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# AGRICULTURAL COMPETITIVENESS: MARKET FORCES AND POLICY CHOICE

PROCEEDINGS  
OF THE  
TWENTY-SECOND  
INTERNATIONAL CONFERENCE  
OF AGRICULTURAL ECONOMISTS

*Held at Harare, Zimbabwe  
22–29 August 1994*

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INTERNATIONAL ASSOCIATION OF  
AGRICULTURAL ECONOMISTS  
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1995

Dartmouth

*Political Economic Analysis in Agricultural Trade and Competitiveness*

**INTRODUCTION**

The comprehensive GATT negotiations launched in 1986 at Punta del Este, Uruguay have finally ended. What will be the final impact? According to Sanderson (1994) the Agreement provides for the following:

- (1) A peace clause that exempts domestic agricultural subsidies permitted by the Agreement for most challenges in the GATT, but countervailing duties may still be applied against certain domestic subsidies as well as export subsidies that are determined to cause or threaten injury.
- (2) Principles and guidelines that aim to reconcile the right of GATT member countries to adopt measures necessary to protect human health and animal and plant life or health.
- (3) A 36 per cent cut in export subsidy expenditures and a 21 per cent cut in the volume of subsidized exports.
- (4) Reduced tariff quotas to ensure current or minimum market access in those cases where tariffs are virtually prohibitive.
- (5) A 20 per cent reduction in the aggregate of internal support for those sectors considered most trade distorting.
- (6) The conversion of existing non-tariff barriers into tariffs and the subsequent reduction of total border protection by an unweighted average of 36 per cent, with a cut of at least 15 per cent for individual products.

Sanderson contends that:

While the Agreement falls far short from the original declared U.S. objective, it should bring some modest improvements in market access and stop and reverse the escalation of export subsidies. The practical effects of tariffication will be extremely limited because the high and often inflated tariff equivalents have been tabled; in some cases the minimum access quotas (rising from 3% to 5% of consumption) must be relied upon to provide some import growth.

Continuing on the same negative note, Sanderson asserts:

Essentially the Agreement does little more than ratify the recent unilateral reforms in the EC, the U.S., Canada, and Japan. It exempts your most important subsidies from

\*University of California at Berkeley. Paper presented by D. McClatchy.

meaningful cuts and will therefore barely make a dent in the cost of farm support to OECD consumers and taxpayers, estimated at about \$350 billion annually. Some national policies have been brought under some degree of GATT discipline, but at the cost of further entrenching the special status of agriculture in the GATT.

On the more positive side, Sanderson states:

A breakdown of the agriculture negotiations would likely have reversed the trend toward somewhat stronger unilateral restraints on production in Europe and toward greater liberalization in North America. It would have given the signal for a free-for-all in export subsidies. International tensions over agricultural trade would have spilled over into other sectors.

Many agree that, while the effects of GATT were positive, the reductions in trade-distorting measures agreed to were not as large as originally anticipated. At one extreme, for some sectors, the level of protection was unaffected by GATT. Consider, for example, two cases, the Canadian 'supply management' sector (the products involved are listed in Table 1) and United States sugar. Both have been protected in the past by import quotas.

The supply management sector of Canada has been at the heart of many controversies. Under GATT Article XI, Canada was able to maintain its supply management industries by restricting imports along with restricting domestic output. Article XI was removed under the latest GATT agreement, but Canada was able to negotiate a quota-tariff system, where minimum access into Canada is allowed through a quota coupled with tariffs. However, Canada does not have to increase its minimum access requirement for broilers (it stands at 7.5 per cent of domestic consumption) but, for dairy products, the minimum access requirement has increased from 2 to 3 per cent. Along with these minimum access rules, high tariffs were set out even to the year 2001, which will give ample protection to the supply management sector (Table 1). It can be seen from Table 2 that the implicit tariffs calculated for chickens had been only 55 per cent in 1989 (Moschini and Meilke, 1991).

**TABLE 1** *Canadian food tariffs under GATT (percentage)*

Item	1995	2001
Butter	351	299
Cheese	289	246
Milk	283	246
Chicken	280	238
Skim milk powder	237	202
Eggs	192	164
Turkey	182	155

Source: Agriculture Canada.

**TABLE 2** *Canada: chicken prices and implicit tariffs in the 1980s*

Year	Canadian price	US price C\$/kg	Transport cost	Implicit tariff (%)
1980	1.662	1.207	0.094	29.9
1981	2.007	1.225	0.096	56.0
1982	1.955	1.193	0.098	55.6
1983	2.092	1.340	0.098	48.8
1984	2.286	1.594	0.104	36.9
1985	2.032	1.534	0.110	25.3
1986	2.182	1.744	0.111	18.8
1987	2.082	1.390	0.106	42.1
1988	2.115	1.527	0.098	32.1
1989	2.478	1.535	0.094	55.3

*Source:* Moschini and Meilke (1991).

For sugar, the recently concluded GATT Agreement will not have much impact in the immediate future on either world sugar trading patterns or world raw sugar prices (Polopolus *et al.*, 1994). There are four issues to consider.

#### *Export subsidies*

Under GATT, export subsidies of developed countries must be reduced 36 per cent by value, and 21 per cent by volume, of exports. Reductions are to be applied on a commodity-by-commodity basis. Since the United States does not subsidize sugar exports, this provision has no direct effect on Florida sugar producers. However, the provision could influence the world market for raw sugar if and when sugar export subsidies of the European Community, particularly, are reduced or curtailed.

#### *Internal price supports*

A nation's trade-distorting subsidies and price supports must be reduced by 20 per cent in the aggregate from 1986–8 base period levels. Reduction is not required on a commodity-by-commodity basis. For the United States, agricultural programmes were 'GATT-ready' from the provisions of the 1985 and 1990 general farm acts, which required that commodity price supports should be lowered – on average – by more than 20 per cent. Because of this, there is no requirement from GATT that the loan rate of 18 cents per pound for Florida raw sugar production be reduced.

### *Tariffication*

Within GATT, non-tariff barriers, such as import quotas, are to be converted to tariffs. (The process of conversion to tariffs that provide the same level of protection is known as 'tariffication'.) These tariffs are then to be reduced by 36 per cent (24 per cent for developing countries) on average for all of a nation's commodities, with a minimum reduction of 15 per cent (10 per cent for developing countries) required for each commodity. The United States applied this tariffication process to sugar imports in 1990. Sugar was the first United States commodity converted to tariffication, well ahead of the requirements of the Uruguay Round of GATT. The current second-tier tariff rate for sugar imports into the United States is 17 cents per pound, for raw value. Under the new GATT agreement, the United States second-tier tariff rate will be reduced by 15 per cent, reaching a level of 14.45 cents per pound in the sixth year of the agreement.

### *Market access*

The GATT agreements require that a minimum access equal to 3 per cent of domestic consumption be established initially. Individual countries are also required to increase the minimum access to 5 per cent over the six years of the agreement. Since the United States imports approximately 15 per cent of its sugar consumption annually, minimum market access in sugar is already achieved. Nevertheless, the United States agreed under GATT to commit itself to import 1.25 million tons of sugar annually, considerably above the minimum market access rules of GATT.

## **PRIOR PESSIMISM**

There was considerable pessimism among some analysts about the outcome prior to the final negotiations. For example, McCalla (1993) contended:

The likelihood that the developed countries, including the U.S., will probably buy into a relatively innocuous agricultural Agreement – a modified Blair House – declare a victory, and end the GATT Round portends continued pessimism. Agriculture, in all likelihood, will remain a highly protected sector in rich countries. Its economic importance, already small, will be further diminished by these inward-looking policies. [If an agricultural agreement comes out of] GATT, it probably won't make a lot of difference to developed countries who subsidize their agriculture.

My own initial view (Schmitz, 1988) was that, 'Given the rent-seeking activities of major farm groups and other special interests, it is unlikely that much progress will be made toward freer trade unless ingenious compensation schemes are forthcoming.' The above pessimism, in part, is based on the fact that, because major commodity groups could incur significant losses from major cuts in tariff and non-tariff barriers, they rally for protection. Given the empiri-

**TABLE 3** *Producer price and output changes from multilateral liberalization of industrial market economies (percentage)*

	United States	Canada	European Community	Other Western Europe	Japan	Australia	New Zealand	Developing exporters	Centrally planned economics	New industrial Asia	Developing importers
Producer price: <sup>1</sup>											
Ruminant meat	7	8	-27	-41	-59	18	16	11	2	5	11
Non-ruminant meat	2	5	-13	-22	-24	13	15	6	2	6	5
Dairy products	-15	-27	-2	-51	-56	51	71	22	8	0	27
Wheat	-44	-18	-44	-35	-87	17	37	11	8	8	21
Coarse grains	-33	-26	-34	-37	-92	19	24	10	4	3	10
Rice	-59	26	-62	26	-83	9	0	10	5	3	13
Oilseeds and products	-7	-4	-24	7	-19	8	5	2	1	0	5
Sugar	-69	-29	-20	-48	-60	31	53	17	5	11	19
Other crops	-27	26	-42	5	4	9	4	3	1	2	4
All farm products	-13	-6	-20	-24	-49	14	16	8	3	4	9
Producer output: <sup>2</sup>											
Ruminant meat	4	3	-15	-24	-13	8	11	5	0	1	4
Non-ruminant meat	0	-2	0	-9	-15	7	8	3	0	2	2
Dairy products	-5	-4	0	-17	-18	8	15	6	2	0	4
Wheat	-6	-3	-16	-13	-61	10	23	4	1	2	6
Coarse grains	-4	-15	-4	-10	-71	5	11	4	0	0	3
Rice	-11	2	-32	5	-48	3	0	3	0	0	4
Oilseeds and products	2	1	-16	0	-16	0	-1	0	0	0	-1
Sugar	-42	-10	-3	-26	-34	14	9	8	0	2	5
Other crops	-7	5	-11	0	0	-1	0	0	0	0	0
All farm products	-1	-2	-7	-13	-32	7	10	3	0	1	2
Agricultural gross domestic product <sup>3</sup>	16	18	16	5	-6	35	47	21	20	17	25

Notes: <sup>1</sup>Producers' incentive prices, including direct support payments.

<sup>2</sup>Value-weighted quantity index.

<sup>3</sup>Value of farm production excluding support.

Source: Roningen and Dixit (1989); SWOPSIM multilateral liberalization simulation.

cal estimates by Roningen and Dixit (1989) shown in Table 3, Schmitz and Gray (1992) state:

First, for the United States under liberalization (with no commodity support), commodity prices for producers fall for all categories except ruminant and nonruminant meats. The same is true for Canada, but prices there fall to a lesser extent than in the United States. In aggregate, U.S. prices drop by 13 per cent, while Canadian prices drop by 6 per cent. Note that, for EC and Other Western European countries, there is a significant drop in commodity producer prices. In the EC, overall prices drop by 20 per cent; prices also drop for each commodity group considered. Prices in Other Western Europe fall by 24 per cent. Japan shows the largest price decrease due to liberalization – roughly 50 per cent for producers. Countries such as Australia gain from trade liberalization partly because of the lack of government transfers to the agricultural sector. For example, Australian aggregate producer prices increase by 14 per cent. Dairy product prices increase most – by roughly 50 per cent; sugar, by 31 per cent; and wheat, by roughly 17 per cent. Certain countries and commodity groups also lose, but the losses vary significantly by country. According to Roningen and Dixit's results, the greatest negative impact from free trade in agriculture (in order of importance) is in Japan, Other Western European countries, the EC, the United States, and Canada.

### WHY NOT FREE TRADE?

Why was more progress not made toward freer trade, especially in view of the enormous effort made by analysts to convince the general public that it could lead to significant potential gains? McCalla (1993) provides an excellent overview of the many explanations given as to why protection continues:

- (1) *Traditional Explanations.* Agricultural fundamentalism, along with an inherently unstable production and marketing sector, supports public intervention to stabilize prices and assure supplies.
- (2) *Adjustment and Transactions Costs.* There are high transactions costs involved in changing policy since market distortions become capitalized into asset and quota values. There are intergenerational as well as interpersonal transfers from removal of tariff and nontariff trade barriers.
- (3) *The Vicious Cycle–Bottomless Pit.* The inherent instability of many agricultural markets resulting from inelastic supply and demand functions, along with production lags, leads to demands for government stabilization policies. These policies require border measures which, for large countries, have the impact of destabilizing international markets. Higher prices result in increased output and engender the need to dump onto world markets using export subsidies. This leads to spirals and escalates trade wars.
- (4) *Structural and Comparative Advantage.* The transformation of an agrarian economy to an industrial one contains the necessary conditions for agricultural protectionism (Tyers and Anderson, 1992).
- (5) *Political Economy Dimensions.* Political economy explanations have been given for the existence of agricultural policies (Schmitz, 1988; Young *et al.*, 1991). In this context, the theory of regulation developed by Stigler



(Peltzman, 1993) has been used as an explanatory framework. Olson (1965) uses a small-group argument which is that, in general, producers are growing larger individually but smaller in collective numbers. Since the benefits of protectionism are concentrated among fewer and fewer, this results in a greater willingness to invest politically to receive larger rents and be able to retain them. On the other hand, because the benefits of trade liberalization are dispersed across small segments in the economy, including consumers and taxpayers, there are no incentives to organize and invest politically to support free trade.

- (6) *GATT-Specific Explanations*. Negotiators were attacking the symptoms of the problem (border measures and subsidies), not the root cause of domestic price supports. Also information is not available about the magnitude of income transfers to agriculture, the deadweight losses caused by distortions, or the harmful effects on growth of domestic policies.

## A THEORETICAL FRAMEWORK

It is possible to combine many of the above arguments as explanations for protection. For example, for some sectors small numbers theory and special interest theory go hand-in-hand. Also, in a dynamic context, the role of special interest groups often overtakes and replaces the general public-interest argument for the initial support for government intervention.

### *Canada's supply management and grain sectors*

It is often contended that Canadian supply management in general results in the inefficiency of resource use associated with higher consumer costs than would otherwise be the case (Schmitz and Schmitz, 1994). Assume for the moment that this is the case. How did such a system come about? One has to view this in a long-term context, and examine the starting point of the supply management system. Schmitz *et al.* (1994) contend that this system may well have been put in place along the lines suggested by public interest economics; that is, removal of distortions to move to a first-best world. When these industries were established, certain regulators were put in place, such as the National Farm Products Council. However, over time, the regulators were captured by the regulatees through rent-seeking arguments which brought about an inefficiency of resource use in the context of Stigler's theory of regulation. This was made possible for a number of reasons, including Olson's theory about the lobbying effectiveness of small groups. Also the supply management sectors were successful in rent seeking because of their institutional design (Schmitz *et al.*, 1994) and their ability to form coalitions with sectors both inside and outside their industries. For example, producers were able to form coalitions with specific processors, where both sectors were interested in joint profit maximization (Vercammen and Schmitz, 1992). Consumer groups have essentially no voice in Canada to argue in favour of lower prices. Little wonder that GATT had little impact on supply management.

The grain sector in Western Canada provides a contrast, in terms of both location and policy. Unlike the supply management sector, it is highly dependent on exports. For years the Canadian government has made sizeable transfers to grain producers, largely in response to the drop in the loan rate under the 1985 United States Farm Bill. This support is being threatened, and it has already been diminished, making farmers more and more dependent on international markets for their income. In this context, free trade is vital for Canadian grain producers, as it will increase their grain prices. For this sector the GATT outcome was disappointing. One of its largest competitors, the European Community (which moved from being an importer to one of the largest wheat exporters through high price supports and subsidies), gave up very little under GATT. Producer groups have a significant amount to lose from trade liberalization. They were very effective in engineering a watered down GATT Agreement which left the grain sector largely unaffected. Unlike EC producers, within Canada there are many voices which speak for the grain trade, and often they are not in agreement.

#### *United States sugar*

Sugar producers in the United States, like the supply management sector in Canada, were able to lobby effectively for maintaining import protection. The small numbers argument of Olson applies. In addition, as Christian and Schmitz (1992) suggest, there is broader support for the US sugar programme than once thought, given the interconnections between the sugar and corn sweetener industries.

#### *Overview*

The Canadian supply management sector and American sugar interests have been effective in lobbying politicians for protection using many of the arguments presented earlier. Their effectiveness is due to a number of factors:

- (1) politicians need their financial and political support;
- (2) the groups are relatively small and well-organized;
- (3) large rents would be lost from free trade;
- (4) market forces make it relatively easy to maintain the status quo.

Consider the last point in more detail. For sugar, the EC is perhaps the largest offender in distorting world markets. Since it had insignificant lobbying clout in the GATT negotiations, it essentially formed a coalition with the United States for protection. This is also true for Canadian supply management. In dairying, for example, both Canadian and US producers are protected. Because both groups wanted protection it was relatively easy to remove dairying from the negotiations.

Consider the grain sector, on the other hand. The EC is protectionist, whereas Canada, Australia and other countries wanted free trade. No easy coalition can

form among negotiators for these sectors because of the opposite goals each sector wants to achieve. Schmitz and Gray (1992) demonstrated that in many cases there are special interests, including governments, who do not want free trade, hence overall coalitions could not be formed under GATT to achieve a free-trade outcome.

### THE COMPENSATION PRINCIPLE

Schmitz (1988) analysed the possibility of a positive GATT outcome for the grain sector in the EC, the United States, Canada and Australia using the compensation principle as a criterion. For the EC it was found that, in the initial stages of the formation of the CAP, protection was justified using the compensation principle (that is, there were potential gains such that everybody could be compensated from protection). However, over a longer period of time, the compensation principle supports free trade. As with the EC, it was found that the compensation test for the US grain sector was met in moving to free trade. In Canada it was found that the compensation test also supports liberalized trade in both the supply management and the grain sectors. But, as already pointed out, there are strong forces at work which have blocked freer trade for supply management sectors. The models suggest that the grain producers in Western Canada generally support free trade, while supply management producers strongly oppose it. This posed a serious dilemma for negotiators from Canada in the GATT process. In the United States the opposition to free trade by major producer groups resided in the belief, supported by empirical evidence, that producer rents would decline under free trade (Table 3), because the gain in private market rents is insufficient to offset the reductions in deficiency payments. In this case, the motivation for free trade would have to come from government. Ironically, even though one can demonstrate potential gains from freer trade, this academic approach does not make free trade happen, for reasons already explained. Often actual compensation is needed but, in reality, it is extremely difficult for the gainers from free trade to compensate the losers.

In conclusion, it would be helpful to ask a leading question. Who wants free trade anyway? Certainly, this discussion has identified several sectors who want free trade, including Australian and Canadian grain farmers. Empirical results also show this to be the case for Australian and US beef producers. Clearly, grain farmers in the EC do not want free trade, nor do dairy farmers in either the EC or the United States. These groups lobby for protection and high domestic price supports. In Japan the agricultural sector is also highly protectionist. Simply put, the losers from free trade have more political clout than the gainers, even though the net effect from free trade may be positive.

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