

ECONOMIC PERSPECTIVES ON COMPETITIVENESS UNDER WTO, NAFTA, AND FTAA

*Thomas L. Sporleder
and
Larry J. Martin*

INTRODUCTION AND PURPOSE

Agricultural policy has been especially dynamic in most developed countries for the past several years. The rapid changes in policy within and among countries leads to uncertainty among decision-makers and encourages structural adjustment in response to the policy changes. The evolving policies also may have direct implications for the competitiveness and sustainability of certain types of agricultural production within specific countries. This climate of lessened restraints on trade provides an impetus toward globalization of the food system as never before.

In May 1998 officials from countries around the globe traveled to Geneva to celebrate the fiftieth anniversary of the founding of the world trading body known until recently as the General Agreement of Tariffs and Trade (GATT), now called the World Trade Organization (WTO). It is appropriate therefore that this manuscript broadly focus on the substantive economic changes that the Canadian-United States Trade Agreement (CUSTA), GATT/WTO, and the North American Free Trade Agreement (NAFTA) have encouraged, especially within and among Canada, the United States, and Mexico. In addition, some potential implications from the newer Free Trade of the Americas (FTAA) effort will be examined. These policies will be examined broadly regarding their influence on trade and competitiveness.

Trade in North America is considerable. United States total trade reached \$1.98 trillion in 1997, up from \$1.81 trillion in 1996. For 1997 exports were \$933 billion, and imports were \$1.05 trillion; both of these were all-time records. Major trading partners for the United States include Canada, Japan, Mexico, China, and Germany (U.S. Department of Commerce, 1996 and 1997). Canada was the largest supplier of U.S. imports, \$168 billion for 1997, and exceeded Japan, which imported \$121 billion for 1997. Other large importers into the United States included Mexico at \$86 billion and China at \$63 billion, both in 1997 (U.S. Department of Commerce).

The leading markets for U.S. exports in 1997 were Canada at \$151 billion, Japan at \$66 billion, Mexico at \$71 billion and the United Kingdom at \$36 billion. The structure of this trade is worth noting. U.S. goods exports were comprised of 84 percent manufactured goods, 10 percent agricultural commodities, and 6 percent primarily crude materials and mineral fuels for 1996 (U.S. Department of Commerce, 1996 and 1997). It is apparent that trade provides an economic tie among Canada, the United States, and Mexico. This trade, in both agricultural and manufactured goods, is important to each country in terms of the standard-of-living and the jobs and related economic activity that it creates.

There are numerous meanings for the term “competitiveness.” The former Office of Technology Assessment (1991) has defined competitiveness as “... the degree to which a nation can, under free and fair market conditions, produce goods and services that meet the test of international markets while simultaneously maintaining or expanding the real incomes of its citizens” (OTA, 1991). This definition will be adopted here and used as one of several criteria for judging the influence of the policies examined.

MOVEMENT TOWARD FREER TRADE IN THE WESTERN HEMISPHERE

Factors Influencing Trade

Some key economic factors have developed in the past decade which serve to influence both the amount and structure of trade within the food system. Among these factors are technological progress, globalization of the food trade, and rather rapid evolution of strategic partnering and vertical integration within certain commodity subsectors.

Technological progress, especially in information technology, is widely regarded as a leading factor promoting the unification of the world. Information technology is responsible for everything from instantaneous news from all parts of the world to detailed information on grocery store product movement in timely fashion through the use of universal product codes and front-end product scanning. Technological progress in packaging also has spawned an era of aseptic packaging and similar innovations that result in extended-life or “shelf-stable” products at ambient temperatures. This type of technological progress enhances geographic independence relative to location of processing because products can be shipped longer distances more efficiently than ever before.

It is apparent that there are economic incentives for transnational vertical integration by businesses which possess proprietary rights to commercial biotechnological products or processes. Rights to commercial biotechnology products or processes are held to be firm-specific intangible assets which may provide incentives for foreign direct investment (FDI) by the firms holding such rights (Sporleder and Henderson, 1993). The transnational character of intellectual property as an intangible asset is important in enhancing globalization of the food system. All else equal, licensing and other vertical coordination arrangements such as contracting and joint ventures is encouraged when firms possess substantial intangible assets.

Globalization of the food trade has resulted from international diversification of food processors, and to a lesser extent food retailers, in developed countries. International and product diversification play key roles in the strategic behavior of large firms (Hitt, Hoskisson, and Kim, 1997). International diversification is defined as expansion into markets across regions or countries. Thus, a firm’s international diversification is reflected by the number of different markets in which it operates. Food processors, in particular, have become increasingly multinational (Handy and Henderson, 1996). Multinational firms exploit opportunities to integrate across political boundaries by standardizing products and achieving economies of size through coordinating critical resource functions such as R&D (Kobrin, 1991).

Competition among rival firms within the same industry may provide an incentive for managers to consider entering into cooperative relationships with vertically-allied firms. The drive for coordinative and cooperative relationships among vertically-allied firms may be motivated partly by searching for exploitable first-mover advantages over rivals with regard to resource supplies or core competencies. A recently emerging form of corporate partnering is referred to as *strategic alliances* (Sporleder, 1994). Strategic partnering has evolved rapidly, partly as an effort by firms to effectively and efficiently gain multinational status. Motivation within marketing channels to vertically coordinate production stages include efficiency and provision of more homogeneous quality.

Policies and Trade Agreements

The advent of the North American Free Trade Agreement (NAFTA) fortified Western Hemisphere (WH) free trade by reducing or eliminating trade barriers. In December 1994, WH countries met in Miami to begin negotiations to establish a “Free Trade Area of the Americas” (FTAA) by the year 2005. These negotiations closely followed the passage of the North American Free Trade Agreement (NAFTA) and the ratification of the Uruguay Round under the General Agreement on Tariffs and Trade (GATT) by 125 member nations. While the GATT is a world agreement that reduces trade barriers, the NAFTA is a free trade agreement that seeks to remove barriers to trade among the United States, Mexico, and Canada over a 15-year time frame.

Thirty-two WH countries participated in the Summit of the Americas. A theme of the Summit was economic integration to provide more open markets and freer movement of investment capital across national boundaries within the WH. A WH Free Trade Agreement would expand the NAFTA to include countries in Latin America, the Caribbean, and South America. Several trading blocs have already emerged within the WH.

Agreements among WH countries already established include: the Latin American Integration Association (ALADI); Central American Common Market (Bolivia, Columbia, Ecuador, Peru, Venezuela); Caribbean Community and Common Market (CARICOM); Group of Three (Colombia, Mexico, Venezuela); and Southern Cone Common Market (MERCOSUR - Argentina, Brazil, Paraguay, and Uruguay). In mid-1995, Chile was negotiating for inclusion into NAFTA. However, incorporating established trading blocs into NAFTA is considered simpler than adding some 35 independent countries individually.

Potential Influence of Economic Integration

Some recent research on the economic implications of free trade agreements (FTAs) in the WH has been conducted that employs the economic modeling of market integration. Several studies have analyzed the economic and specific agricultural impacts of the NAFTA, typically with reference to a base case without the NAFTA and an alternative scenario which incorporates total trade liberalization. In a recent study, Tweeten lists the advantages and disadvantages of regionalism, defined as the “... formation of political groupings or ‘blocs’ of countries for the purpose of promoting intra-regional trade” (Tweeten, p. 810). The research provides an assessment of the impact on U.S. agriculture of a Western Hemisphere free trade agreement.

Among the advantages of regionalism are the benefits from trade of specialization and economies of size.

Another study of the impact of the NAFTA assesses the FTA's effects on farm wages and employment and land markets in the United States (Claassen and Gardner, 1994). In reference to a study which surveyed the literature on the labor impacts of the NAFTA, the authors indicate that factor market linkages, especially labor flows, represent a more extensive economic linkage between the two economies than does trade in goods (Claassen and Gardner, p. 63).

The significance of comprehending the effects of FTA's on labor markets lies in the fact that changes in factor mobility, in terms of labor migration, have a greater effect on factor returns (wage rates) than do changes in commodity trade (Hinojosa-Ojeda and Robinson, 1992; Burfisher, Robinson, and Thierfelder, 1995). Most CGE studies assume that labor is fully mobile among countries being analyzed, however, Claassen and Gardner use a partial equilibrium approach and assume that labor is not necessarily mobile among sectors. As a result, they found that the degree of labor mobility affects wage rate adjustments differently in different sectors.

Medich and Sporleder (1996) conducted research to analyze the long-term economic consequences of market integration on agricultural trade and production in the Western Hemisphere. Economic market integration refers to trade liberalization through regional integration of countries into trading blocs, resulting in a homogenization of factor inputs available for production in the integrated geographic area.

Their research employs a computable general equilibrium (CGE) model to analyze the effects of market integration in the Western Hemisphere. CGE models provide an economy-wide framework for quantitative analysis of international trade issues. Global Trade Analysis Project (GTAP), operationalized by Thomas Hertel and others at Purdue University, is used because it allows for simulations of trade liberalization scenarios and provides post-simulation information on the state of the economy after the specified shock has worked its way through the economy.

The modeling of the economic effects of FTAs can be classified into CGE models or partial equilibrium models (PEM). Only CGE models can determine changes in economy-wide resource allocation, such as wages, employment, and migration (Hueth, O'Mara and Just, 1994). Following Burfisher (p. 5), a CGE model is defined as a type of applied, economy-wide model that simulates the behavior of a market economy. Within the model, sectors are linked in terms of factors of production and their use as intermediate inputs in each others' final production. The CGE approach allows the analysis to be based on macroeconomic equilibrium for the economy, including the fiscal deficit, savings and investment, balance of trade, exchange rates, and international terms of trade. Data contains sectoral aggregations on intermediate and primary factor demand, trade and prices, and household and government revenue and expenditure.

Results of the GTAP analysis suggest that from a U.S. perspective, the sectors that will gain exports include beverages and tobacco while imports within this sector remain virtually unchanged. For processed foods, grain, and livestock sectors, the analysis suggests that imports to the United States will increase while exports decline. For Mexico, exports of grains and livestock increase dramatically while imports within these sectors remain stable. The processed

foods sector within Mexico is stable with changes in imports and exports nearly balanced on a value basis.

The analysis also suggests a substantial return on capital invested in WH countries after economic integration occurs. Return on capital after integration is dramatically improved in each WH country. The United States, Latin America, and Mexico in particular experience inflows of capital as a result of economic integration. Each country enjoys about the same influx of investment capital while Argentina and Brazil lag significantly.

The influence of market integration runs counter to the popular notion that American jobs and the flow of capital would move south of the U.S. borders as a result of the NAFTA. Mexico and the rest of Latin America benefit from trade liberalization, but the United States also enjoys an increase in its rate of return on capital and a corresponding increase in its capital stock.

General Aggregate Influence of NAFTA

The influence of NAFTA on trade is debated widely. Opponents of NAFTA argue that expansion of freer trade to developing countries, such as Mexico, because the U.S. will lose jobs through imports from countries with wages only a fraction of the level in the U.S. Others argue that NAFTA is a boon and actually increases U.S. employment though increased trade and investment opportunities.

An important empirical issue is the changes in trade patterns caused by lessening trade barriers, which is the primary mechanism through which number of jobs and living standards are influenced. Now that NAFTA has been in effect for over three years, recent empirical evidence is available from an interesting analysis by Gould (1998). He uses a gravity model to analyze aggregate bilateral trade flows and to control for factors influencing trade among Canada, the United States, and Mexico (Bergstrand, 1985).

The gravity model describes trade flows between countries as a function of their incomes, populations, the physical distance between them, and trade barriers. Part of the intuitive appeal of the gravity model is that, all else equal, trade is likely to increase the closer countries are and the lower the trade barriers between them. Among its shortcomings is that it does not account for induced changes in sectoral capital investment as a result of policy shocks.

The analysis indicates that the rate of growth in U.S. exports to Mexico, for the three-year period 1994-96, exceeds the rate of growth without NAFTA. On average, U.S. export growth to Mexico is about 16 percent greater annually with NAFTA, or about \$21.3 billion for the period. Likewise, the analysis indicates about a 16 percent influence on imports into the United States from Mexico as a result of NAFTA, or about \$20.5 billion over the period of analysis. However, the increase estimated for imports is not statistically significant, while the increase in exports is statistically significant. Similar calculations for exports and imports between the United States and Canada indicate no statistically significant influence on aggregate trade flows with NAFTA compared to what would have been expected without NAFTA.

The Gould (1998) analysis indicates that after controlling for the effects of income, exchange rates, and prices on trade flows, NAFTA has a significant positive influence on trade flows between the United States and Mexico but not the United States and Canada. The conclusion relative to the United States and Canada is without trepidation since CUSTA was inked five years earlier and it would be surprising to conclude that NAFTA had a separate identifiable influence from CUSTA on aggregate trade.

EVOLUTION OF TRADE ISSUES SPECIFICALLY RELATED TO AGRI-FOOD INDUSTRIES

GATT/WTO and their regional counterparts have evolved, starting with the original GATT agreement in 1947. Fundamentally, the original GATT charter establishes the principles that free trade is preferred to restricted trade, that tariff barriers are preferable to non-tariff barriers, and that export subsidies are not legal. But through a series of exemptions, agriculture was not subject to these requirements. These included (but are not limited to): Article XI2c1, under which Canada imposed import quotas for its supply managed commodities; the U.S. waivers, under which it imposed quotas for dairy, sugar, peanuts and cotton; the European Union's (EU) variable import levy program; and a range of import licenses, used by Canada to restrict imports of wheat, oats and barley.

The Uruguay Round was significant because it brought an end to most of these exceptions. The essential elements of the changes that evolved from the Uruguay Round and in CUSTA and NAFTA are indicated below.

From the agri-food perspective, several issues specifically about agriculture are addressed in each of the agreements: market access; export subsidies; domestic subsidies; and technical regulation. General issues important to agriculture include: dispute settlement (countervail and anti-dumping); rules of origin; and intellectual property protection. As a backdrop to the analysis of recent bilateral trade, a brief description of how CUSTA, NAFTA and WTO evolved is provided.

Market Access

Prior rounds of GATT established Most Favored Nation (MFN) tariff levels for products whose markets were not protected by non-tariff barriers. In the agri-food sector, many of these were substantial, regularly into the 25 - 30 percent range for many processed food products. Under CUSTA, Canada and the United States pledged to reduce these to zero over a five or (usually) ten-year phase-in period.

The two countries could not agree on ways to remove quantitative restrictions on Waiver and XI2c1 commodities. Canada also agreed to remove import licenses for wheat, oats and barley for U.S. exporters when U.S. domestic subsidies to growers were equated with Canadian subsidies. This has now been accomplished.

In NAFTA, which was supposed to be completed after the Uruguay Round, these tariff reductions were extended to Mexico and vice versa. Mexico and the United States were also able

to agree to a 15-year phase-in of access for Mexico to U.S. sugar, cotton and dairy markets and for the U.S. to Mexico's corn and bean markets. Canada gave no additional access for either country to its dairy and poultry markets and, in turn, got no additional access.

WTO made a substantial breakthrough by committing members to remove quantitative restrictions and replace them with tariff equivalents. These were in the 175 to 350 percent range for Canada's protected commodities, and 75 to 150 percent range for U.S. products. The exception is fluid milk, which remains protected by non-tariff barriers. In addition, minimum access was provided, through Tariff Rate Quotas (TRQs), equal to at least 3 percent of domestic production, increasing to 5 percent over a six-year phase-in period. In-quota imports face a MFN tariff rate (or CUSTA/NAFTA rate, whichever is lower). All agri-food tariffs are to be reduced for member nations by an average of 36 percent and a minimum of 15 percent.

Other than the special cases, this means that Canada, Mexico and the U.S. by mid-1998 have preferential (below MFN tariffs) access over other members of WTO to each others' markets.¹

Export Subsidies

In CUSTA the parties agreed not to use export subsidies against each other and in third party markets, they agreed not to use them when the third party market was identified as one that the other normally services. They also agreed to work together in the multilateral negotiations to reduce export subsidies. NAFTA essentially parroted CUSTA on this issue. The WTO established quantitative limits for export subsidies. Parties agreed to reduce them by 36 percent in overall expenditure and at least 21 percent for any individual commodity from a base actual expenditure in 1986-89. There is a six-year phase-in period, and the parties could begin from the higher of their actual expenditure in 1992 or the base period. The latter was added to accommodate the United States and EU, whose Export Enhancement Program (EEP) and export restitution programs had substantially higher expenditures in 1992 than in the base period.

The program of substance that this affected in Canada was the Western Grain Transportation Act, which removed all transportation subsidies in August 1995. Mexico, in particular, has made very substantial changes in its border policies, partly due to its commitments under NAFTA and WTO. Also, in part, Mexico changed due to domestic, unilateral reform through lower tariffs, removal of import licenses, and dismantling most of its state trading organizations.

Domestic Subsidies

Domestic subsidies are an issue because of the possibility that they confer an unfair advantage in international trade by providing government support for production. The factor that distinguishes them from export subsidies is that the latter are tied to exports instead of

¹ Export subsidies are in Rude, von Massow and Martin (1992). Readers are referred to this for a more complete description of the GATT component.

production. In this regard, they are also related to the issue of dispute settlement because they are the basis for countervailing duty cases.

In CUSTA, there are words to the effect that the parties desired to reduce subsidies. However, they agreed to reduce subsidies by working together, in the multilateral negotiations, toward reducing them in all countries. NAFTA contains essentially this same language.

Substantially greater progress was made in the WTO, which made a distinction between domestic policy instruments regarded as *green* and those regarded as *amber*. Green instruments are those that governments can use without limit. In general, they include infrastructural investment and income support programs that are generally available, and that trigger support at low levels of market results. Amber programs are those that trigger direct price or income support for individual or small groups of commodities. While they were not made illegal under the WTO (they are amber, not red), parties agreed to reduce them by 25 percent from a late 1980s base period and they remain subject to countervail actions.

This component, along with fiscal policy considerations, has made a very substantial difference to Canadian agricultural policy because, in addition to ending the Western Grain Transportation subsidy, it meant the total reconstruction of farm support programs. Gone are the Western Grain Stabilization program, the Tri-Partite livestock stabilization program, Feed Freight Assistance, GRIP (Gross Revenue Insurance Program), the Canadian Dairy production subsidy, and others. What remains is a set of fairly low-level farm income support programs that do not appear to distort market signals.

The policy adjustment in the United States has been less substantial because the major income support programs for feed grains, oilseeds and wheat were excluded from the amber category on the grounds that they include withdrawal of resources from production. Thus their adjustments, such as removal of target prices for feed grains and wheat, result much more from domestic fiscal considerations than from WTO commitments. Similarly, high tariffs for dairy, sugar and other waiver commodities mean little change in domestic programs for these products, at least until the 15-year phase-in of access for Mexico begins to have significant effects.

Most of Mexico's policy changes occurred in conjunction with the market access provisions of the agreements, but in this area a major change in social policy was made by amending the constitution to reduce the protection of *ejidos*, traditional farmers who produce mainly corn and edible beans.

Technical Regulations

CUSTA identified a number of areas of technical regulation for which joint working parties were established that were to investigate the possibility of harmonizing regulations. For the most part, it appears that the emphasis to date has been on investigating. The WTO and NAFTA adopted the Montreal Accord which established a series of important principles for sanitary (meat and animal) and phytosanitary (plant) regulations. The authors' interpretation of these principles is that:

- Technical regulations are not to be used as non-tariff barriers;
- The principle of equivalence is established—if two countries' standards are worded differently, but have the same effect, then they are regarded as equivalent and cannot be used to stop entry;
- In situations of dispute, science will be used to determine equivalence; and
- This will be done in the context of a NAFTA or WTO dispute panel, whose decisions are binding.

It is important to underline that this applies only to the two aforementioned areas of technical regulation. But the principles are all extremely important as precedents.

Dispute Settlement

Dispute settlement procedures have long been an issue of dispute (van Duran and Martin; Martin, Amanor-Boadu and Stirling). The legal and economic basis for leveling punitive tariffs to offset the effects of dumping or government subsidies by exporters had long been part of the *GATT Subsidies and Anti-Dumping Codes*. However, GATT's dispute settlement process was soft because appeal decisions by GATT panels were not binding. At the same time, most countries developed their own dispute settlement procedures, based on domestic legislation as well as on the GATT codes. In most cases, these settlement procedures included both the original decision process and the attendant appeal process. A strong perception prevailed among many countries that procedures of some nations were thinly veiled instruments of protection. CUSTA and NAFTA left the basic procedures the same as they were, but replaced the appeal mechanism with bi- or tri-national panels. These panels have altered the outcomes of several important cases to date, and their decisions are slowly becoming part of the body of precedents for original decisions.

WTO now provides both a dispute settlement mechanism and an appeal process when there is a dispute between member nations. For the first time, WTO decisions are binding and, as indicated above, their jurisdiction has been extended into new areas such as technical regulation.

Clearly, the evolution of international trade agreements has been accompanied by a major change in not only border measures, but also the domestic policies of the NAFTA countries, especially Canada and Mexico. In some cases the changes in domestic policy were a result of trade agreements, in others they resulted from fiscal or other internal considerations. In the next section the effects of these policy changes on competitiveness among countries is analyzed.

Competition Policy Affecting Agriculture and Food Sectors

Competition policy within countries may have an influence on long-term trade flows among countries. With regard to competition policy, it may be that the influence in the longer-term is not just the policy per se but how vigorously it is enforced by the federal government within a country.

United States Competition policies for purposes here are considered broadly defined and therefore include both policies directly dealing with competition, such as antitrust laws, as well

as policies only indirectly related to competition, such as laws to redress problems of information asymmetry at the producer-first handler level. The category represents a group of “indirect” policies which ultimately has the legislative intent to promote competition by influencing the balance of economic power at the producer-first handler level. Competition policies are defined here to include the following policy subcategories:

- antitrust,
- trade practice regulation, and
- public price reporting and market information.

For the United States, the set of antitrust policies which bears directly on economic power begins with the Sherman Antitrust Act of 1890 and continues through the 1970s with additional interpretations of Capper-Volstead from a rather complex set of case law (Levi and Sporleder, 1978). Recognition of the lack of market power for farmers was acknowledged in the Clayton Act of 1914 and ultimately lead to passage of the Capper-Volstead Act in 1922. This Act is the cornerstone of contemporary antitrust policy regarding producer-first handler economic power. The economic logic of Capper-Volstead, in an antitrust sense, is to allow producers to form organizations with countervailing power because bilateral oligopoly is more desirable from society’s standpoint than oligopsony.

Without Capper-Volstead, groups of farmers in joint marketing organizations such as milk cooperatives could have been held to be an illegal contract or combination in restraint of trade, in violation of either the Sherman Act or statutes in several states. Antitrust legislation recognizes that farmers can face monopsony power by first handlers, and implicitly recognizes that this may be especially acute in the case of perishable products.

The legislation influencing the nature of trade practices and public market information legislation are two other significant sets of policies aimed at the balance of economic power. The set of trade practice policies include, but are not limited to, unfair trade regulation, prompt- and full-pay provisions, truth-in-trading requirements, and discriminatory practice regulation (Knutson, Geyer, and Helmuth, 1983, p. 240). Legislation includes the Packers and Stockyards Act, the Commodities Futures Trading Commission Act, the Perishable Agricultural Commodities Act, the Agricultural Fair Practices Act, and the United States Warehouse Act, among others.

From an economic standpoint, both market information and trade practice regulation are policies intended, among other things, to redress information asymmetry stemming from oligopsonistic or spatially-monopsonistic structures at the producer-first handler level. The notion is that collection of unbiased and statistically-accurate market information promotes competition in the long-run. In general, public price reporting is justified on grounds of promoting competition, efficiency, and fairness as well as providing the federal government with information it needs for monitoring and regulatory purposes (Henderson, Schrader, and Rhodes, 1983, p. 22).

The subcategory of market information is interpreted broadly here and means any policies that improve market information to either producers or consumers. Accordingly, policies

such as food labeling regulations and grades and standards facilitate efficiency and pricing accuracy and encourage competition throughout the food production and marketing system.

In summary, from a U.S. perspective relative to antitrust, much of the antitrust complaint has been based on legal actions of one rival firm against another. In the 1960s and 1970s much of the antitrust complaint activity was initiated by the federal government and thus was government versus firm. For whatever reason, the federal government complaint activity has diminished over the past several decades except for a few highly visible cases (e.g. American Telephone & Telegraph).

Canada Canada continues to have a fairly strong competition policy compared to many other developed countries. In an extensive recent review of competition policy in Canada, Robertson, et al, analyzed 197 interventions made by the Bureau of Competition relative to all industries in Canada (Robertson, et al, 1997). These were all the interventions between 1975 and 1995. Of these 197 interventions, only 13 were related to agriculture or value-added downstream firms (about 6 percent). Thus, even though the legal base is solid in Canada, the recent record of antitrust restraint from the federal government has been minimal relative to the agri-food sector of the economy.

FTAA The purpose of freer trade within the Western Hemisphere is embodied in the FTAA. Part of the agenda of initial meetings among FTAA country officials has been the following: 1) to better understand the objectives and operation of competition policies, 2) compile an inventory of domestic laws and regulations that deal with anti-competitive conduct, 3) identify mechanisms for cooperation in the WH aimed at assuring effective implementation of competition policies, 4) exchange views on the application and operation of competition policy regimes in the countries of the Hemisphere and their relationship to trade in a free trade area, and 5) to make specific recommendations on how to proceed in the construction of the FTAA regarding competition policy.

The FTAA is composed of all countries in the WH except Cuba. The purpose is to eliminate or lessen trade barriers within the region. Since the initial meeting of the Summit of the Americas in December 1994 the members have been meeting regularly. A target is to complete trade negotiations for the agreement by 2005.

There are three key components to the FTAA: 1) the Trade Ministers of the WH responsible for development of the overall plan for the FTAA, 2) the twelve FTAA Working Groups established by the Trade Ministers responsible for gathering and analyzing information on the current status of trade, and 3) the Vice Ministers of Trade of the WH responsible for coordinating activities of the Working Groups and eventually to make recommendations to the Trade ministers. The Working Groups are centered around these topics: market access, harmonization of customs procedures, investment, standards and technical barriers to trade, sanitary and phytosanitary measures, countervailing duties, intellectual property rights, and competition policy.

The promise of economic integration within the WH is substantial. However, progress inevitably will not be as rapid as the ambitious target dates established. Clearly, the objective

long term is to minimize national boundaries within the WH for purposes of trade and commerce. It is a direction that the United States and most other developed countries in the world applaud.

THE IMPORTANCE OF AGRICULTURAL TRADE AND AGRICULTURAL AGREEMENTS

The era of liberalized trade through international agreements clearly means that at the end of the 1990s the policy environment is very different than at the end of the 1980s. Especially in the case of Canada and Mexico, these changes go well beyond border measures. In Canada's case, a country of 30 million people spread across 5,000 miles suddenly gained access to, first, 250 million Americans and then 85 million Mexicans. This occurred at the same time that domestic protection was declining in Canada and a large number of market distorting public programs were being dismantled. Essentially, for both agri-food industries, the entire set of economic incentives was altered. Three examples of these exchanges are addressed briefly below.

Canadian Case Examples of Induced Technological and Structural Adjustment

A freer trade environment in Canada increased and changed the location of effective demand for agricultural commodities—especially wine and tomato products. Some adjustments were made for “demand-pull” reasons. However, the insulated conditions in which these industries were operating, with rents provided through protection or subsidy, changed markedly. Producers at both the farm and processing levels saw the incentive system change and, therefore, adopted technology to enhance their competitiveness. Three case examples are of relevance to the analysis.

Wine A highly protected environment allowed producers to make poor quality wine, disallowed consumers from having open access to high quality wine, and produced a government program that continuously subsidized production of plonk grapes. Freeing it after losing a trade dispute came at the same time as a few in the industry were doing some R&D to try to adapt *vinifera* grapes to Canadian growing conditions. It worked. A quality program was instituted. A highly effective promotion program was developed. The plonk wine industry has basically been eradicated. Canada now exports to a large number of countries. There is a continuous new investment in wineries and wine making. The industry's biggest problem is to get enough production to meet the demand. Technology changed as a result of policy change.

Tomatoes for Processing The tomato processing industry in particular, and vegetable processing in general, was characterized by low-technology, inefficient plants and substantial organizational slack. In 1988, the average yield in Ontario for tomatoes for processing was 18 tons/acre, while in California it was 32 tons/acre. After CUSTA, firms invested over \$100 million in new flumes, others closed, and all went through process re-engineering. The pricing mechanism changed to encourage, through substantial price discounts, higher farm yields. Farm yields were largely in control of the processors because they selected the varieties and production practices for their contract growers. When the incentives changed, so did their use of technology through plant breeding research that quickly found varieties far better for Ontario conditions than

those that had previously been imported from Georgia. As a co-benefit, members of Ontario's greenhouse industry have now become exporters of seedlings (Mumford, 1998).

One dramatic result is that HJ Heinz's yields during the 1997 season averaged 37.8 tons/acre, while California's was 33. Heinz is easily the largest tomato processor in Canada. At the same time, the system encouraged small contracts to amalgamate and use mechanical harvesters. Total cost has declined by about 30 percent at the farm level, and productivity is improved in processing. Heinz closed its Tracy, California plant, stopped tomato paste processing in its Ohio plant, and is expanding its Leamington, Ontario plant. Without question, there was a technology-induced change from the policy changes.

Western Canada After almost a century of substantial transportation subsidies for raw grain moved off the Prairies to Pacific and Great Lake ports, the subsidies were finally ended in 1995. As a result of this and other policy changes, acreage of barley and wheat is trending downward; acreage of canola, field peas and other "specialty" crops is increasing. There is significant investment in "value adding" industries such as livestock production—6-8 percent per year expansion in hog production on the prairies. Again, a major change in technology accompanied a major change in policy.

Effects on Commodity Trade Flows between Canada and the U.S.

Not surprisingly, the removal of trade barriers and changes in domestic policy have had a substantial effect on trade between Canada and the U.S. Figures 1-12 show trade patterns since 1989, the first year of CUSTA, for the sector in general and for several key agricultural industries. (All figure data was taken from Statistics Canada's Merchandise Trade Database).

Figure 1. Canadian Agri-Food Trade with the United States

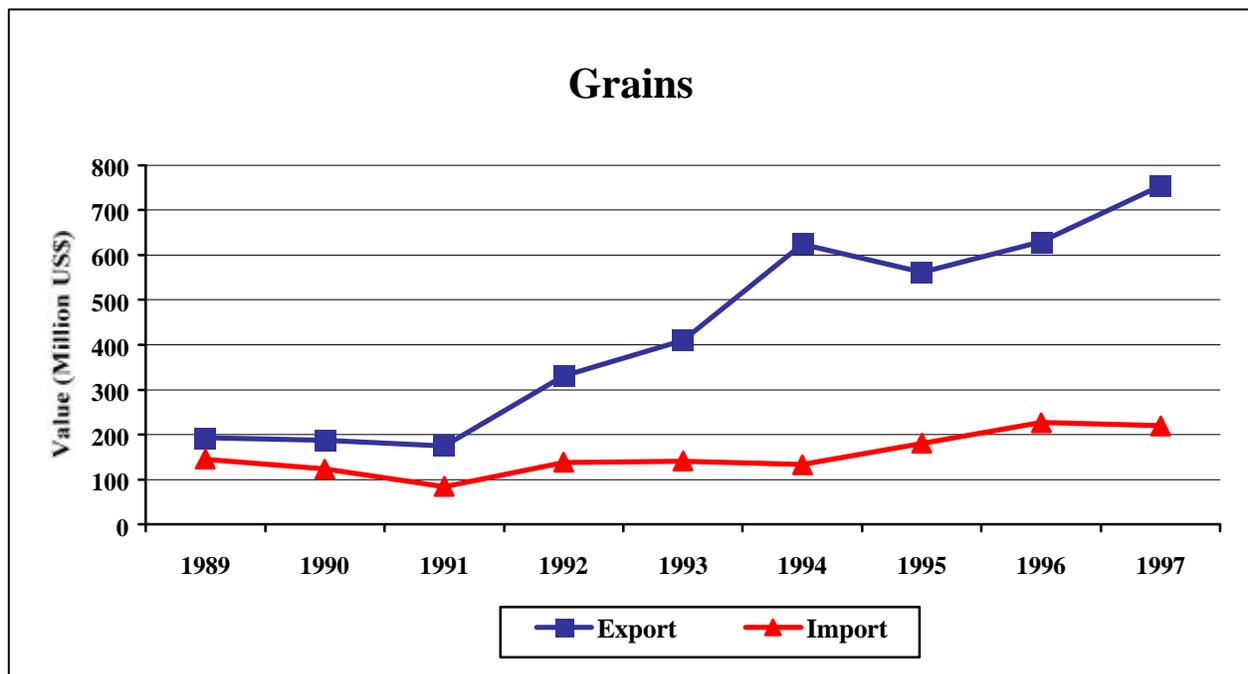


Figure 2. Canadian Agri-Food Trade with the United States

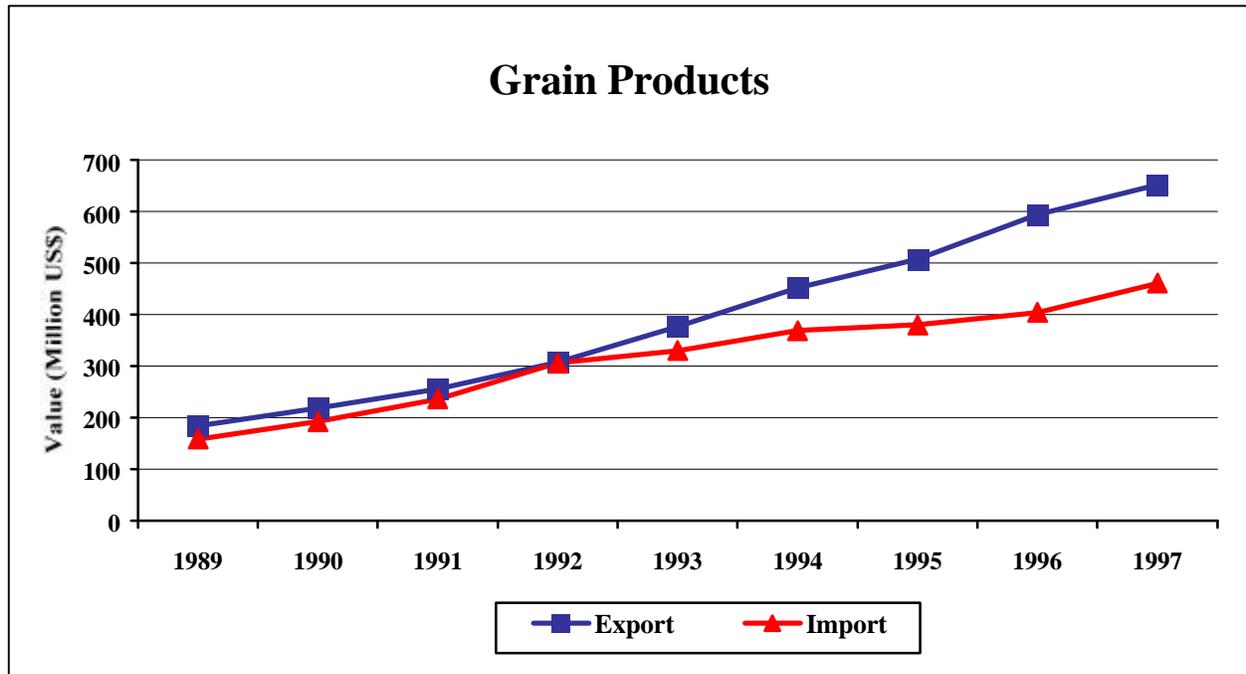


Figure 3. Canadian Agri-Food Trade with the United States

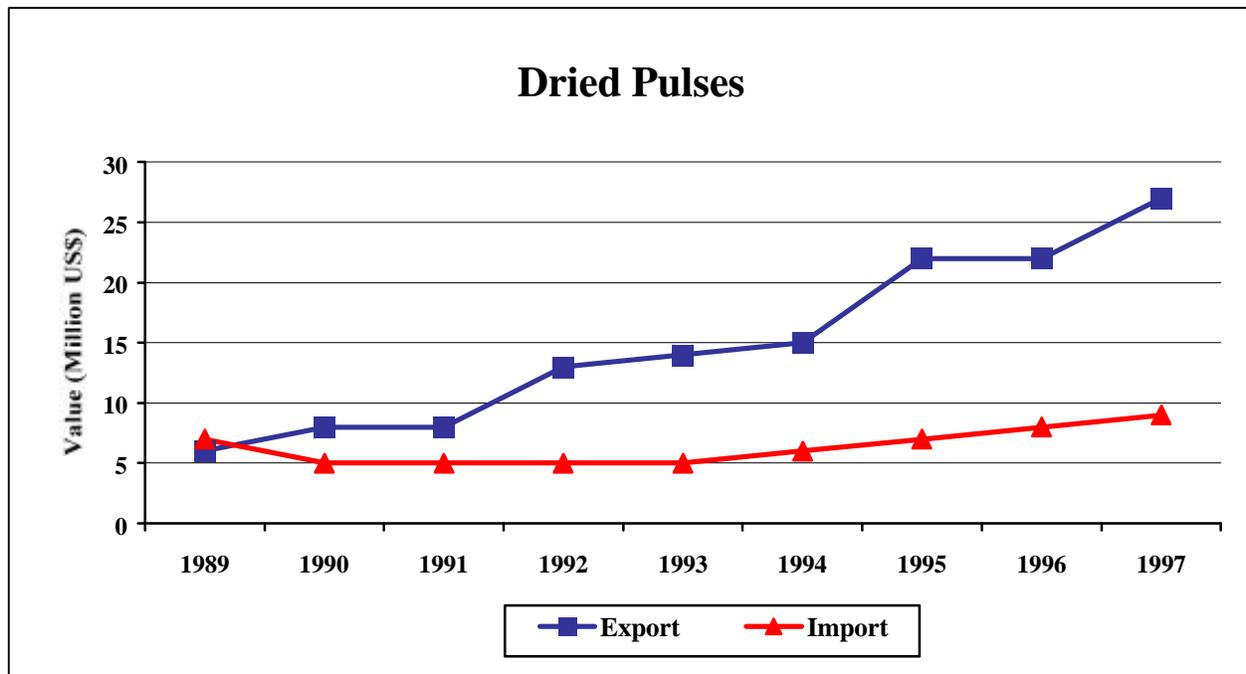


Figure 4. Canadian Agri-Food Trade with the United States

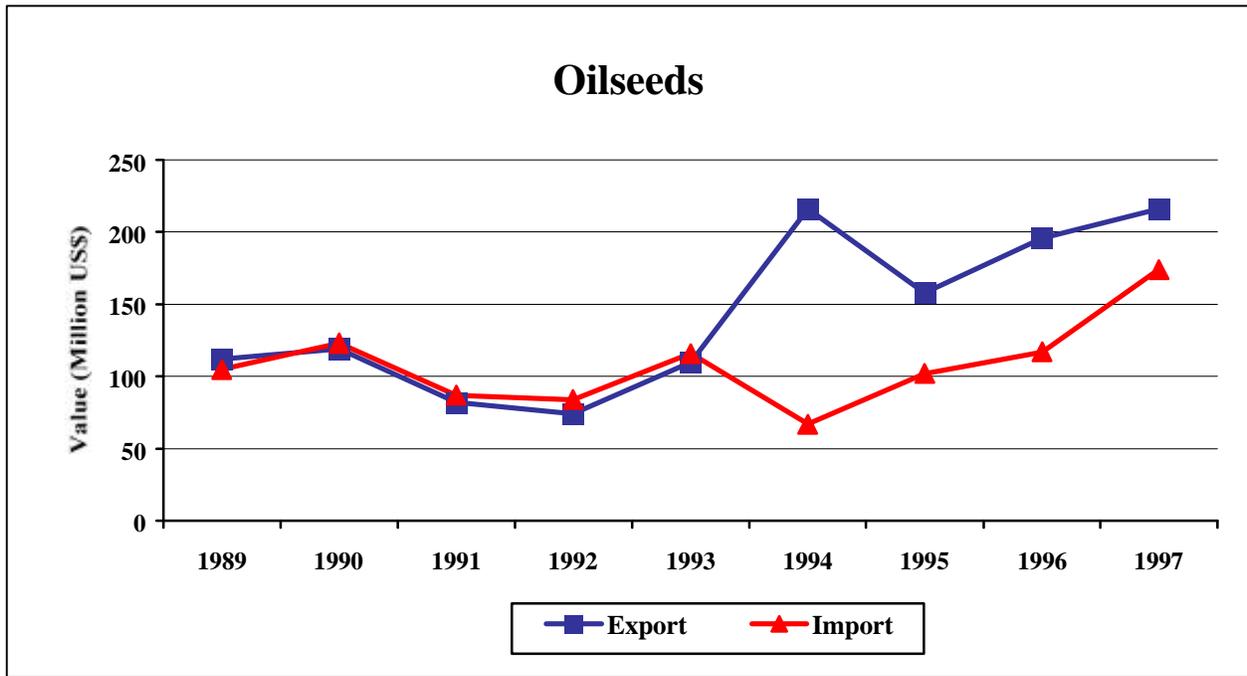


Figure 5. Canadian Agri-Food Trade with the United States

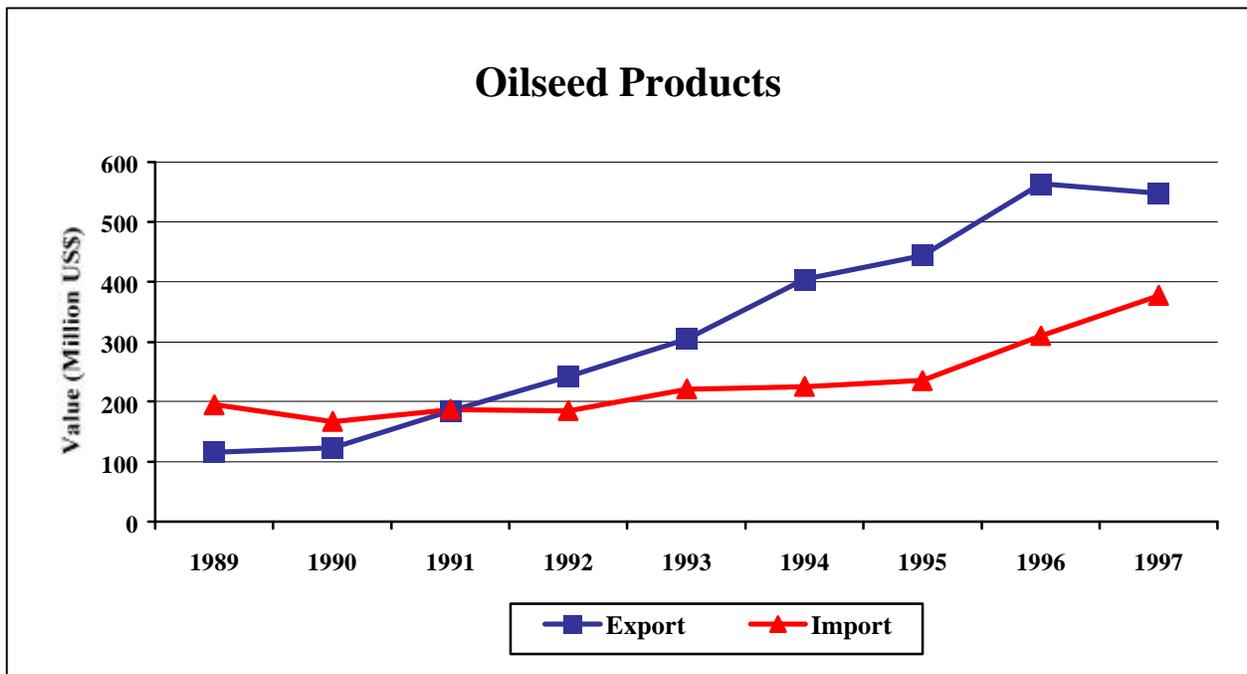


Figure 6. Canadian Agri-Food Trade with the United States

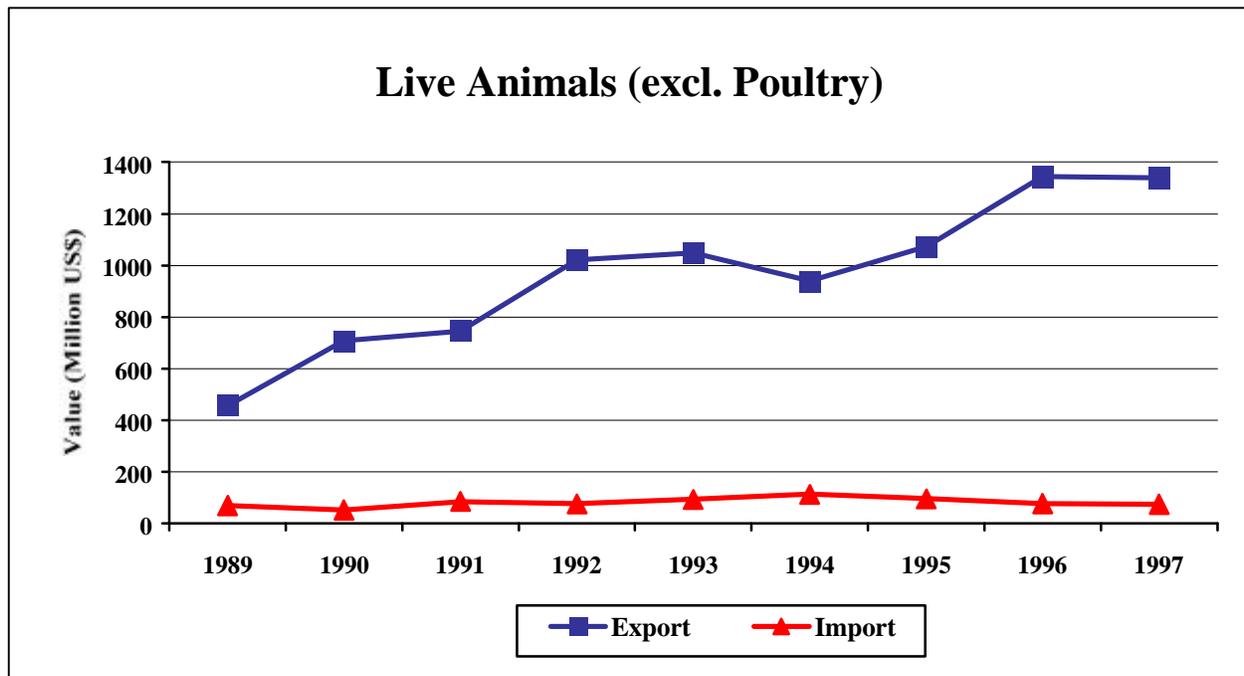


Figure 7. Canada Agri-Food Trade with the United States

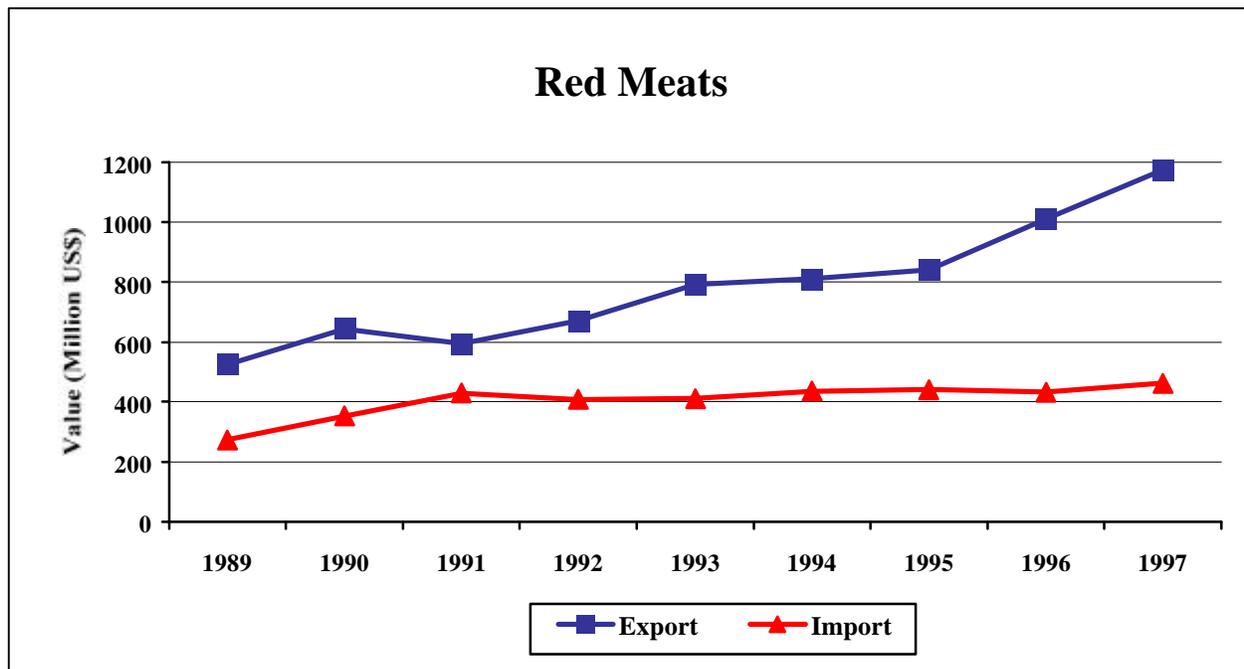


Figure 8. Canadian Agri-Food Trade with the United States

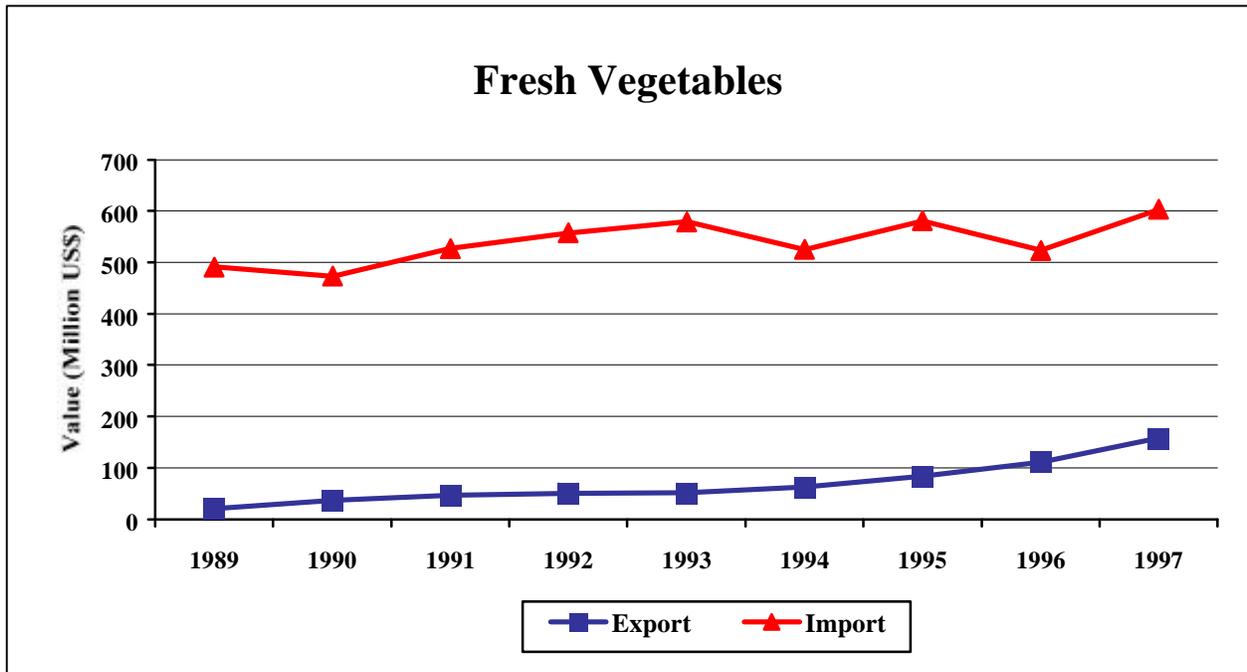


Figure 9. Canadian Agri-Food Trade with the United States

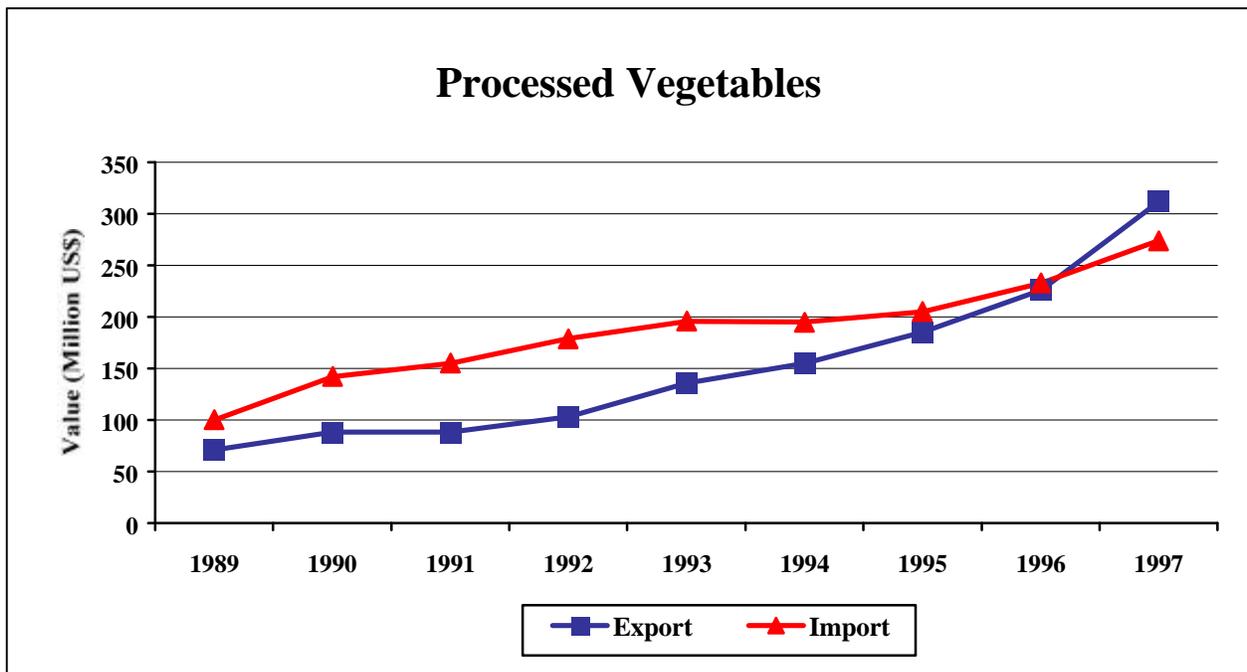


Figure 10. Canadian Agri-Food Trade with the United States

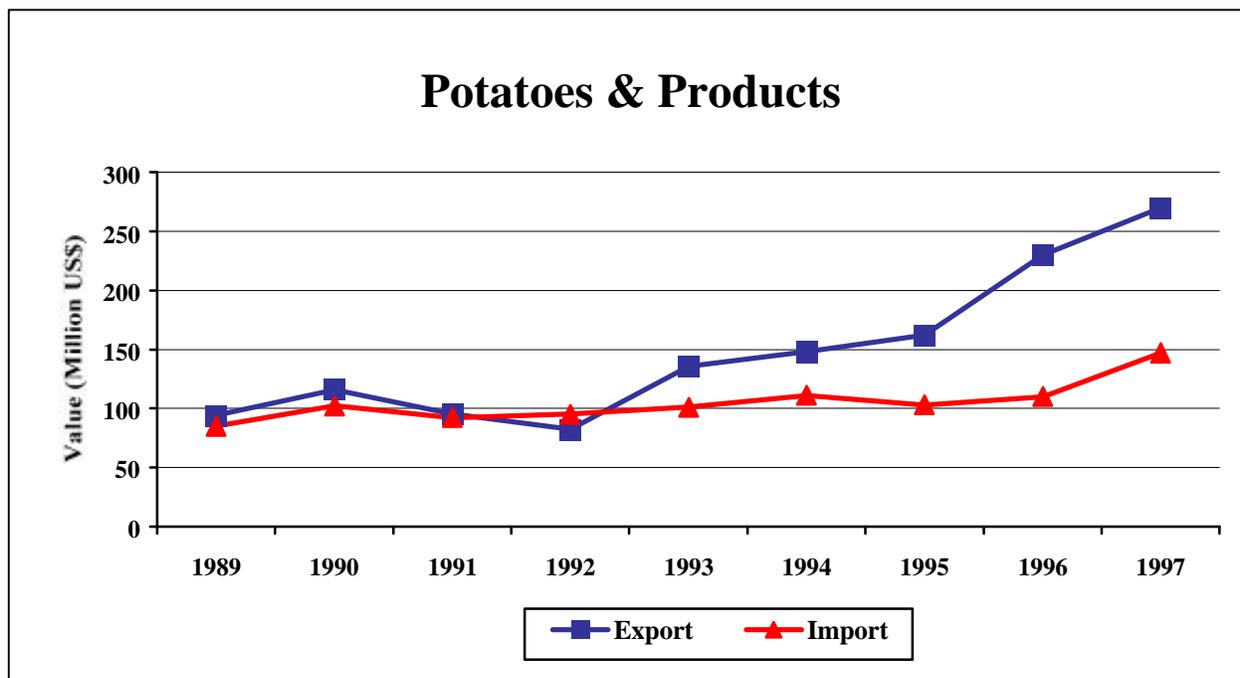


Figure 11. Canadian Agri-Food Trade with the United States

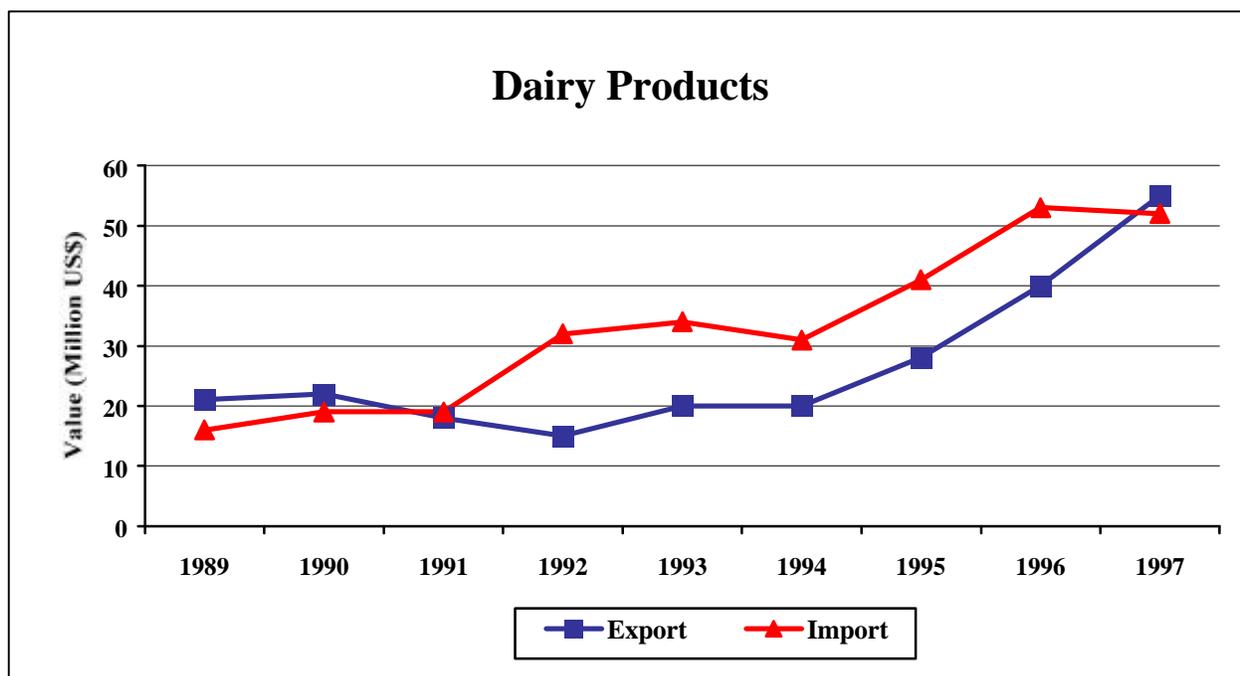
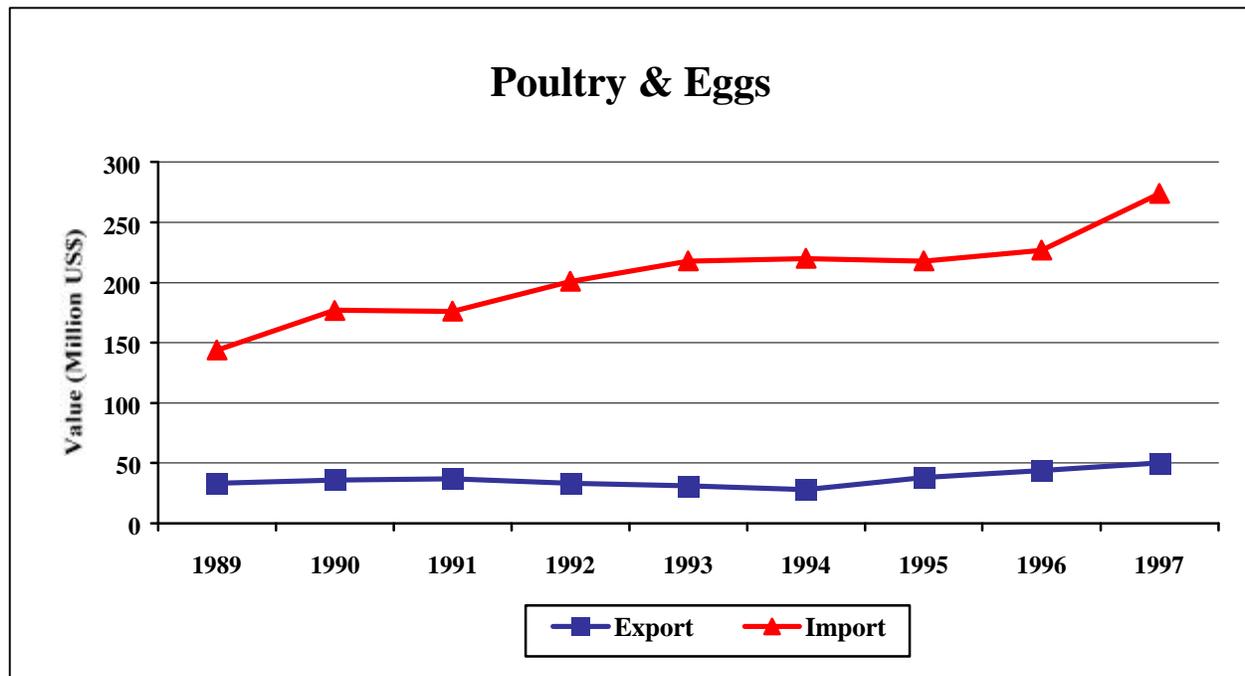


Figure 12. Canadian Agri-Food Trade with the United States

Data on a commodity basis suggests the following:

- The value of Canadian grain and grain products shipments to the U.S. tripled, while U.S. shipments doubled.
- Canadian dried pulp exports tripled, while U.S. exports stayed flat.
- Canadian oilseed exports essentially doubled, while U.S. exports trended sideways, Canadian product exports grew by a factor of 5.5, while U.S. exports increased by 50 percent.
- Canadian exports of cattle and hogs tripled, while U.S. exports stayed flat; Canadian meat exports doubled, while U.S. exports increased by about 25 percent.
- Canadian vegetable exports doubled, but remained at a relatively low level, while U.S. exports increased by about one-third. Proportionately, the same occurs for potatoes and potato products, but in this area Canada has taken the trade advantage.
- Interestingly, the two commodities in which the United States has outperformed Canada in mutual trade are dairy and poultry.

FUTURE CHALLENGES TO HARMONIZATION IN THE NEXT WTO ROUND

Trade negotiations are dynamic and always responding to new situations. So it is with the WTO. Our assessment is that several leading issues may present challenges to harmonization within the next WTO Round:

- *Genetically Modified Organisms* (GMOs) will be important in terms of establishing science-based rules of trade for products derived from genetically modified organisms (biotechnology based products). An ever-increasing portion of U.S. farm and food exports will contain, or be derived from, genetically engineered products. Since GMOs are being approved more rapidly in the U.S. than in most other countries, especially the EU, the potential exists for trade disruption centered around GMOs. The prospect of EU discrimination could set an example for much of the developing world.
- *State Trading Enterprises* (STEs) will be the focus of some attention in the next round of negotiation. The potential for trade distorting practices of STEs will be a challenge, especially in light of the possible accession to the WTO of China, Russia, and other nations that engage in state or quasi-state trading of agricultural or food products. Marketing boards in particular, such as the Australian and Canadian Wheat Boards and the New Zealand Dairy Board, may be contentious relative to harmonization.
- *Market Access* will present a challenge through TRQs and levels of tariffs. Some countries have allowed TRQs to go unfilled due to restrictive measures while others have failed to introduce “tariffication.” The tariffication process has been circumvented via restrictive rules on access to tariff-rate quotas. A NAFTA panel ruled in favor of Canada’s application of tariff-rate quotas on imports of U.S. dairy, poultry, eggs, margarine, and barley.

CONCLUSIONS

This paper broadly focused on the substantive economic changes that the Canadian-United States Trade Agreement (CUSTA), GATT/WTO, and the North American Free Trade Agreement (NAFTA) have encouraged. Special emphasis was placed on changes within and among Canada, the United States, and Mexico. In addition, some potential implications from the newer Free Trade of the Americas (FTAA) effort were analyzed. These policies were examined broadly in relation to their influence on trade flows and competitiveness.

With regard to Canada and the United States, the most important policies in the past decade center on CUSTA and NAFTA. The authors conclude that CUSTA spurred significant structural adjustment compared to NAFTA. In fact, recent empirical analysis indicates that after controlling for the effects of income, exchange rates, and prices on aggregate trade flows, NAFTA has a significant positive influence on trade flows between the United States and Mexico but not the United States and Canada.

From the Canadian perspective, NAFTA is not a good starting point about the policy effects on Canada/U.S. agri-food trade flows. Canada was substantially affected by the Canada-U.S. agreement (CUSTA), and substantial adjustment occurred between 1989 and the implementation of NAFTA. All NAFTA did, with a few exceptions, was extend the same access to Mexico as CUSTA did to the United States. Canada phased out tariffs completely on most products starting in 1989 over either five or ten years. Tariffs were high on processed products on both sides of the border. Hence, the effects were mainly on trade in intermediate and further processed products. The same also is true for U.S. exports to Canada. One effect of this is to change the trade balance in Canada's favor.

In a highly protected environment, one reaction—at least in Canada—was to erect cartels, or concentrated markets with a high degree of organizational slack. One effect was to reduce the adoption of technology.

From an agribusiness perspective, globalization of the food trade has been facilitated by freer trade as embodied in agreements including CUSTA, NAFTA, the WTO, and the FTAA. The response has been international diversification of food processors, and to a lesser extent food retailers, in developed countries. International and product diversification play key roles in the strategic behavior of large firms. Food processors have become increasingly multinational. Multinational firms exploit opportunities to integrate across political boundaries by standardizing products and achieving economies of size through coordinating critical resource functions such as R&D. Also, the drive for coordinative and cooperative relationships among vertically-allied firms may be motivated partly by searching for exploitable first-mover advantages over rivals with regard to resource supplies or core competencies. Strategic partnering has evolved rapidly, partly as an effort by firms to effectively and efficiently gain multinational status.

In the authors' opinion, harmonization of domestic policies within the WH still presents a challenging task. In this paper, competition policies were interpreted broadly to include laws and regulations that intended to redress information symmetry within commodity marketing channels. The totality of competition policies may conflict with or complement trade policy. Substantial differences exist among NAFTA countries, let alone among WH countries.

NAFTA countries are stakeholders in the several challenging future issues regarding the next WTO round. These include Genetically Modified Organisms (GMOs), State Trading Enterprises (STEs), and market access. Each issue has the potential to disrupt future agri-food trade among WH countries.

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