, but it seems that if there is to be an agreement for agriculture, it will require countries to make modest reductions in internal support measures, export subsidies, and import barriers. The consequences of a GATT agreement for world agriculture cannot be known with certainty, especially if the specific terms of an agreement remain unknown. Research conducted by the Center for Agricultural and Rural Development (CARD) demonstrates that the policy implications of a GATT agreement are very sensitive to specific GATT rules. Under most plausible sets of rules, the United States earns substantial "credits" for policy reforms already implemented, so future support reductions under a GATT agreement would be smaller for the United States than for most other countries.

Keywords

Agriculture, Policy, International Trade

Disciplines

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**Implications of a GATT Agreement on Agriculture:
The Known, the Unknown, and the Unknowable**

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ABSTRACT

International negotiations under the General Agreement on Tariffs and Trade (GATT) seek to set rules governing trade in agricultural products as well as a wide variety of other products and services. The outcome of the negotiations is uncertain at this time, but it seems that if there is to be an agreement for agriculture, it will require countries to make modest reductions in internal support measures, export subsidies, and import barriers.

The consequences of a GATT agreement for world agriculture cannot be known with certainty, especially if the specific terms of an agreement remain unknown. Research conducted by the Center for Agricultural and Rural Development (CARD) demonstrates that the policy implications of a GATT agreement are very sensitive to specific GATT rules. Under most plausible sets of rules, the United States earns substantial "credits" for policy reforms already implemented, so future support reductions under a GATT agreement would be smaller for the United States than for most other countries.

CARD and the U.S. Department of Agriculture (USDA) have each conducted an analysis of the likely consequences of a GATT agreement, given particular assumptions about the terms of such an agreement. The two studies agree that world market prices for most agricultural commodities would be higher if there is a GATT agreement than if there is not. In both studies, U.S. producers of grains, oilseeds, and livestock would benefit from increased exports and market prices, but domestic sugar prices would fall. Both studies indicate that an agreement would result in a modest decline in government payments, but that a larger increase in market receipts would increase U.S. farm income. But the two studies disagree about the likely effect of a GATT agreement on the dairy sector, and the magnitudes of the many other effects differ greatly between the CARD and USDA studies.

Much of what proponents and opponents of a GATT agreement claim to know about the consequences of such an accord seems to be untrue or, at best, uncertain, given what is now known about the terms of an agreement. Identifying what is known makes it possible to dispel common myths, and identifying what is unknown or simply unknowable adds a note of caution to the debate.

**IMPLICATIONS OF A GATT AGREEMENT:
THE KNOWN, THE UNKNOWN, AND THE UNKNOWABLE**

The Uruguay Round of negotiations under the auspices of the General Agreement on Tariffs and Trade (GATT) began in September 1986 and may well continue into 1992 or even 1993. The negotiations cover rules governing trade in a broad range of goods and services, but agriculture has received special attention; indeed, it was a deadlock in the agricultural negotiations that led to a temporary suspension of GATT talks in December 1990. Recent U.S. congressional approval of an extension to the administration's fast-track authority to negotiate a GATT agreement is expected to intensify the negotiations, but the parties remain far apart, particularly in agriculture.

This paper examines the implications of a GATT agreement for U.S. and world agriculture. The USDA and CARD have studied the quantitative effects of such an agreement. These studies rely on long series of assumptions about the terms of the agreement, how it might be implemented, and what might happen without it. Because many of these assumptions are unlikely to hold, the actual effects of a GATT agreement are likely to differ from those estimated by the USDA and CARD. This paper attempts to identify the effects that are relatively robust with respect to policy and other assumptions (the known), the effects that depend crucially on the precise terms of the agreement or other factors that are now uncertain but may eventually become clear (the unknown), and the effects that depend on assumptions concerning fundamentally unpredictable factors such as the weather (the unknowable).

There are relatively few things about a GATT agreement that are known with certainty at this time. In fact, there is considerable doubt about whether the negotiators will ever reach an agreement, and there is no guarantee that any agreement would be ratified by member states. A lot of what proponents and opponents claim to know about a GATT agreement are shown here to be false,

dependent on tenuous assumptions, or inherently unknowable. Although enough is known to speculate about likely winners and losers from a GATT agreement, much uncertainty remains about the magnitude of all effects and even the direction of some.

The first section of this paper discusses the current state of the negotiations and illustrates that the way in which outstanding issues are resolved will play a crucial role in determining the distributional effects of a GATT agreement. The second section summarizes and compares the results of the USDA and CARD studies, emphasizing the importance of assumptions. The third section attempts to debunk some common myths about GATT and identify what is known, unknown, and unknowable.

Status of the Negotiations and Outstanding Issues

In December 1990, high-level ministers and trade negotiators met in Brussels for what was originally intended to be the final meetings of the Uruguay Round. Agriculture was widely perceived to be the key to a successful conclusion, and the wide gap between the negotiating positions of the United States and the European Community (EC) contributed to a crisis atmosphere. Many expected a last-minute compromise on agriculture, and a proposal by Swedish Minister of Agriculture Mats Hellstrom seemed to fit the bill. The European Community, however, refused to continue discussions based on the Hellstrom proposal, and Japan and South Korea also indicated that the proposal was unacceptable. The stalemate in agriculture led to a walkout by Brazil and other Latin American exporting countries, and the negotiations collapsed.

Going into the Brussels meeting, the U.S. position called for sharp reductions in agricultural subsidies in three areas:

1. A 75 percent reduction between a 1986-88 base period and 2000 in trade-distorting internal supports (e.g., direct payments, input subsidies, and domestic support prices greater than world price levels), as measured by an Aggregate Measure of Support (AMS).

2. Tariffication of existing nontariff barriers to trade and a 75 percent reduction in tariffs between a 1986-88 base period and 2000. Minimum access arrangements to allow imports equivalent to 3 percent of domestic consumption to enter with low or no tariffs.
3. A 90 percent reduction in export subsidies (both in expenditures and quantities subsidized) on primary products between a 1986-88 base period and 2000 (Gardner 1991, 6).

The U.S. position was, in general, endorsed by the Cairns Group of exporting countries, including Argentina, Australia, Brazil, Hungary, Indonesia, New Zealand, Thailand, and others. The EC proposal, on the other hand, differed substantially from the U.S.-Cairns Group proposal, both in the scope and depth of proposed subsidy reductions:

1. A 30 percent reduction in AMS for major commodities between a 1986 base period and 1996.
2. Limited tariffication of border measures that would permit countries to insulate domestic markets against changes in world market prices and exchange rates. Permission for EC "rebalancing" (establishing tariffs on oilseeds and nongrain feeds while reducing tariffs on other commodities).
3. No specific proposal for export subsidies. It was argued that AMS reductions would result in a reduced need for export subsidies to dispose of surplus production (Gardner 1991, 8-9).

Other countries raised a variety of other concerns in the agricultural negotiations. For example, Japan stressed the need to protect food security, and developing countries insisted on special treatment that would allow them to retain agricultural and trade policies that serve development objectives. The primary dispute, however, was between the United States and the European Community. The Hellstrom proposal was intended to serve as a compromise that would incorporate the types of rules proposed by the United States and a lower level of reductions to make the agreement more palatable to the European Community:

1. A 30 percent reduction in AMS from a 1990 base period by 1996.
2. Tariffication of border measures and a 30 percent reduction in tariffs between a 1990 base period and 1996. Minimum access of 5 percent of consumption.

3. A 30 percent reduction in export subsidies (measured in terms of expenditures, quantities subsidized, or per unit subsidies) between a 1988-90 base period and 1996 (Gardner 1991, 10).

The European Community and Japan objected to the Hellstrom proposal, in part because it required specific commitments in all three areas of the negotiations (internal support, market access, and export competition), but also because the 1990 base period would not give countries credit for policy reforms enacted since the Uruguay Round began in 1986. The EC countries had great difficulty devising a common negotiating position, and the need for consensus among EC members made it very difficult for their negotiators to agree to any alternative proposal. Brazil and the other Latin American exporters abandoned the negotiations because only significant gains in agriculture would have provided them with an incentive to make concessions in other areas.

After failing to reach agreement in Brussels, there was concern that the Uruguay Round might be dead. In the absence of an agreement, the U.S. administration was forced to seek from Congress an extension of its fast-track negotiating authority, which requires Congress to vote yes or no on a final agreement with no amendments. Without an indication of flexibility from the European Community, it was expected that either the administration would not request an extension of fast-track authority or that Congress would deny the request.

Shortly before the administration was required to submit the fast-track request, the European Community signaled its willingness to negotiate on market access and export competition (Maggs 1991). The administration indicated it would use its fast-track extension to negotiate not only a GATT agreement, but also a North American Free-Trade Agreement with Mexico and Canada. The congressional debate on fast-track centered more on the implications of a free-trade agreement with Mexico than on a GATT agreement. Disapproval resolutions were defeated in both the House and Senate late in May 1991.

Serious GATT negotiations on political issues (e.g., percentage reductions in support and base periods) were delayed during the U.S. fast-track debate and the internal EC discussions about pricing policies for the 1990/91 crop year (Schott 1991). It is not clear whether the European Community will be willing or able to resume political discussions through GATT before it reaches internal consensus about long-term reforms of the Common Agricultural Policy (CAP) proposed by EC Agriculture Commissioner Ray MacSharry. Meanwhile, low-level discussions of technical issues resumed in March in Geneva. Initial meetings discussed long checklists prepared by the GATT secretariat and made it clear that it will take quite some time to resolve all the outstanding issues. Given the wide diversity of agricultural policies in GATT member states, it is very difficult to devise a set of rules that can be consistently applied to all countries. There seems to be no consensus among the negotiators about how to resolve the technical issues, let alone the political ones.

It is hazardous to speculate about the nature of a final GATT agreement in any but the broadest terms. As suggested by Schnittker, Hayes, and Meyers (1990) before the Brussels meeting, a final agreement is likely to result in smaller subsidy reductions than those desired by the United States, but stronger disciplines than those desired by the European Community. In other words, if there is to be an agreement, it is likely to be similar to the Hellstrom proposal in key respects. A variety of solutions are plausible for many of the important issues, however, and even some of the finer points can affect the consequences of a GATT agreement for farmers, consumers, and taxpayers in different countries.

A recent report from CARD (1991a) examines some of the outstanding issues in the negotiations and shows how important rules are in determining the winners and losers from GATT. For example, the report clearly indicates why the choice of base period in determining subsidy reduction obligations is an important issue. Suppose that an agreement calls for a 30 percent reduction in AMS. Table 1 shows that the required reductions in AMS from 1990 levels needed to comply with such an

Table 1. Required AMS reductions from 1990 levels to achieve a 30 percent AMS reduction from alternative base periods

Country/Commodity	-----Base Period-----		
	1986-88 (U.S. Proposal)	1986 (EC Proposal)	1990 (Hellstrom)
	(Percent)		
United States			
Crops	6.7	12.4	30.0
Dairy	21.5	18.4	30.0
Total	11.0	13.9	30.0
European Community			
Crops	21.9	19.8	30.0
Dairy	26.1	22.0	30.0
Livestock	23.5	22.4	30.0
Total	23.8	21.4	30.0

SOURCE: CARD 1991a, 26.

Note: Required reductions are the percentage AMS reductions from 1990 levels required to achieve a 30 percent reduction in AMS from base period levels. Each column reports the results of using a different base period. The calculations are based upon a series of assumptions about how the AMS is to be measured, and the results are intended to be illustrative rather than definitive.

agreement vary dramatically across countries and commodities, depending on the base period from which reductions must be made.

Base Period Choices

The U.S. and EC negotiating positions are consistent with the figures reported in Table 1. The United States prefers a 1986-88 base period, but was willing to consider Hellstrom's proposal. With a 1986-88 base period, the United States would be required to reduce subsidies after 1990, but by less than the EC reduction. An important objective of the U.S. negotiators is to maximize EC subsidy reductions, however, and it seemed unlikely that the European Community would accept anything like the U.S. proposal of a 75 percent reduction from a 1986-88 base. The Hellstrom proposal would

have required the European Community (and the United States) to reduce support by 30 percent from 1990 levels, whereas the EC proposal would have required only a 21 percent reduction from 1990 levels in the EC AMS.

From the EC's perspective, a 1986 base period maximizes credits for policy reforms already implemented, thus minimizing future support reduction requirements. A 1986-88 base period yields similar results and may be acceptable to the European Community in the end. Although the EC and Hellstrom proposals both call for a 30 percent reduction in AMS from a base period, the Hellstrom proposal requires significantly more future support reductions. The European Community is interested in minimizing its own support reductions and seems unconcerned that a 1990 base period would result in much larger U.S. support reductions than would a 1986 or 1986-88 base period.

One reason that a GATT agreement is likely to increase the U.S. share of world exports of grains and meats is that the United States will probably be required to reduce its subsidies by less than the EC reduction, both in absolute and percentage terms. The percentage U.S. subsidy reduction will be lower than that of the European Community, even if a 1990 base period is used, because 1990 U.S. farm and budget legislation requires significant support reductions for 1991 and subsequent years, regardless of whether there is a GATT agreement.

Credits for policy changes already implemented vary not only across countries, but also across commodities. Incorporating the effects of 1990 farm and budget legislation and using projected levels of program participation and production, Table 2 presents estimates of future support reductions required for U.S. commodities.

The results reported in Table 2 indicate that a GATT agreement requiring a 30 percent reduction in AMS from a 1986 or 1986-88 base period would be fairly certain to benefit U.S. corn, wheat, and cotton producers, but the effect on rice, sugar, and milk producers is less clear. For corn, wheat, and cotton, no target price reduction would be required. At least for corn and wheat, most studies

Table 2. Required U.S. AMS reductions from 1991 levels to achieve a 30 percent AMS reduction from alternative base periods

Commodity	Base Period		
	1986-88 (U.S. Proposal)	1986 (EC Proposal)	1990 (Hellstrom)
	(Percent)		
Corn	0.0	0.0	14.8
Wheat	0.0	0.0	4.4
Rice	16.8	19.9	18.7
Cotton	0.0	0.0	15.8
Sugar	29.9	38.9	38.1
Dairy Products	19.8	17.1	27.4
Total	0.0	1.3	17.9

SOURCE: CARD 1991a, 27.

Note: Required reductions are the percentage AMS reductions from 1991 levels required to achieve a 30 percent reduction in AMS from base period levels. Each column reports the results of using a different base period. The calculations are based upon a series of assumptions about how the AMS is to be measured, and these results are intended to be illustrative rather than definitive.

indicate that U.S. and world market prices would rise, which would increase farm receipts and reduce government program costs. For rice, sugar, and milk producers, the question is whether the possible increase in world market prices would more than offset the loss of government support that would be mandated by a GATT agreement.

If the base period is 1990, AMS reductions would be required for all U.S. commodities. A reduction in AMS does not necessarily translate into a reduction in crop target prices, however, because the AMS calculation depends both on support prices and the quantities subsidized. Increasing the proportion of acreage ineligible for payments (the triple-base rate) would reduce the AMS. Also, if world prices were to increase under a GATT agreement, program participation rates would tend to fall, resulting in an AMS reduction with no change in U.S. government policy.

The choice of base period for AMS calculations is just one of the many outstanding issues in the negotiations. The European Community has been reluctant to make any export subsidy reduction commitments, but they have indicated a willingness to accept some restrictions on the quantity of product exported with subsidy. The United States has argued that both the quantity exported with subsidies and government expenditures on export subsidies should be restricted. Quantity restrictions may be more binding for some commodities and expenditure rules for other commodities, depending on changes in traded quantities, world prices, and internal support levels. As with AMS commitments, export subsidy reductions must be made relative to some base period, so the choice of base period has important implications. For example, subsidized EC wheat exports have increased sharply in recent years, so a commitment to reduce exported quantities or export subsidy expenditures from a 1986 or 1986-88 base would imply a dramatic reduction in exports from current levels.

Market Access

In the area of market access, there is much uncertainty about how the U.S. proposal to convert existing nontariff barriers to tariffs would be implemented. Measuring the tariff equivalent of nontariff barriers is an inexact science, and there would likely be many disagreements about the tariff equivalents calculated by each country. In addition, the U.S. proposal would require countries to permit international commodity price variability to be reflected in domestic markets. The European Community has proposed a limited tariffication that would restrict the amount of variation in exchange rates and world commodity prices that would be transmitted to the EC market. Given wide swings in exchange rates and world prices, tariffication rules will have a major impact on market outcomes (CARD 1991a, 20-23). Also, there is little agreement about how minimum access agreements would be implemented. If minimum access is extended to all countries and commodities, it could have a major effect on trade flows. Many countries with self-sufficiency policies are not eager to allow imports equal to 3 percent to 5 percent of consumption to enter with low or no tariffs.

The issues outlined in this section are just a small sample of those currently outstanding in the GATT negotiations. Other issues include exceptions or adjustments for developing countries pursuing development objectives, the treatment of inflation in establishing commitments, the specification of international phytosanitary regulations, and rules concerning dispute settlement. How each of these issues is resolved will have at least some effect on what a GATT agreement means to producers, consumers, and taxpayers around the world.

USDA and CARD Results

Studies by the USDA (1991) and CARD (1991b) have examined the implications of GATT under specific assumptions about the form of a final agreement. The USDA study assumes that the U.S. position at the negotiations prevails, implying a 75 percent reduction in internal supports and tariff equivalents and a 90 percent reduction in export subsidies from a 1986-88 base. Effects of the agreement are assessed for 1996, midway through the implementation period, so that the reductions from 1986-88 levels are only approximately one-half the final amount. The CARD study examines the effects of an agreement to reduce internal supports and tariff equivalents by 33 percent and export subsidies by 50 percent from a 1986-88 base by 1996. Results are reported both for 1996 and for an average of 1997-2000. The 1996 results of both studies are roughly comparable because the mandated support reductions by 1996 are approximately the same.

The USDA study does not report specific results for countries other than the United States although the analysis considered the effects of an agreement on all major trading countries. The CARD study reports detailed results for the United States, the European Community, Japan, and Canada, as well as net trade effects for other countries. The CARD study was conducted before approval of 1990 U.S. farm legislation and so assumes a continuation of previous law. The USDA study was completed in early 1991 and so incorporates the effects of 1990 legislation. Both studies

report results in terms of changes from a baseline that continues current policies in major trading countries.

World trade results for selected commodities and countries in the CARD study are reported in Table 3. Reducing trade barriers, export subsidies, and internal supports increases world prices for all major commodities. EC net commodity exports decline under the GATT scenario in response to lower internal prices. Japanese rice imports increase as trade barriers are reduced. For most commodities, U.S. net exports increase in response to reduced competition or increased import demand. U.S. sugar imports rise in response to a lower loan rate, however, and soybean product exports fall slightly because the effect of increased internal demand outweighs the effect of increased demand from the European Community. Although not shown in Table 3, exports by Brazil, Argentina, Australia, and New Zealand also increase.

Most of CARD's results are consistent with conventional wisdom, but the magnitude of many changes and the direction of some are surprising. For example, the estimated changes in world wheat trade are relatively small in the CARD analysis. One reason is that export subsidy expenditures, and not the quantities exported with subsidies, are limited in the GATT scenario. As a result, EC wheat exports fall only slightly below baseline levels. Reductions in per unit subsidies reduce EC export subsidy expenditures but have little effect on net trade, because EC producers only change production patterns slightly when the prices of all major commodities are reduced simultaneously.

Proportional changes in world meat trade are relatively large in the CARD analysis and play an important role in determining results for the crop sector. Even though EC supply response to reductions in livestock prices is relatively limited in the CARD analysis, significantly lower meat prices have a modest positive effect on consumption. Because net trade is very small relative to production and consumption, even the small change in consumption results in a large proportional change in net trade. World meat prices rise, resulting in increased livestock production in the United

Table 3. CARD estimates of the implications of a GATT agreement for 1996 world trade in selected commodities

	Baseline Level	-----GATT Scenario-----	
		Absolute Difference	Proportional Difference
Feed Grains	(Million Metric Tons)		(Percent)
U.S. Net Exports	72.16	2.78	3.8
EC Net Exports	4.33	-3.92	-90.5
Wheat			
U.S. Net Exports	43.94	0.57	1.3
EC Net Exports	19.71	-0.48	-2.4
Japan Net Imports	6.07	0.23	3.8
Rice			
U.S. Net Exports	2.08	0.48	22.9
Japan Net Imports	-0.06	0.83	--
Soybeans and Products			
U.S. Net Exports	27.64	-0.16	-0.5
EC Net Imports	22.81	0.13	0.6
Sugar			
U.S. Net Imports	0.27	0.55	206.8
EC Net Exports	2.93	-0.72	-24.5
Beef			
U.S. Net Imports	0.15	-0.19	-128.7
EC Net Imports	0.19	0.67	360.0
Pork			
U.S. Net Imports	0.23	-0.32	-137.7
EC Net Exports	0.59	-0.53	-90.9
Dairy Products			
U.S. Net Imports	0.09	-0.13	-149.4
EC Net Exports	0.81	-0.25	-31.2
World Prices	(Dollars per Metric Ton)		
Corn, FOB U.S. Gulf	107.28	9.33	8.7
Wheat, FOB U.S. Gulf	159.25	7.77	4.9
Rice, FOB Bangkok	322.76	28.51	8.8
Soybeans, FOB U.S. Gulf	249.26	13.63	5.5
Sugar, FOB Caribbean	282.19	58.20	20.6
Cheese, FOB N. Europe	2,319.00	460.00	19.8

SOURCE: CARD 1991b, 20, 28, 31, 32, and 39.

States and other countries. This increase in livestock production, in turn, increases feed demand and helps explain the increase in corn and soybean prices.

Perhaps the most surprising results in the CARD analysis are the effects of a GATT agreement on the dairy sector. Support prices are highest in Japan, the European Community, and Canada, so it is not surprising that milk production falls and consumption increases in all three countries when a GATT agreement requires reduced government support. U.S. dairy product markets are also protected by government policies, but the level of support is lower than those in Europe, Canada, and Japan. In the CARD analysis, world butter, cheese, and nonfat dry milk prices rise enough to offset the effect of lower support prices and an end to import quotas, so that U.S. milk prices rise and the United States becomes a small net exporter of dairy products. This result is very sensitive, however, to assumptions of both the baseline and the GATT scenario. In the CARD baseline, world butter, cheese, and nonfat dry milk prices are high relative to 1990 levels, and U.S. support prices are lower than those permitted under legislation approved after the baseline was conducted. As a result, the baseline gap between U.S. and world prices is relatively narrow, so that only a modest increase in world prices in the GATT scenario results in benefits to U.S. producers.

Results of the CARD and USDA analyses of the effects of a GATT agreement for the United States are summarized in Table 4. The following are some of the results common to both analyses:

1. U.S. grain exports increase, resulting in higher farm prices for feed grains, wheat, and rice.
2. U.S. sugar imports increase, resulting in lower producer prices.
3. U.S. meat exports increase, resulting in higher producer prices for cattle and hogs.
4. Government costs decline, more because higher market prices reduce deficiency payment rates and participation rates than because of reduced support levels.
5. Farm income increases because the increase in market receipts more than offsets the reduction in government payments and the increase in production costs.

Table 4. CARD and USDA estimates of the implications of a GATT agreement for U.S. agriculture in 1996

	-----Change from Baseline-----	
	CARD	USDA
Corn		(Percent)
Exports	4	10 to 12
Farm Price	9	6 to 8
Wheat		
Exports	1	16 to 20
Farm Price	5	22 to 28
Rice		
Exports	23	32 to 35
Farm Price	9	50 to 55
Soybeans		
Exports	1	2
Farm Price	6	4
Cotton		
Exports	-1	5 to 6
Farm Price	1	6 to 7
Sugar		
Imports	73	20 to 28
Domestic Price	-29	-5 to -6
Cattle		
Beef Net Imports	-129	-66
Beef Production	1	0
Omaha Steer Price	6	3
Hogs		
Pork Net Imports	-138	-12
Pork Production	1	0
Barrow and Gilt Price	9	5
Dairy		
Dairy Product Imports	-40	32
All Milk Price	5	-6 to -7
Aggregate Indicators		(Billion Dollars)
Government Costs	-1.9	-2.5 to -3
Net Income	4.0	1 to 2

SOURCES: CARD 1991b and USDA 1991.

The only significant directional differences in results between the two scenarios occur in the dairy sector. For reasons outlined previously, the CARD study indicates that U.S. cheese imports would fall and butter and nonfat dry milk exports would increase if a GATT agreement required significant subsidy reductions in the European Community, Japan, and Canada. In the USDA study, world dairy product prices rise, but do not reach U.S. levels. As a result, U.S. imports increase and U.S. market prices fall. Part of the difference between the analyses is that baseline world prices are higher in the CARD study. Both studies also differ slightly in the cotton sector, with the USDA showing a modest increase in cotton exports under a GATT agreement and CARD showing a very small decline.

Other differences between the two analyses reflect the magnitude of effects, but not the direction:

1. The USDA study indicates there would be a much larger increase in U.S. wheat exports than the CARD study does because the USDA imposes quantity restrictions on export subsidies (CARD imposes only an expenditure discipline), and the USDA assumes that the European Community would only export wheat with subsidy.
2. The USDA study estimates a much larger effect on U.S. rice exports and rice farm prices than does the CARD study. The USDA incorporates the effects of a minimum access agreement, which would require countries to import at least 3 percent of domestic consumption freely or with a low tariff. This would be very important for several Asian countries that achieve self-sufficiency by raising domestic prices above world levels. CARD does not assume a minimum access agreement.
3. CARD also finds larger trade and price effects for beef and pork. The USDA study seems to assume that the United States would not benefit from a partial liberalization of EC livestock markets. The CARD study indicates little net effect on EC livestock production, but does indicate that lower prices in the European Community would increase consumption and imports.

The USDA study presents estimated results of a GATT agreement based on the U.S. proposal evaluated midway through the implementation period. Reporting results for 1996 may yield a more optimistic view of the effect of an agreement on farm income than would reporting results for later years. Because of policy changes already enacted, the United States is not required to make significant policy changes outside the sugar and dairy sectors prior to 1996. In later years, however,

the deeper subsidy cuts in the U.S. proposal would actually require adjustments in target prices or other policy parameters affecting U.S. support levels. Even if deeper cuts in subsidy programs in other countries resulted in larger increases in U.S. exports, the increase in market prices may not offset the farm income effect of reducing government payments. It is not clear, therefore, whether U.S. net farm income would exceed baseline levels in the late 1990s if the U.S. proposal were adopted.

GATT: The Myths

The previous section summarized the results of two analyses of the quantitative implications of a GATT agreement on agriculture. As pointed out in the first section of this paper, however, it is very hazardous to speculate about the final terms of a GATT agreement. Without knowing specifics, any estimates of consequences must be treated with extreme caution. GATT proponents and opponents have made numerous claims about potential effects of an agreement, and many of these claims have been shown here to be untrue, or at least unverifiable, given what is known today.

Some proponents claim that a GATT agreement will cause tremendous world trade expansion resulting in a boom period for U.S. agriculture. Both the CARD and USDA studies show that U.S. exports are likely to increase if there is a GATT agreement, but the changes for most commodities are modest. The changes from baseline levels are generally so small that it may be difficult, ex post, to separate the effects of GATT from normal annual variations in trade, prices, and farm income.

Some opponents claim that a GATT agreement would mean eliminating government support for agriculture and would lower commodity prices and sharply decrease farm income. Although the United States originally proposed the complete elimination of agricultural subsidies, there is no chance now that a final agreement will embody anything like the "zero option." Given the sort of modest agreement that now seems possible, the net result is likely to be little change in government supports

and higher market prices for most commodities. U.S. farm income increases in both analyses, but the changes are small and may be sensitive to the specific terms of any agreement.

Some proponents claim that a GATT agreement will be good for developing countries because agriculture is so important in the developing world. Net exporting countries (such as Argentina and Thailand) that currently have low or negative levels of government support for agriculture will probably benefit from higher world prices for major commodities. However, many developing countries are net importers of grains, so higher world prices will increase import bills. Also, depending on the final terms of an agreement, the autonomy of developing countries in setting agricultural and trade policies to achieve development objectives may be restricted.

Some opponents claim that a GATT agreement will provide major benefits to large-scale agribusiness at the expense of family farmers. If the CARD and USDA analyses are correct, most U.S. farmers are likely to benefit from an agreement, regardless of their scale of operation. Sugar, peanut, and perhaps dairy farmers may lose, and many other producers may be vulnerable if an agreement requires deeper support reductions than those assumed in the CARD analysis. Agribusiness is likely to benefit, given projected increases in U.S. production and world trade, but those benefits need not come at the expense of U.S. farmers. Small farmers in the European Community and Japan, on the other hand, are not likely to benefit from a GATT agreement unless their countries make large decoupled payments to offset the effects of lower internal market prices.

The Known

At this time, it is not clear whether a GATT agreement will ever be reached, and even if negotiators reach an accord, it may not be ratified or implemented. If there is a GATT agreement, there are only a few things that can be stated with confidence about its implications for world agriculture. Some of the things that are known include:

1. World prices for most agricultural commodities are likely to be higher than they would have been under a continuation of current agricultural policies. Reducing export subsidies and import barriers should increase world demand relative to world supply.
2. Domestic prices for agricultural commodities will increase in some countries and fall in others. Prices are most likely to rise in countries with few trade barriers and fall in those where trade is most severely restricted.
3. Likewise, farm income is most likely to increase in countries where current subsidy levels are lowest and most likely to decrease in countries now providing high levels of protection, unless compensating decoupled payments are made.
4. For the United States, taxpayers and grain, oilseed, and livestock producers are the groups most likely to benefit from a GATT agreement. Sugar producers and meat consumers are the most likely to lose. Precise terms will determine which groups win and lose, and by how much.

The Unknown

Many of the effects of a GATT agreement are highly contingent on its precise terms and on as yet unknown factors. The following are among the things that are now unknown, but that may eventually be clarified:

1. The terms of an agreement will determine whether further reductions in U.S. farm programs will be required. Both studies indicate that plausible GATT rules may not require reductions in target prices or in other policies beyond those incorporated in current legislation. However, other plausible rules would require further reductions, with different implications for U.S. farm income.
2. The outcome of the internal policy debate in the European Community will have a significant effect on the negotiations and on the implications of an agreement. If the EC member countries agree among themselves to make significant reforms in agricultural policies, as proposed by EC Agriculture Commissioner Ray MacSharry, a GATT agreement becomes both more possible and less necessary. Reducing high price support levels while making direct payments to small farmers would reduce the trade-distorting effect of EC farm programs while protecting the income of small farmers.
3. Even if the terms of a GATT agreement were known, there would be much remaining uncertainty about how the agreement would be implemented. Countries will retain considerable freedom to decide how to translate GATT rules into law and administrative actions, and it is difficult to anticipate the most likely responses.

4. Many of the differences between the CARD and USDA estimates result from a difference in baselines. It is not possible to know the effect of an agreement without knowing what would have happened in its absence. For example, if world dairy prices would have been high even without an agreement, the U.S. dairy sector might benefit from a GATT agreement, as indicated in the CARD analysis. If world dairy prices would have been much lower without an agreement, U.S. dairy producers are unlikely to benefit, as indicated in the USDA study. As time passes, long-term trends in commodity markets may become more clear.

The Unknowable

Some effects can never be known with certainty. For example, we can never be sure exactly what would have happened in the absence of an agreement, so there is unlikely to be consensus about all the effects of a GATT agreement, even after the fact. The following are among the things that are inherently "unknowable" concerning these effects:

1. The weather and other random factors cannot, by definition, be known with certainty in advance. The effects of an agreement depend on levels of production, trade, market prices, and other factors in the absence of an agreement. These variables, in turn, depend in large part on random factors, so it is impossible to know with certainty the effects of a GATT agreement. The best that can be done is to make probabilistic statements.
2. All the quantitative estimates of the effects of a GATT agreement depend on the validity of the models used to conduct the analysis. The CARD and USDA studies both rely on a mix of formal models and the subjective estimates of analysts. Statistical tests and appeals to theory may provide some basis for assessing the validity of the methods used and results obtained, but truth will always remain elusive.

More research on the effects of a GATT agreement on agriculture will be conducted in the months and years ahead. If an agreement is reached, there will likely be a great demand for the results of such research from the members of Congress who must decide whether to approve the agreement and from interest groups who hope to influence the vote.

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