EXECUTIVE SUMMARY

U.S. agricultural trade with Canada and Mexico has nearly doubled since the implementation of the North American Free Trade Agreement (NAFTA). While only a portion of this overall increase can be attributed solely to the agreement, NAFTA has allowed competitive market forces to play a more dominant role in determining agricultural trade flows among the three countries. By dismantling numerous trade barriers, the agreement has contributed to an expansion in U.S. agricultural exports and increased the domestic availability of various farm and food products. In addition, NAFTA has established rules and institutions that mitigate potential trade frictions and promote foreign direct investment. Conversely, many of the initial trepidations that were voiced concerning declining agricultural employment and environmental degradation have not materialized. Thus, NAFTA should be judged not just in the context of the trade gains associated with the agreement's agricultural provisions, but also in terms of the benefits derived from "locking in" key trade, investment, and institutional reforms in an increasingly integrated North American market.

What is NAFTA?

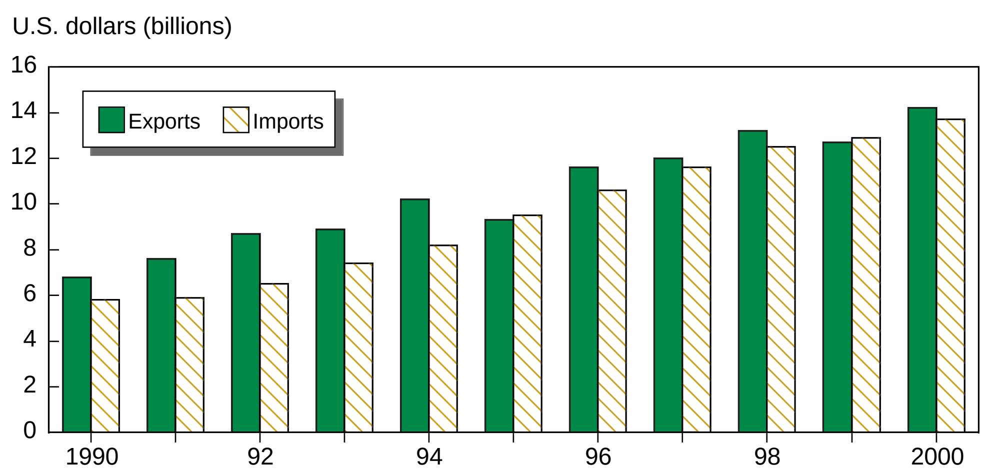
NAFTA, which took effect on January 1, 1994, provides for the progressive elimination of most barriers to trade and investment between Canada, Mexico, and the United States over the 14-year period that ends on January 1, 2008. The agreement also incorporates the Canada-U.S. Free Trade Agreement (CFTA), whose implementation was completed on January 1, 1998. Although NAFTA's transition is still in progress, most of the process of tariff elimination for agricultural products has already taken place. Thus, NAFTA's influence on U.S. agriculture to date should provide a good indication of the agreement's long-term impact.

NAFTA's Trade Impact

U.S. agricultural trade with Canada and Mexico has continued on an upward trend since the implementation of NAFTA (fig. A-1). These two countries were the destination for 28 percent of U.S. agricultural exports and the origin of 35 percent of U.S. agricultural imports in 2000. A decade earlier, these shares were only 17

Figure A-1

U.S. agricultural trade with the NAFTA countries, 1990-2000



Source: Foreign Agricultural Trade of the United States database.

percent and 25 percent, respectively. However, many of these changes already were underway prior to NAFTA. Moreover, other factors - such as population growth, changes in macroeconomic performance and exchange rates, and unusual weather patterns - generally have had a much stronger effect on U.S agricultural trade with Canada and Mexico than NAFTA.

A commodity-by-commodity analysis provides a fuller understanding of NAFTA's impact on U.S. agricultural trade (table A-1). For most commodities, NAFTA's influence is relatively small, generating a small increase in the export or import of a particular commodity with either Canada or Mexico. For a handful of commodities, NAFTA has had a much larger impact, with an increase in trade volume of 15 percent or more that is directly attributable to the agreement. This is particularly true for products whose trade was severely restricted prior to CFTA and NAFTA.

Rice is one such example. U.S. rice exports to Mexico have more than doubled in volume since NAFTA's implementation, and the gradual reduction of Mexico's tariffs on U.S. rice has played a key role in the expansion of this trade. Similarly, U.S. cotton exports to Canada and Mexico have tripled, as the textile and apparel industries in each NAFTA country were able to integrate more fully due to the phasing out of various trade barriers related to these sectors. NAFTA also has provided a boost of at least 15 percent to U.S. pear and apple exports to Mexico.

There has been marked growth in certain U.S. agricultural imports as well. For instance, NAFTA has raised the volume of U.S. imports of fresh tomatoes from Mexico by some 8-15 percent, despite the enactment of a price-floor agreement among principal Mexican and U.S. growers. Similarly, the elimination of U.S. tariffs on fresh potatoes from Canada has led to increased imports, although an expansion in Canadian production and processing and the strong U.S. dollar also are responsible for the growth of this trade. Sugar imports from Mexico have risen considerably from the small levels allowed prior to NAFTA, although achieving the modest duty-free amount of 116,000 metric tons has involved excruciating bilateral consultations.

NAFTA's Investment Impact

An important element of NAFTA is the agreement's rules concerning foreign direct investment (FDI). These rules strengthen the rights of foreign investors to retain profits and returns from their initial investments. The combination of trade liberalization and investment reform has stimulated FDI in the North American food processing industry, with firms in each NAFTA country providing substantial investment capital.

U.S. direct investment in the Mexican food processing industry has more than doubled since NAFTA's implementation, reaching $5.3 billion in 1999. Much of these investments are concentrated in highly processed products such as pasta, confectionery products, and canned and frozen meats. Similarly, under CFTA and NAFTA, U.S. FDI in the Canadian food processing industry expanded from $1.8 billion in 1989 to $5.0 billion in 1999. But unlike FDI in Mexico, U.S. FDI in Canada has been geared more towards the handling and processing of grains.

Table A-1—NAFTA has dramatically affected the volume of trade of certain commodities

Commodity	Annual average of actual trade: Value 1990-93	Value 1994-2000	Volume 1990-93	Volume 1994-2000	Units	Estimated change in trade volume due solely to NAFTA
Selected exports to Canada						
Beef and veal	349	317	85	92	mt	Increase -- High
Wheat products[1]	22	48	27	66	mt	Increase -- High
Cotton	62	91	42	60	mt	Increase -- Medium
Processed tomatoes	71	109	--	--	--	Increase -- Medium
Selected exports to Mexico						
Rice	41	87	161	386	mt	Increase -- High
Dairy products	151	162	--	--	--	Increase -- High
Cotton (including linters)	102	342	80	235	mt	Increase -- High
Processed potatoes	6	19	8	28	mt	Increase -- High
Fresh apples	28	61	54	112	mt	Increase -- High
Fresh pears	16	26	31	51	mt	Increase -- High
Corn	178	521	1,557	4,326	mt	Increase -- Medium
Oilseeds	401	740	1,662	2,956	mt	Increase -- Medium
Beef and veal	149	309	50	107	mt	Increase -- Medium
Sorghum	402	307	3,687	3,083	mt	Decrease -- High
Selected imports from Canada						
Wheat (excluding seed)	136	268	1,109	1,920	mt	Increase -- High
Wheat products[1]	38	98	72	185	mt	Increase -- High
Beef and veal	111	264	260	638	mt	Increase -- High
Corn	21	30	218	268	mt	Increase -- Medium
Fresh potatoes	51	85	274	380	mt	Increase -- Medium
Processed potatoes	50	199	91	313	mt	Increase -- Medium
Cattle and calves	741	857	1,063	1,185	no	Decrease -- High
Selected imports from Mexico						
Wheat products[1]	4	14	6	21	mt	Increase -- High
Cattle and calves	388	300	1,144	965	no	Increase -- High
Peanuts (shelled & in shell)	*	3	*	4,323	mt	Increase -- High
Sugar (cane & beet)	2	49	1	17	mt	Increase -- High
Fresh tomatoes	264	470	322	608	mt	Increase -- Medium
Processed tomatoes	15	16	--	--	--	Increase -- Medium
Cantaloupe	40	47	120	136	mt	Increase -- Medium

* = Negligible.   mt = Metric tons.   no = Number.

[1] Includes flour, bulgur wheat, starch, gluten, and uncooked pasta.

Estimates reflect changes in trade volume during 1994-2000 due solely to CFTA and NAFTA and are based on assessments of ERS analysts:

High = A change of more than 15 percent, compared with what would have occurred without CFTA and NAFTA.

Medium = A change of 6 to 15 percent.

Source for trade data: Foreign Agricultural Trade of the United States database.

NAFTA and Agricultural Employment

By increasing opportunities for U.S. exports and encouraging the more efficient allocation of economic resources, NAFTA has had a small, positive influence on U.S. agricultural employment. However, only a few agricultural sectors have experienced substantial changes in their employment levels since NAFTA's implementation, and many of these changes are driven by factors other than the agreement. Employment in crop production has changed very little, while employment in livestock production has decreased, reflecting technological change and consolidation in the hog industry and drought and poor ranging conditions in the cattle industry. Employment in landscaping and horticultural services and in veterinary services increased substantially during the 1990's, but this growth is most likely due to factors other than NAFTA, such as consumer preferences and the strength of the U.S. economy.

Two manufacturing sectors related to agriculture - textiles and apparel - have experienced a definite decline in employment since the implementation of NAFTA. However, this reduction has been underway since the 1970's and probably would have continued in the absence of NAFTA. Still, by encouraging the development of a more integrated textile and apparel industry within North America, NAFTA has been accompanied by expanded textile and apparel trade among the NAFTA countries, increased productivity in the U.S. textile and apparel sectors, and the retention of jobs in the textile sector that would have relocated to other parts of the world in the absence of the agreement.

Sanitary and Phytosanitary Measures

By "locking in" key trade and investment reforms, the agricultural sectors and governments of the NAFTA countries have been able to devote greater attention to resolving conflicts related to sanitary and phytosanitary (SPS) measures. Some efforts in this area have taken place with the trilateral NAFTA Committee on SPS Measures. In addition, producers in each NAFTA country have worked to meet higher quality standards and to participate actively in the formulation of new standards.

When these efforts have been successful, they have increased agricultural trade. Efforts to inspect and approve at the regional level, and in some instances at the level of individual producers, have opened the door to new markets across international borders. Examples of this approach include:

- U.S. imports of avocados from certain approved growers in the Mexican state of Michoacán;
- U.S. recognition of the Mexican state of Sonora as being free of hog cholera;
- Mexico's lifting of its ban on citrus from Arizona and producing areas in Texas that are not regulated for fruit fly; and
- continuing efforts to design and implement a satisfactory inspection process for U.S. apple exports to Mexico.

Trade Frictions in the NAFTA Era

Trade growth also generates conflicts. Agricultural producers in each NAFTA country have been involved in several disputes, many of which concern countervailing-duty (CVD) measures and/or charges of dumping. There are two active NAFTA dispute resolution panels in this regard. One relates to U.S. exports of high-fructose corn syrup, and the other to U.S. exports of bovine carcasses. Previous NAFTA panels have issued rulings in cases involving U.S. exports of refined sugar to Canada, Canadian exports of live swine to the United States, and Mexican exports of fresh cut flowers to the United States. Canada and the United States continue to spar over the activities of the Canadian Wheat Board, and the Office of the U.S. Trade Representative recently initiated a Section 301 investigation of this subject.

Dispute resolution under the formal NAFTA mechanisms represents only a small part of the process. Most disputes are addressed in earlier stages through governmental consultations and negotiations. The private sector also has begun to play a larger role in dispute resolution. For example, in two recent disputes over grapes and cattle, producer groups in Mexico and the United States worked jointly to resolve regulatory incompatibilities that were at the root of the disagreement.

NAFTA and the Environment

The available evidence suggests that NAFTA is having a combination of positive and negative environmental effects, as producers select alternative techniques of production, increase or decrease the scale of production, and modify the crop and animal composition of their activities in response to changing economic incentives. But none of these effects are particularly widespread. Studies also suggest that NAFTA has not encouraged a general weakening of environmental standards.

By helping to elevate incomes in each NAFTA country, the agreement should also have a positive, long-run effect on the demand for environmental quality and regulation. This effect should be especially pronounced in Mexico, as that country reduces the gap in per capita income that currently separates it from Canada and the United States.

One of NAFTA's real innovations was the creation of the North American Commission for Environmental Cooperation (CEC), which promotes environmental objectives and provides opportunities for environmental organizations and other stakeholders to voice their concerns. Several public symposia have been held under the auspices of the CEC. By bringing environmental concerns before policymakers, these gatherings have facilitated the coordination of trade and environmental policies and lessened the potential conflicts between the two.

NAFTA and Transportation

Transportation bottlenecks, especially for trucks at principal ports of entry along the U.S.-Mexico border, continue to hamper NAFTA trade. Implementing NAFTA's motor carrier provisions, which allow Mexican trucking firms to have greater access to the United States, should help to alleviate these bottlenecks. Several studies have quantified the total delay costs along the entire U.S.-Mexico border, and the most recent comprehensive study placed these costs at $77.4 million in 1999. This estimate would have been even higher if increases in air pollution associated with border congestion had been taken into account.

Further development of the Mexican transportation system will have an important influence on what modes of transportation are used to ship U.S.-Mexico agricultural trade. With the continuing integration of the U.S. and Mexican railway systems, intermodal rail (truck-rail-truck) may attract increased traffic of containerized grains. Improvements in the Mexican Port of Veracruz should increase the competitiveness of ocean grain shipping from U.S. ports along the Gulf Coast. However, improvements in Mexican grain ports may also lower transportation costs for U.S. competitors.

Conclusion

By clearing the way for increased trade and investment among Canada, Mexico, and the United States, NAFTA is enabling agricultural producers and consumers throughout North America to benefit more fully from their relative strengths and to respond more efficiently to changing economic conditions. Each NAFTA country has taken part in the expanded agricultural trade and foreign direct investment fostered by the agreement. Moreover, the agreement has been accompanied by substantial improvements in the North American transportation system and in the institutional capacity of the NAFTA governments to facilitate agricultural trade, resolve trade disputes, and cooperate on environmental issues. Together, these developments are resulting in a more prosperous, more integrated North American economy.