Performance of US Agri-Food Trade Ten Years after NAFTA

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Abstract

This study reviews the performance of the US agri-food sector under NAFTA after ten years of trade liberalization. The results show that the US has been exhibiting a trade deficit in the high value consumer-ready agri-food product category with both Canada and Mexico. Based on these results, we argue that US agri-food stakeholders should develop and implement strategies that enhance their ability to gain and maintain market share, especially in the value-added consumer-ready products category, in both the domestic and international marketplace.

Introduction

It has been ten years since the North American Free Trade Agreement (NAFTA) came into force. It is prudent at this milestone to ask how the US agri-food sector has performed under this continental trade liberalization agreement. The importance of this discussion is exacerbated by the accelerated march towards trade liberalization through bilateral and multilateral trade agreements currently being pursued by the US Trade Representative. For example, since the NAFTA came into force, the US has entered into preferential trade relations with Chile, Bahrain, Singapore, Australia, among others. Additionally, there are efforts in place to negotiate and implement a Free Trade Area of the Americas (FTAA), covering all the countries in North America, South America and the Caribbean. The discussion is also important because of the changing global economic structures and the real challenge of competition from hitherto uncompetitive players, the so called *segment zero* competitors (Grove, 1999).

The paper uses secondary data collected and maintained by the Foreign Agricultural Services (FAS) of the US Department of Agriculture to assess the performance of US agri-food sector under NAFTA. The analyses are conducted at the total sector level, providing a broad performance assessment of the sector. We prescribe some macro-level strategies for enhancing the sector's competitiveness based on the results of the analyses.

Overview of NAFTA

NAFTA came into effect on January 1, 1994 as a comprehensive trade agreement among the three North American countries: United States, Canada and Mexico. Its primary objective was to reduce or eliminate trade barriers among the partner countries, thereby increasing their total trade with each other over time. This overall objective should, therefore, be the principal indicator of the performance of NAFTA.

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In addition to establishing international obligations to each other to avoid any adverse effects of their individual actions on the other partners, the three countries specifically agreed to implement rules guiding their actions under domestic support, export subsidies, market access and sanitary and phytosanitary rules.

The agreement on domestic support started with a recognition of the importance of domestic support measures to the agricultural sectors in the member countries and their potential trade and production distorting effects. The parties also recognized that the multilateral agricultural trade negotiations under the Uruguay Round of the General Agreement on Tariffs and Trade (GATT) that was then ongoing would lead to reductions in domestic support commitments. Accordingly, they agreed, among other things, to ensure that their domestic support programs for agricultural producers should have little or no impact on agricultural trade and production.

Under the market access agreement, the parties agreed to work together to improve access to each other's markets through the reduction or elimination of import quotas, tariffs, standards and other barriers associated with agricultural products. They, however, agreed to special safeguards to protect particular products that suffered from accelerated growth in trade using special tariff rates. But the application of these special safeguards must be less or equal to what is applied to the most favored nations (MFN) under any other agreement, such as the then GATT.

Canada, US and Mexico also agreed under the NAFTA to work together for the multilateral elimination of export subsidies for agricultural goods under the GATT negotiations that were going on at the time. This was driven by their recognition that export subsidies for agricultural goods potentially prejudice the interests of other countries in the target marketplace. They also can potentially disrupt production and trade in other importing and exporting countries. Therefore, the three partners agreed not to use export subsidies into each other's territory where there are no other subsidized imports of that good into that territory.

The NAFTA partners also established rules for addressing sanitary and phytosanitary issues that were bound to emerge with agricultural trade. For example, they agreed that they would not "adopt, maintain or apply any sanitary or phytosanitary measure with a view to, or with the effect of, creating a disguised restriction on trade between the Parties" (NAFTA, Article 7.11.5). They also agreed to ensure that any sanitary or phytosanitary measure they adopted or applied did not arbitrarily or unjustifiably discriminate between the applying party's goods and similar goods of the other parties, or between goods of another party and similar goods of any other country, where identical conditions exist.

Not long after NAFTA was signed and ratified, the multilateral trade agreement under the Uruguay Round was also concluded and implemented, allowing the NAFTA parties to apply some of terms under that agreement to their own agreement. It is also important to recognize that the three parties agreed to establish an agricultural trade dispute settlement body to address any potential disputes that may arise among them.

Economy-wide Trends

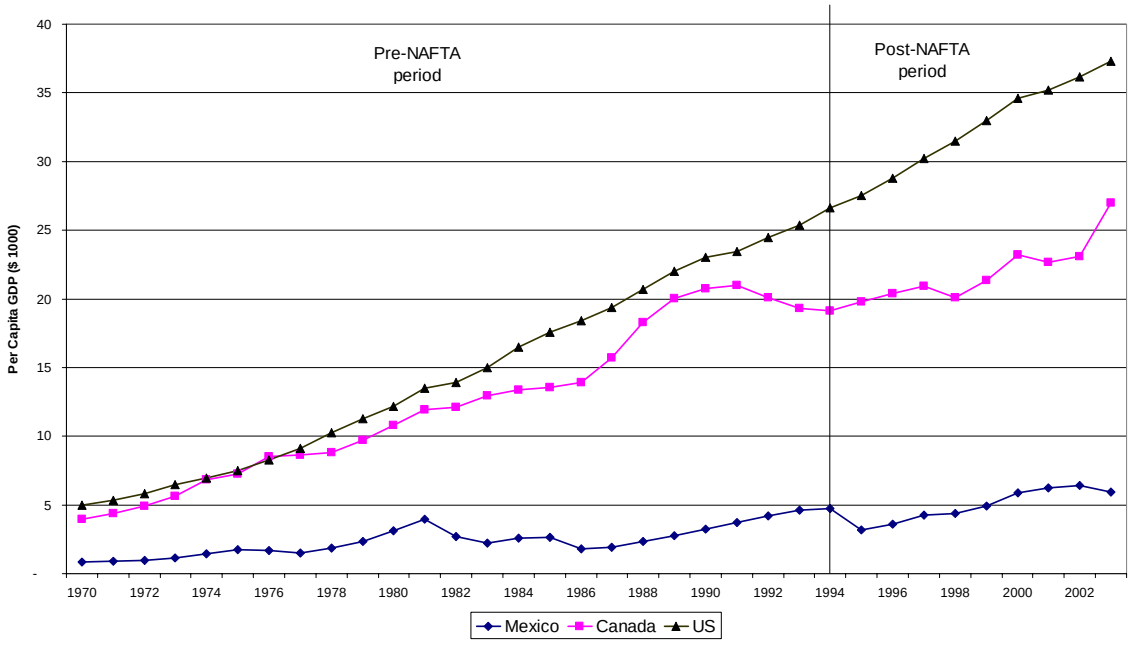
NAFTA presented different expectations for different people. The rhetoric of these expectations was exacerbated by the US Presidential elections of 1992 where protagonists and antagonists of trade liberalization made the ongoing NAFTA negotiations a very polarized election issue. Given these expectations as the backdrop, it is difficult to provide an assessment of the agreement's performance without defining the boundaries of what is being assessed. For this study, therefore, we have adopted a very narrow and simple assessment framework for NAFTA: To what extent has the structure of agri-food trade between the US and its partners changed since the Agreement came into force?

People are the basis of any economic system. At the onset of the NAFTA a decade ago, the region's combined market size (population) was estimated at about 378 million, larger than that of the fifteen European Union countries by about 26 percent (Organization of Economic Cooperation and Development, 2004). Canada and the US already had an operating free trade agreement in place before NAFTA, and what NAFTA did was expand the size of the Canada-US Trade Agreement by almost 32 percent. Over the past decade, the market size of the NAFTA area has increased to almost 425 million, a 13 percent expansion. The data show that the population of the US and Mexico expanded by about 12 percent and 17 percent respectively while Canada's increased only by about 10 percent. Mexico's population increased from 88 million in 1993 to nearly 103 million by the end of 2003 compared with Canada's increasing from 28.8 million to 31.6 million and the US from about 260.3 million to 291 million (OECD, 2004). The respective shares of Canada, Mexico and the US in the total population were 7.6 percent, 23.3 percent and 69.1 percent respectively at the onset of NAFTA, and by the end of the decade, this distribution had only shifted slightly: 7.4 percent, 24.1 percent and 68.4 percent respectively.

Gross domestic product (GDP) is the common measure of a nation's economic output; and a higher and growing GDP is desirable. It is a sum of private and government expenditures, investments and net exports. At the beginning of the NAFTA, the total GDP of Canada, US and Mexico (in current dollars and exchange rates) was $7,562 billion. It grew to $12,413 billion by the end 2003, exhibiting an increase in excess of 64 percent over the ten years. The interesting observation is that the share distribution of this total GDP did not change much. The US share in 1993 was 87.3 percent and ended the decade at 88.1 percent. Canada's share started at 7.3 percent and ended at 6.9 percent while Mexico's share decreased slightly from 5.3 percent to 5 percent. The growth rates of GDP in Mexico, Canada and the US in the first decade of NAFTA were respectively 6.9 percent, 3.8 percent and 5.1 percent compared to 9.5 percent, 6.7 percent and 6.2 percent in the decade preceding the agreement. It is not surprising that the average growth rate in Mexico declined in the first decade of NAFTA because of the economic restructuring that had been going on in the Mexican economy for more than a decade prior to NAFTA. Such openness to trade policy adjustments has the primary effect of accelerating economic growth (Baldwin, 1989; OECD, 1995) and once the economy is restructured, growth rates return to *normal* levels. Thus, just looking at the GDP growth rates, it is apparent that Canada has exhibited the weakest growth among the three NAFTA partners.

The trends in per capita gross domestic product in the signatory countries over the first decade of NAFTA are presented in Figure 1. Mexico's per capita GDP grew at an average annual rate of 5.2 percent between 1993 and 2003 compared with 2.8 percent and 3.9 percent in Canada and the US respectively. In the ten years preceding NAFTA (1983 to 1993), Mexico's per capita GDP growth rate was about 7.3 percent compared to 5.4 percent and 5.1 percent in Canada and the US respectively. The dips in economic growth cannot be attributed to NAFTA because there have been two significant global economic slow downs since NAFTA was implemented. With specific reference to Mexico, the currency crisis in the 1994/1995 was disruptive to its economy, and different experts have noted that NAFTA might have contributed to the rapid return to stability that occurred (Tornell, 1999; Edwards and Savatano, 1999). Obviously, the disparity between Canada and the US has increased significantly, with average per capita GDP in Canada as share of that in the US declining from 84 percent in the decade before NAFTA to 64 percent in the first decade of NAFTA.[2] The average ratio of per capita GDP in Mexico to that in Canada and the US in the decade before NAFTA increased from 17 percent and 14 percent respectively to 23 percent and 16 percent. This indicates that Mexico's average standard of living relative to its NAFTA partners has improved over the first decade of the Agreement.

Figure 1: Per Capita GDP by Country (1970-2003)



[2] The trends in GDP per capita may be explained principally by the exchange rate variability over time since all values are denominated in US dollar equivalents. A linear regression of GDP per capita on exchange rate yields a significant coefficient at the 1 percent level with the right sign.

NAFTA in Global Trade

Total world merchandize trade (imports plus exports) increased from $7,640 billion in 1993 to $10,459 billion in 2002, an increase of about 37 percent over the period. Merchandize trade is defined to include all agricultural commodities and products as well as manufactures.[3] This increase, according to the World Trade Organization (WTO), may be attributed to the increasing trade liberalization efforts resulting from the General Agreement on Tariffs and Trade (GATT) and its successor WTO. Indeed, the number of countries acceding to the multilateral international trade treaty has increased from about 128 in 1994 to 147in 2004, with 31 other countries enjoying observer status. Agriculture's share (covering both food and raw materials) of global merchandize trade declined from 11.7 percent in 1995 to 9.3 percent in 2002.

The NAFTA countries together accounted for 21 percent of total global merchandize trade in 1993 compared to 24 percent in 2002. Intra-NAFTA exports and imports accounted for 42.6 percent of the total exports and 34.4 percent of total imports of the three partners in 1990. By 2002, intra-NAFTA trade had increased to 56.5 percent for exports and 38.1 percent for imports. Thus, the Agreement has achieved its objective of increasing trade among the partners in the first decade.[4]

As individuals, the US ranked number one in both imports and exports for merchandize trade, with a share of world exports and imports of 10.7 percent and 18 percent in 2002. Canada ranked eighth in merchandize imports and exports and accounted for 4 percent of world exports and 3.4 percent of imports in 2002. Mexico ranked thirteenth and twelve in merchandize exports and imports and accounted for 2.5 percent and 2.6 percent of world exports and imports in 2002.[5]

Total US Trade under NAFTA

Total US exports to Canada and Mexico between 1993 and 2003 indicates that exports to both countries have been increasing (Figure 2). For example, total exports to Canada increased from about $100 billion in 1993 to a peak of almost $180 billion in 2000. A similar trend was observed in Mexico with exports increasing from $40 billion in 1993 to a peak of about $110 billion in 2000. The recession in both countries slowed down US exports in the period after 2000, with Canada picking up its exports from a low of about $160 billion in 2002 to about $170 billion in 2003. The figure shows that on average, US total exports to Canada and Mexico have grown in the first decade of NAFTA at almost 5 percent and 9.8 percent per annum respectively.[6]

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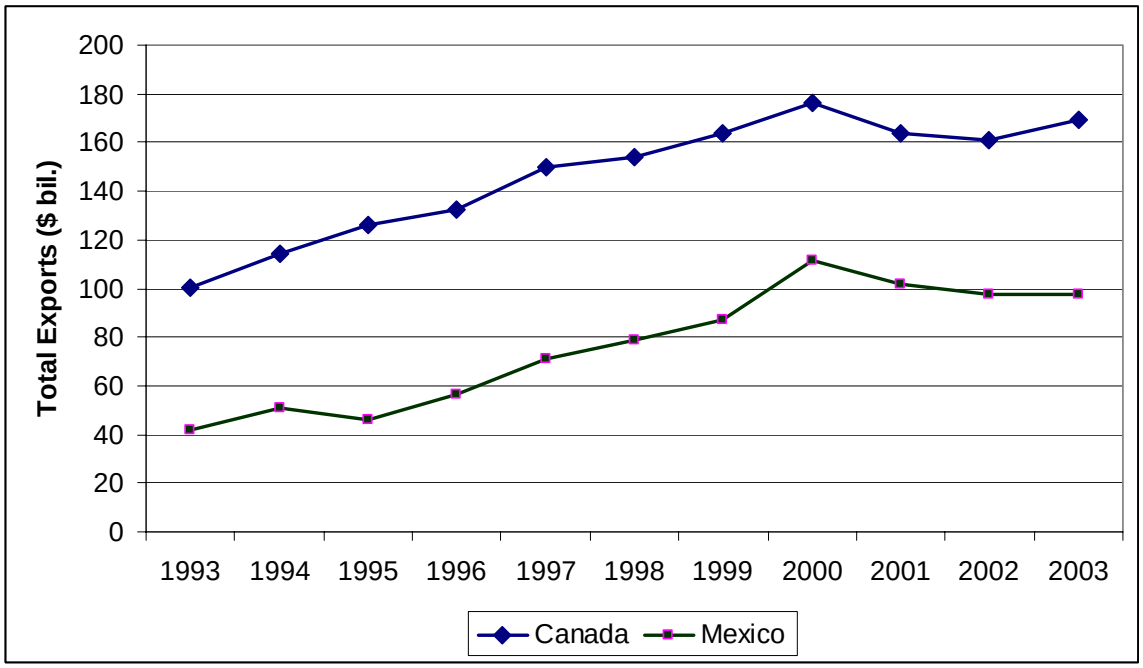
3 The other trade category is commercial services.

4 This may be contrasted with intra-EU exports and imports of 64.9 percent and 63 percent in 1990 and 61.6 percent and 61.9 percent in 2002 respectively.

5 All data referenced in this paragraph are from the World Trade Organization.

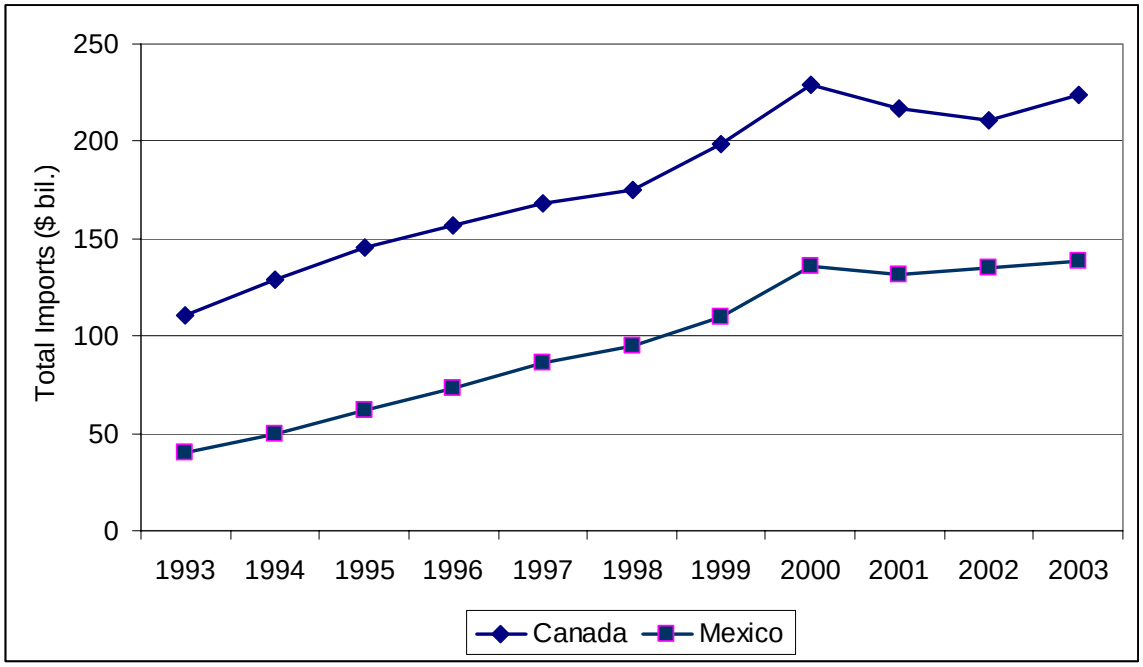
6 If the recession period of 2000 to 2003 is discarded, then the average annual growth rates of US exports to Canada and Mexico from 1993 to 2000 were respectively 7.7 percent and 13.6 percent.

Figure 2: Total US Exports to Canada and Mexico (1993-2003)



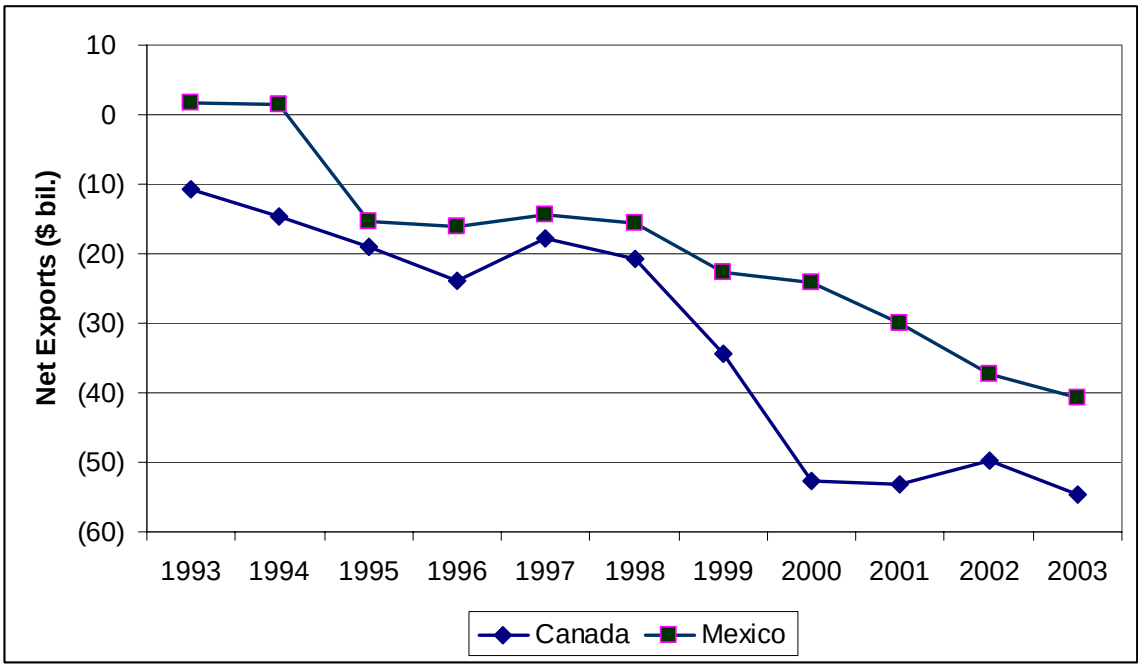
Total US imports from Canada and Mexico have also been increasing from 1993 and following a similar trend as exports. They dipped in 2000 and started recovering in 2002, but the dip in Mexico was relatively insignificant in comparison to Canada's. Imports from Mexico nearly tripled in the period while those from Canada more than doubled (Figure 3). The average annual growth rates in imports between 1993 and 2003 from Canada and Mexico were respectively 6.9 percent and 12.7 percent.

Figure 3: Total US Imports from Canada and Mexico (1993-2003)



The foregoing trends suggest that the United States has been running an increasing trade deficit with its trading partners since the onset of NAFTA (Figure 4). An analysis of the period prior to NAFTA shows that the US was still running a net trade deficit with Canada and a slight but decreasing surplus with Mexico. Therefore, the net trade deficit with the NAFTA partners cannot be attributed solely to the trade agreement, as some of the agreement's detractors would like to suggest. Besides, a trade deficit in and of itself does not raise any alarms since consumer benefits from such deficits are real – consumers choose imports because they offer them a higher value than domestic products. When put in the context of the growth in GDP, it is observed that this trade deficit situation has not adversely affected US wealth generation, and may indeed be seen as a contributory factor since Americans are able to purchase cheaper foreign goods and get higher value for their incomes. The fact that the currencies of the two trading partners have been depreciating against the US dollar may be a contributor to this trend because foreign goods (priced in local currencies) become relatively cheaper to Americans purchasing with US dollars.

Figure 4: US Net Trade Situation with Canada and Mexico (1993-2003)

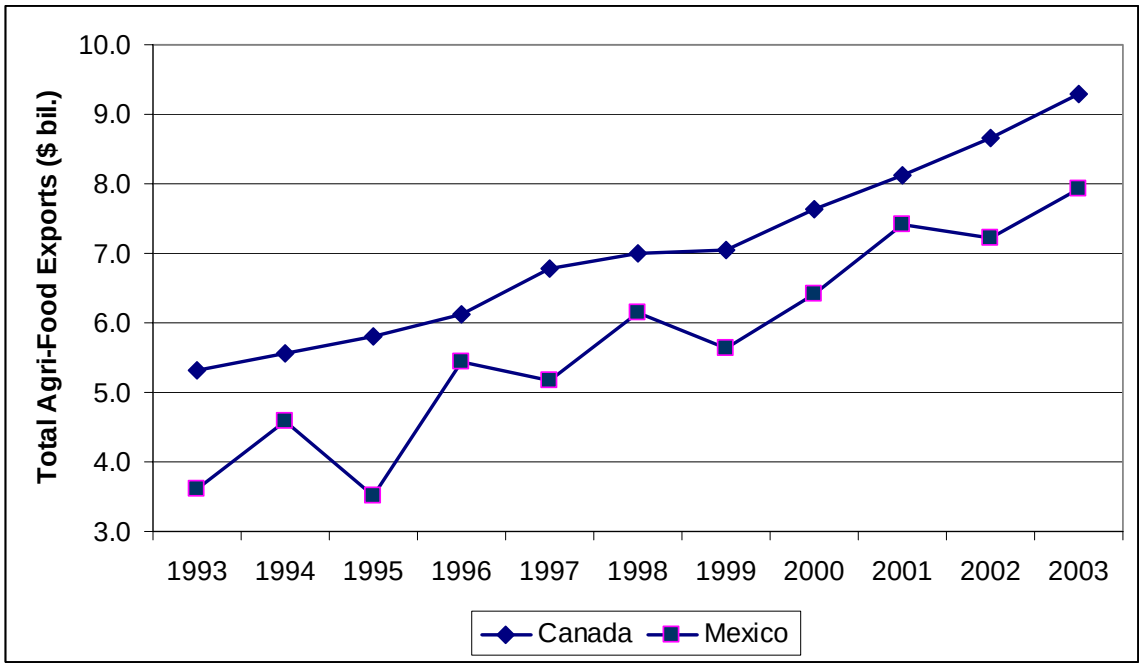


Agriculture and Agri-Food Trade under NAFTA

Total US agriculture and food exports to Canada and Mexico show an upward trend since 1993 between 1993 and 2003 (Figure 5). Exports to Canada increased from just over $5 billion in 1993 to a little over $9 billion in 2003 while exports to Mexico increased from about $3.5 billion to just under $8 billion in the same period. The effect of the Mexican currency crises in 1994-95 is visible with the reduction in US agriculture and food exports to that country. US agriculture and food exports to Canada and Mexico have been growing steadily at an average rate of 5.5 percent and 7.6 percent respectively over

the period. The figure shows that the growth rate in the second half of the decade has actually been higher – 6.8 percent and 8.0 percent respectively.

Figure 5: Total US Agri-Food Exports to Canada and Mexico (1993-2003)



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Total US agriculture and food imports from Canada and Mexico also show an upward trend in the first decade of NAFTA (Figure 6). Imports from Canada increased from about $4.7 billion in 1993 to a little over $10.3 billion in 2003 while imports to Mexico increased from about $2.7 billion to just under $6.3 billion in the same period. US agriculture and food imports from Canada and Mexico have been growing faster than its exports to both countries, averaging 8.1 percent and 7.7 percent respectively over the first decade of NAFTA. The growth in US imports from its partner countries slowed down a bit in the last half of the decade to about 6.9 percent and 5.9 percent for Canada and Mexico respectively.

With both exports and imports increasing over the decade, how has net agri-food trade performed? Like the total trade situation, the US has been running agri-food trade deficit with Canada and a trade surplus with Mexico (Figure 7). With Canada, the downward trend seems to have reversed in 2001, exhibiting the first upswing in the decade and repeating it at a faster rate in 2002. Mexico, on the other hand, exhibited the first two consecutive periods of declining surplus since 2001. Is this a permanent turn in US agri-food trade with is NAFTA partners or is it an aberration?

Figure 6: Total US Agri-Food Imports from Canada and Mexico (1993-2003)

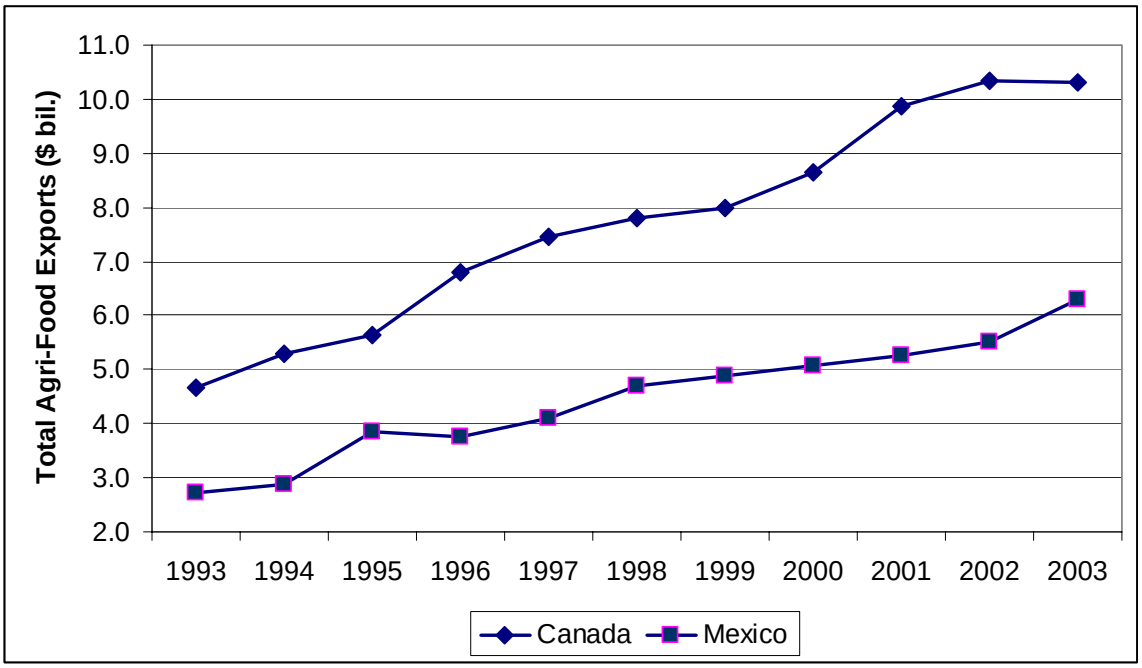
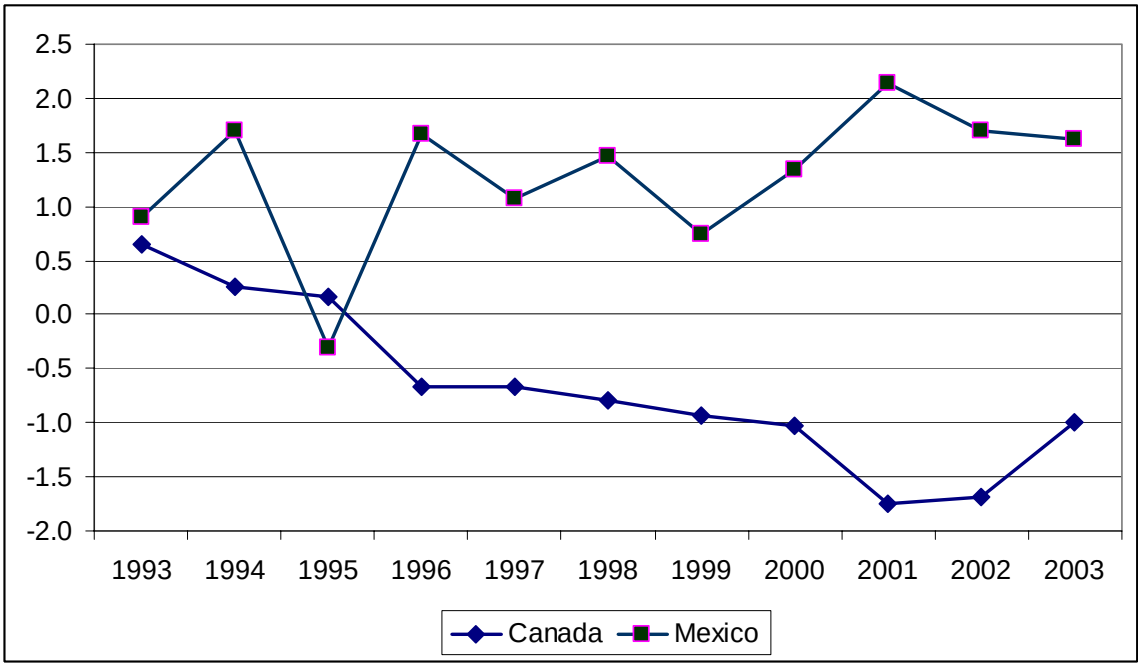


Figure 7: US Net Export Situation with Canada and Mexico (1993-2003)

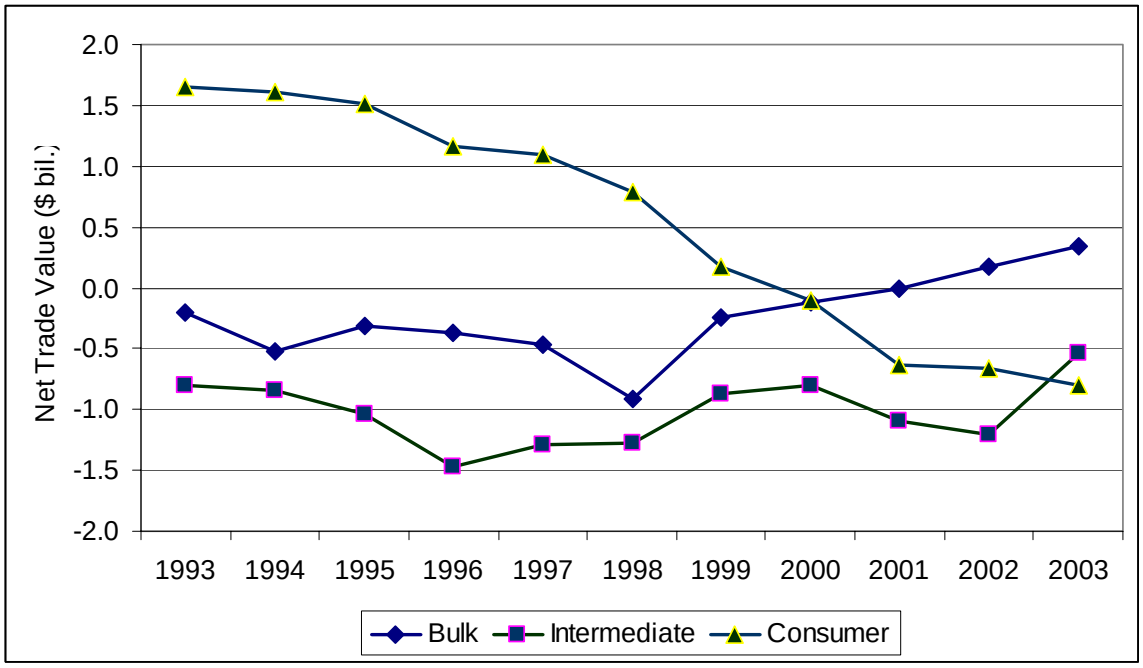


But it is insightful to review the components of agri-food trade – bulk commodity, intermediate and consumer ready products – among the NAFTA partners to understand the contributors to the net trade situation. Bulk commodity includes raw agricultural products such as wheat and soybeans while intermediate products are partial processed products such as flour and vegetable oil. Consumer-ready food products are high value products that are ready to be eaten or cooked by consumers. Being closer to the

consumer, these products tend to extract higher prices, thus contributing more value to trade (and to the traders).

US net exports to Canada shows a declining trend for consumer-ready products throughout the first decade of NAFTA (Figure 8). At the beginning of NAFTA implementation (which was about five years after the implementation of the Canada-US Trade Agreement), the US has a surplus of about $1.5 billion in net exports of consumer-ready products to Canada. However, by the end of the decade, the US was in a deficit situation of more than $800 million. This rapid loss of export competitiveness is even more interesting when viewed within the context of the net export trends for bulk and intermediate agri-food products which remained relatively flat over the period. Both of those experienced relatively stable net export situations on the deficit side until about 1998 (when tariffs on most of these products became zero) and then US started increasing its net export situation for them.

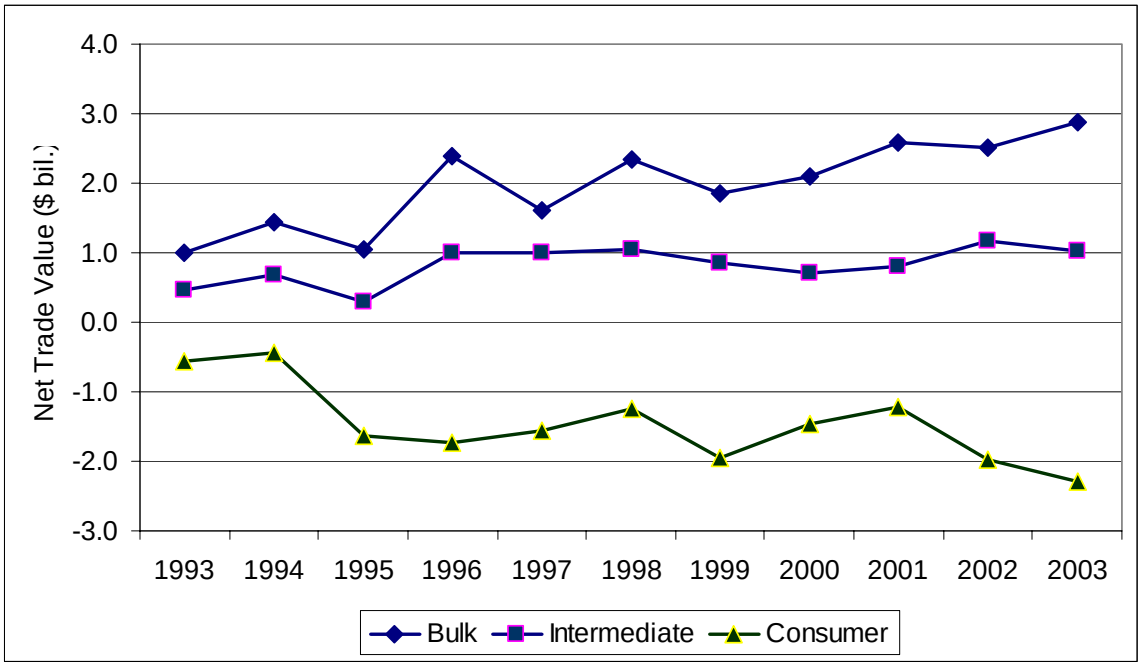
Figure 8: US Net Exports with Canada by Product Category (1993-2003)



The US net export situation with Canada is actually not as interesting as its net export situation with Mexican because of the apparent difference in the level of development between the two countries. Figure 9 shows that the US trade deficit for consumer-ready agri-food products to Mexico about was $551 million in 1993 and grew to almost $2.3 billion by 2003.[7] At the same time, the US was increasing its net exports of lower value bulk commodities and intermediate products to Mexico. The data suggest that the US is enhancing its market share in the lower value products in the NAFTA marketplace and losing competitive advantage in the higher value consumer-ready products in both Canada and Mexico.

[7] This trend existed prior to the implementation of NAFTA and may be explained by the increase in American consumer appetite for Mexican wine and beer, dairy products, snack foods and fresh vegetables.

Figure 9: US Net Trade with Mexico by Product Category (1993-2003)



Strategic Opportunities for US Agri-Food Stakeholders

If the US agri-food sector is performing as expected under NAFTA, it should exhibit an increasing competitiveness in both its domestic and international markets. The foregoing shows that with respect to both Canada and Mexico, the US is underperforming in the overall net export situation, running deficits in total merchandize trade as well as agri-food trade. Specifically, the US has significant trade deficits in its consumer-ready market, which is also the highest value market in the agri-food trade sector.

It is understandable why the NAFTA partners will be aggressive in their focus on the US market since the US agri-food market is considered the most lucrative in the global marketplace. Economic theory suggests that consumer welfare (within the context of the traded product) in the importing country and producer welfare in the exporting country increase because of trade. For exports to happen successfully, exporters must make a superior value proposition to customers in the importing country than domestic suppliers' are making. In other words, exporters must be offering customers something domestic suppliers are unwilling or unable to offer; and this is not always price. It may be availability, quality, consistency of supply, exchange terms, critical mass, etc. The fact that Mexican agri-food exporters have consistently experienced a trade surplus with their US competitors in the consumer-ready market is an indication that they are making a superior value proposition to American consumers than American suppliers are making. Similarly, that US suppliers are exhibiting a trade surplus in bulk commodity and intermediate products is indicative of their superior value proposition to Mexican customers.

Since net exports of higher value consumer-ready products to both Canada and Mexico are declining while net exports of lower-value bulk commodity product are increasing, it

is prudent for US agri-food to understand the forces and factors that are driving and sustaining this trend. Our analysis shows that exchange rate does not provide a significant explanation for it, implying that US consumers may not be choosing imports over domestic consumer-ready food products simply because they are cheaper. And even if this were so, it will suggest that there are some weaknesses in the US supply chain and/or there are opportunities that are not being seized. The situation in the automobile market in the early 1980s when Japanese manufacturers were consistently seizing an increasing market share away from US manufacturers in the US market provides a historical reference for what is being observed under NAFTA.

A strong observation emerging from the trade situation in the US is that American consumers are, in general, value hunters and would purchase products from anywhere as long as their value expectation is met.[8] Another observation is that specific segments of consumers in the NAFTA partner countries are all experiencing changes in their food needs (e.g., convenience, quality, food safety, price sensitivity, etc.) because of the increasing incomes in these segments. This leads us to prescribe two principal strategic initiatives for the US agri-food sector to consider: (1) Import replacement; and (2) Export acceleration. Both of these initiatives require a strategic reorientation of all stakeholders – from producers to processors and retailers – with specific emphasis on producers participating in the production and marketing of higher value customer-ready products.

Import Replacement

US imports of consumer-ready products from its NAFTA partners have been increasing over the past decade. For example, by the end of 2003, the US was importing in excess of $7.4 billion of consumer-ready agri-food products from Canada and about $5.5 billion from Mexico. This suggests that there is an opportunity to replace some of these imports by presenting a competitive alternative to US consumers.

An import replacement strategy requires the sector's stakeholders to understand the factors that are supporting and driving these imports and develop strategic responses to them in the domestic market. The factors may be volume, quality, cost, logistics, price, and regulations. If US retailers are looking for particular volume thresholds in order to deal with domestic suppliers, then it behooves agri-food stakeholders to develop alliances to create the necessary critical mass to address their needs if they are unable to do it alone. If the challenge is lack of cost competitiveness, then every effort should be made to take advantage of cost-reducing technology and efficiency-enhancing processes. Benchmarking studies must be undertaken frequently to assess cost and efficiency competitiveness with NAFTA competitors. The results of these should be used to guide improvements in meeting the needs of domestic customers who are being increasingly serviced by NAFTA competitors. If the source of domestic company disadvantage is unfavorable government policies, then such policies must be identified and rectified to level the playing field. Regardless of the reason for the situation, there is a $13 billion

[8] Value is defined as the quotient of customer expectation and acquisition cost. Acquisition cost includes price, in-use and other costs (actual or potential) incurred by the customer in the use of the product. For an in-depth discussion of value, see V. Amanor-Boadu, Value Proposition Definition for Agricultural Value-Added Businesses, March 2000, 4 pp. (www.ag-innovation.org).

opportunity awaiting seizure by US agri-food stakeholders in the US domestic marketplace.

Export Acceleration

The increasing GDP per capita in Canada and Mexico suggests that consumers in these countries are increasingly able to purchase higher value products. Because the NAFTA agreement requires members to improve market access conditions through the reduction/elimination of quantitative limitations, tariffs and other barriers, there is a willingness (or processes to encourage such willingness) in the partner countries to procure US products if they can present competing value propositions.

An export acceleration strategy requires a commitment to marketing and market development for high value consumer-ready products in the partner countries. we believe that the sheer size of the US domestic market has contributed to a situation where most agri-food stakeholders do not recognize international marketplace opportunities. The Foreign Agricultural Services (FAS) (www.fas.usda.gov) frequently conducts research on different countries, providing information on leads in different countries. Responding to, and taking advantage of, these leads may provide a foot in the international market doorway, so to speak. Once such an entry has been made, it is critical then to build on the opportunity and transform a one-time deal into a supply arrangement.

Additionally, it is prudent that US agri-food stakeholders evaluate what consumers in their partner-countries are importing from non-NAFTA countries, especially on their imports of higher value consumer-ready products. An appreciation of this could provide insights into products that provide inherent or potential competitive advantage to US stakeholders. It may lead to innovation in products, processes and/or relationships. The down side of not doing this is that the needs of these consumers are not going to disappear because the US refuses or is unable to address them. Rather, these consumers would search for suppliers in the global marketplace who are willing and able to make value propositions that resonate with their expectations.

Conclusion

The North American Free Trade Agreement has contributed to increased trade among the three partners over its first decade. From that perspective, we can argue that it has achieved its objectives in its first decade. Our analysis revealed that the US is importing more agri-food products from its NAFTA partners that it is exporting. More importantly, its imports of consumer-ready products far exceed its exports, leading to significant trade deficits in that product category. This situation creates two major opportunities for US agri-food sector stakeholders: increase import replacement opportunities by assessing and understanding the factors that support the increased demand for imports through innovation of products, processes and protocols; and accelerate exports by scoping for opportunities in the partner countries to determine which advantages may be seized profitably.

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