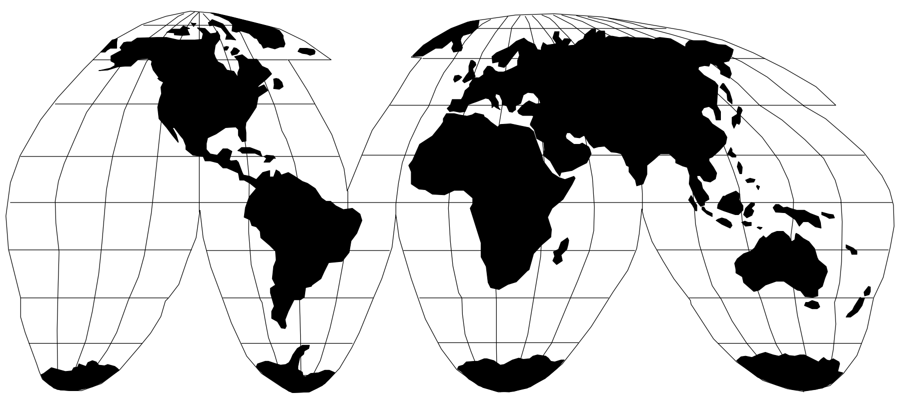
The Implications of a North American Free Trade Area for Agriculture



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Richard A. Barichello
Leigh Bivnings
Colin Carter
Tim Josling
Patricia Lindsey
Alex McCalla

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The Implications of a North American Free Trade Area for Agriculture

Richard R. Barichello) Chairman
University of British Columbia
Vancouver, B.C.   CANADA

Tim Josling
Stanford University
Food Research Insititute
Stanford, CA USA

Leigh Bivings
Stanford University
Food Research Institute
Stanford, CA   USA

Patricia Lindsey
Oregon State University
Corvalis, OR USA

Colin Carter
University of California - Davis
Davis, CA   USA

Alex McCalla
University of California - Davis
Davis, CA   USA

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Preface

The International Agricultural Trade Research Consortium (IATRC) is a group of more than 130 economists from thirteen different countries interested in agricultural trade, representing the academic community, governments, and private institutions. Founded in 1980, the IATRC has the following objectives:

- ♦ to promote and stimulate improvement in the quality and relevance of international agricultural trade research and policy analysis;
- ♦ to encourage collaborative research among its members;
- ♦ to facilitate interaction among researchers and analysts in different countries engaged in trade research; and
- ♦ to improve the general understanding of international trade and trade policy issues among the public at large.

This is one of two papers commissioned by the International Agricultural Trade Research Consortium on various aspects related to the agricultural sector of a prospective North American Free Trade Agreement. The companion paper to this one has been prepared by a working group chaired by Thomas Grennes, North Carolina State University. To minimize duplication with the Grennes paper, this paper has been given greater attention to the general trade policy issues raised by a NAFTA, institutional factors, additional commodity detail in cereals, fruit and vegetables, and the relevance of other regional trade agreements such as the Canada-U.S. Trade Agreement.

This work has also benefitted from an earlier report and its annexes, prepared for the Fraser Institute, under the direction of Tim Josling.

Finally, special thanks are due to the University of British Columbia for research and secretarial assistance, particularly the able document preparation by Kathy Shynkaryk.

For further copies of these reports contact:

Laura Bipes, Administrative Director
International Agricultural Trade Research Consortium
University of Minnesota
1994 Buford Ave - Rm 231g COB
St. Paul, MN 55108-6040

THE IMPLICATIONS OF A NORTH AMERICAN FREE TRADE
AREA FOR AGRICULTURE

I. MAJOR ISSUES IN THE FORMATION OF NAFTA

Negotiations for the formation of a North American Free Trade Area (NAFTA) are occurring in a time of dynamic change. The Canada-United States Trade Agreement (CUSTA), signed in 1988, is in the early stages of implementation. Mexico is in the process of fundamental economic reforms which follow closely on the heels of the trade policy reform that came with Mexican accession to the General Agreement on Tariffs and Trade (GATT) in 1986, in turn a part of the wrenching adjustments to a debt crisis in the early 1980s. Furthermore, a major agreement under the Uruguay Round of GATT negotiations is in the process of finalization which could have significant effects for all three nations in North America. Analysis of any potential consequences of NAFTA for agriculture must be considered in this dynamic context.

The economies of the three countries are highly interdependent. The degree of interdependence is, however, asymmetric with Canada and Mexico much more dependent on the United States than is the reverse case. Figure 1 shows that 75% of Canadian exports and 88% of Mexican exports are destined for the U.S. On the other hand, only 22% of U.S. exports are shipped northward into Canada and 7% southward to Mexico. Although any agreement is likely to focus on commodity and merchandise trade flows, close integration of capital, labor, and input markets means that a broader set of issues is inextricably intertwined in the agreement. Flows of capital and investment, particularly into Mexico, are a central concern. Implications for labor migration, both legal and illegal, are clearly important. Impacts on wage rates, social service costs, interest rates, exchange rates, employment, and economic growth rates could be significant. Issues of environmental regulations, health and safety standards, and regulation of industry require attention. All of these issues set the context within which explicit consideration of impacts on the composition and magnitude of likely changes in trade flows, the location of production and processing, and the general competitive position of national industries are to be determined. Finally, a myriad of legal issues concerned with dispute settlement mechanisms, rules on investment and ownership, and of compensation for adjustment will of necessity accompany any agreement.

When we consider the **agricultural implications** of a NAFTA, a more specific set of issues arise. Market access for Mexican goods into the U.S. and Canada, together with access into the Mexican market, will be the primary focus of attention. But underlying these access issues are domestic policies of the participants. All three countries intervene heavily in their agricultural sectors. Policies include border protection that limits market access, price supports to domestic producers, consumer and marketing distortions, and the provision of export assistance. Clearly each of these will require some adjustments under a NAFTA. However, specifics of these changes will be influenced by any possible GATT agreement. Issues relating to labor demand, migration, and agricultural wage rates are also central. Major concerns with food safety, health

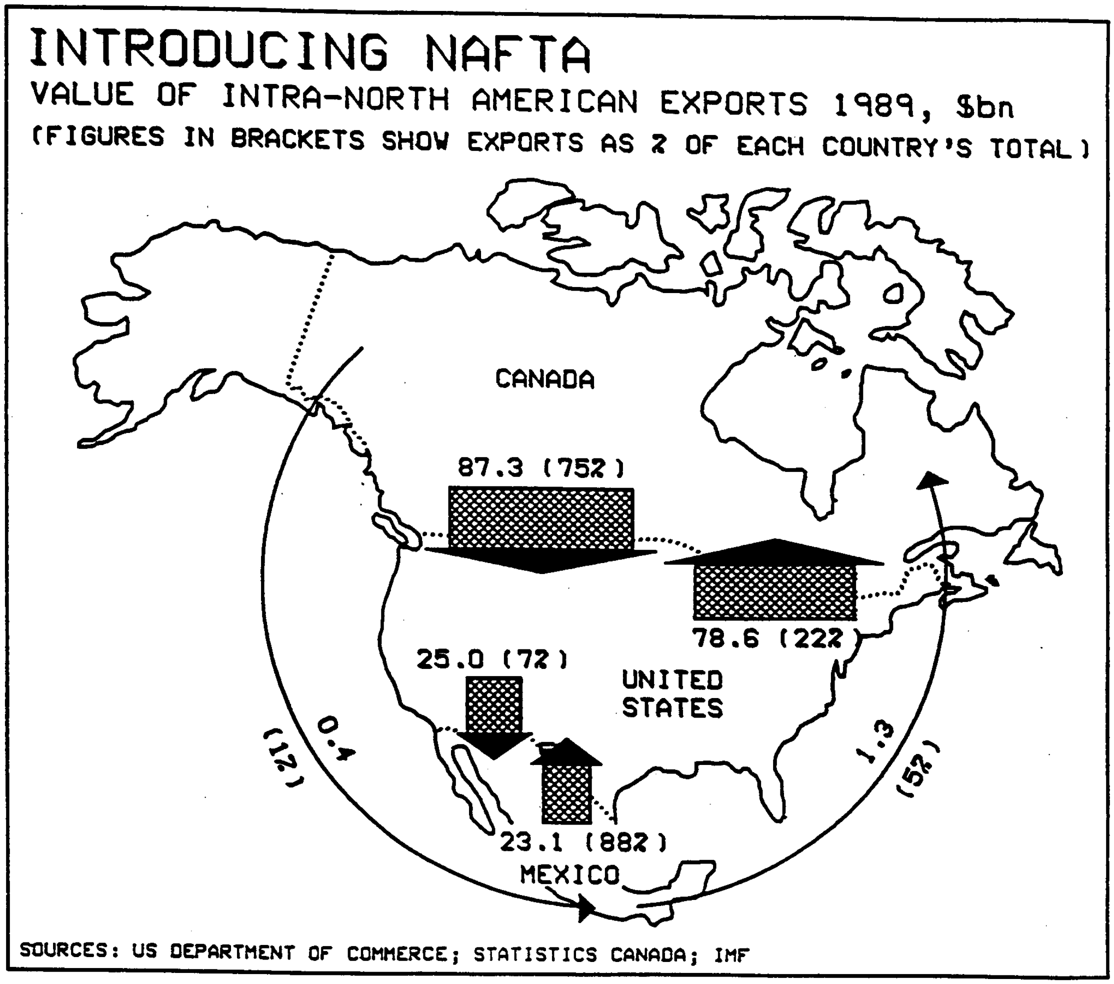
INTRODUCING NAFTA
VALUE OF INTRA-NORTH AMERICAN EXPORTS 1989, $bn
(FIGURES IN BRACKETS SHOW EXPORTS AS % OF EACH COUNTRY'S TOTAL)
CANADA
87.3 (75%)
78.6 (22%)
25.0 (7%)
UNITED STATES
0.4 (1%)
1.3 (5%)
23.1 (88%)
MEXICO
SOURCES: US DEPARTMENT OF COMMERCE; STATISTICS CANADA; IMF

Figure 1

and sanitary restrictions, and the environmental consequences of changing patterns of production, processing and consumption, will need attention. These and other issues will set the policy context within which adjustments in food and agriculture occur.

Of major concern to agricultural interests in all three countries will be the impact of the agreement on industrial competitiveness. Changes in competitiveness will affect trade flows which in turn will alter the structure and geographic distribution of the North American food industry. Will the agreement alter the location of agricultural production and processing? Will industries move from one country to another? Will new competitive conditions give differential incentives for technical innovation, leading to changes in scale economies and altered locations of production? Will the larger market lead to a smaller number of players through mergers, buyouts and bankruptcy, or to greater competition? Which countries and which interest groups will benefit and which will lose? If one looks only at proposed or possible changes in border measures--tariffs, quotas, and technical restrictions--it is impossible to gain a full understanding of the consequences of NAFTA or to allay the fears of those who perceive themselves as potential losers. Therefore the broader context must always be kept in mind.

In the sections that follow, the paper addresses a subset of issues of concern to the agricultural industries of the three countries. Each issue is considered in the context of the broader issues just outlined.

II. AGRICULTURAL ISSUES IN THE NAFTA NEGOTIATIONS

1. The Scope of the Negotiations on Agriculture

Agriculture will have a key role to play in any agreement on freer trade among Mexico, Canada, and the U.S. Mexico will be seeking easier access for its farm goods to the U.S. and Canadian markets and, in turn, will be pressed to open further its own markets to products from the U.S. and Canada. In addition to the traditional focus on the removal of direct trade barriers, the NAFTA negotiations will have to recognize the wide range of domestic policies in the farm sector that distort trade. Strong interests will argue for and against liberalization in agricultural markets. A multitude of reasons will be advanced to justify special treatment for agricultural trade. Moreover, agricultural issues overlap with those of environmental conditions and employment prospects--the two major focal points for the political debate on NAFTA in the U.S. For these reasons the agricultural negotiations will be difficult and controversial. In turn, significant progress in the agricultural talks will be important for the conclusion of a meaningful overall agreement. Negotiators will have to keep firmly in mind the objective of the talks: to create a larger economically integrated market in North America.

One factor in particular will add complexity to the agricultural component of the NAFTA talks: the state of parallel discussions in the Uruguay Round on new rules to govern agricultural trade in the GATT. Many of the objectives of freer North American trade in agricultural products would be assisted by a speedy resolution of the GATT talks. Yet, if the U.S., Canada, and

Mexico proceed in advance of a firm GATT pact, the possibility of exploring regional solutions to some of the issues on the GATT agenda remains.

Underlying both the NAFTA and the GATT negotiations is a further set of discussions of an internal nature which will be shaping domestic policies. The process, which has become known as "agricultural policy reform," is at one level more fundamental than the trade talks. This is most apparent in Mexico, where the role of the state in agricultural markets is being reassessed, and the related issues of rural incomes, farm structure, and food security are under intensive review. Mexico is clearly viewing the NAFTA talks as providing the backdrop for such domestic changes, but the issues would be faced regardless of the GATT or NAFTA discussions. The U.S. and Canada (along with most industrial countries) are also in the process of reviewing their domestic agricultural policies, though for different reasons and with varying degrees of urgency. In the U.S., the continuing need for budget stringency has led to an agreement on major reductions in spending on domestic farm programs for the next few years. In Canada, the impetus arises from the anomalous restrictive market agreements for agricultural produce, mainly at a provincial level, increasingly out of line with the mainstream of federal economic policy, a desire to restructure domestic policies to make them more "green" in a trade sense, and a tightening budget constraint.

Domestic agricultural policies are not formally "on the table," but in agriculture the distinction between trade and domestic policy is always blurred. Many of the issues of agricultural trade stem from the existence of complex domestic policies in that sector. Explicit trade barriers, such as tariffs and quotas, are often minor impediments to trade compared to other "non-tariff" measures and to the operation of a multitude of government regulations. The tough question for negotiators becomes one of how deep to delve into the domestic arena of social, technical, sectoral, developmental and environmental policies in pursuit of those that impede trade and transnational investment. In practice, this will be limited in part by the time available to negotiate the agreement.

2. Sectoral perspectives on NAFTA

Decisions on the general direction of trade policy are presumably taken at a reasonably high level in any administration. The politics of the negotiations, however, quickly moves away from the consideration of overall national trade strategy. The debate becomes a contest among different sectors which feel their economic interests to be at stake. This often results in exaggerated claims and counterclaims in attempts to catch the public attention. In reality, one would not expect dramatic changes in trade flows, employment, or sectoral incomes to arise from a NAFTA.[1] The overall importance of the negotiation of an agricultural component to NAFTA lies more in its impact on the long run development of agriculture on the North American continent. Many other factors will have a greater impact on farm sectors in the short and medium run. These factors include technical change within all elements of the food chain, weather and disease problems, national macroeconomic conditions, agricultural price policies, world market trends, environmental and water use policies, and shifts in consumer tastes. Trade policy toward

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[1] For a cautionary tale about setting expectations too high in this context, see Robert L. Paarlberg (1991).

Mexico and Canada would come far down the list of concerns for the average U.S. farmer. Only when trade policy constrains one of these other factors is it likely to have a significant impact on average farm incomes.

The debate on the agricultural implications of a NAFTA has thus far concentrated on issues of market access, labor costs, and production regulations. U.S. farmers, in common with other businessmen, view a NAFTA largely in terms of the impact on their own markets. This has led to widely differing reactions from different sectors of agriculture and different regions of the country. Among those who look for expanded export sales are grain and oilseed producers who view the present policies in Mexico as inimical to imports. This means that "mainstream" U.S. agriculture, and the organizations that represent it, tend to be in favor of an agreement. By contrast, producers of fruits and vegetables whose products compete with imports from Mexico, in particular those in Florida, are likely to resist any moves to lower protection from seasonal tariffs.[2] Somewhere in between are farm interests in California and other Western states. Many producers are already geared towards overseas markets, and tend to see benefits in freer trade and investment.[3] Those who have begun already to think of a single agricultural market in North America see opportunities for more specialization, such as concentration on the fresh rather than the processed fruit and vegetable market.

In addition to some concerns about increased competition from Mexico, there are many producers in the U.S. (and Canada) who are worried about the increased potential for introducing plant diseases not now present in their regions. Some producers claim that their Mexican competitors presently get an unfair cost advantage from the use of plant protection materials banned in the U.S. as well as from other more lax environmental standards. Other producers are concerned to ensure that freer trade does not inadvertently bring with it plant and animal disease problems from over the border, problems which are now dealt with by import bans and plant and animal health-related import regulations. From the Mexican perspective, these health regulations are often seen as a masked non-tariff trade barrier intended to protect domestic producers from competition and not from disease.

The impact of NAFTA on farm labor markets is a topic of particular interest to U.S. farms in the southwest. This raises the ongoing process of integration of the North American market. Agriculture does not in general exhibit the same degree of tension as in the manufacturing sectors between labor and management (or shareholders) with respect to the location of production facilities. Farmers can in effect move their operations offshore by leasing land in other countries and more and more farmers are making use of this option as foreign investment regulations are relaxed in Mexico.

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[2] The market for processed tomatoes is one often mentioned as facing increasing competition from Mexico. Tomatoes are one of the most important agricultural exports of Mexico. The industry's future in Mexico is, however, a function of increased foreign investment. Thus the competition arises largely from the relaxation of Mexican restrictions on foreign investment, although it might be made more intense by easier access to the U.S. market.

[3] Producers of such successful export items as almonds as well as those producing stone fruits tend to see market opportunities in the NAFTA.

This leads to considerable flexibility in farming systems and locations. For those who do not wish to move their farming operations, one alternative has always been the importation of labor. Hence, there is much interest in the question of NAFTA's impact on farm labor markets. More jobs for farmworkers in the agricultural export sector in Mexico, and the possibility of higher industrial wages in that country, could translate into higher wage costs in agriculture in California, New Mexico, Arizona, Texas, Oregon and Washington. On the other hand there is already evidence of new migration patterns taking place, as workers from Southern Mexico and from Central America begin to move in to take the place of Mexican farm workers in the U.S.[4]

Mexican agriculture faces the opposite set of problems to those anticipated by U.S. farmers. The export sectors will expect to get better access to the U.S. market for fruits and vegetables, for sugar and cotton, and for livestock. Export sectors in Mexico will try to resist the imposition of tougher environmental laws, which they will see as denying them a competitive advantage. U.S. sanitary and phytosanitary regulations which at present keep some produce out of the market, such as the ban on avocados in force in California, will be challenged. But the most significant impact may come in the market for import commodities, where Mexican grain farmers, in particular, will face increased competition. These farmers are concerned with the prospect of lower prices, especially for such staples as white corn and dry beans, that would come from any liberalization of imports. At present such imports are controlled by a public agency, CONASUPO, that administers domestic price policy. Any relaxation of these arrangements will face strong political opposition.

The impact of these changes on the labor market within Mexico could be profound. The small-farm sector in Mexico has few alternative crops. The corn (maize) price influences the allocation of labor in rural Mexico, as well as the flow of corn from the rural to the urban areas.[5] Reducing grain protection raises a complex set of problems and possibilities for the Mexican farmworkers. Mexican workers who would otherwise move to the U.S. to look for work could gain jobs in Mexico in an expanded fruit and vegetable export sector. But the supply of workers seeking employment in Mexican agriculture could also increase if demand for their services faltered in the U.S. as a result of the decline in fruit and vegetable production in border states. The first change would increase their wages, and the second could cause a reduction. But if farmers in those parts of Mexican agriculture that are uncompetitive join the hired labor force, a large scale internal migration in search of work would likely result. This could swamp any positive employment effects in the competitive export sectors of agriculture stemming from NAFTA.

Within Canada, the traditional interest groups in the food and agriculture sector are caught between relative indifference to NAFTA and strongly stated opposition to this or any other reduction in trade protection. The indifference may be due to the views that (a) Canada's red meat sector is competitive with the U.S. and the Mexican livestock industry represents no great threat or opportunity, (b) the grain and oilseeds sector faces no competitive threat from its

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[4] The determinants of migration into the US are discussed in Wayne A. Cornelius and Philip L. Martin (1991).

[5] For a discussion of the issue of rural labor and maize prices see J. Edward Taylor (1991).

Mexican counterpart and can anticipate only modest potential export opportunities, and (c) the ongoing GATT negotiations and U.S. competition are much more important to their supply-managed sectors. The strong opposition arises in the food processing and fruit and vegetable sectors, where there are fears of potential competition from Mexican imports. Current concerns expressed by these sectors echo the pre-CUSTA discussions. In food processing the fear is that lower wages in Mexico will provoke a significant loss of market share and a movement of processing plants and employment to Mexico. In vegetables and soft fruits there are similar, perhaps less pronounced, fears that lower costs in Mexico will lead to the loss of farm production to Mexico. This concern is moderated by the fact that current Mexican produce marketing is to a considerable extent outside the Canadian product season. And as discussed above, there are special fears in the environment and food safety areas concerning the "unfairness" of Mexican producers' access to banned (in Canada) pesticides, their operation under less demanding environmental standards, and the possible introduction of pests or diseases to Canada from Mexico.

Some of these arguments represent posturing to maintain protection for as long as possible or to advance claims for "adequate" compensation in the event of a loss of protection. It is also true that, before ratification, CUSTA was met with greater hostility. Still, Canadian politicians are hearing little support from the Canadian food sector at any level for a NAFTA to include agriculture, and there is little expressed support from consumers.

3. Market Access Issues

The central issue in the agricultural portion of the NAFTA negotiations will be the ease of access of North American agricultural products into the three markets. The trade impediments can be grouped under three headings: (a) import access, including agricultural tariffs, import licensing, and marketing orders; (b) health, safety and environmental standards; and (c) domestic price support policies.

a) Import barriers

Agricultural tariffs are likely to be reduced on a timetable tied to that for other sectors. If different timescales are allowed, there will be negotiations to determine which agricultural products are granted a longer period to adjust. Equity would suggest that Mexican tariffs could be allowed a slower pace of reduction, as that country might seem to require more time to establish and expand export industries. In practice, Mexico has showed itself willing to make much more dramatic changes in its tariff policy than can be expected of either the U.S. or Canada. Moreover, on economic grounds the concession of a long transition period may be against Mexican interests if it delays needed investment flows.

One aspect of existing tariff policy that will become increasingly inconsistent with closer integration in North America is seasonality in tariffs. Common in fruits and vegetables, such seasonality gives a boost in protection at the time of local harvest. In an integrated North American agricultural market, no such seasonal protection would be appropriate. Farmers are naturally more competitive at certain times of the year: government "help" at those times has the effect of distorting such regional and seasonal production patterns. Although an agreement to phase out all tariffs will eventually remove the seasonality issue, an early start on this process would have immediate beneficial effects on investment decisions. The Mexican market for fresh fruit has often been closed during harvest season: as U.S. and Canadian tariff seasonality is removed, the Mexican restrictions should also be lifted. One would not expect this to result in a major expansion of trade, but the act of encouraging competition throughout the year will send a clear signal to the private sector and the opportunities for rent-seeking will be reduced.[6]

From the point of view of the U.S., the negotiations are likely to highlight as a trade irritant the Mexican import licensing procedure which restricts imports of wheat, corn, beans, some livestock products, fresh fruits and certain vegetables. Although many of these licences have been removed since Mexico joined the GATT in 1986, and others are scheduled to be changed in the next few years, securing this liberalization in the terms of a NAFTA would be of value to U.S. export interests.[7]

The issue of marketing orders in the U.S. is a similar trade irritant for the Mexican exporter. Set up under federal laws, these marketing orders attempt to control the quality (and hence quantity) of supplies going onto the domestic market.[8] In some cases, quantity is directly controlled: in most cases the setting of particular grading standards effectively limits supply. Imports are not subject to direct quantitative controls, but manipulation of grading standards has the effect of regulating imports. The use of marketing orders to restrict market access for imports is well illustrated in the fruit and vegetable sector.[9]

Under a more ambitious sectoral integration in the NAFTA, a first best solution would involve eventual removal of this trade irritant. A second best approach could follow the principle of sectoral integration but alter the operation of U.S. marketing orders to make it easier for imported products to meet required grades. Estimates of market requirements and supplies could be made which recognized the role of imports and supply conditions in Mexico (and Canada).[10] The use of marketing orders as a hidden trade barrier could be mitigated by greater transparency through a change in the way in which they operate.

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[6] Rent-seeking activities in this instance are often focused on small extensions of the high-tariff period to capture a little more of the lucrative "off-peak" market.

[7] As Mexico changes its internal agricultural marketing structure toward more private sector involvement, the movement to transparent border instruments, such as tariffs, could continue for internal reasons.

[8] Federal marketing orders are authorized under the Agricultural Marketing Agreements Act, 1937. Section 608e states that imports must meet the same grade/quality standards as US produce. This now applies to over 20 products, including tomatoes, onions, and grapes, exported from Mexico.

[9] This sector and the role of its marketing orders is reviewed more thoroughly in section IV.4.c. For a discussion of some of the analytical aspects of marketing orders as trade barriers see Robert Chambers and Daniel Pick (1991).

[10] See David Runsten (1991).

b) Health and Safety Standards

The problem of disparate health and safety standards in food and agricultural production has been contentious in recent trade negotiations. Some limited attempts were made in the CUSTA to reduce trade frictions, but the issue was essentially left to discussions in the GATT. Those opposed to the NAFTA negotiations have highlighted food standards and environmental pollution as key issues with the result that they will have to be addressed in even a modest agreement. The formulation of such an agreement is likely to focus on the need to improve adherence to existing regulations in Mexico and on making those regulations conform with practices in the U.S. and Canada.

On the issue of health, safety, and environmental regulations, sectoral integration poses a greater challenge than does the attempt to reduce trade friction. It requires a re-evaluation of the purposes of such regulations and the methods used for their enforcement. Government regulations in this area can be thought of as meeting four needs: a) protection of consumers from unsafe food; b) protection of workers from unhealthy working conditions; c) protection of the environment from contamination; and d) protection of plants and animals from disease. Assessment of risks in each of these areas will differ in different countries: the challenge for an integrated agricultural market is to respect these differences and even to lower the cost of providing such protection. Enforcement of U.S. standards, on such issues as pesticide use, is an attractive part of a "trade irritant" approach: it may not be appropriate in sectoral integration.

How can differences in risk assessment be made consistent with sectoral free trade? Primarily by removing the mechanism by which health and safety standards become hidden trade barriers -- the testing of imports at the border. Protection of consumers could be accomplished by rules (which could differ between Mexico, the U.S. and Canada) governing food safety for products regardless of origin. Wherever the testing were done, "national treatment" should be strictly observed. Rent-seeking opportunities would be reduced by such a development, and production could be planned for different parts of the market without fear of discriminatory application of regulations. By the same token, different environmental and worker safety laws can coexist with free trade.[11] Each country is responsible for the health of its own workers and the degradation of its own environment. Arguments that trade allows some countries to exploit less onerous environmental regulations are usually calls for protection, and should not be heeded in sectoral integration (as opposed to trade irritant) talks.

c) Domestic Policies

It seems likely that in a modest agricultural component of a NAFTA, domestic farm policies will not be subject to much change. Mexican policy is presently in a state of transition. The reduced use of import controls through the licensing system will have implications for cereal policy. But Mexico under such a modest agreement would still be able to adopt domestic price support and marketing policies to maintain desired prices to farmers and consumers. Just as the

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[11] Environmental issues regarding cross-border pollution have to be dealt with on a binational (or trinational) basis regardless of the conditions for trade across the border.

CUSTA left the issue of support price differences to GATT talks, a modest NAFTA would also leave this stone unturned.

The question remains as to how to deal with disparate domestic price support policies and price levels in negotiation on sectoral integration. Clearly some coordination is needed, at least de facto, to avoid investment distortions. CUSTA took a tentative step in this direction by triggering a relaxation of import licensing by the relative level of support (as measured by the Producer Subsidy Equivalents, PSE) in each country. Imports are freely allowed if the partner does not have a higher level of subsidy. The penalty for setting high producer prices is the loss of import restrictions, such as licenses, to protect the domestic market. How well such a procedure would work in the case of Mexico is open to question. It is likely that Mexico will seek to provide higher prices for certain products, such as white corn and dry beans, than would be desirable under U.S. policy. This subject will be less of an issue as Mexico moves towards tariff protection and away from import licenses and state trading.

Can such arrangements for sectoral integration evolve into a common approach to common problems in the three countries? The political case for a coordinated set of policies regulating markets, trade, and production practices has yet to be made. The progress made in the EC in its 1992 program has indicated that some sharing of sovereignty is possible in economic policies. In the case of agriculture, the EC has provided a clear example of how not to run a common policy. By setting and maintaining a high level of protection against goods from outside the Community, the EC created a monster which threatens not just European cohesion but the world's trading system. But common policies need not be protectionist, expensive, or disruptive of world trade.

A coordinated agricultural policy for North America could start with uniform external trade policy. As tariffs are eliminated on intra-NAFTA trade, so they could be harmonized on trade with third countries. Non-tariff measures (on third country trade) could be converted to tariffs, as is the case in the GATT proposals of the U.S. and the Cairns Group. Though harmonization of export policies would be hampered by different institutional arrangements for marketing, U.S. and Canadian collaboration has occurred in the past.[12] Most of the pressure for harmonization would, however, fall on domestic price support programs. If these policies remained as independent, domestically-oriented market intervention programs to support the incomes of particular farm groups at historically-determined levels then there would be little hope for their harmonization. Two changes have to happen for common policies to emerge. First the policies have to shift from operating indirectly through commodity markets to being designed to target directly particular income or other needs. This "decoupling" is a prerequisite for closer trinational cooperation. Secondly, the levels of market support prices have to be brought more in line among the three countries. Without this development it is difficult to see a true market integration. With broadly decoupled and carefully targeted income programs and stabilization programs with similar price objectives (including coordination of storage programs) it should be possible to maintain distinct national policies (and national jurisdiction over such policies) while at

[12] For a detailed account of binational cooperation on grain marketing, see Theodore H. Cohn (1990).

the same time supporting the development of trade and investment among the three North American partners. This is the same challenge which is at the core of the GATT negotiations over agriculture in the current Uruguay Round.

III. THE GRAINS AND OILSEEDS SECTOR: IMPACTS OF NAFTA ON DOMESTIC AGRICULTURAL POLICY

1. Present Trade Patterns

Grains and oilseeds figure prominently in both North American agricultural production and trade and they will play a key role during the transition to trade liberalization. Table 1 reports production figures for Canada, Mexico and the U.S. for the 1989-90 crop year. At 341 million tons, U.S. grain and oilseed production clearly dominates production in Canada (52.8 mmt) and Mexico (19.9 mmt). Coarse grains (primarily corn) account for the largest share of production in both Mexico and the U.S. In contrast, wheat is the largest crop in Canada.

In order to provide a basis for discussion of the effects of freer trade, a trade flow matrix showing the current situation is provided in Table 2. From this data we find that grains and oilseeds flow both north and south within the continent. On a net basis, the U.S. enjoys a small trade surplus with Canada in grains and oilseeds. Both Canada and the U.S. have a trade surplus with Mexico; however, the absolute sizes are much different. Canada nets less than $100 million per year in this trade relationship, while the U.S. nets over $1 billion per year. In fact, the two main agricultural exports from the U.S. to Mexico are coarse grains and oilseeds. Mexico accounts for over 10 percent of total U.S. coarse grain exports, and around 6 percent of total oilseed exports. Grains and oilseeds account for approximately 70 percent of total U.S. agricultural exports to Mexico. Wheat and canola (rapeseed) dominate Canada's agricultural exports to Mexico, and cereal grains and oilseeds are important in bilateral trade between Canada and the U.S. Canada imports corn, soybeans and soymeal from the U.S., but U.S. exports of corn and oilseeds to Canada rank below animals, fruits and nuts, and vegetables. Wheat and canola rank as Canada's second and third largest agricultural exports to the U.S., behind animals.

Table 1

Grain and Oilseed Production in North America
(in million tons): 1989-90

	Total Grains and Oilseeds	Wheat	Coarse Grains	Oilseeds	Rice
Canada	52.8	24.4	23.5	4.9	0
Mexico	19.9	4.0	14.1	1.4	0.4
U.S.	341.0	55.4	221.4	59.3	4.9

Source: USITC "The Likely Impact on the United States of a Free Trade Agreement with Mexico", Pub. No. 2353, Feb. 1991

Table 2

Grains/Feeds & Oilseeds in N.A. trade: 1988
(in millions of $U.S.)

To	Grains & Feeds Trade Matrix			Oilseeds Trade Matrix		
From	Canada	Mexico	U.S.	Canada	Mexico	U.S.
Canada	-	30	425	-	45	257
Mexico	0	-	18	0	-	27
U.S.	354	645	-	315	587	-

Source: compiled from USDA data

2. Policy Issues for Mexico

All three governments would prefer to keep the focus of the NAFTA negotiations on trade and investment matters. In agriculture, trade matters are so intimately linked with domestic policy that the distinction is impossible to maintain. Investment in agriculture is also at the heart of rural development policy, and conditions agreed upon for foreign investment in Mexico will have an impact on these "internal" matters. This intermingling of trade and domestic policy will pose some of the most difficult problems for the negotiators in agriculture.[13] Many issues that are "off the table" will nevertheless be influenced by the outcome, and will constrain and influence negotiators. Some of these issues constitute the most critical areas of interface between trade policy and domestic agricultural policy.

a) Rural Poverty and Food Security in Mexico

The issues of Mexico's rural poverty and food security provide an important backdrop to the grains/oilseeds sector, and have long been contentious. Mexican agriculture has an internationally competitive export-oriented sector that has expanded into new markets and contributed to economic growth. It is found mainly in the northern states, providing fruits and vegetables for the U.S. market, but it also includes coffee production in the tropical south. However, a large part of Mexican agriculture is much less competitive, and consists of small farms on poor soils with little access to irrigation. In these poorer regions the commodities produced are predominantly corn and beans. They are mainly produced for local consumption and yield low cash incomes. Rural poverty is widespread, and food supplies are dependent upon regular rainfall. This sector is clearly vulnerable to an opening up of the domestic market to grain imports from the U.S. Present policy restricts imports of corn and maintains high domestic support prices for these producers.

Thus, Mexico is experiencing the classic dilemma of a country facing the challenge of liberalization. Low market prices and cheap imports would reduce the cost of feeding the urban population and rural workers. Food subsidy schemes would be easier to finance under such conditions and could be targeted towards the poorest and most vulnerable groups. But domestic production may not be able to compete at such low prices, and the productive base of many rural areas would be jeopardized, leading to rural poverty and unemployment. Massive support for these rural areas could be undertaken in an attempt to make the domestic industry competitive, but this is likely to prove slow, expensive, and risky. Cherished political institutions, such as land tenure laws, often retard the agricultural restructuring, a particular issue in Mexico where the

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[13] The issue of domestic price supports and accompanying trade policies for the grain-oilseed-livestock complex is also at the heart of the agricultural discussions in the GATT. Exporters are pushing for firm commitments from importing countries on greater access, leading eventually to a transparent system of tariffs which themselves would be subject to downward negotiation. Export subsidies, under this agenda, would be phased out, and domestic subsidies that encourage output would also be reduced. Each country would have to commit to a scheduled reduction in support under a GATT pact, and agree to modify its policy instruments. How much further the North American countries would wish to go on rules for intra-regional trade will be dependent on the significance of the GATT outcome.

ejido system makes the amalgamation of farms and the necessary investment in those farms problematic.[14] A regime of high farm prices, the alternative ("European") model for rural development, would allow private investment from higher earnings and reduce elements of rural poverty, but it would exacerbate the urban food problem and raise the cost of food subsidies. More significantly, in terms of a trade agreement, it would require the continuation of quantitative control over imports or variable trade taxes linked to domestic price objectives. Negotiators will have to be sensitive to the substantial social, economic, and political problems posed by these issues.

b) Grains, Oilseeds and Livestock Policy Options

Closely connected with the issue of food security is that of the future development of the grain-oilseed-livestock complex in Mexico and its relationship with other parts of North America. The outcome of decisions to solve the problems of rural development and food security will circumscribe policy in this area. If it is decided to keep strict control over imports of basic foods, paying high prices to farmers but charging less to domestic grain users, then it is reasonable to assume that present institutional arrangements will persist. There may be a need for additional investment in infrastructure, but this would have only limited appeal to foreign investors. If, however, a more ambitious strategy were adopted, the picture would change. Liberalization of import policies could be accompanied by further deregulation of the internal market, and a greater role for private sector participation. Foreign investment in infrastructure, such as grain handling facilities, could follow and thereby lead to lower marketing costs. The livestock industry, at least in some regions of Mexico, could benefit considerably from a relaxation of rules governing the use of wheat and corn for feed.

The grains and oilseeds sector includes some of the most sensitive domestic policies to be affected by freer North American trade in agriculture, notably Mexican cereals policy. Our brief examination begins with an overview of this sector, then turns to a more detailed analysis of the Mexican government's recent and unsuccessful attempts to liberalize its sorghum market, the country's second largest crop after corn. The size and immediacy of producer income losses arising from sorghum market deregulation became evident during this attempt, emphasizing the seriousness of the constraints facing Mexico in reducing the levels of protection in its domestic grains markets.

Just like Canada and the U.S., Mexico provides domestic production subsidies to its grains and oilseeds sector. Despite these production subsidies, Mexico is not self sufficient, and imports about one-quarter of its corn and three-fourths of its soybean needs. The imported corn is for human consumption, in the form of tortillas and maize flour.

What will be some of the impacts on the grains and oilseeds sectors of the three countries in a NAFTA? Will U.S. and Canadian exports of grains and oilseeds expand rapidly? The single most important unknown is the question of what Mexico will do with its corn policy. Corn is the

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[14] The Mexican administration has recently proposed major changes in the *ejido* system which would make it easier for structural change to take place.

foundation of Mexican food production and the entire Mexican rural economy. Over one-third of Mexican arable land is devoted to corn production. Current corn policy results in both urban and rural economic distortions. Main elements of the policy include: a) import licenses, b) producer prices that are set well above world prices, c) subsidized consumer prices in urban areas, and d) parastatal marketing, distribution and storage. Mexico also restricts imports of other cereals through the use of tariffs.

Given this protection, it is expected that freer trade will lead to a significant increase in imports from both Canada and the United States. One would expect that if Mexican corn subsidies were reduced, then corn production would drop significantly. This development would provide an opportunity for the U.S. to increase corn shipments to Mexico, but the substitutability of U.S. yellow corn for Mexican white corn may be limited. There is a small amount of production of white corn in the U.S. and perhaps this would increase to meet this new Mexican demand. At least two quantitative estimates are available on the likely magnitude of this outcome. Krissoff et al. have modelled the impact of a U.S.-Mexican free trade agreement (without Canada).[15] Using 1988 as a base period, they estimated that with a liberalization of Mexican corn policy, the U.S. would increase its exports of corn to Mexico by about 5% and that the production of corn in Mexico would fall by 5%. Total consumption of corn in Mexico would increase by 14% (or 1.8 mmt). Levy and Wijnbergen examined the impacts on the Mexican economy of liberalizing its corn market.[16] Their model results suggest that the net welfare cost of this policy change would be $154 million ($US) per annum. Of this, Mexico "loses" $122 million to the rural area and $32 million to the urban area. This welfare loss is only about 1% of the value of Mexican agricultural output.

The above discussion presumes there will be no significant land reform in Mexico. Yet, as part of the deregulation and trade liberalization drive in Mexico, the government recently proposed a major modification of its land tenure laws that will effectively consolidate farms in Mexico. If enacted, this reform could promote increased investment in Mexican agriculture and enhance agricultural productivity, including grains and oilseeds production. Such a development could, in turn, be expected to alter the anticipated effects of a NAFTA on this sector.

3. Factors Impeding the Smooth Transition to Liberalized Grain Markets

While the efficiency of grain production in Mexico may well increase in the long run as a result of farm consolidation, Mexico still faces some short-to-medium run challenges with respect to grain trade and domestic market liberalization. Recent research on the Mexican government's short-lived attempt to remove all trade restrictions on sorghum, and to withdraw from all state intervention in domestic marketing in late 1989 provides a case in point (Bivings, forthcoming).[17]

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[15] Barry Krissoff, Peter Liapis, John Link and Liana Neff (1991).

[16] Santiago Levy and Sweder van Wijnbergen (1991).

[17] E. Leigh Bivings (1992).

Using a seasonally and regionally disaggregated trade model, the research quantifies the impact of a series of macroeconomic and structural problems on liberalized seasonal sorghum prices in Mexico. The model results indicate that had the Mexican government allowed prices to play an equilibrating role, liberalized sorghum prices would have fallen far below their import parity levels at harvest time, `overshooting' their long-run equilibrium levels. The loss of income to farmers would have been severe and immediate.[18] The prospects of a collapsing market undoubtedly contributed to the government's decision to return to the sorghum market and purchase the entire 1990 summer crop to stabilize prices. More recently, the government has begun to experiment with seasonal tariffs and some compensatory storage financing.

a) High Storage Costs

A factor that would have contributed to the downward pressure in market-determined sorghum prices in 1990 is the relatively high physical and financial costs of storing grain in Mexico (the latter exacerbated by Mexico's macroeconomic adjustment problems), together with the need for seasonal storage of the crop. With the complete withdrawal of CONASUPO, the livestock sector was expected to store the summer crop irrespective of the high costs of doing so. Yet with free trade, livestock producers could arbitrage the storage cost differential by importing sorghum from the U.S. on a monthly basis to minimize total storage costs. As a result, there would have been little demand for the domestic harvest at import parity prices.

b) Spatial Allocation

The spatial allocation of sorghum production relative to consumption in Mexico would also have contributed to depressed harvest prices under liberalization. About 80% of the domestic sorghum crop is produced in two regions in Mexico. By contrast, livestock operations are found throughout the country but with several of the principal centers located far from the two main production regions. Consequently, the cost of transporting feed to livestock can be as high as 30% of the delivered price.[19] With the withdrawal of CONASUPO, however, the livestock sector was expected to pay the full delivered cost of the summer 1990 harvest. For many livestock producers, this was an unattractive option since, in terms of transport costs, they are effectively closer to U.S. sorghum production regions. Without import restrictions, domestic harvest prices would either have to immediately reflect the transport cost differential or the crop would have to be stored for a longer period of time for future (more local) consumption. The combination of the two factors would have put additional downward pressure on harvest prices.

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[18] The model results suggest that on average, sorghum farmers' net income would have declined by over 20% in real terms had the government not reintroduced trade and domestic support policies. Moreover, imports would have risen by almost a million metric tons.

[19] The high cost is partially attributable to poor rail infrastructure and lack of sufficient railcars in Mexico. As a result, grain is often transported by truck, even for very long distances.

c) Export Credit Subsidies

An additional factor which contributed to lack of demand for the summer sorghum crop was the availability of attractive financing to Mexican livestock producers to purchase imported sorghum and other grains from the U.S. Under this program, termed GSM-102, livestock producers in Mexico can borrow dollars at just over the London interbank offer rate (LIBOR-Eurodollar). With import licenses and CONASUPO's participation, however, the total amount of credit available to producers has historically been limited. Yet with a liberalized market, livestock producers were to receive complete access to the credit facility. Thus, livestock producers would have had little incentive to purchase domestic sorghum at import parity prices, even for immediate use.

In summary, in the absence of trade restrictions and domestic market intervention, flexible grain prices in Mexico can be expected to reflect the actual costs of storage and transport, as well as the impact of current price discriminatory policies, and adverse monetary and exchange rate developments. Unfortunately, these same factors will likely depress domestic grain prices below their import parity levels exacerbating the burden of adjustment Mexican farmers would face under a NAFTA. In the case of wheat, Mexican production displays pronounced seasonality and extreme regional concentration far from principal domestic consumption centers. Furthermore, infrastructure problems and the difficulty of competing with subsidized wheat exports from Canada and the U.S. complicate Mexico's ability to export excess production. The corn market also displays some of these characteristics, particularly since a substantial share of the domestic crop is produced by smaller farmers in areas poorly served by existing road and rail infrastructure. Moreover, like sorghum, corn prices (and hence, producers) would bear the burden of the large and growing export credit subsidies from the U.S., and of macroeconomic structural adjustments that suggest that Mexico's real exchange rate may continue to appreciate in the short to medium run.

To the extent that policymakers in Mexico are concerned about the grains sector shouldering a disproportionate share of the burden of adjustment in the presence of these problems, there will be a need for a sectoral policy for some time. Indeed, constraints such as those outlined here can be expected to guide, in part, the formulation and timing of domestic policy reform as well as Mexico's negotiating stance in the NAFTA agricultural discussions.

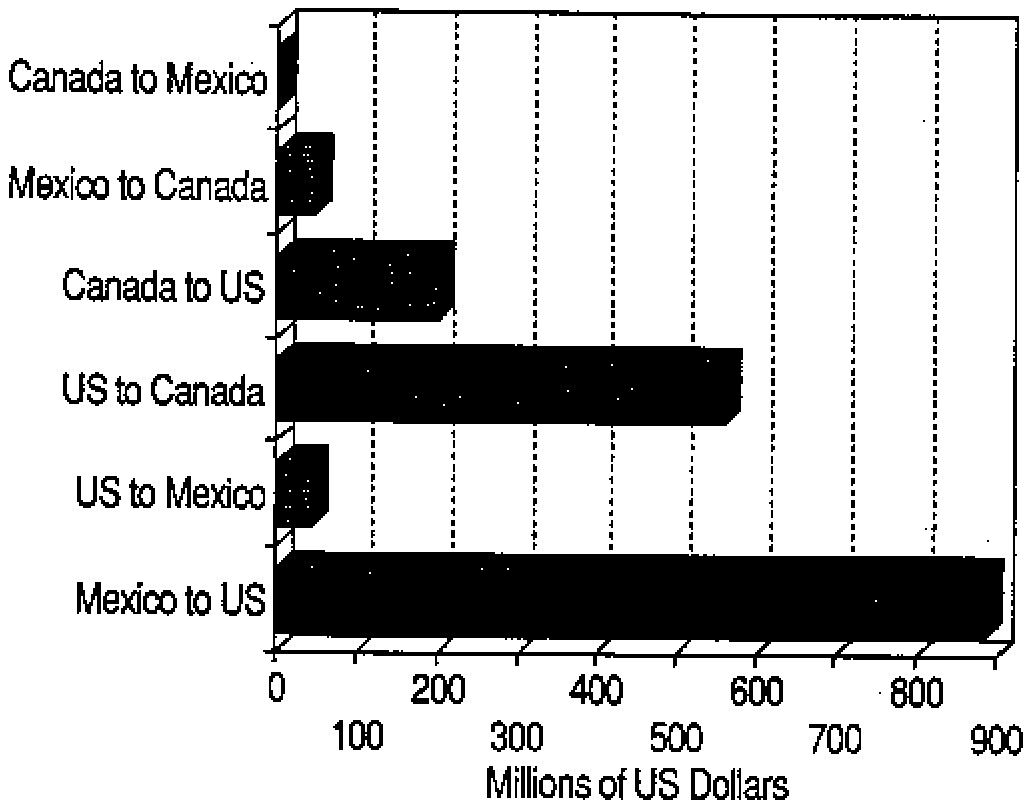
IV. FRUIT AND VEGETABLE SECTOR: ENVIRONMENT, HEALTH AND SAFETY AND MARKET ACCESS ISSUES

The fruit and vegetable sector is an important one in any NAFTA, not only because it is a significant component of trilateral agricultural trade flows but also because it illustrates clearly the problems in resolving two of the more important issues under discussion in the GATT: (a) phytosanitary and health/food safety regulations, and (b) market access, through quality standards and restrictions.

Figure 2

Northward vs. Southward Trade Flows

Fresh Fruits, Vegetables & Nuts 1989



Sources: FATUS, ERS-USDA; Statistics Canada, Agriculture Canada

Although these issues are important within the GATT, the NAFTA talks will be focussed largely on bilateral and trilateral issues and much less influenced by progress in the GATT. The explicit issues will be primarily questions of access to the U.S. markets for Mexican produce. Therefore, the subject will tend to be dominated by the interests of the U.S. vegetable producing states and northern Mexico. Behind these trade access matters lies a bundle of issues, encompassing environmental, health and food safety regulations (and particularly pesticide and phytosanitary regulations), that will go a long way to defining the impact on trade of the agricultural part of the agreement. To provide a closer examination of these issues, this sector is reviewed in greater detail.

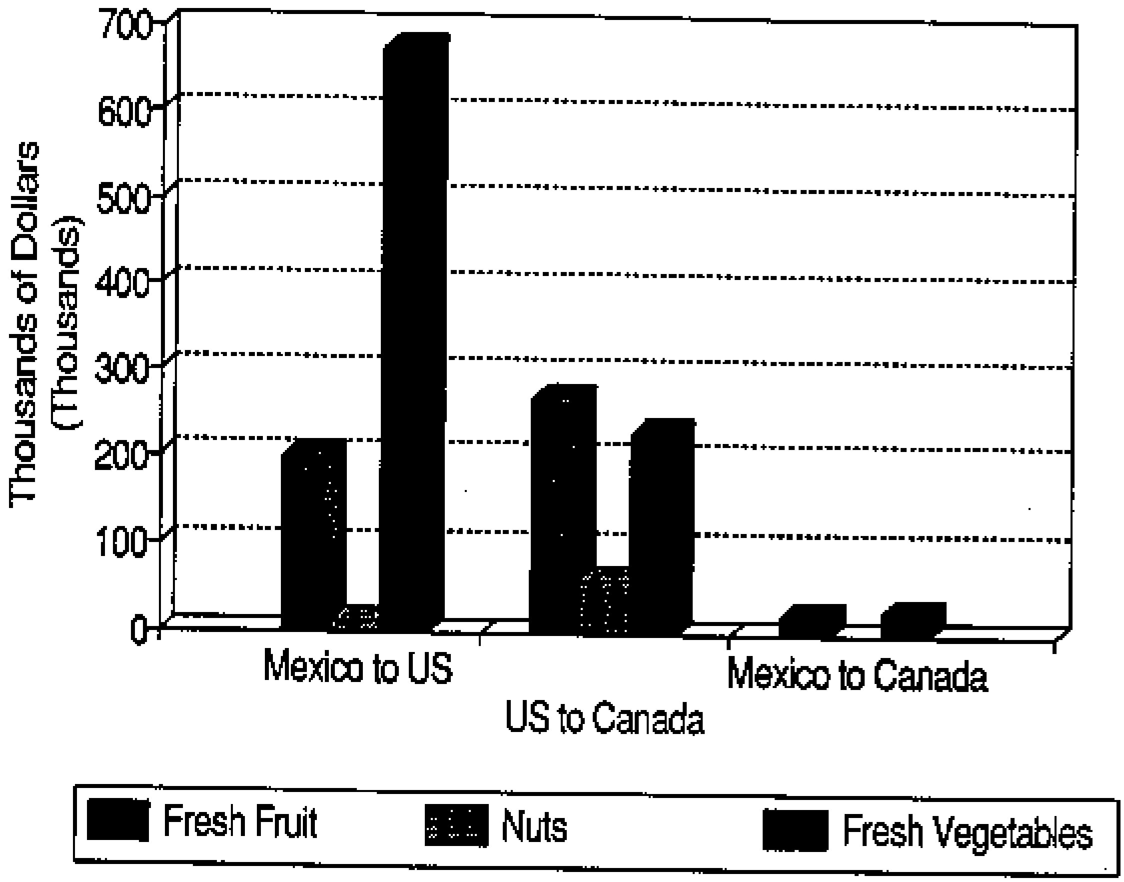
1. Background

Fresh fruit and vegetable trade flows among the three countries participating in the NAFTA negotiations are predominantly from south to north, with a relatively small amount of reverse flows (see figure 2). In addition, most of that trade takes place with the adjacent country: the 1989 value of fresh fruit, nuts and fresh and frozen vegetables crossing from Mexico to the United States was just under 900 million (US) dollars and for trade from the United States to Canada the value of fresh fruits, vegetables and nuts was 560 million dollars, versus 46 million from Mexico to Canada. Since CUSTA is already in the implementation phase, the trade flow likely to be the most affected by a NAFTA is that of fresh fruits and vegetables imported by the U.S. from Mexico.

The composition of these trade flows are striking. United States imports of fresh vegetables from Mexico are more than triple the value of fresh fruit imports, while nut imports are insignificant (Figure 3). Mexico and Canada together represented the source of 87 percent of U.S. imports of fresh and frozen vegetables, with nearly three quarters of the total coming from Mexico (Figure 4). Canadian exports of fresh produce to the United States were also predominantly comprised of vegetables, but its share (12 percent) of this category of imports was much smaller than Mexico's in 1990. Within the fresh and frozen vegetables category, imports of Mexican fresh tomatoes clearly dominates, with fresh peppers, cucumbers and squash distant runners-up (Figure 5). In terms of market shares, fresh produce items for which Mexico represented at least three-fourths of the U.S. import total (value) for 1989 include: eggplant (99 percent), tomatoes and squash (97 percent each), cucumbers (94 percent), onions (89 percent), mangoes (88 percent), lettuce (84 percent) and strawberries (75 percent). Imports of most of these items are highly seasonal, concentrated in the fall, winter, and spring months. Figure 6 shows the 1990 seasonal pattern for fresh tomato imports, a pattern which is roughly typical for nontropical fresh produce imports.

It can be argued that, in several production and marketing aspects, fresh fruits and vegetables are the quintessential agricultural products. Production, especially of fruits, is highly location specific; output of most items is concentrated into a short harvest season; storability of all but a few fresh produce items is significantly limited; transportability may also be subject to technical and time constraints; and where there is cross-border trade, phytosanitary and pesticide residue issues come into play.

Northward Trade Flows
1989 (in US$)

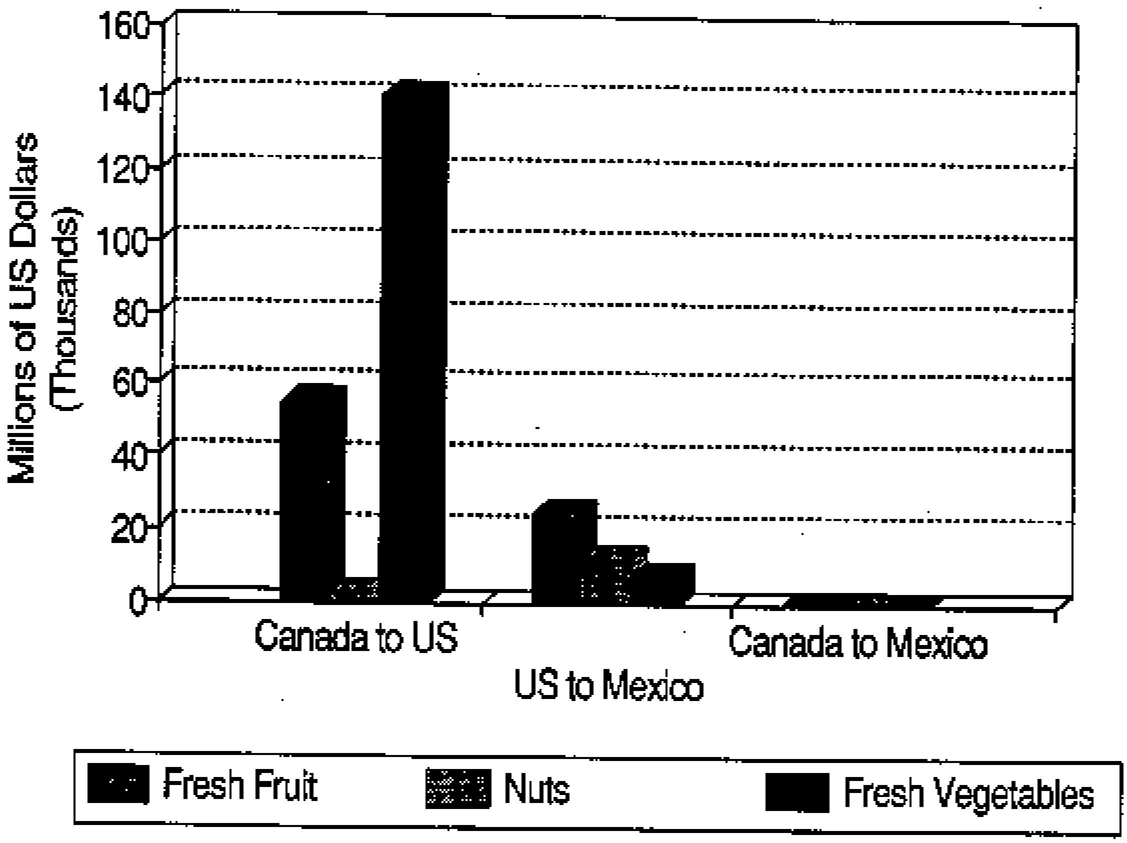


Sources: FATUS, ERS-USDA; Statistics Canada, Agricultura Canada

Figure 4

Southward Trade Flows

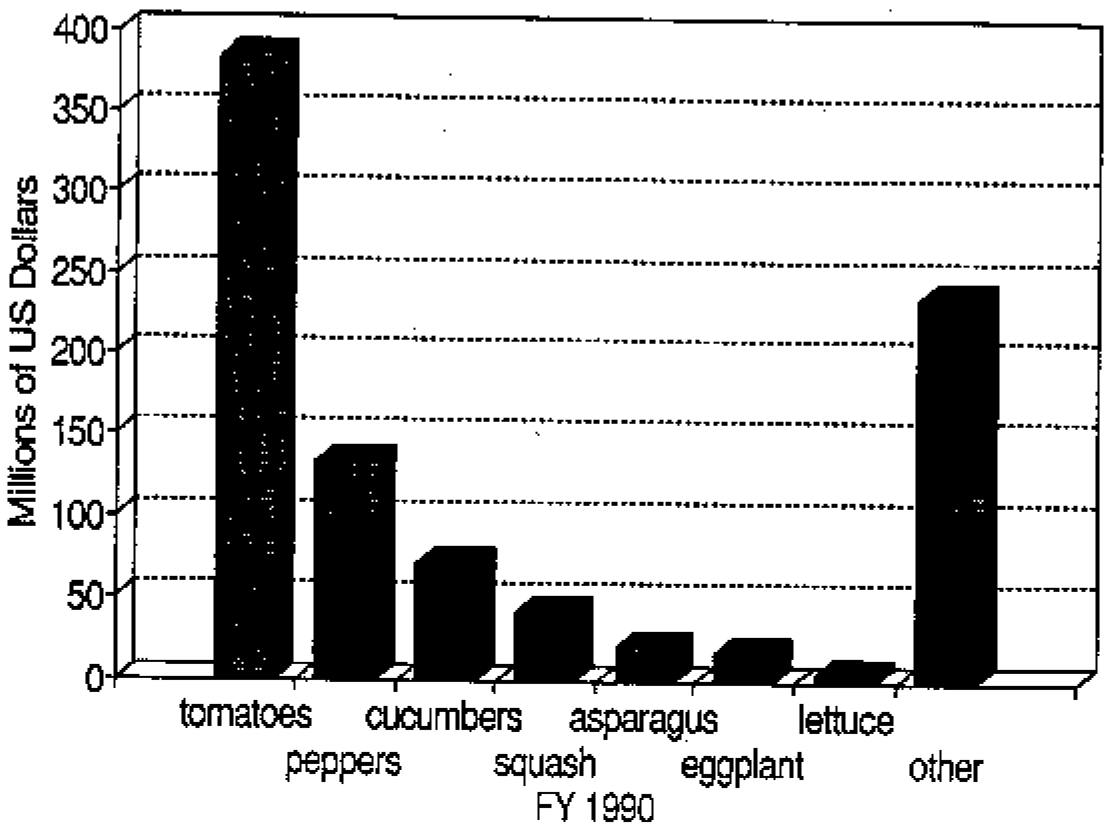
1989



Sources: FATUS, ERS-USDA; Statistics Canada, Agriculture Canada

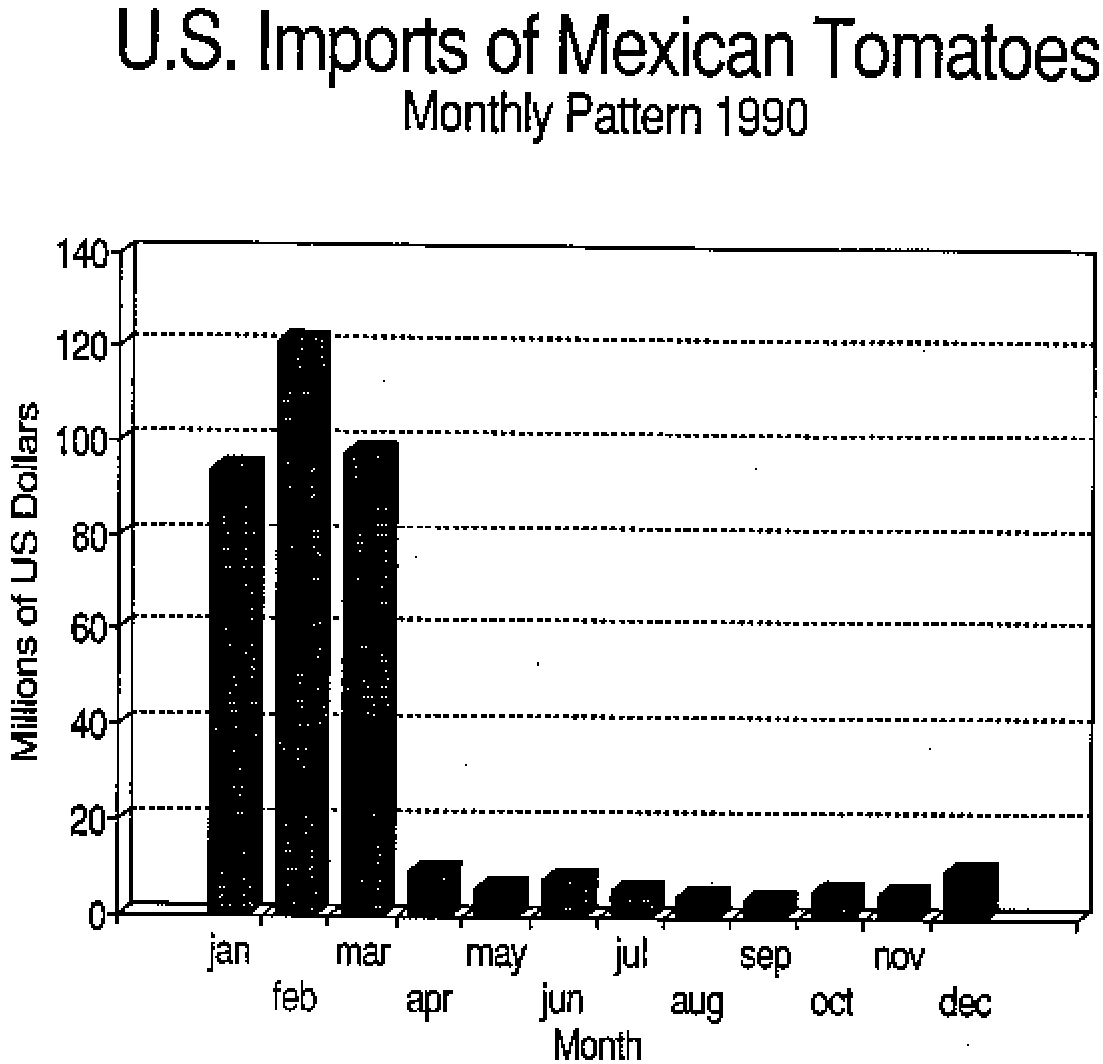
Figure 5

Value of US Imports from Mexico
Fresh and Frozen Vegetables



Source: FATUS, ERS/USDA

Figure 6



Source: FATUS, ERS/USDA

There are a number of characteristics of the sub-sector which have implications for international trade and trade liberalization. Perishability, localized production, and short, geographically dispersed growing seasons place biological constraints on direct competition between the products of different locales: although Ontario and northern Mexico may both grow and sell fresh market tomatoes, their products are unlikely to face each other in the market. Offsetting this reduced competition is the vulnerability of producers to competition during their harvest seasons since the product's quality declines rapidly over time.

Due to the limited storability of soft fresh fruits and vegetables such as tomatoes, peaches or raspberries, and the somewhat limited storability of others such as citrus fruits, potatoes and apples, fresh fruits and vegetables are distinguished not only by type and variety, but also by time of harvest. A basket of fresh raspberries in June is not a very close substitute for one in September. Deterioration of product quality during modified atmosphere storage also renders products such as grapes and apples sold from lengthy storage distinguishable from those sold immediately after harvest. When such product attributes are combined with the geographic dispersion of production and harvest, the associated effects on competition among geographic areas in these products are easily identified: for soft produce items, only areas having overlapping harvest seasons are likely to be in direct competition in the fresh market; in some cases temporal dispersion of harvest will render otherwise identical products complements since year-round availability and relatively stable prices can affect the willingness of restaurants to include such items on their menus.[20] But when direct competition does emerge, it has the potential to have market price consequences[21]; and the vagaries of weather conditions will affect which locales are competing in which product markets in any given year.

Technological changes, particularly in transportation, packaging and storage, but also developments which provide new varieties, continue to expand the geographic and temporal extent of the market potentially available for a region's fresh produce suppliers. Such advances bring new sets of producers into competition with one another. This is true, of course, within as well as across national boundaries. The seasonal tariffs commonly in force for fresh produce items is a logical outgrowth of domestic producers' desires to limit such competition and to maintain or to expand their historic market area. The existence of such tariff protection attests to the political influence exerted by concentrated groups of producers. Removal of seasonal tariffs and other protectionist measures will have a tendency to hasten adjustment of the supply side of the market to both existing and future technological advances.

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20 There may also be some more subtle habit formation effects, as consumers become accustomed to eating a particular fruit or vegetable.

21 However, in contrast to demand for many food products, a Giannini Foundation survey of estimated demand relationships for grapes, tree fruits and nuts, revealed that observed market demand typically is own price elastic for these products. (See Demand Relationships for California TreeFruits, Grapes and Nuts; Giannini Foundation special Publication 3247, August 1978.) Thus, if market supply is increased due to imports, a relatively small price decline will serve to clear the market.

2. Existing Trade Barriers

The two major types of trade barriers impeding United States imports of fresh fruits and vegetables are tariffs and marketing order provisions. In many cases they are structured in a way which accentuates any innate geographic tendencies toward seasonality in trade flows for competing produce items.[22] Take just two examples: in 1988 the ad valorem equivalent tariff levied on fresh tomato imports into the U.S. ranged from a low of 7 percent in the mid-November through February period to a high of 11.5 percent in the March through mid-July and September through mid-November periods; the year is divided into five tariff "seasons" for fresh cucumbers, with ad valorem equivalent tariffs ranging from a low of 5.8 percent in July and August to a high of 35.9 percent in March and April; both items were also subject to federal marketing order standards during certain periods.[23] Relaxation or removal of barriers of this magnitude can be expected to have a substantial effect on the competitive positions of affected domestic versus Mexican producers. A third type of barrier, phytosanitary restrictions, results in the quarantine of some produce shipments to control the spread of fruit flies and other pests, and at present completely inhibit imports of a few items such as potatoes and avocados.

Mexican trade barriers include tariffs (up to a maximum of 20 percent, ad valorem), import licenses for some items including potatoes, peaches, nectarines and grapes, and phytosanitary restrictions. A more comprehensive license/quota system and tariffs of up to 100 percent ad valorem were in effect until recently. The unilateral moves toward a more open market have already improved access for fresh produce from the U.S. and Canada. The reduction and removal of remaining tariffs following a NAFTA is not likely to have as much long run effect on markets as will the liberalization which has already occurred. For example, apple and pear shippers from the Pacific Northwest region of the U.S. are actively pursuing the Mexican market following the recent liberalization. The types of problems they have encountered -- long shipping times to the ultimate market and unusually extended lags between shipment and receipt of payment -- are not the sort that can be eliminated at the negotiating table. However, insofar as it codifies the earlier liberalization moves, a trilateral agreement may lead to a greater willingness on the part of northern fruit distributors to invest in the establishment of market channels in Mexico.

3. Food Safety: Pesticides and Phytosanitary Regulations

a) Pesticides

Most pesticide issues stem from the existence of different sets of standards, regulations, and enforcement mechanisms arising from different production practices, different climatic conditions, and different assessments of risk. Reports of the sale in Mexico and elsewhere of

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[22] Canada's tariffs and marketing boards have similar intent and effects on the seasonality of market access for competing fresh produce imports. The limited overlap in harvest seasons between Mexico and Canada means that Canadian barriers are effectively fairly low for Mexican fresh produce exporters.

[23] Katharine C. Buckley (1990).

pesticides banned in the United States have raised many concerns. First, consumers and consumer groups suspect that produce imported to the United States from Mexico may contain residues of illegal pesticides. A less well developed government infrastructure for the monitoring and enforcing of pesticide use adds to those fears. Second, environmental groups have also raised concerns that increased exports of fresh produce to the United States will translate into increases in environmental degradation in Mexico, in part due to expanded use of both legal and illegal (by U.S. standards) pesticides. Third, others have raised the issue of inadequate protection of field workers in Mexico and fear that their welfare may be negatively affected by more frequent or intensive exposure to chemical pesticides as a consequence of enhanced export market opportunities. Finally, producers of competing products in the United States fear that their rivals' use of banned pesticides may confer a cost advantage, allowing them to undercut the domestic product on a price basis. From the exporters' perspective, excessive border inspections can inflict costly delays for produce meeting the standards, while rejected shipments are unlikely to find an acceptable alternative market before the product spoils.

On the subject of illegal pesticide use in Mexico, the U.S. Government Accounting Office (GAO) has found that most pesticides disallowed by the Environmental Protection Agency (EPA), through Agency cancellation, suspension or voluntary cancellation, are also not registered for use in Mexico.[24] A listing of the status of twenty-six pesticides cancelled or suspended by the EPA showed that only five were registered for use in Mexico. Of these, four have tolerances established by the EPA, and the fifth, DDT, is used by Mexico's health ministry to combat malaria. A similar situation prevails for a list of twenty-six voluntarily cancelled pesticides. However, the GAO report listed 35 pesticides for which the EPA has no established tolerances for the active ingredients. The problem, then, is one of potential use of chemicals actively banned for use in the United States, potential use of chemicals about which the EPA knows too little to render a decision on its safety, potential use of pesticides on crops other than those for which tolerances have been established, and the potential for pesticide residue levels in excess of established tolerances.

These and similar issues lie behind calls for harmonization of pesticide regulations as a condition of a comprehensive trade agreement in North America. To be efficient, harmonization efforts should be trilateral. Unless a reasonable degree of confidence can be established in the public regulatory bodies on both sides of the borders, suspicion will always remain that health and safety regulations are being used by the U.S. and Canada as a form of protection. In turn, U.S. and Canadian producers will continue to suspect that less stringent laws, and evasion of those that do exist, will give Mexico an unfair competitive edge. With mutually accepted testing procedures and a reasonably consistent set of standards, the emphasis can be moved away from border inspection and the possibility of using health regulations as trade barriers will decrease. In this respect, the example of the EC is instructive: the prospect of the removal of internal border posts has forced a re-evaluation of the inspection system.

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[24] Food Safety and Quality: Five Countries' Efforts to Meet U.S. Requirements on Imported Produce, United States General Accounting Office, Washington, D.C., 1990.

In the CUSTA trade pact, it was agreed in principle to harmonize these and other technical standards, with the details to be worked out through a series of bilateral technical working groups. Expansion of the appropriate groups to include Mexico appears to be more likely than does any more concrete agreement on standards. However, harmonization in this area is not easily achieved. To some extent, national regulations on pesticide usage are a function of climate, location of production, and importance of an individual crop in the agricultural economy. It is much more difficult for producers of minor or specialty crops in the U.S. to get and keep registrations for pesticides useful in their production since the resulting sales are unlikely to be sufficient to cover the high cost of registration. Thus the registration "deck" is typically stacked toward major domestic crops. Where imports are concentrated on products which are either not grown in significant quantities domestically or are grown under different conditions, the same "deck" will be stacked against foreign producers. In a trade agreement such as the proposed NAFTA, which covers a tremendous range of latitude (from well below the Tropic of Cancer to well above the Arctic Circle), the perceived pesticide needs of each participant country are apt to differ considerably, making harmonization on this issue more difficult than when climates are more nearly similar.

If pesticide harmonization took place, ignoring inspection and enforcement, the consequences for trade flows depend on a variety of empirical matters and cannot be readily predicted. Johnson and Seitzinger, in a recent paper, have demonstrated that the trade flow consequences of such harmonization between the United States and Mexico is indeterminate **a priori** for particular products.[25] The outcome is a function of initial regulations in the two countries, the slopes of the two countries' supply and demand curves, and the technical efficiency of affected versus alternative pesticides.

At the same time that it is unclear what effects harmonization of pesticide standards will have on trade flows, it is apparent from observers of the implementation of the U.S.-Canada trade agreement that the elimination of costly border inspection for agrifood products is difficult even for two countries whose domestic standards and inspection infrastructures were relatively similar at the outset. Some of the difficulties relate to the separation of authority between those who negotiate trade agreements and those who mandate and enforce food safety standards. In some cases individual states and provinces maintain stricter standards than does the national government, adding an additional layer of complexity. Clearly, pesticide harmonization is an unusually difficult task which may not be seriously tackled in the NAFTA.

b) Phytosanitary Restrictions

Pesticide regulations are not alone in their controversial nature. Phytosanitary restrictions imposed on imported produce are, in theory, necessary to protect domestic producers from the introduction of unwanted, harmful pests (insects and diseases) which have a potential to cause harm. In this role they serve a legitimate protection function. When they serve to keep out imported produce which does not pose a biological threat to the domestic industry, either through outright bans or through the imposition of prohibitive costs of eradication and documentation,

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[25] Martin A. Johnson and Ann Hillberg Seitzinger (1991).

they cross the line and become protectionist measures. At times the location of that line is a matter of opinion.

A current example of such a controversy is the United States ban on imports of Mexican avocados due to the prevalence of several pests in Mexican producing regions which are not present to any great extent in the avocado producing regions in the United States. The U.S. maintains that the restriction is justified to assure the biological viability of the domestic industry. Further, it is willing to certify particular growing areas for export shipments to the U.S. should Mexico be able to demonstrate an absence of the offending pests. Mexico, on the other hand, feels that the ban amounts to protectionism and that imports of its avocados do not represent a biological threat to the U.S. industry.[26]

The extent to which U.S. phytosanitary restrictions pose a barrier to imports of Mexican fresh produce items varies on a product and regional basis. Attempts to halt the spread of two types of fruit fly results in either precertification requirements or border quarantines for produce items coming from infested regions. The U.S. is currently reviewing a program to protect the domestic industry from a citrus canker after a review by USDA personnel.

c) Food Quality: Marketing Orders

The major food quality issues are the imposition and administration of size, maturing and grade restrictions imposed under U.S. Federal Marketing Orders. As applied to selected fruits and vegetables imported into the United States, these marketing orders can readily be classified as a trade irritant. Established under Section 8e of the Agricultural Marketing Agreement Act of 1937, as amended, the Orders provide for and institutionalize a form of producers' cartel. Not surprisingly, the program has come under fire for its possible negative consequences on consumer welfare and as a non-tariff barrier to trade.[27] One of the common routes to "orderly marketing" is the imposition of grade, maturity and size restrictions on covered produce entering the fresh market. Within the United States, marketing orders are established for production within specific geographic areas and the provisions do not apply to produce from other areas. Given the seasonal nature of fruit and vegetable production and the distinct varieties suited to different growing areas which may have some overlap in harvest seasons, there is little conflict across geographic areas within the Unied States over marketing order provisions. However, the quality (and certain other) restrictions of the various orders are imposed on imported produce during the domestic marketing seasons, with mandatory border inspections conducted by the Agricultural Marketing Service (AMS) at the exporter's expense. The AMS has pointed out that such standards do represent nontariff barriers to trade, but that the severity of the restriction varies.[28]

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[26] With the roles reversed, this is the same argument that the People's Republic of China and the United States have been having with respect to TCK smut in Pacific Northwest wheat.

[27] Thomas M. Lenard and Michael P. Mazor (1985).

[28] A Review of Federal Marketing Orders for Fruits, Vegetables, and Specialty Crops: Economic Efficiency and Welfare Implications, USDA, AMS, Agricultural Economic Report #477, Washington,m D.C., 1981, pp. 45-46.

It can be argued that application of the provisions of marketing orders to imported produce merely extends "national treatment" to foreign producers. The key issue from the producer's side is whether or not the products are differentiated in consumption by country of origin. If not, the imported produce receives a free ride on the backs of those covered by the order, taking advantage of increased consumer demand, and of stable and perhaps higher prices. Further, if imported produce is of inferior quality but is not identified as a different product by consumers, its inclusion can depress demand for the superior domestic product. If, however, the product is differentiated in consumption by country of origin, the arguments for exclusion are considerably weakened. Spillover effects of the demand enhancing effects of marketing orders will not be great and the risk of harm to domestic producers from the presence of an inferior product on the market would be limited.

Where the product itself is different in its physical attributes, it is difficult to argue convincingly that imposition of U.S. marketing order standards to imports are anything other than protectionism. Under such circumstances consumers have reduced access to different varieties of produce, foreign producers suffer restricted access to the U.S. market, and domestic producers stand to gain monopoly rents.

An aspect of certain marketing orders which has been cited as being particularly objectionable by Mexican exporters is that of standards which vary from year to year, or within the year, depending on supply and demand balances. In such cases the foreign producer is not able to gear production practices to meet a known set of criteria for seasonal shipments. The heightened uncertainty regarding export market conditions negatively affects expected returns and thus can be expected to dampen export supply to the U.S. market. Produce failing to meet the standards is turned back at the border.

Runsten has suggested that one solution to the marketing order problem for fresh fruits and vegetables in the context of a NAFTA is to mandate representation on the marketing order boards from competing producers in Mexico and Canada, as applicable.[29] Such representation would allow input into the decisions affecting the marketing of certain Mexican and Canadian produce in the United States. Some other possibilities include recognition of parallel marketing organizations in the partner countries, and allowing them to set up their own quality standards; allowing for exclusion from the provisions if the produce or its packaging is marked with country of origin; or to extend true national treatment by requiring approval by a two-thirds majority vote of producers in both (or all) countries whose products are to be covered under a marketing order in order for it to be put into effect. A more direct, if contentious, solution to this problem is to phase out these orders altogether.

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[29] Runsten, op cit.

V. FOOD PROCESSING

1. The Issues

The food processing component of the food system is usually given less attention than the farm sector in domestic and trade policy discussions, but it is too important to neglect in a NAFTA. The reasons for its importance are that it generally contributes as much to GDP as does the farm sector, it accounts for a considerable amount of employment, and its economic health affects both food consumers and producers in terms of prices paid and the competitiveness (or existence) of the local industry.

Typically, food processing in the U.S. and Canada is protected by tariffs on food products. One of the main issues in negotiating NAFTA provisions in this area is the potential of the U.S. and Canadian processing sectors to adjust to reductions in these tariffs. The fears expressed are the same as those expressed in parts of the manufacturing sector: due to lower wage rates and environmental standards, Mexican food processing firms will expand at the expense of their counterparts in the U.S. and Canada. Food firms in Canada and the U.S. will relocate to Mexico or be forced to close, resulting in the loss to existing firms of jobs and profitability. Similar fears were expressed in Canada in the debate surrounding the Canada-U.S. Trade Agreement (CUSTA), where it was predicted that Canadian jobs and production would be lost to the U.S. In some cases, the opening up of Mexican borders to food products is seen as a potentially profitable opportunity to increase exports. But many public statements in the U.S. and most in Canada argue that a NAFTA will on balance harm the domestic food processing industries in terms of production, jobs and profitability through shifts of production to Mexico, the losses of which are claimed to outweigh any gains from increased Mexican demand.

2. Economics of Reduced Border Protection of Domestic Food Processing

Many of the arguments noted above reflect the perceptions of firms that believe themselves to be threatened by a NAFTA and hence wish to maintain current protection or seek adjustment assistance from governments. How much of this is public posturing and how much is accurate is unclear, and requires detailed analyses of the specific situations.

There are, however, some general observations which can be made. The food processing sector exhibits some characteristics both of "footloose" manufacturing industries, searching for low-cost labour and less-restrictive environmental regulations, and of resource-based industries that are tied to the source of the raw material. The likely result of reduced protection depends in part on whether the particular industry is closer to the manufacturing or the resource-based industry model. The food industry in the U.S. and Canada has an interest in seeing healthy growth in its domestic agriculture, but important parts of it, particularly larger food firms, are also able to switch some operations to other countries to source raw products. Therefore, the food sector in the U.S. and Canada has the potential to benefit from any trade-related expansion in Mexican food demand, either through greater exports or through foreign investment. The

Mexican food industry itself will face some export opportunities but will also be under pressure to modernize and upgrade its facilities, presumably benefitting from capital investment from the U.S. to undertake these improvements. These trends are already evident in advance of the NAFTA, notably in the fruit and vegetable sector.

The location decision of a food processing plant depends partly on the relative costs in each location. Lower input prices in Mexico, such as for low-skilled labour, will reduce costs, but this may not be decisive for changing plant location decisions. First, it depends upon whether there are productivity or input quality differences which offset the apparent lower unit costs in Mexico. For example, labor productivity or raw material conversion rates may be sufficiently higher in the U.S. and Canada to offset any lower Mexican wage rates. Second, it depends upon whether the cost share for this input is large or small, and upon the ease with which U.S. or Canadian firms can substitute other inputs like capital for their more expensive labour, either with existing plants or with a new technology. Third, it depends upon the transportation costs of shipping the raw materials to a plant site in relation to the transport costs of shipping the final product. Fourth, there may be the prospect of expanding the scale of operations by selling into the larger North American market, reducing unit costs due to scale economies.

Plant location decisions also depend upon demand-side considerations, such as product choice and marketing strategies. One aspect of a marketing strategy is whether a firm should undertake high volume "commodity" selling or sell at lower volume and higher quality into so-called niche markets. The production of higher value-added foods, such as those with more convenience characteristics, will reduce the direct competition with Mexican products (lowering the own-price demand elasticity) and lower the cost share of labour. Differentiating one's product through higher quality (which may raise the raw material quality requirements, involve a different technology, and increase the required skill level of labour employed) and building a reputation (e.g., branding at the firm or regional level, as discussed below) also reduces direct competition and permits higher revenues. Empirical studies of fruit and vegetable processors in British Columbia suggest that the potential gains in revenues from adopting such market strategies outweigh by some margin the potential cost savings of using more efficient plants or processes.[30] In the context of NAFTA, food firms that adopt these marketing strategies will be less affected by any reduction in their border protection.

This suggests that import-competing food firms have a large number of means of adjusting to increased Mexican competition, besides closing down operations or relocating plants to Mexico. It also indicates that with such a range of possible adjustments, predicting the effects of freer trade on food firms is dependent upon case-by-case circumstances. There are also likely to be food firms that will be able to increase their exports to Mexico following relaxation of Mexican trade barriers, with the additional possible advantage of achieving lower costs in cases where scale economies exist. Clearly, public predictions of U.S. or Canadian food industry collapse due to a NAFTA are both overly pessimistic and little more than guesswork.

[30]Peter A. Lusztig (1990) and T. Hazledine and R. Pipes (1991).

3. Underlying Economic Trends in Location of the Food Industry

In anticipating the effects of a NAFTA on food processing, it is necessary to distinguish between those changes that are due to NAFTA and those that are occurring independently. A review of recent developments in the North American food processing sector reveals already many of the concerns attributed to a NAFTA. A number of the larger food industry firms have been locating particular operations in lower cost locations in various countries, including Mexico, for more than a decade. Among the larger U.S. firms, BirdsEye moved some vegetable freezing and canning operations to Mexico as early as the late 1960s, followed by Green Giant, Campbell's Soup and Hunt. In fact, these early operations are credited with beginning the growth of Mexican skills and comparative advantage in the processed vegetable industry.

Marketing strategies likewise are changing with the increased competitiveness of new imports from offshore locations, notably in the fruit and vegetable sector. Successful firms are developing distinctive, often higher quality, products to exploit smaller volume market niches and in other cases are attempting to preserve their uniqueness with brand name investments. This extends to fresh fruits, although there is debate about whether branding is profitable for vegetables. Brand names may be firm-specific and signal consistently high quality. Sunkist and Chiquita are pioneering brand names for fruit, and more recently many Washington State apple packing houses receive premium prices for their own "branded" apples. In other cases, these brands may be country-specific and based upon unique, fresh tastes, such as is the case with new apple varieties being sold by New Zealand. Firms selling unbranded or "ordinary" fruits and vegetables face increased competition from offshore suppliers and discounted prices from wholesalers and retailers who buy generic food products to sell at volume.

Finally, it should be acknowledged that tariffs are not the only factor which may affect competitiveness in food markets. The effect of a NAFTA may be of secondary importance compared to other factors. Among the other factors which have emerged as being very important in recent years are perceived levels of food safety, and increased demands for food which is nutritious. The market gains to those food products which are judged to be safer and more nutritious are likely to exceed any losses from tariff reductions. Another issue affecting competitiveness has been identified recently in the Canadian fruit and vegetable sector, and this is a non-tariff trade barrier embedded in Canada's standards and labelling legislation (the Canadian Agricultural Products (CAP) Act). This Act effectively prohibits the importation of fresh product in bulk unless imports are deemed necessary to prevent a physical shortage of domestic production, a judgement made largely by the boards or agencies selling the fresh product. At present this restriction is a major disadvantage facing fruit processors, where the added costs of supply and domestic price uncertainty may dwarf the impact of removing food product tariffs.

4. Dynamic Aspects of Trade Agreements with Mexico

In anticipating the outcomes of freer trade in food products with Mexico, the dynamics of the Mexican supply side must be considered in the context of more open trade in all goods. In the case of food processing this includes at least four topics, the available supply of raw product, the raw product supply elasticity, changes in technology, and changes in the Mexican wage rate. However, this list emphasizes the close relationship between the fresh and processed market in fruits and vegetables, and most of these four topics apply as well to the fresh market. In all four areas there are potential constraints to food product supplies from Mexico which may reduce current Mexican raw product cost advantages, or which at least suggest that there is a great deal of uncertainty facing would-be domestic and foreign investors in Mexican food processing.

First, the raw food product supply to processing is very dependent upon the Mexican fresh market supply, making the food product supplies a small and variable residual in some cases. Runsten has pointed out that for many fresh produce items exports account for a relatively small fraction of Mexico's production.[31] Even for tomatoes, by far the most important horticultural export to the U.S., only one-third of annual production is typically exported. Some notable exceptions to this general rule are a few items whose production is the result of export markets: cucumbers, broccoli, asparagus and zucchini squash. With the exception of cucumbers, even the export oriented products can be sold on the fresh market or for processing, depending on market conditions. Further, as Mexican incomes grow due to ongoing economic reform and perhaps due to NAFTA, we can anticipate increased demand for fresh fruit and vegetables. The result would be reduced raw product supplies to processing or increases in the prices of raw product supplies.

Second, the ease with which further raw fruit and vegetable supplies may be obtained (i.e., the supply elasticity) may be low in some cases due to limited land supplies, competition from other crops, insufficient irrigation water, or a lack of appropriate infrastructure. This implies that the potential market supply of Mexican processed foods may be limited in some cases.

On the fresh side, we should also expect an upward sloping short run supply curve for most fresh produce items imported from Mexico as a function of alternative destinations for the product. One implication is that we should expect that prices will not fall by the full amount of the tariffs as (and if) they are eliminated. To what extent the export supply curve for fruit and vegetables will increase (shift right) depends upon not only infrastructure, but also on the extent of trade liberalization in cereals, which could increase land supplies available for vegetables, and foreign investment.

Third, current raw product cost differences favouring Mexico may be overcome by new technical developments in yields and other input savings in the U.S. or Canada, reducing or even reversing the comparative advantage between Mexico and the U.S. or Canada. A striking example of this factor at work is given in Runsten and Archibald.[32] The frozen strawberry industry is very labour-intensive, favouring Mexico, yet agricultural research has improved yields so much in California that the U.S. industry has flourished and even increased its market share. Frozen broccoli, on the other hand, has moved significantly to Mexico. Although less labour-intensive, the technology of growing broccoli in Mexico and California is very similar and the lower labour costs in Mexico have been enough to give Mexican broccoli processors a landed

[31] Runsten, op cit.

[32] David Runsten and S.O. Archibald (1990).

cost advantage. Fourth, labour costs in Mexico can be expected to rise with their economic growth. This may erode their cost advantage unless productivity differences increase sufficiently. Then, as Mexican wages rise, those industries with a widely applicable technology are likely to move further south to lower wage countries such as those of Central and South America. This illustrates again the importance of improvements in and transferability of farm production and processing technology in determining cost advantages.

5. Implications for NAFTA

On the basis of this review of the food processing sector, particularly in fruits and vegetables, there emerge several conclusions of relevance to the NAFTA negotiations. First, overall predictions of the net effect of NAFTA on food processing are almost impossible to make, other than the rather general comment that, holding everything else constant, the more labour-intensive operations will move to Mexico to take advantage of Mexico's lower wage rates. Many factors other than labour that differ between Mexico and the U.S. or Canada have important consequences for processing plant location decisions, so that commodity or regional predictions are not possible without access to detailed data. Some operations will move to Mexico, but these cases are not easily predictable in advance. In other words, it is very difficult to determine how many food firms and processed commodities fall into the category of very mobile or "footloose" manufacturing and how many are more resource-based and dependent upon locating near particular raw material supplies. There are many adjustments possible for those Canadian and U.S. processors facing increased competition from Mexico, on both the technology and marketing fronts. Through product differentiation, improved quality and building a reputation, the marketing side appears to be a particularly effective means increasing revenue and staying competitive. Therefore, one can be advised to put little weight on most of the rhetoric coming from narrowly focused interest groups, especially the predictions of economic ruin due to a NAFTA.

The second point to make is that many of the adjustments, gains or losses, attributed to a NAFTA will occur anyway. In other words, in the context of the changes in competitiveness and technology which are already encouraging many operations to move between the U.S. and Mexico independent of any trade agreement, the net effects of a NAFTA itself on this sector are not likely to be large.

The third point which is made clear by reviewing comparative advantage of food processing is that this is very much a whole industry issue. One cannot negotiate or analyze the effects of trade policy changes at only one level, such as the farm or the processors in isolation. Farm product prices are often a major element of processor costs, hence affecting competitiveness and plant location decisions, and must be kept in mind when analyzing processor response to reduced protection. These matters are especially clear in the case of the Canadian dairy industry and the CUSTA, where farm protection was left in place, yet processor tariff protection would decline and import quotas (at least *ex post*) could not be used. In removing food product protection, processors can be made uncompetitive or pushed into relocating to a country with lower raw material prices if protection for farmers is maintained by keeping raw product prices high or by keeping non-tariff restrictions like Canada's CAP Act in place.

VI. LINKAGES BETWEEN NAFTA, CUSTA, AND THE GATT

1. Introduction

The progress towards free trade in agricultural products can best be described as glacial. The situation changes at a speed so slow that the observer may think there is no movement at all. But, as with a glacier, there is an underlying flow so inexorable that it is hard to think of the trend being soon reversed. This slow-but-sure advance towards trade liberalization in agricultural markets can be seen, with varying clarity, on several fronts. The most obvious of these is the negotiations in the GATT Uruguay Round, where only the crucial final steps remain to be taken on the road to an agreement. The elements are coming into place for a far-reaching pact which will transform the way that agricultural trade is governed in the multilateral trade system. Negotiators could snatch defeat from the jaws of victory, but there is still the possibility of a completion of the Round within the next few months.

Despite the attention it has captured, the GATT negotiation is by no means the only place where movement towards more liberal trade is being pursued. Indeed, regional and unilateral policy discussions are in some respects ahead of the multilateral talks. Regional trade negotiations, besides the talks designed to lead to a NAFTA, are also moving little by little towards the goal of agricultural markets trade less encumbered by national farm support systems. Trade agreements between the EC and the countries in Eastern Europe are forcing somewhat reluctant progress in this direction. But as significant as these intergovernmental negotiations are, some of the most important developments are the domestic (unilateral) changes now underway. Several countries in Latin America, together with some in non-EC Europe and a few in Asia, are in the process of modifying their domestic agricultural policies. In many cases this reform is making them less obtrusive to international trade.

A number of the ideas discussed in the agricultural negotiations in the GATT round are already finding their way into national policies in advance of multilateral action. Chief among these is the use of tariffs in place of the mix of non-tariff import measures previously employed. Domestic market interventions are being replaced, in an attempt to promote efficient use of agricultural resources. The need to align agricultural policies with reformed economic systems is apparently sufficiently urgent in these countries that it cannot wait until the U.S. and the EC get their agricultural ducks in line. The Uruguay Round, for these countries, will follow and underpin domestic changes, rather than force those policy adjustments upon the domestic scene.

The direction in which agricultural policy is headed is almost independent of the forum in which the policy changes are discussed. This encouraging conclusion should be tempered with the realization that the forces against change are still dominant in the richest countries; that there is a "new agenda" of related health and environmental issues that could interfere with progress in trade talks; and that such events as a crop shortage could easily derail the process of both domestic and trade reform.

2. Links with the GATT

It is clear that many items on the agenda for the NAFTA talks overlap with the GATT negotiations, while others are the subject of domestic debate unconnected with trade policy. The GATT round is the primary focus at the moment for international talks on the conduct of agricultural trade. Although it is hazardous to speculate on the outcome of the current GATT talks, or even when they might finish, it is worth reviewing the agenda for those negotiations.

a) The GATT Agenda

The Uruguay Round was launched in 1986 with the firm intention to bring agriculture more nearly into line with the manufacturing sectors in terms of trade rules and policies. This entailed for the first time negotiating on domestic agricultural support policies. Clearly the details of these policies themselves were not suitable for multilateral negotiation. The issue was how to negotiate on these policies without running headlong into the domestic political nexus that determines such programs. Two options emerged: one was to negotiate on an aggregate measure of support (AMS) as a proxy for these policies, and the other was to set out rules within the GATT that would effectively constrain domestic policy choice.

The story of the nearly five years of negotiations is one of wavering between these options on the part of the EC and the U.S. The U.S. started as the champion of the "aggregate measure" approach, with countries choosing their own path to salvation. By the end of 1988, the U.S. had backed off this AMS approach, and introduced the notion of negotiating on specific policy types, notably the conversion of non-tariff import barriers to tariffs, the banning of export subsidies, and the categorization of domestic subsidies by degrees of trade distortion. Trade rules were to be the main line of attack on domestic policies, albeit with a schedule for support reduction. The EC initially wanted negotiations to focus on ways to increase world commodity prices, but they warmed to the idea of steady reductions in support levels and became the champions of the AMS approach. The issue as to how to negotiate was still unresolved at the "final" meeting in Brussels in December 1990. Most of the four years set aside for negotiations had thus been taken up in procedural discussion. The issue was finally settled in February 1991, when the EC agreed to the approach of the U.S.

A final compromise is now in sight which would establish new rules and also reduce the protective effect of some existing policies through a scaling back of support. If an agreement is reached, import barriers will be changed to tariffs, though with some safeguards against sudden world price changes or surges in imports; export subsidies will be conrolled and scaled down, though not banned; domestic support measures will be classified as "amber" or "green" depending upon their trade-distorting nature, with a scaling back of the amber-box measures. A new accord on health and phytosanitary trade restrictions is ready for inclusion in the GATT package, which would improve the transparency of national regulations in this area and make the settlement of disputes easier. Though there still needs to be a considerable act of political will to get agreement in the next few months, the technical aspects of such a deal are in place.

The significance of such a deal for regional free-trade talks, such as the NAFTA discussions, is that it addresses the same set of issues, namely the distortive impact on trade flows of instruments designed for domestic farm price support. Within a free-trade area, as in global trade, export subsidies pose particular problems. If one bans such subsidies on intra-bloc trade, then high-cost producers will lose markets: if one allows them to stay then the importers will cry unfair competition. And if only one partner has export subsidies on trade with the outside world then trade deflection will cause that program to be more expensive. Non-tariff import barriers suffer from the same problems. If one country has a quota on imports, then it can maintain that restriction either by imposing quantitative limits on intra-bloc trade or by "globalizing" the quota. If one country has a variable levy system in place, to protect a fixed internal price, then there has to be either a similar type of conditional protection on intra-trade or face the consequences of unstable prices. If, for instance, the partner has tariff-type protection, then at times of low prices the price level on intra-trade will reflect this lower price, undercutting the domestic guarantee. If a country is running a production or marketing quota system, the existence of free intra-bloc trade again implies either negotiating an "exception" for that commodity or a introducing a bloc-wide quota system.

The currently proposed GATT solution would make life a whole lot easier for free-trade areas. Moving to tariffs as the main import barrier makes the issue of freer internal trade much more tractable. Of course there will still be losers from internal trade liberalization, but a long transition period with safeguards can always be negotiated if necessary. A global agreement to phase down export subsidies immediately takes the pressure from the need to negotiate on these matters regionally. And a series of GATT-acceptable decoupled payments in lieu of present high price supports gives a neat way to avoid the issue of different support prices within regional trade blocs. The payment of such trade-neutral subsidies could be allowed to continue on a national basis, to reflect the "divergent social economic and environmental conditions" among the members of the free-trade area. At the risk of overstating the point, the GATT formula of tariffs and decoupled payments is about the only way (short of total liberalization) to make agricultural policies consistent with the development of regional trade blocs without common policies.

b) Timing Issues

The timing of an agreement in the parallel discussions in the Uruguay Round on new rules to govern agricultural trade in the GATT is however crucial to the NAFTA talks. Many of the objectives of freer North American trade in agricultural products would have been assisted by a more speedy resolution of the GATT talks. But the U.S., Canada and Mexico have had to proceed without the certainty of a firm GATT pact. This uncertainty translates into a shifting agenda for the NAFTA talks, and changes the probabilities of the outcomes described above.

A favorable outcome to the GATT Round would doubtless provide some momentum for a more ambitious NAFTA. Under these conditions, plans for sectoral integration would appear to be more realistic. A good GATT outcome on agriculture that included a commitment for steady reductions of support levels, combined with a movement towards tariffs for import protection and the elimination of export subsidies, would make the integration of North American agricultural markets much easier. Mexico could continue to "tariffy" its import regime under the GATT agreement, avoiding the impression of being forced to do so by the U.S.; the U.S. could drop its export subsidies on farm products to Mexico, thus reducing the potential for market disruption without appearing to be acting to reduce trade. If the GATT pact included minimum access guarantees, new trade opportunities in all three countries would be opened up. Making domestic price support policies less trade distorting, through the traffic-light system, would reduce regional as well as global trade tensions. And as support levels came down over a transition period, a raft of smaller trade problems would be eased.

A weak GATT outcome could signal a more limited approach to regional problems. A "modest" NAFTA, with an emphasis on solving bilateral problems, requires little in the way of a successful GATT Round outcome or any further degree of liberalization on the domestic front. Indeed, outright failure in the GATT could cause a burst of enthusiasm for bilateral and regional trade processes, and might seem to make a more ambitious NAFTA possible. But such an outcome, even though it might give a rhetorical boost to regional ideas, will pose significant additional problems for agriculture in the NAFTA talks. In effect, all the desirable developments under discussion in Geneva would have to be translated to the NAFTA agenda. Though it might seem to be much easier to find common ground on farm trade policy improvements among the U.S., Canada and Mexico - in particular now that Mexico broadly supports the GATT position of the Cairns Group - than with the EC and Japan, it is not clear that this could easily be put into a NAFTA agreement. Objectives that look desirable at a multilateral level may lose some appeal on a regional basis. Without the promise of higher sales to Japan and the EC, the U.S. and Canada may rapidly lose enthusiasm for tariffication and export subsidy reductions in the more limited context of regional trade.

This leads to the conclusion that a successful outcome to the GATT talks is probably a prerequisite for any serious moves towards a true common market in North American agriculture. A strong GATT agreement promising real and sustained agricultural trade liberalization at a multilateral level could also be a springboard for further cooperation in policy making at a regional level.

3. Policy Changes in Other Regions

In addition to the NAFTA, the EC/EFTA and the GATT negotiations, a further set of discussions of an internal nature is reshaping domestic agricultural policies in a wide variety of countries. The process which has become known as "agricultural policy reform" is at one level more fundamental than the trade talks. In many instances, the entire role of the state in agricultural markets is being reassessed. The related policies in the area of rural incomes, farm structure and food security are also under intensive review.

Among the common themes of this review are the widespread switch to tariffs, particularily notable among the countries of Central and South America, as a replacement for both quantitative import controls and domestic market support systems. Tariffs are both more appropriate than licences for imports in a situation of private trading firms, and provide less opportunities for bureaucratic distortions to trade patterns. Coupled with regional trade agreements which include tariff reductions, this switch to tariffs limits the scope for rent-seeking activities. The fact that it is also consonent with the thrust of the GATT discussions is a bonus.

One of the first countries to liberalize in the area of foreign trade was Chile, which experimented with a liberal trade in the 1970s, retreated somewhat with the crisis in the early 1980s, and then moved back towards low tariffs in the past few years.[33] Agriculture is protected by a uniform tariff of 11 percent.[34] Bolivia tried a rapid liberalization of trade in 1985, replacing its protective policies with a uniform tariff of 20 percent. Jamaica and Mexico also changed policies in a dramatic fashion, while Colombia, Venezuela and the countries of the Central American Common Market moved more slowly. Peru was one of the few countries in the region to be left behind in this process, though both Argentina and Brazil moved more hesitantly than most. Brazil should have reduced its agricultural tariffs to an average of 20 percent within the next three years, though it retains import licenses: Argentina has recently moved to modest tariff levels, phased out its licensing system, and removed the long-standing taxes on exports.

Regional trade arrangements have done little to spur this trade liberalization in Latin America. Though regional free trade blocs have existed for some time, their force as determinants of trade policy has been limited. For most countries in Latin America, access to the U.S. market is the key to trade policy, in agriculture as in other commodities, and trade relations with the U.S. are the main "regional" focus.[35] The proposal of the Bush administration, in June 1990, for an Enterprise of the Americas Initiative (EAI), to be a framework for separate agreements on trade, investment and debt reduction, recognizes these bilateral concerns. Individual countries have been negotiating trade agreements with the U.S. under the EAI umbrella, and the first investment treaty has been signed with Argentina.[36]

Eastern European countries are also undergoing radical changes in their trade policies, as a part of their change in economic system. Under a system of central planning, tariff rates are implicit and are often very high. Moving to free trade poses significant problems, in particular in the absence of currency convertability.[37] Those countries that moved quickly to liberal trade policies have been under pressure to erect tariff barriers to prevent the elimination of entire

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[33] For an account of trade liberalization in Latin America, see John Williamson (1990).

[34] Details on agricultural protection are from Joachim Zietz and Alberto Valdes (1991).

[35] Argentina, as a major agricultural competitor with the US, has a slightly different orientation in its trade policy. The primary concern is prevention of injury from subsidized exports.

[36] Negotiations with Bolivia, Colombia, Ecuador, Chile, Honduras, and Costa Rica were concluded in 1990, and those with Venezuela, Peru, and Nicaragua are underway. Argentina, Brazil, Uruguay, and Paraquay are negotiating as a group, reflecting the newly formed MERCOSUL trade pact.

[37] McKinnon has described the problems of liberalizing trade in a previously centrally planned economy. See Ronald McKinnon (1991).

sectors of the economy before resources have had time to adjust. In agriculture this has led to the anomaly of upward adjustments in tariffs, in both Poland and Czechoslovakia, in an attempt to provide some protection to an exposed agricultural sector. In this connection, the discussions with the EC and the outcome of the GATT Round will have a major impact on whether these countries build up their agricultural sectors behind a protective wall or allow them to adjust to genuine market demand.

The movement towards more open agricultural trade seems less apparent in Asia, where several authors have pointed to a tendency for protection to rise with income levels.[38] Japan has converted several of its quantitative restrictions on farm imports to tariffs (at the insistence of the U.S.), has lowered its protection levels somewhat in recent years, and is apparently ready to cut a deal on the thorny issue of rice imports to avoid further delays in the Uruguay Round. But South Korea has taken over the role of vocal opponent to any comprehensive tariffication of agricultural import policies. Other countries such as Indonesia, Malaysia and the Philippines seem willing to follow the example set by Japan, Korea and Taiwan towards a highly protected sector for domestic food crops, producing at a huge loss when valued at world prices.[39] For Asia, the GATT Round will need to impose more liberal trade rules for agriculture on an unresponsive domestic political system.[40] The lack of any agreed regional free-trade agreement (other than the ASEAN pact) precludes at present a convincing regional road to trade liberalization. And even if such a trade body was to emerge, it is difficult to see it tackling the problems of agricultural trade in a vigorous way.

Among the industrial countries, two countries stand out as having moved most rapidly to remove trade barriers and to reduce market-distorting domestic policies. The pace was set by New Zealand, which started in 1985 to unravel all its market price support policies. Australia followed somewhat later, and the two neighbors share the distinction of the lowest rates of support among OECD countries.[41] Moreover, under the terms of the Australia-New Zealand Closer Economic Relations Trade Agreement (CER), which started in 1983, trade between these countries has been liberalised. The last remaining border restrictions on bilateral trade were removed in 1990.

One could make a case that regional trade initiatives at the very least soften some of the blow of opening up markets to global competition. Groups that argue that the world market is an

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[38] See for example Kym Anderson (1986) and also Zietz and Valdes, (op cit).

[39] A review of the agricultural policies in many of these countries is found in Anne O. Krueger, Maurice W. Schiff and Alberto Valdes (1988).

[40] The high protection in agriculture seems to contrast with the more liberal stance in non-agricultural trade taken by many of the Asian countries. For a discussion of the Asia-Pacific region and its trade policies see Centre for International Economics (1990).

[41] For a comparison of the levels of support among OECD countries see OECD, Agricultural Policies, Markets and Trade: Monitoring and Outlook, OECD, Paris, (various years). Protection for these two countries has been from 5 to 10 percent over the past three years, in contrast to average OECD levels of 40-50 percent.

unreliable provider of food and fiber imports have less credibility when the supplies come from a close neighbor and intimate trading partner. This may explain why unilateral liberalisation seems to go along with willingness to participate in regional trade blocs. Recent changes in Mexico, Canada and Sweden provide examples of domestic policy developments that have been taking place in countries that are also negotiating regional trade agreements. Each of these examples shows that the prime determinant of movement towards trade liberalization is a change in domestic policy views or priorities: how that reform is dovetailed in with bilateral and multilateral talks is a secondary issue.

4. Conclusions

High hopes have been pinned on the outcome of the Uruguay Round. The benefits of concluding the Round with an agreement which anchors domestic farm policies to enforceable trade rules are significant. But, as important, the types of rules and the policy changes that they promote can also have a profound impact. In a situation of tariffs-plus-targeted-payments, negotiation of sensible, non-trade-diverting arrangements for liberalization within blocs would be made much easier. It is clear that the economic transformation of Eastern Europe needs the basis of a predictable international trade system for agriculture. The GATT Round could provide such a framework. Developing countries are rushing headlong into strategies of deregulation, privatization and market liberalization. If the agricultural sector in these countries is not to become as distorted as in the industrial nations, these governments need the security of an open and transparent market for both imports and exports of agricultural products. Many countries are moving in the direction of less distorting policies in advance of a GATT agreement. These countries too need the backstop of new GATT rules both to prevent backsliding and to lower the political cost of their actions.

If the negotiators cannot come up with an agreement then the regional, bilateral and unilateral movements toward freer agricultural markets will be dealt a blow. How severe a setback may not be evident for some time. It is not immediately clear that the regional process can take up the slack. Agricultural trade negotiations within NAFTA, or even within a broader Americas FTA, would have few of the features of the GATT Round. The prize of better access to EC and Japanese markets would not be there. The prospect of developing a subsidy-free world market into which small exporters could sell without fear of being displaced by the subsidised exports of the larger countries would be lost. Regional trade patterns in agriculture make it unlikely that any significant amount of the present trading problems could be handled within a bloc. Nevertheless, there could be a role for regional trade policies in the area of agriculture. This depends on the willingness of countries to develop a constructive approach to sectoral integration within the regional bloc. If national policies can be adapted to allow for regional free trade, by moving away from quantitative restrictions, export subsidies and other market-disruptive instruments, then the prospect exists of a set of rules for inter-bloc trade which may be more liberal than at present.

VII. NEGOTIATIONS AND IMPLEMENTATION: LESSONS FROM THE CANADA-U.S. TRADE AGREEMENT

1. Negotiations

The recently-negotiated Canada-U.S. Trade Agreement (CUSTA) may offer some lessons for a NAFTA, both in terms of negotiation and implementation issues. Because the negotiation experience is still fresh in the minds of trade officials, it will no doubt influence the conduct of current NAFTA talks. For this reason, it is useful to review the treatment of agriculture within the U.S.-Canada pact to extract the lessons it may offer.

It was suggested earlier that agricultural trade liberalization was not a major focus of the CUSTA. At least three reasons can be advanced to explain this omission. First, as major exporters, neither Canada nor the U.S. think of the other as a large potential market for future sales. In spite of considerable trade in U.S. fruits and vegetables exported to Canada and in Canadian livestock products moving to the U.S., the main export possibilities are perceived to be elsewhere. Many import restrictions in the two countries are in place to protect against dumping or to support some domestic program of market regulation or supply control. The blatant protection of an inefficient domestic sector, as illustrated by the farm policies of Japan and the European Community, is less common in the U.S. and Canada, though the dairy and sugar sectors stand out as exceptions.

Allied to this was the fact that agricultural policy and trade issues were a major focus of the Uruguay Round of trade negotiations. At the time of the CUSTA negotiations there was still hope that the Uruguay Round would severely curb agricultural protection and impose new rules on global agricultural trade. This made the task of negotiating bilateral rules both less urgent and more complicated: it seemed obvious that such matters were best left to the GATT talks.

Another reason lay just below the surface. In Canada, many of the agricultural trade regulations are legislated and administered at the Provincial level. The federal government runs its own set of farm programs often in parallel with those of the provinces. The CUSTA was negotiated at the federal level and did not directly involve negotiation on provincial legislation: the federal government was assumed to be able to bring the provinces into line at the implementation stage. This assumption may not in all cases be warranted. Not only have provinces been able to resist the pressure from Ottawa to make changes consistent with the CUSTA, there has been evidence of some new initiatives at the provincial level to replace federal protection given up in the bilateral agreement.

The low priority accorded agriculture in CUSTA suggests that it may not be a particularly good model for NAFTA. On the other hand, many of the same issues will arise again in the NAFTA context, and thus the applicability of the solutions is of interest. CUSTA dealt with tariff reductions in agriculture in the same way as in industry, with a transition period to full elimination. This was weakened however with a snapback provision, which has been invoked by Canada on several occasions, to allow existing tariffs to be reinstated for a temporary period. Though it is possible that a snapback provision is a politically necessary concomitant to liberalization of agricultural markets, it is still not necessarily the most appropriate device for granting importer safeguards. CUSTA was on surer ground when it banned the use of export subsidies in the partner country market, together with a promise to take into account the partners interests in third markets. Unfortunately, a sizable share of the present shipments of U.S. farm goods to Mexico benefit from either direct export assistance or more often from export credit schemes which have a similar effect. It is not clear that the Mexican government would wish to give up such transfers of purchasing power. More likely to be translatable to a NAFTA is the operation of Technical Working Groups, whose task it is to look at problems of technical regulations and standards. Such groups existed before CUSTA, and indeed have been set up on a bilateral basis as a part of the evolving U.S.-Mexico sectoral talks. But a generalization of these technical groups would make it easier to come to grips with the many problems in this area.

One innovation in CUSTA that might have value in a NAFTA is the mechanism for removing import licenses on grain, as employed by the Canadian government. The novelty was to use as a trigger the level of support in the two countries. If the level of support (as calculated by a Producer Subsidy Equivalent, or PSE) is higher in the U.S. then Canada can retain its import controls. Once the U.S. PSE falls below that in Canada, as it now has for oats and wheat, then the import restriction is removed. In principle this means essentially free trade in grains across the U.S./Canada border: in practice, the Canadian Wheat Board can probably modify its own pricing system to avoid significant flows of grain into Canadian markets. The implication for trade policy of such a mechanism is significant. Normally, one would expect quantitative trade barriers to be used when that country has a higher level of protection than its trading partners. That would be the rationale for such protection, and serve to keep domestic price policies apart from the pressures of intra-bloc trade. But the PSE test in Article 705 operates in the opposite way. Import protection through quantitative restrictions is not allowed when that country has a higher level of support than the other countries. High support prices become vulnerable because they cannot have the backing of quantitative import restrictions. This technique for ensuring that domestic and trade policies are consistent could be worth exploring in the context of a NAFTA.

One complication that has arisen in the CUSTA treatment of agriculture is the apparent lack of consideration (however understandable) of how possible GATT changes would interact with CUSTA provisions. The case in point is the dairy industry, where the CUSTA introduced no direct changes at the farm level.[42] However, a possible outcome of the Uruguay Round would require Canada to tariffy the protection of raw milk implicit in its system of supply management. If this were to happen, how would the CUSTA treat such a newly-introduced tariff? Would this tariff be phased out entirely over ten years, like other tariffs existing when CUSTA was signed, or would GATT-negotiated tariff schedules be applied. This points to the issue of maintaining

[42] The agreement had an important indirect effect through its tariff reduction, given that some processed milk products, notably ice cream and yogurt, received their protection in the form of tariffs. To avoid potentially serious negative effective protection problems for Canadian processors buying higher-priced raw milk, these milk products were placed under import quotas. The recent GATT Panel brought by the US has ruled against this change in the form of protection, leaving unresolved the dilemma within Canada of unchanged higher-than-US raw milk prices and reduced milk processor protection.

consistency with possible GATT changes as well as existing articles in the negotiation of a NAFTA.

The issue that most distinguishes a NAFTA from the U.S.-Canadian bilateral agreement, and indeed from the European experience with EFTA, is the lower level of income in Mexico relative to the other participating countries. The EC has had some experience of establishing free trade between high and middle income countries, with the accession of Portugal in 1986, and the unification of Germany in 1990. However in both cases (and indeed in the case of the original membership of Portugal in EFTA) trade liberalization has been accompanied by significant transfers from the richer countries. Conventional wisdom used to caution that such trade agreements were likely to be hazardous to the health of the low-income partner -- an economy had to reach a particular level of development before it could face unbridled international competition. More recently, this proposition has been stood on its head. Industries must be competitive to contribute to development. Sheltering such industries delays the restructuring of the economy that is necessary to take advantage of global markets as both buyers and sellers. As a consequence of this change of attitude, the lower level of economic development in Mexico tends to be seen as a reason for liberalizing trade rather than an impediment to such liberalization.

2. Implementation

The implementation of any policy change, particularly in trade policy, has a major effect on the results of that policy change, such that often one cannot interpret policy provisions at their face value. Yet too often in analyses of trade policies these issues of implementation are neglected. We will discuss first some general issues of where implementation can be more difficult or incomplete, and follow this with some observations of the early implementation experience of the CUSTA.

One important implementation issue is to distinguish between control over border policies, which typically resides with the central or federal government, and control over other market policies and regulations which often reside with provincial, state, or local governments. The point is that the ability of the central government to ensure compliance with trade policies is limited by its control over commerce, and provincial or state autonomy and jurisdiction is often important enough to frustrate federal government intentions. This has two sides. In those cases where limits to trade are provincial or state-determined, extending national treatment to imports is not very meaningful. Alternatively, local government may have both the policy means and the political motive to find ways to protect local producers in the face of national trade liberalization.

A second general observation is that in those industries with a high degree of existing protection, one is more apt to find the erection of new trade barriers by industry members or government bodies, frustrating national trade liberalization measures. The political economy factors which generated the initial border protection (or moved in a trade agreement) are likely to find expression in a demand for alternative trade barriers or prompt another level of government to provide them. If the protected firm or industry had previously anticipated such changes or had sufficient political and market power, it may be the case that it already has a variety of levels of protection. These may be in the form of protective local government regulations, as discussed above, or market barriers such as control over the wholesale or retail distribution channels, or vertical integration. In such cases, trade liberalization may do little to increase market access.

Put differently, the process of implementing trade policy reform in markets where existing protection is high may be likened to peeling an onion. As you peel off the first layer of protection at the border, such as lowering a tariff, you may expect to find a new layer of protection revealed, such as a local government restriction. And on the process goes, revealing new layers of protection, perhaps not previously known until some deregulation took place. These observations have been made at length in the case of Japan, and have been striking in the recent experience of Indonesian trade reform. In the context of either CUSTA or NAFTA these matters explain some of the reasons why actual implementation may be less significant than the results initially expected of the reduced border protection in these trade agreements.

One general impression left by the CUSTA is that there is indeed many a slip between the "cup" of signing a trade agreement and the "lip" of implementation. The early results from this agreement, although incomplete at this time, provide a few added illustrations of the implementation difficulties discussed above. There are many state and provincial regulations to contend with, particularly in the fruit and vegetable sector. Marketing orders in the U.S., health and safety inspections in California, and provincial marketing boards in Canada are examples. Another example is found in efforts to harmonize technical barriers between Canada and the U.S. Although scientific questions may be showing progress in some areas, harmonization efforts have been sporadic. As an illustration of the exercise of local market power, there have been allegations about the difficulties in gaining access to U.S. wholesale (distribution) channels, as well as to retail shelf space. At least this suggests there are economies of size in gaining access to these markets.

To conclude, general experience and that of the CUSTA suggest that implementation of new trade provisions can be expected to be uneven. Institutional factors at the state or local level described above may reduce trade flows from levels that would be expected from a casual observation of the wording of the agreements or from economic models that ignore such imperfect "transmission" of liberal intentions.[43] Given this fact, NAFTA trade negotiations and policy analysts in all three countries would do well to give more attention to these institutional factors to ensure the trade agreement is more effective in liberalizing trade and to anticipate more accurately the results of any new agreement.

VIII. SUMMARY AND CONCLUSIONS

1. The Agricultural Issues in a NAFTA

In any agreement on freer trade among Mexico, Canada, and the U.S., agriculture will play a key role, while presenting serious difficulties to the negotiators. In addition to the

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[43] A clear need exists to document this relationship between real and apparent liberalization, and to understand better the process of adjustment to structural changes in the market such as that brought about by CUSTA.

traditional issue of removing trade barriers it will include attention to those domestic policies that distort trade, and larger issues such as environment, health, and safety standards, and employment. It will be affected on many fronts by the Uruguay Round of GATT negotiations. At the same time, the real effect of a NAFTA will be obscured by a variety of important ongoing matters, such as domestic policy reform, changing technologies and comparative advantage, changes in demand and market trends, macroeconomic conditions, and changing environmental policies.

The sectoral interests perceived in each country within agriculture are well-focused. In the U.S. and Canada, there are concerns expressed by the fruit and vegetable sector about Mexican competition, and more favorable expectations of new market opportunities in grains, oilseeds, and livestock. In Mexico, there are fears of losses in cereals, gains in fruits and vegetables, and a major concern with the farm labor implications of any trade policy changes. These sectoral interests will be explored in more detail below for three sectors, grains and oilseeds, fruit and vegetables, and food processing.

The major trade impediments likely to be addressed in negotiations aimed at easing access into the three markets will be the following. The main **import barriers** will be tariffs, particularly seasonal fruit and vegetable tariffs in the U.S. and Canada, import licensing arrangements in Mexico, and U.S. marketing orders, mostly affecting fresh fruits and vegetables. On **health, safety and environmental standards**, the issues are likely to be enforcement of standards, eliminating the uncertainties of border testing, according national treatment to all imports, and the recognition that different environmental and worker safety laws can exist. Finally, on limiting the negative effects on trade of **domestic price support policies**, the negotiations likely will probe the variety of technical mechanisms for ensuring this end, such as moving to tariffs and decoupling support payments, rather than attempting a more ambitious coordination of domestic policies.

2. Grains and Oilseeds

The Mexican grains and oilseeds sector will be potentially affected by a NAFTA more than that of any other agricultural sector. This is due to (a) the high levels of protection precently in place for Mexican corn and other cereals, (b) the large number of small farms which dominate Mexican cereal production, (c) the low levels of income among these farmers and within their rural areas, and (d) the significant social implications, including migration flows, which would arise from large changes in cereals policy and prices. Offsetting the difficulties accompanying cereals deregulation would be lower food prices for the urban population, opportunities for modernizing investments in infrastructure, cereals, and the livestock sectors, and an expansion of production in the latter. To complicate these predictions further, a reform of land tenure laws and the *ejido* system could induce enough increased investment and productivity to alter substantially the anticipated effects of a NAFTA.

The experience of an attempted deregulation of the Mexican sorghum market in 1989 gives an illustration of the potential difficulties in reforming trade policy in the context of other government regulations and a high cost infrastructural environment. The attempt to remove all trade restrictions on sorghum was short-lived because it became increasingly clear that farm prices and incomes would have fallen significantly in the short run without intervention, below their likely long run levels. This would have occurred due to a combination of (a) high cost or poorly developed storage facilities and transportation services, (b) the fact that, with sorghum production being very localized, livestock producers in other regions could import U.S. sorghum more cheaply, and (c) that cheap government credit was available to finance these imports. It should be expected that these potential problems will constrain Mexico's negotiating stance on cereals in NAFTA discussions.

3. Fruits and Vegetables

In this sector the primary issue is the access of Mexican produce to the U.S. market. However, underlying this specific concern with market access are the issues of environment, health, food safety, and quality restrictions. Pesticide and phytosanitary regulations provide the clearest example of the importance of health and food safety issues, while U.S. marketing order legislation illustrates the problem with quality restrictions.

The variation in pesticide regulations is a natural result of differences across countries (and sometimes provinces, states, or regions) in pesticide standards, regulations, enforcement measures and capabilities, climatic conditions, production practices, and assessments of the underlying risks involved. Bearing in mind only the differences in climate and the resulting crops grown and production practices, harmonizing pesticide regulations will be extremely difficult. Progress in these areas of technical standards has been slow in the CUSTA where country differences were much smaller to begin with. Improvements in implementing trade policy may be all that can be anticipated. These would include a move away from border inspections toward mutually accepted testing procedures, and toward a more consistent application of "national treatment." The same general comments apply to phytosanitary regulations, where again there is a thin line between legitimate protection and protectionism.

U.S. marketing orders (quality restrictions based upon size, maturity and grade) restrict access to produce entering the fresh market. Although U.S. produce from other regions is not affected by these restrictions, imported produce is. The quality standards change from year to year, and this uncertainty imposes heavy costs on Mexican exporters. Therefore, despite the appearance of following the principle of national treatment, these provisions are widely considered to be another non-tariff barrier. The easiest solution will be to allow foreign products, identified by country of origin, to gain exclusion from the orders. A more difficult but longer run solution would be to recognize the "non-tariff barrier" nature of this provision and phase it out.

4. Food Processing

This important component of the food chain in the U.S. and Canada often receives tariff protection, that, under a NAFTA, is likely to be lost. Hence, the fears expressed are like those heard from parts of the manufacturing sector: due to lower wage rates and environmental standards, Mexican food firms will expand at the expense of their competitors in Canada and the U.S.

Such claims may reflect more public posturing than accurate predictions for a variety of reasons. First, those food firms losing protections have a range of strategies available to respond to competitive challenges, such as reducing units costs through changed production practices, technologies or the mix of labour and capital. Possibly more important, they can make marketing changes such as moving to food products where they have a greater advantage or investing in a high quality reputation through brand names or labels. Second, many of these same pressures are already being felt, resulting in ongoing trends to increase productivity, relocate production facilities or change marketing strategies. In other words, many of the challenges attributed to a NAFTA are occurring or will occur anyway. Third, the prospect of large increased supplies of farm products in Mexico at current prices may not be likely. There will be increased demands for fresh products within Mexico. Further, increased production to satisfy greater demands by processors may be more costly due to competition for land, irrigation water, and infrastructure. The effect and importance of each of these factors is difficult to predict in advance. Hence one can be advised to put little weight on most of the predictions of economic ruin due to a NAFTA heard in the U.S. or Canada.

5. Linkages between NAFTA, the GATT, and CUSTA

With domestic policies being reformed in many countries and the negotiation of both the current GATT round and a variety of regional trade pacts, there are many simultaneous efforts to place fewer restrictions on international trade. Many of the same issues are being addressed, particularly the distorting impact on trade flows of policy instruments designed for domestic farm price support. This is the case in recent Latin American initiatives, and among the countries of Easter Europe moving from centrally planned to market economies. In many cases, tariffs are replacing quantitative restrictions, and there is some reduction in the dispersion and levels of tariff rates.

The importance of the GATT on these related fronts cannot be understated. In some ways a GATT agreement is complementary to regional trade agreements, in that many of the regional problems will be reduced if a GATT accord deals with them. But in many ways, the regional agreements cannot replace a new GATT accord, notably in removing the major distortions which are now imposed on a variety of world markets.

The Canada-U.S. Trade Agreement is relevant to a NAFTA because it now offers three years of experience in terms of both design and implementation of a regional accord. Although it may be less relevant in that a low priority was given to agriculture, a number of common issues remain: snapback tariff provisions, the banning of export subsidies on each other among partners, the experience of Technical Working Groups, the innovative use of levels of support in the two countries as a trigger for removing import licenses, and the importance of maintaining consistency with existing GATT articles and with possible GATT changes. In terms of implementation, it is instructive that the results have been very uneven. One problem is that federal governments negotiated the agreement, yet provinces or states have significant control on day-to-day commerce. Another problem is that new forms of protection are likely to emerge in those industries with a high degree of existing protection. The lesson, of broader relevance than for a

NAFTA, is that the actual implementation of trade liberalizing measures may well yield results of less open trade than initially expected.

6. Overall Conclusions

Four general conclusions arise from this review. First, although the effect on North American agriculture overall will be limited, there will be important local effects. For example, the Mexican grains and oilseeds sector and, to a lesser extent, the U.S. fruit and vegetable sector, are those most affected. The effects of such an agreement will be much greater on Mexican agriculture than on agriculture in Canada and the U.S. The long run effects of such an agreement may be more significant due to gradual improvements in comparative advantage, and the greater income and spending growth in Mexico. None of the substantial dislocations in agriculture in the U.S. and Canada predicted from time to time are likely to arise from a NAFTA.

Second, ongoing changes and developments in world markets, technologies of production, macroeconomic environments, and trade and domestic policy reforms elsewhere are likely to be more significant to North American agriculture than a NAFTA.

Third, there are many contentious and difficult areas where an agreement should be expected to be modest. These areas include environmental standards, health and safety standards, and dispute settlement mechanisms.

Finally, the Uruguay Round of the GATT is very important for determining the scope and extent of a NAFTA in the area of agriculture. With no GATT agreement, major policy distortions of world markets cannot be addressed, and the promise of greater sales to Japan and the E.C. may reduce the enthusiasm for export subsidy reductions and tariffication.

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