GATT AND CAP REFORM: DIFFERENT, SIMILAR, OR REDUNDANT?

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ABSTRACT

Agricultural production, consumption, and trade patterns are being influenced by major economic and policy changes. Among the most important are the reform of the CAP and a possible GATT agreement. A baseline containing CAP reform is compared to a GATT agreement and a scenario without CAP reform to obtain the impacts of these changes on world trade and prices of agricultural commodities.

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Introduction

Many of the economic and political changes which have been occurring around the world in the early 1990s have had, and will continue to have, major impacts on agricultural production, consumption, and trade patterns. Among the most important of these are reform of the Common Agricultural Policy (CAP) of the European Community (EC) and the proposed changes to world trade which would result from a successful conclusion to the Uruguay Round of the General Agreement on Tariffs and Trade (GATT) negotiations.

In February 1991, then-EC Agricultural Commissioner Ray MacSharry submitted a proposal for CAP reform. This proposal was controversial, setting the stage for more than a year of negotiations and adjustments to the proposal before it was approved in May 1992. Implementation began in 1993, and the effects of this reform could have substantial impacts on production and exports of agricultural commodities by the EC, and, to a lesser extent, on consumption of these products.

In December 1991, the GATT Secretariat proposed a draft final agreement (the Dunkel text) to renew stalled negotiations on reducing trade barriers. Since that time, it has been widely adopted as the basis of further negotiations on reducing trade-distorting policies in agriculture. In November 1992, the United States and EC reached agreement on several modifications to the Dunkel text, as well as on their bilateral oilseeds dispute. These agreements have become known as the Blair House agreements, and have been generally accepted as modifications to the Dunkel text. The Dunkel text and Blair House agreements would effectively bind countries such as the EC and U.S. to maintain reductions in commodity support levels and trade barriers which have been achieved since 1986. There would be reductions required in other, mostly developed, countries as well, with effects being felt by world agricultural markets and trade, in general.

These changes include many important direct and indirect impacts on North American and European trade and world agricultural markets. This study evaluates prospects for agricultural trade and prices under a baseline scenario and alternative scenario assumptions about agriculture without a CAP reform agreement and with a GATT agreement.

Analytical System and Procedures for the Quantitative Analysis

To assess the impacts of a Dunkel/Blair House agreement and CAP reform, results for agriculture are compared under three alternative scenarios:

1. A baseline scenario that incorporates CAP reform, the Blair House oilseeds agreement, and existing policies in other major trading countries;
2. A GATT scenario that incorporates proposed changes in the agricultural policies of major trading countries as per the Dunkel text and Blair House agreement; and
3. A scenario in which CAP reform is not implemented, but EC policies which existed in 1992 are continued, with the exception of the oilseeds sector in which the Blair House oilseeds agreement is implemented.

To get a better perspective on the impacts of GATT, the no-CAP reform scenario is compared to both the baseline and GATT scenarios. In this way, the "pure" effects of GATT are assessed and the impacts of CAP reform are compared with the impacts of GATT. Using this perspective, a greater appreciation for the impacts of GATT is obtained, especially if such an agreement would bind countries such as the EC to unilateral reforms already adopted.

This analysis is conducted by utilizing the agricultural commodity models of the Food and Agricultural Policy Research Institute (FAPRI). For major trading countries, the FAPRI models are econometric models that estimate the supply, utilization, net trade, and prices of wheat, feed grains, rice, and soybeans (Devadoss et al. 1989). Models have also been developed for beef, pork, poultry meat, and dairy markets. All the components of the modeling system used in this analysis are

dynamic, meaning that both short- and long-term effects of policy changes can be identified. Policy instruments are explicit in these models, so import, export, and domestic support policies can be modified as required by proposed GATT provisions. The models are calibrated to reproduce recent historical data as closely as possible and to generate projections for the next ten years.

Baseline Scenario

FAPRI baseline projections are based on assumptions about the general economy, agricultural policies, technological change, and the weather. The baseline scenario includes the CAP reform already implemented by the EC and the Blair House oilseeds agreement. The policy regimes in the United States and other developed market economies are assumed to continue according to the provisions of current law. The macroeconomic outlook assumed for this baseline is the one published in November 1992 by the WEFA Group for the U.S. and in October 1992 by Project LINK for other countries of the world. A detailed description of the baseline scenario is in FAPRI 1993a and FAPRI 1993b.

GATT Scenario

The GATT scenario assumptions are based on current expectations about the provisions of the agriculture agreement in the Uruguay Round. These assumptions are based on the Dunkel text with revisions and adjustments as specified in the Blair House agreement of November 1992. Proposed changes to trade-distorting policies as outlined in the Dunkel text are aimed at three areas: internal support, export subsidies, and market access. The Blair House agreement modified internal support and export subsidy restrictions.

Internal support, as measured by an aggregate measure of support (AMS) using fixed reference prices, is reduced by 20 percent from the 1986 level. According to the Dunkel text, the AMS reductions were to be commodity specific, that is, each commodity was subject to AMS reductions. With the Blair House agreement, this was changed to an agricultural sector-wide AMS, allowing the

AMS for some commodities, such as U.S. sugar, to avoid reduction as long as the aggregate AMS reduction is at least 20 percent. The Blair House agreement also put U.S. deficiency payments and compensatory payments of the reformed CAP into a special "blue box" category, exempting them from inclusion in AMS calculations. The AMS is reduced evenly over a period of six years from the 1986 level. According to Dunkel, this period was to be from 1993 to 1998, but because the GATT negotiations are not completed, it is assumed that the implementation period is delayed one year. If obligations under export competition or import access require that internal prices be less than the support price calculated under the internal support rules, the support price is allowed to be maintained at a level greater than the internal price through mechanisms such as deficiency payments, so long as the AMS reduction requirements are met. Credit is allowed for reductions in AMS undertaken since 1986.

Under Dunkel, export subsidies are to be reduced in two ways. Expenditures are to be reduced 36 percent from the 1986-90 average level, and quantities exported with subsidies are to be reduced 24 percent from the 1986-90 average level. These reductions are made from 1994 to 1999 in equal increments. Export subsidies under a bona fide food aid program are not subject to reduction. Deficiency payments on the quantities exported are not considered export subsidies. The Blair House agreement changed the subsidized export quantity reduction to 21 percent from the 1986-90 average level.

Market access is to be achieved in various ways. Nontariff barriers are converted into tariff equivalents and reduced over six years by a simple average over all agricultural goods of 36 percent from the 1986-88 average tariff equivalent. Tariffs are required to be reduced by a minimum of 15 percent over six years for individual commodities. Any tariff reduction of more than 15 percent that would result in increased imports of that commodity is assumed to revert to the 15 percent minimum. It is further assumed that the simple average reduction of 36 percent will be met through higher tariff

reductions on minor commodities. Where nontariff import barriers are in place, minimum access to the domestic market is required to be the greater of 3 percent of domestic consumption in 1994, increasing to 5 percent by 1999, or minimum access of 1986-88 average import levels. However, it is possible that current and minimum access commitments will be negotiated and not calculated as proposed by Dunkel, and that some alteration of rules for market access might be made for net exporting countries. What these negotiated changes will be is unknown. For this reason, the Dunkel text was followed with respect to market access.

Results of the GATT Scenario

Based on the Dunkel text and the Blair House agreement, FAPRI models of world agriculture are solved to obtain results for the GATT scenario. This section reports results for major country net trade and world prices. Because the Blair House agreement changed AMS calculations to agricultural sector-wide and not commodity specific, most countries are expected to be GATT-legal in this respect by the beginning of implementation of new GATT rules. Because of this, there will be little change in production of major producing countries, except as would be necessary to reduce excess supplies to meet export and import access quantity restrictions.

Wheat and Feed Grains

Results for trade and world prices for wheat and feed grains are reported in Table 1 for 1991, 1994, and 1999. GATT implementation is assumed to begin in 1994 and the final year of implementation is assumed to be 1999. Changes in trade levels are primarily the result of export subsidy and market access restrictions. For wheat, the EC more than meets the export subsidy expenditure and quantity commitments of 36 percent and 21 percent, respectively, as a result of set-

Table 1. World grain trade under the baseline and GATT scenarios

	--1991--	--------1994--------		--------2000--------	
	Baseline Level	Baseline Level	GATT (Change)	Baseline Level	GATT (Change)
		(1,000 Metric Tons)			
Net Wheat Exports					
United States	33,760	31,900	-290	38,300	-1,920
European Community	19,610	13,010	80	11,270	700
Japan	-5,790	-5,750	-40	-6,060	0
Canada	25,330	21,450	90	21,810	720
Australia	7,110	11,170	300	12,790	360
Developing	-64,980	-68,270	50	-82,580	-220
Former USSR	-21,550	-9,010	70	-3,450	420
Rest of World	6,510	5,410	-260	7,920	-60
Net Feed-Grain Exports					
United States	47,579	47,596	379	59,471	1,272
European Community	6,154	2,286	-672	2,402	-2,211
Japan	-21,281	-21,352	5	-22,891	24
Canada	3,885	4,633	50	6,196	158
Australia	2,363	3,479	25	3,555	11
Developing	-36,847	-40,431	54	-50,242	223
Former USSR	-18,001	-7,753	73	-4,475	52
Rest of World	16,148	11,542	86	5,983	472
Net Rice Exports					
United States	1,921	2,174	167	2,078	177
European Community	-197	-313	-18	-311	-168
Japan	0	0	-280	0	-466
Thailand	4,780	4,838	42	5,587	53
Pakistan	1,199	1,005	25	1,097	82
India	430	193	5	193	84
Indonesia	-551	-21	11	-155	-67
Vietnam	1,870	2,046	31	2,531	87
Rest of World	-9,452	-9,922	17	-11,020	218
		(U.S. Dollars per Metric Ton)			
World Prices					
Wheat (FOB Gulf)	135.35	131.38	-1.04	150.33	-6.21
Wheat (CIF Rott)	159.37	154.74	2.24	176.86	9.08
Corn (FOB Gulf)	107.28	95.93	3.43	104.04	2.99
Barley (FOB N Pac)	122.00	118.90	2.00	121.35	3.30
Sorghum (FOB Gulf)	110.00	94.28	2.86	101.04	1.85
Rice (FOB Bangkok)	329.37	289.75	6.97	331.29	10.71

aside requirements under CAP reform. Wheat net exports from the EC are actually marginally higher under the GATT scenario as increased barley feeding offsets some wheat use in livestock rations, making more wheat available for export. Canada and Australia are both the beneficiaries of the higher world prices induced by the reduction in Export Enhancement Program (EEP) expenditures by the United States and respond with increased wheat production and exports. The former Soviet Union (FSU) also reacts to higher world prices, resulting in reduced net imports. Because of increased exports by exporting countries and reduced imports by importers, U.S. wheat exports grow more slowly than in the baseline. Because of the weaker world market, U.S. export prices decline. However, this decline is less than the reduction necessary in per-unit EEP subsidies, so the Rotterdam wheat price increases.

In respect to feed grains trade, GATT primarily affects exports of barley and imports of corn by the EC. Export quantity restrictions for barley become binding for the EC in 1997, and market access requirements force an increase in corn imports by this region. Downward pressure is put on barley and corn prices in the domestic EC market, and increased set-asides and feeding are necessary in order to equalize these prices with the feed-quality wheat prices. The result is a decrease in feed grains net exports by the EC and an increase (decrease) in exports (imports) by other regions of the world. The United States picks up the majority of the feed grain market vacated by the EC because it has excess capacity and a comparative advantage in corn production. There are also no corn EEP subsidies, so the United States will be able to take full advantage of any gaps in world feed grains markets. Because of the large excess capacity in the United States and little export subsidy expenditure adjustment necessary, most of the increase in exports is absorbed with relatively little price rise for corn, barley, and sorghum under this scenario, as compared with wheat.

Soybeans and Soybean Products

The results of GATT on soybeans and soybean products are presented in Table 2. Oilseeds tend to be relatively free of trade barriers in most countries and the baseline already included the Blair House agreement for adjustment in EC oilseed policies. These two factors translate into little direct impact of GATT restrictions on oilseeds markets. However, there will likely be some indirect impacts resulting from demand for protein meals and the effect these demand changes have on the oilseed complex, as a whole. GATT restrictions on meat exports and requirements for market access result in reduced meat trade by the EC, causing reduced prices and production in the pork and poultry sectors. Reduced poultry production and lower hog inventories lead to decreased demand for soybean meal, resulting in lower meal imports and world prices. The soybean complex adjusts to lower meal prices through reduced crush and production of meal and oil. The reduction in production of oil without a reduction in demand leads to an increase in soybean oil price. The net effect is no significant change in soybean prices relative to the baseline. Most of the reduction in soybean meal trade is expected to be absorbed by the United States, but there will likely be some impact felt by South American exporters.

Beef, Pork, and Poultry

The effects of GATT on world trade and prices of meat is presented in Table 3. The EC and Japan are the two countries which historically have had the most trade-distorting policies for meat. However, under the baseline, Japan is assumed to complete the 1988 beef liberalization agreement by tariffying import quotas and reducing the tariff equivalents to 50 percent by 1993. The EC is assumed to reduce beef intervention prices as a result of CAP reform, resulting in decreases in production and exports of beef. Because of these policy changes in the baseline, Japan and the EC have more than met the trade commitments specified under GATT and it is expected that GATT will

Table 2. World soybean and soybean product trade under the baseline and GATT scenarios

	--1991--	--------1994--------		--------2000--------	
	Baseline Level	Baseline Level	GATT (Change)	Baseline Level	GATT (Change)
		(1,000 Metric Tons)			
Net Soybean Exports					
United States	18,558	20,747	0	23,151	-42
European Community	-13,741	-14,309	-1	-14,654	25
Japan	-4,670	-5,036	0	-5,259	0
Argentina	3,199	3,406	0	3,079	-1
Brazil	3,399	3,399	0	3,507	10
Developing	-6,706	-7,501	0	-9,577	0
Former USSR	-800	-854	0	-820	0
Rest of World	761	475	1	246	8
Net Soymeal Exports					
United States	6,149	5,249	-173	6,033	-399
European Community	-9,578	-9,002	178	-9,880	432
Japan	-691	-766	2	-916	1
Argentina	5,743	5,973	0	7,117	-3
Brazil	8,500	8,337	-4	9,420	-17
Developing	-6,127	-6,355	2	-7,493	-14
Former USSR	-2,946	-2,722	-50	2,626	0
Rest of World	-1,050	-714	45	-1,655	0
Net Soyoil Exports					
United States	750	762	-1	1,039	5
European Community	668	575	0	525	-8
Japan	15	5	0	-1	0
Argentina	1,141	1,168	0	1,401	-1
Brazil	650	635	0	753	-2
Developing	-2,301	-2,684	1	-3,171	2
Former USSR	-241	-177	0	-260	4
Rest of World	-682	-284	0	-286	0
World Prices		(Dollars per Metric Ton)			
Soybeans (FOB Gulf)	222.96	237.90	0.27	232.76	-0.19
Meal (FOB Decatur)	208.56	196.91	0.38	211.32	-5.08
Oil (FOB Decatur)	421.08	531.98	-0.34	477.45	18.28

Table 3. World meat trade under the baseline and GATT scenarios

	--1991--	--------1994--------		--------2000--------	
	Baseline Level	Baseline Level	GATT (Change)	Baseline Level	GATT (Change)
		(1,000 Metric Tons)			
Net Beef Exports					
United States	-518	-384	0	-19	-38
European Community	805	501	81	221	183
Japan	-515	-707	-52	-938	-66
Canada	-108	-62	2	-111	0
Australia	1,080	1,012	-2	1,054	12
Brazil	165	380	5	387	-2
Eastern Europe	71	11	6	68	-4
Rest of World	-980	-751	-40	-662	-85
Net Pork Exports					
United States	-223	-80	340	-67	627
European Community	567	749	-552	778	-884
Japan	-587	-743	9	-885	7
Canada	251	279	12	278	11
Eastern Europe	202	240	40	449	11
Taiwan	324	322	3	336	2
Mexico	-39	-106	9	-175	2
Rest of World	-495	-661	139	-714	224
Net Broiler Exports					
United States	572	652	74	704	292
European Community	300	309	-105	328	-284
Japan	-347	-486	6	-628	-1
Canada	-46	-50	-13	-65	-77
Brazil	322	342	5	437	0
Thailand	164	184	1	247	0
Eastern Europe	21	74	2	131	0
Saudi Arabia	-199	-226	1	-253	0
Rest of World	-787	-799	29	-901	70
World Prices		(Dollars per Hundredweight)			
Omaha Steers	74.28	71.40	1.39	81.75	-1.26
Barrows & Gilts	46.69	45.84	3.64	55.25	1.04
12-City Broilers	52.00	54.37	0.89	57.20	0.10

have little direct effect on the world beef market. However, because of the impacts on the pork market, the EC is projected to export slightly more beef under GATT than in the baseline, lowering the world beef price, and inducing slightly higher imports by the United States and Japan, among other countries.

Unlike beef, CAP reform does not directly address pork production, leaving this sector exposed to direct impacts from GATT. Under GATT, the EC would be bound to decrease subsidized exports and increase market access for pork. In this analysis, it is assumed that 50 percent of EC pork exports are without subsidies. Specialty pork products such as high-quality hams from Denmark are currently exported without subsidies, therefore requiring no limitations on trade. However, a strict interpretation of the Dunkel text would require increased imports in some areas of the EC in order to comply with minimum access commitments. The subsidized export quantity restrictions, combined with the requirement for market access, result in the EC actually becoming a net importer of pork by the end of the century. Some beef consumption is offset by pork consumption, making more beef available for export, but the total effect is lower meat exports from the EC. The decrease in pork exports by the EC leads to higher world pork prices and decreased consumption and increased exports from other countries. The United States is expected to pick up much of the market lost by the EC, but many other countries will increase pork exports, including Asian countries which have the ability increase pork production.

GATT requires some restrictions on EC poultry meat trade, similar to pork. However, other countries, such as Canada, will also be required to meet commitments on trade. The reduction in exports by the EC and increase in imports by Canada contribute to slightly higher world prices. Other countries increase imports in the medium- to long-term, due mainly to import access requirements. The United States increases poultry meat exports under the GATT scenario.

Dairy Products

The results for dairy products are presented in Table 4. The largest adjustment to the dairy products sector under GATT comes from trade restrictions on the EC. Since AMS is not binding, the dairy quota in the EC is assumed to be the same as under the baseline. Minimum access requirements result in more cheese imports, and subsidized export quantity reductions further erode the EC's net export position for cheese. In order to meet these trade commitments, the EC is projected to produce more butter and nonfat dry milk (NFD). The trade commitments for both butter and NFD are not expected to be binding for the EC, therefore, exports of these products are expected to increase somewhat under GATT, although not enough to completely offset reduced cheese exports. World cheese prices are expected to rise, and Australia and New Zealand will likely respond by increasing production and exports of cheese, and reducing production and exports of butter and NFD. The response from the United States is projected to be limited to reduced butter exports. Cheese prices are projected to rise substantially on the world market as EC net exports are reduced. The butter price rise is expected to be partially offset by the declining NFD price.

The changes in trade resulting from GATT are smaller than the corresponding trade changes due to CAP reform for grains, oilseeds, and beef, but generally larger for pork, poultry, and dairy products. CAP reform meets many of the required reductions in trade barriers for the commodities that it directly addresses. The implication of relatively small effects of GATT on world markets in grains, oilseeds, and beef is that, like the EC, most other countries have already made the necessary reductions in trade-distorting policies. However, a GATT agreement would at least bind the policy changes that have been made.

Table 4. World dairy trade under the baseline and GATT scenarios

	--1991--	--------1994--------		--------2000--------	
	Baseline Level	Baseline Level	GATT (Change)	Baseline Level	GATT (Change)
		(1,000 Metric Tons)			
Net Butter Exports					
United States	64	113	-89	113	-37
European Community	214	135	46	111	62
Japan	-21	-6	7	-8	-7
Canada	12	6	-9	6	-10
Australia	55	56	0	52	-3
New Zealand	176	205	1	257	-6
Rest of World	-500	-509	44	-531	1
Net Cheese Exports					
United States	-126	-127	0	-145	0
European Community	341	381	-98	409	-277
Japan	-122	-125	5	-144	1
Canada	-9	-7	-1	-9	24
Australia	40	46	25	35	60
New Zealand	100	90	27	108	70
Rest of World	-224	-258	42	-254	122
Net NFD Milk Exports					
United States	67	67	0	49	0
European Community	214	268	14	270	54
Japan	-117	-110	17	-122	-16
Canada	35	23	2	24	-5
Australia	126	99	-6	101	-6
New Zealand	171	124	-5	164	-4
Rest of World	-496	-471	-22	-486	-23
FOB Prices, N. Europe		(U.S.Dollars per Metric Ton)			
Butter	1,409	1,564	192	1,612	115
Cheese	1733	1,538	267	2,006	910
Nonfat Dry Milk	1367	1,970	-74	2,095	-64

No-CAP Reform Scenario

In order to fully appreciate the impacts of the alternative scenarios, it is necessary to be cognizant of the implications of the baseline. This may be more important in evaluating the GATT scenario than in any other impact analysis. Because the baseline contains implementation of CAP reform with substantial effects, the impacts of a GATT agreement on the EC will be relatively small. However, in the absence of CAP reform, the impacts from a GATT agreement would likely be large. Viewing the baseline from this perspective allows a greater appreciation for the impacts of a GATT agreement.

The no-CAP reform scenario assumes that the reform package of May 1992 is never adopted and that its provisions are not implemented, either individually or as a whole. The assumptions about agricultural policies in the EC are the same for the projection period as for 1992, with two notable exceptions. The first is the inclusion of the Blair House oilseeds agreement beginning in the 1993/94 marketing year. This agreement is a result of a GATT panel ruling against the EC, upholding the U.S. contention that the oilseeds regime in the EC was trade-distorting and not (directly) a result of the CAP reform or Uruguay Round processes. The second change is the inclusion of co-responsibility levies in 1992/93 that were eliminated in the CAP reform deal. Agricultural policies in all other countries and regions, economic assumptions for all countries and regions, the rate of technological change, and weather assumptions are the same as in the baseline.

Table 5 presents a comparison of EC policy instruments under the baseline and no-CAP reform scenario. In some instances, such as intervention prices for grains, the change from one scenario to the other is in the level of the instrument. In other cases, such as in the use of set-asides or co-responsibility levies, the instrument is part of the CAP in only one scenario.

Set-aside requirements are eliminated for crops with the exception of oilseeds, which remain subject to the Blair House oilseeds agreement in the no-CAP reform scenario. Grain target, threshold, and intervention prices are consistent with the CAP as it existed in 1992, except that co-

Table 5. EC-12 agricultural policy assumptions in the baseline and no-CAP reform scenarios

		1991	1992	1993	1994	1995	2000
		(ECUs per metric ton)					
Durum Intervention Price	Baseline	228	221	117	108	100	100
	Scenario	228	221	221	214	208	178
Wheat, Corn Intervention Price	Baseline	169	163	117	108	100	100
	Scenario	169	163	163	159	154	132
Wheat, Corn Net Producer Support[a]	Baseline	155	163	142	143	145	145
	Scenario	155	156	150	146	142	122
Barley Intervention Price	Baseline	160	155	117	108	100	100
	Scenario	160	155	155	150	145	124
Barley Net Producer Support[a]	Baseline	147	155	142	143	145	145
	Scenario	147	147	142	138	133	113
Grain Compensatory Payment	Baseline	--	--	25	35	45	45
	Scenario	--	--	--	--	--	--
Rapeseed Reference Price[b]	Baseline	401	163	163	163	163	163
	Scenario	401	163	163	163	163	163
Soybean Reference Prices[b]	Baseline	481	163	163	163	163	163
	Scenario	481	163	163	163	163	163
		(ECUs per hectare)					
Durum Production Aid	Baseline	182	182	279	279	279	279
	Scenario	182	182	182	182	182	182
Oilseed Production Aid	Baseline	--	384	359	359	359	359
	Scenario	--	384	359	359	359	359
		(Percent)					
Grain Set-aside Rates	Baseline[c]	--	--	15	11	11	11
	Scenario	--	--	--	--	--	--
Oilseed Set-aside Rates	Baseline[d]	--	--	15	10	10	10
	Scenario	--	--	10	10	10	10
Basic Co-responsibility Levy	Baseline	5	--	--	--	--	--
	Scenario	5	5	5	5	5	5
Additional Co-responsibility Levy	Baseline	3	--	--	--	--	--
	Scenario	3	3	3	3	3	3

Table 5. Continued

		1991	1992	1993	1994	1995	2000
		(ECUs per metric ton)					
Beef Intervention Price	Baseline	3430	3430	3259	3087	2916	2916
	Scenario	3430	3430	3430	3430	3430	3430
Pork Basic Price	Baseline	1900	1900	1805	1710	1615	1615
	Scenario	1900	1900	1854	1825	1793	1647
Milk Target Price	Baseline	268	268	267	265	265	265
	Scenario	268	268	268	268	268	268
Butter Intervention Price	Baseline	2928	2928	2855	2781	2781	2781
	Scenario	2928	2928	2928	2928	2928	2928
		(ECUs per head)					
Male Bovine Premium	Baseline[e]	90	90	90	90	90	90
	Scenario	40	40	40	40	40	40

[a] Guaranteed producer price, minus effects of stabilizers, plus government payments.
[b] In 1991, intervention price for rapeseed, minimum price for soybeans.
[c] Average set-aside prior to exemption for small producers.
[d] Same as \c for 1993/94, actual rate thereafter.
[e] Two payments of 90 ECU per animal, one at 10 months, one at 22 months of age.

responsibility levies are reinstated for 1992. This means that the grains stabilizer system remains in place throughout the time period covered by this scenario.

Beef intervention prices are held at 1992 levels instead of being reduced by 5 percent in 1993, 1994, and 1995, as in the baseline. Suckler cow premiums are eliminated and male bovine premiums are reduced to be consistent with beef policy as it existed before 1992. Basic pork and poultry sluicegate prices are assumed to decline over time to reflect the costs of production, which decrease as the grains stabilizer results in declining feed prices in the no-CAP reform scenario. Butter intervention prices are increased by 2.5 percent in 1993 and 1994, reversing the reductions that were stipulated by CAP reform. The effects of not reforming the CAP are presented in Table 6.

No-CAP Reform vs CAP Reform and GATT: A Clearer Picture of Uruguay Round Impacts

In comparing the GATT scenario to the baseline, the direction and magnitude of impacts depends not only on assumptions about the implementation of a GATT agreement, but perhaps more so on the baseline itself. Since the baseline used in this study already contained CAP reform, which takes the EC a long way toward meeting many of the possible GATT requirements, the impacts of GATT might seem small. In some cases, such as wheat and beef, for example, the direction of the impacts is the opposite of what many previous studies have indicated. While the no-CAP reform scenario is still only one possible view of agriculture without the EC reforms, it is a familiar perspective, particularly since CAP reform is only in its beginning stages of implementation. The EC portion of the baseline will change considerably over the next few years as the EC policies begin to shape reality and not just conjecture. This fluid, conjectural view of EC agriculture under CAP reform makes it difficult to gain a solid appreciation of the effects of any policy change which includes the EC. To get a clearer picture of what GATT would mean to world agriculture, the differences between the

Table 6. Impacts on EC agricultural products under the baseline and no-CAP reform scenarios

	--1991--	--------1995--------		-------2000--------	
	Baseline Level	Baseline Level	GATT (Change)	Baseline Level	GATT (Change)
		(1,000 Metric Tons)			
Wheat					
Production	90,050	79,430	6,870	81,410	8,370
Domestic Use	64,890	68,650	-2,360	70,160	-1,360
Net Exports	19,610	11,750	8,590	11,270	9,680
Barley					
Production	51,649	47,000	3,440	49,220	3,700
Domestic Use	42,400	43,050	-2,280	44,398	-1,208
Net Exports	8,500	4,050	5,600	4,835	4,885
Corn					
Production	26,721	22,950	2,840	24,161	1,279
Domestic Use	27,761	25,520	1,390	26,417	603
Net Imports	2,196	2,770	-1,630	2,283	-703
Soybeans					
Production	1,509	1,464	0	1,539	-3
Domestic Use	15,150	15,826	52	16,191	30
Net Imports	13,741	14,366	52	14,654	32
Rapeseed					
Production	7,341	5,537	0	5,823	0
Domestic Use	7,322	6,066	-36	6,241	-26
Net Imports	72	529	-36	418	-26
Protein Meals[a]					
Production	16,886	17,196	12	17,873	4
Domestic Use	28,527	27,874	274	29,108	71
Net Imports	11,298	10,689	260	11,242	68
		(ECUs per Metric Ton)			
Support Prices					
Wheat, Corn	155	100	42	100	22
Barley	147	100	33	100	13
Soybeans	288	163	0	163	0
Rapeseed	307	163	0	163	0
		(1,000 Metric Tons)			
Beef					
Production	8,678	8,184	-34	8,105	-38
Domestic Use	7,627	7,729	-326	7,894	-671
Net Exports	805	480	312	221	627
Pork					
Production	13,754	14,245	-27	14,458	-81
Domestic Use	13,187	13,487	-105	13,681	-106
Net Exports	567	758	78	778	24

Table 6. Continued

	--1991--	--------1995--------		--------2000--------	
	Baseline Level	Baseline Level	GATT (Change)	Baseline Level	GATT (Change)
		(1,000 Metric Tons)			
Poultry					
Production	6,847	7,277	-33	7,556	-29
Domestic Use	6,539	6,928	-59	7,186	51
Net Exports	308	349	25	370	-80
Milk					
Production	113,880	111,180	-62	111,240	40
Fluid Use	32,380	31,910	-41	30,860	-32
Cheese					
Production	4,892	5,154	-32	5,385	-29
Domestic Use	4,494	4,768	-1	4,974	0
Net Exports	341	392	-28	409	-29
Butter					
Production	1,801	1,574	15	1,514	18
Domestic Use	1,580	1,463	-8	1,399	-5
Net Exports	214	124	21	111	23
		(ECUs per Metric Ton)			
Prices					
Beef Producer	2,654	2,210	390	2,210	390
Pork Producer	1,656	1,360	150	1,360	27
Poultry Producer	1,466	1,233	148	1,233	47
Milk Farm Price	296	299	3	305	2
		(Kilograms per Capita, Retail Weight)			
Meat Consumption					
Beef	15.52	15.58	-0.66	15.76	-1.34
Pork	26.83	27.18	-0.21	27.32	-0.21
Poultry	19.00	19.95	-0.17	20.50	0.14
Lamb and Mutton	3.65	3.31	0.04	3.03	-0.14
Total	65.00	66.02	-1.00	66.61	-1.55
		(Billion ECUs)			
Per Capita Meat Expenditures at Producer Prices	164.9	139.8	14.5	140.2	5.1

[a] Aggregate of soybean, rapeseed, and sunflower meals.

GATT and no-CAP reform scenarios are viewed in a side-by-side comparison to the differences between the baseline (CAP reform) and no-CAP reform scenario. In this perspective, the differences between CAP reform and GATT impacts can be viewed as the changes attributable to GATT beyond the effects of CAP reform.

The European Community

The impacts of CAP reform and GATT and the contribution of CAP reform towards GATT impacts for the EC are presented in Table 7. The contribution column is the percentage of the GATT impact that is attributed to CAP reform. For grains, the reductions in production and net exports are large for both the CAP reform and GATT scenarios. This means that in the absence of CAP reform, GATT would have a substantial impact on the EC grains sector. Compared to no-CAP reform, in the year 2000, the aggregate of wheat, barley, and corn production and exports are reduced 14.8 mmt and 16.8 mmt, respectively, in the GATT scenario, and 13.4 mmt and 15.3 mmt, respectively, under CAP reform. The contribution of CAP reform to the total GATT impacts is large for grains. In some cases, such as for wheat net exports, CAP reform, as implemented in the baseline, goes beyond cuts which would be required under GATT. For barley, further cuts in exports would be required under GATT, likewise increased market access for corn. Grain utilization relative to no-CAP reform is increased approximately 2 mmt in both scenarios in 2000. These changes are the result of changing market prices of grains and other feeds within the EC, and are not required changes under CAP reform or GATT. In general, CAP reform meets a large proportion of the expected GATT commitments for grains.

Oilseed production is virtually unchanged between the three scenarios because of the Blair House oilseeds agreement that is incorporated in each. Because trade in oilseeds and products is not

Table 7. Impacts on EC agricultural products under the CAP Reform and GATT scenarios in 2000

	No-CAP Reform Level	CAP Reform Change	GATT Change	Contribution of CAP Reform to GATT
Wheat		(1,000 Metric Tons)		
Production	89,780	-8,370	-8,370	100
Domestic Use	68,800	1,360	653	208
Net Exports	20,950	-9,680	-8,977	108
Barley				
Production	52,920	-3,792	-5,054	75
Domestic Use	43,190	1,208	1,367	88
Net Exports	9,720	4,885	-6,415	76
Corn				
Production	25,440	-1,279	-1,411	91
Domestic Use	27,020	-603	-65	928
Net Imports	1,580	703	1,384	51
Soybeans				
Production	1,536	3	2	150
Domestic Use	16,221	-30	-56	54
Net Imports	14,686	-32	-57	56
Rapeseed				
Production	5,823	0	0	100
Domestic Use	6,215	26	46	57
Net Imports	392	26	46	56
Protein Meals[a]				
Production	17,877	-4	-9	44
Domestic Use	29,179	-71	-483	15
Net Imports	11,310	-68	-475	14
		(ECUs per Metric Ton)		
Support Prices				
Wheat, Corn	122	-22	-22	100
Barley	113	-13	-13	100
Soybeans	163	0	0	--
Rapeseed	163	0	0	--
		(1,000 Metric Tons)		
Beef				
Production	8,067	38	48	79
Domestic Use	7,223	671	495	136
Net Exports	848	-627	-444	141

Table 7. Continued

	No-CAP Reform Level	CAP Reform	GATT	Contribution of CAP Reform to GATT
		----------Change----------		
Pork		(1,000 Metric Tons)		
Production	14,377	81	-176	-46
Domestic Use	13,575	106	732	14
Net Exports	802	-24	-908	3
Poultry				
Production	7,527	29	-94	-31
Domestic Use	7,237	-51	151	-34
Net Exports	290	80	-246	-33
Milk				
Production	111,280	-40	-360	11
Fluid Use	30,828	32	392	8
Cheese				
Production	5,356	29	-170	-17
Domestic Use	4,974	0	107	0
Net Exports	380	29	-248	-12
Butter				
Production	1,532	-18	47	-38
Domestic Use	1,394	5	5	100
Net Exports	134	-23	39	-59
Prices		(ECUs Metric Ton)		
Beef Producer	2,600	-390	-213	183
Pork Producer	1,387	-27	-119	23
Poultry Producer	1,280	-47	-108	44
Milk Farm Price	307	-2	-30	7
Meat Consumption		(Kilograms per Capita, Retail Weight)		
Beef	14.4	1.3	1.0	135
Pork	27.1	0.2	1.5	14
Poultry	20.6	-0.1	0.4	-32
Lamb and Mutton	2.9	0.1	0.1	200
Total	65.1	1.6	3.0	52
		(Billion ECUs)		
Per Capita Meat Expenditures at Producer Prices	145.3	-5.1	-4.9	102

[a] Aggregate of soybean, rapeseed, and sunflower meals.

restricted, GATT market access requirements do not force increased imports of oilseeds and products. Reductions in crush are marginal and are the result of changing prices of oilseeds and products. Even though CAP reform seems to contribute the major proportion of changes in oilseeds, most impacts of both CAP reform and GATT are so small that they are insignificant. The most notable impacts in the oilseed complexes are the changing meal prices relative to feed grains and changes in livestock, poultry, and dairy production. These changes result in small decreases in meal use under CAP reform, leading to lower net import levels. Under GATT, the combination of changes in livestock production and substitution of grains, especially corn, for protein meals results in a much larger decrease in meal utilization than under CAP reform.

Beef trade impacts are actually smaller under GATT than under CAP reform, implying that CAP reform effects on beef in the baseline are more than adequate to meet GATT export quantity restrictions. This is reflected in the contribution of CAP reform of more than 100 percent in Table 7. Compared to the no-CAP reform scenario, however, GATT effects on subsidized beef exports by the EC would be substantial. The net export reductions would be primarily the result of subsidized export restrictions.

GATT and CAP reform have generally opposite impacts on the pork and poultry sectors. Since CAP reform does not address pork and poultry directly, impacts are almost completely attributable to GATT provisions. Because of lower feed prices without any trade restrictions under CAP reform, pork and poultry production increase. In the GATT scenario, subsidized export reductions make it necessary to reduce production of both meats, overcoming the slight production-enhancing effects of CAP reform. These changes also result in consumption increases for both pork and poultry.

Because butter is addressed in CAP reform, there are some minor milk production impacts in that scenario. With the exception of the 5 percent reduction in butter intervention price, however, no dairy policies are affected by CAP reform. Under GATT, substantial reductions in subsidized cheese

exports would be required, resulting in lower domestic cheese prices. The lower cheese prices would lead to lower milk producer prices, and milk production would be reduced beyond reductions attributable to CAP reform. There would be an increase in butter and NFD production because domestic cheese prices decline relative to butter price, thereby shifting milk to butter production. Butter exports increase under GATT because of the restrictions on cheese and because subsidized export constraints are not binding. Because CAP reform has little direct effect on dairy, GATT is responsible for nearly all impacts on this sector.

In general, CAP reform impacts are a large percentage of total GATT impacts for grains and beef, and relatively small compared to GATT for pork, poultry, and dairy. For oilseeds, the impacts of either CAP reform or GATT are insignificant, except for protein meals which are affected by GATT much more than by CAP reform. CAP reform meets many, but not all, of the requirements of GATT on EC agriculture as proposed by Dunkel and the Blair House agreement. However, GATT would be significant in further reducing trade distortions due to EC agricultural policies in some important sectors.

World Prices

Impacts on world prices under GATT and CAP reform are presented in Table 8. Most of the changes from no-CAP reform are larger for the GATT scenario than for CAP reform. In most cases, the contribution of CAP reform is more than 50 percent, implying that the additional effects of GATT on world agricultural markets are smaller than the effects of CAP reform as implemented in this particular baseline. Some exceptions are dairy products and protein meals. Both of these categories are areas to which CAP reform gave little or no attention.

Wheat price changes at the gulf are larger under CAP reform than under GATT, because CAP reform as implemented in the baseline restricts EC wheat imports more than required by GATT

Table 8. Impacts on world agricultural prices under the CAP Reform and GATT scenarios in 2000

	No-CAP Reform Level	CAP Reform	GATT	Contribution of CAP Reform to GATT
		----------Change----------		
Wheat		(Dollars per Metric Ton)		(Percent)
FOB U.S. Gulf	133.38	16.97	10.72	158
CIF Rotterdam	157.06	19.80	28.88	69
Barley				
FOB Pacific NW	114.63	6.72	10.02	67
Corn				
FOB U.S. Gulf	98.02	6.01	9.02	67
CIF Rotterdam	109.84	6.76	10.13	67
Rice				
FOB Bangkok	330.91	0.38	11.02	3
Soybeans				
FOB U.S. Gulf	229.70	3.06	2.88	106
CIF Rotterdam	245.32	3.01	2.83	106
Soybean Meal				
FOB Decatur	214.05	-2.73	-7.81	35
CIF Rotterdam	228.01	-2.77	-7.93	35
Soybean Oil				
FOB Decatur	450.81	26.64	44.92	59
CIF Rotterdam	469.03	27.52	46.38	59
Canola/Rapeseed				
Western Canada	216.55	5.70	7.33	78
CIF Rotterdam	215.32	3.01	2.83	106
Rapeseed Meal				
FOB Hamburg	161.50	-2.57	-7.36	35
Rapeseed Oil				
CIF Rotterdam	439.94	27.40	46.19	59
Cheese				
FOB N Europe	2,083.00	-77.00	833.00	-9
Butter				
FOB N Europe	1,575.00	37.00	152.00	24
Nonfat Dry Milk				
FOB N Europe	2,065.00	30.00	-34.00	-88
Beef				
(Nebraska Direct Fed Steers)	1,758.63	43.37	14.55	298
Pork				
(Iowa-Southern Minnesota Barrows and Gilts)	1,175.28	42.72	64.37	66
Poultry				
(12-City Wholesale)	1,256.41	4.59	5.51	83

commitments. The reduction in subsidized EEP exports also forces more wheat back on the U.S. market which absorbs the grain through lower prices leading to increased consumption and higher stock levels. The lower domestic prices lead to lower prices at the gulf. Rotterdam prices, on the other hand, increase more under GATT than under CAP reform. The reduction in EEP subsidies increases the wedge between the gulf price and Rotterdam price. Since this wedge effectively reduced world prices, the net effect of reducing it is an increase in the Rotterdam price of wheat. Barley and corn world price impacts under CAP reform are smaller than GATT impacts. However, like the Rotterdam wheat price impacts, additional GATT effects on world markets are less than effects from CAP reform. Nearly all rice price impacts are due to GATT.

GATT will have little effect on oilseeds because the Blair House oilseeds agreement is already incorporated into three scenarios. There is a small effect from the reduction of EEP subsidies on soybean oil, but the largest impact is from substitution of grains for protein meals due to relative price changes. The additional GATT effects will be larger than CAP reform effects for meals, and smaller than CAP reform effects for vegetable oils. The larger impact on oilseeds from CAP reform than from additional GATT effects implies that the combination of impacts on meals and oils is larger for CAP reform.

Most of the impacts on dairy product prices are due to GATT and a relatively small portion are due to CAP reform. Only the EC butter price is changed for dairy under CAP reform, and this change is relatively small. Therefore, the impacts on world dairy prices are small. Substantial changes to EC cheese trade are required in the GATT scenario. Because of the magnitude of the cuts in cheese exports by the EC, the effects on all dairy products are larger in the GATT scenario than under CAP reform.

Beef results are peculiar because the beef export level for the EC under CAP reform is lower than maximum allowable levels under GATT. For this reason, GATT price impacts on beef are

smaller than those for CAP reform. Beef prices might be distorted by changes in the U.S. cattle cycle resulting from changing market signals and the amount of time it takes for these market signals to impact production. Comparing the magnitude of the impacts under these conditions for a specific year must be done with care. However, it appears that the directions of the price changes are as expected, and it is fair to say that both CAP reform and GATT will have significant impacts on world beef markets. Pork and poultry prices are affected more by CAP reform than by additional GATT commitments.

Summary and Conclusions

This paper presents the effects of a GATT scenario and compares these changes to the impacts of CAP reform. The GATT scenario is presented in a framework which already includes CAP reform. To get a clearer picture of GATT, the effects of not reforming the CAP are also presented. Under a GATT agreement consistent with the Dunkel text as amended by the Blair House agreement, world grains, oilseeds, and beef markets would be subject to relatively little adjustment. Particularly for grains, countries such as the United States and the EC have unilaterally reduced support levels since 1986. For the EC, any remaining support reductions necessary to meet GATT restrictions are projected to be made under CAP reform. These reductions in support levels enable the EC to meet most of the export subsidy quantity and expenditure restrictions that would apply under GATT.

However, for pork, poultry, and dairy products, export restrictions and market access requirements would still have to be met to be in compliance with a GATT agreement for several countries. Since the EC is a major exporter of many agricultural commodities and has been among the countries with the highest levels of agricultural protection, the steps taken unilaterally under CAP reform have a larger impact on world agricultural markets than implementing a GATT agreement. On the other hand, if CAP reform were to be implemented in a manner different from that which is assumed here, or if there are changes which would render it ineffective, then a GATT agreement

smaller than those for CAP reform. Beef prices might be distorted by changes in the U.S. cattle cycle resulting from changing market signals and the amount of time it takes for these market signals to impact production. Comparing the magnitude of the impacts under these conditions for a specific year must be done with care. However, it appears that the directions of the price changes are as expected, and it is fair to say that both CAP reform and GATT will have significant impacts on world beef markets. Pork and poultry prices are affected more by CAP reform than by additional GATT commitments.

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might have a substantially larger impact than this analysis implies. At the very least, it would bind the EC to changes it has already made unilaterally.

Comparing the impacts from GATT to the impacts from CAP reform implies that much of the expected outcome of GATT has been obtained through unilateral reform by the EC. However, not only would GATT reach beyond CAP reform and further affect the EC, but would force other countries to shoulder some of the responsibility for trade barrier reduction. Furthermore, it should not be implied that the additional impacts of GATT would not be significant. GATT would be significant from the standpoint of further reducing trade distortions beyond gains made through CAP reform. But perhaps the Uruguay Round's most significant contribution will be to create the framework in which real agricultural trade liberalization negotiations can be carried on in future GATT rounds.

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