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Role of NAFTA in California Agriculture: a Brief Review*

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Thirteen years after an agreement for free trade with Canada and eight years after Mexico was added to create the North American Free Trade Agreement, NAFTA still stimulates considerable attention and strong opinion. NAFTA, essentially a set of agreements to reduce or eliminate government-set trade taxes and other impediments to commerce between nations of the region, became a reality in 1994, but free trade is still a work in progress in North America. While many tariffs among the United States, Canada and Mexico have been eliminated and most others have been substantially reduced, some features of the agreement continue to be phased in. Nonetheless, there is enough information available to assess some of the impacts of the agreement. This *AIC Issues Brief* summarizes the results of a study the Agricultural Issues Center conducted in collaboration with the California Farm Bureau Federation.

As a part of this research, the California Farm Bureau Federation surveyed its members about their experience with NAFTA as growers, grower-shippers or traders. About 125 questionnaires were returned. The responses listed concerns about competition from Mexico or Canada; frustrations with exporting, especially to Mexico; and general problems with low prices that the respondents attributed to NAFTA, although without specifics. These surveys highlight the strong interest in NAFTA among California farmers and ranchers and emphasize the importance of developing the best evidence available about what NAFTA entails and the likely magnitudes of its commodity market impacts.

Agriculture plays a central role in NAFTA because agricultural trade is important in all three countries. Furthermore, agricultural provisions of NAFTA were a high priority in all three countries during negotiations. Not all agricultural trade barriers are scheduled for elimination in NAFTA. For example, Canada and the United States continue to apply prohibitively high tariffs on the trade of dairy products (after small low-tariff import quotas are filled). Also, nations have retained their rights and responsibilities to protect against agricultural pests and diseases that may threaten food safety, or plant or animal health. However, the majority of tariff reductions under NAFTA has already been implemented or will be completed in 2003. Elimination of most tariffs between Canada and the United States is already complete because that bilateral part of NAFTA was originally negotiated as the Canada-United States Trade Agreement (CUSTA) in the 1980s and began its phase-in period in 1989. Next year marks the 10-year anniversary of the addition of Mexico and the creation of NAFTA, and many U.S. and Mexican tariffs that are being phased out over a 10-year period will reach zero in 2003 (Figure 1).

* This *AIC Issues Brief* is based on an extensive report, "Assessing the Role of NAFTA in California Agriculture: A Review of Trends and Economic Relationships," to be released by the California Farm Bureau Federation. A draft of the full report with details by commodity is available on the AIC website: www.aic.ucdavis.edu.

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Figure 1. **NAFTA tariff chronology***

1989 CUSTA initiated

1994 NAFTA initiated

- U.S. tariffs eliminated for Mexican pears, peaches, oranges (6/1-11/30), fresh strawberries, beef, most tree nuts, carrots
- Mexican tariffs eliminated for U.S. fresh strawberries, oranges (12/1-5/30), other citrus, carrots, most tree nuts

1998 Completion of 9-year transition period associated with CUSTA between Canada and the United States.

- Remaining Canadian-U.S. tariffs eliminated**
- U.S. tariffs eliminated for Mexican cotton, oranges (12/1-5/30)
- Mexican tariffs eliminated for U.S. pears, plums, apricots, cotton

2003 Completion of 9-year transition period under NAFTA between Mexico and the United States

- United States to eliminate tariffs for Mexican rice, dairy, winter vegetables, frozen strawberries, fresh tomatoes
- Mexico to eliminate tariffs for U.S. rice, dairy products, peaches, oranges (6-1 to 11-30), frozen strawberries, fresh tomatoes

2008 Completion of 14-year transition period under NAFTA between Mexico and the United States

- United States to eliminate tariffs for Mexican frozen concentrated orange juice, winter vegetables
- Mexico to eliminate tariffs for U.S. corn, sugar (10/2007), dried beans

Source: Modified by authors from USDA, Economic Research Service data, 2002
*Commodities listed are examples
**Canada exempted products such as dairy, poultry and eggs from free trade under NAFTA

Background

California is important to NAFTA because of its large economy (larger than Mexico and Canada combined) and its significant trade profiles with Canada and Mexico. Furthermore, with a value of agricultural production larger than either Mexico or Canada, California plays a major part in the agricultural trade of North America. However, NAFTA is much more important in Canada or Mexico than it is in the United States or in California. Free trade within the huge U.S. market and the size of the U.S. economy relative to those of Canada and Mexico, imply that trade within the United States remains more important to our general economy and to our agricultural economy than trade with our NAFTA partners. This key fact means that we should not expect NAFTA to dominate economic relationships in California agriculture. However, it does not mean that NAFTA is irrelevant. Even small changes in market price caused by expanded markets or new competition can affect net incomes significantly.

Gains from trade

The simple economics of gains from more open trade access are similar to the economics of any reduction in barriers to economic activities. Lower taxes on traded goods facilitate profitable shipments across borders. Markets that now have better access to imports experience lower prices and more variety, which causes the consumers in that country to gain while the competing producers lose. Regions that now have better export opportunities experience higher prices for export items, so producers in the region gain and consumers lose. There are winners and losers, but the gains exceed the losses. This is just a reflection of the well-known observation that if one is allowed to focus on one's comparative advantage, there will be a net gain in income and wealth.

More open trade thus tends to raise incomes in the liberalized economies and encourages production and investment to readjust to follow the principles of comparative advantage. Income growth raises the demand for agricultural products, but demands for some products, especially many of the fruit and vegetable products produced in California, are even more responsive to income growth. Furthermore, the demand for food expands more with income growth in low-income markets such as Mexico than in richer countries such as the United States and Canada. Thus as more open markets raise economic growth rates in Mexico, food exporters gain.

Approach

Economists often evaluate policy changes using economic models to simulate conditions with and without the policy in question. Such a formal modeling approach was beyond the scope of the present effort.

A potentially important consequence of NAFTA is on trade within the United States. In this study, we focus on the direct shipments of a commodity from California to the NAFTA partners. However, NAFTA also affects shipments to and from the rest of the United States. Such effects could have an important impact on NAFTA's role in California agriculture. For example, cattle from Mexico might enter Texas and displace California feeder cattle in that market, causing a negative effect in California, even if direct trade flows between California and Mexico were unchanged. Alternatively, if Texas fruit shipments to Mexico increased, the market for California fruit would expand in U.S. markets where California fruit previously competed with Texas fruit. Again, NAFTA would have effects even if California shipments to Mexico did not change.

Cross-commodity effects may also be important in some cases. If the market for a crop expands, land shifts, and production will be lower for other crops that compete for land and resources. The result is a higher price for the competing crops, even if they do not experience an increase in market demand due to NAFTA. A similar impact occurs for agricultural commodities that are inputs into other farm products. For example the hay industry gains from increased demand for dairy products and may gain from NAFTA even with no change in trade flows. A related cross-commodity impact may occur on the demand side when a higher price for one food increases demand for substitute foods. While we have tried to consider such impacts informally, our analysis was not able to take such complex relationships into account fully, without a much more elaborate modeling effort.

Our aim in this research was to review the reductions of trade barriers that constitute NAFTA and examine how changes in trade flows relate to these reductions in trade barriers. In order to assess the role of reductions in trade barriers, we examined the context of many other factors that influence commodity production and trade. Finally, we also examined agricultural prices and incomes and considered how they have been influenced by the changing trade flows following the policy changes under NAFTA over the past 15 years.

Data on U.S. agricultural imports and exports are available from federal sources; however, comparable information is not collected on a state-by-state basis. Because the United States is a unified market for most important farm products, we used the national import data in our analysis. For exports we focused on California data. Fortunately, we are able to use data on California agricultural exports. State export data is important for analyzing California's potential markets, for helping marketing organizations and government agencies develop strategies and, as in this case, to investigate the impacts of NAFTA on California alone as compared to the whole nation. The agricultural export statistics employed in the report were mainly based on AIC estimates. For the past six years, the Center has produced export data for California agriculture. (See *AIC Issues Brief* Number 19 by Bervejillo and Sumner for the 2001 numbers.)

Other factors influencing trade in North America

Many factors other than NAFTA have influenced the economic conditions in California agriculture over the past decade. Foremost are weather and agronomic conditions that have accounted for large supplies of California crops. Large crops in parts of the United States and elsewhere have also depressed prices for some California crops. Substantial increases in farm subsidies for program crops beginning in 1998 responded to, but also contributed to, large supplies and low prices. The Asian financial crisis lowered demand for imports by reducing incomes among Asian

importers and lowering the value of the currency in both import nations and competitor nations.
In 1995, Mexico faced a drastic fall in national income and a dramatic fall in the value of the Mexican peso. U.S. agricultural exports to Mexico fell as a consequence of the exchange rate decline and the fall in Mexican incomes. For a number of commodities, such as fresh tomatoes, exports increased during the first year of NAFTA but suffered dramatic setbacks in 1995 and 1996 during the Mexican economic crisis before slowly recuperating.

More generally, the strong U.S. dollar relative to most major currencies of the world made U.S. farm exports expensive relative to competing products and reduced the relative price of imports in the U.S. market. On the positive side, low inflation and interest rates have kept increases in farm costs lower than in the 1980s when farm prices were also depressed. Finally, the WTO agreement, which began to be implemented in the mid-1990s, has opened markets for some California exports. Because so many conditions have affected the farm economy of California during the full NAFTA period since 1989, it is difficult to sort what role NAFTA has played, but some assessments are possible.

Review of main commodity findings

California agriculture is incredibly diverse. Clearly, we cannot review how NAFTA may have affected all 300 commodities in the state. The full report examines 45 of the most important commodities and commodity groups where trade plays a significant role to consider how they have fared over the NAFTA period and how their economic conditions over the period relate to the trade policy changes that occurred under NAFTA.

Overall, most California farm commodities were affected only slightly by NAFTA, and for many commodities we examined, the net effects seem too small to discern reliably (Table 1). For a number of commodities, the net effect of NAFTA seems positive, though still quite small relative to the size of the industry.

Dairy, the largest farm commodity industry in California by gross revenue, is in this category. However, dairy product exports, notably nonfat dry milk to Mexico, have been aided by export subsidies under the Dairy Export Incentive Program (DEIP). Under the program, the U.S. Department of Agriculture pays per unit subsidies to exporters, allowing them to sell certain U.S. dairy products to selected markets at competitive export prices. The DEIP predates NAFTA, but during the NAFTA period Mexico changed its government procurement policy for food assistance and began purchasing subsidized U.S. products. Some of the expanded exports of dairy products to Mexico followed from a combination of the DEIP

Table 1. **NAFTA's impact on important California commodities**

Positive	Very small	Negative
Apricot	Almonds, pistachios, walnuts	Asparagus
Dairy products	Beef	Avocados
Lettuce	Bell peppers	
Strawberries	Broccoli, carrots	
Tomatoes, fresh	Cauliflower, celery	
Tomatoes, processing	Cherries, sweet	
	Cotton	
	Grapes, table	
	Lemons, oranges	
	Live cattle	
	Melons	
	Onions	
	Peaches/nectarines	
	Pears, plums, prunes	
	Rice	
	Raisins	
	Wheat	
	Wine	
	*Apples, artichokes, dates, eggs, figs, garlic, grapefruit, hay, kiwi, mushrooms, olives, potaoes	

* Trade for these California commodities is relatively small overall or within NAFTA.

and the reformed Mexican domestic food assistance program. Other dairy products that were not subsidized by the DEIP also experienced higher exports to Mexico (for example, whey) during the period. We associate the expanded California dairy exports to Mexico with NAFTA, but some of this expansion may have occurred even without the NAFTA tariff cuts.

Several commodities, especially among the fruits and vegetables, have experienced more clearly positive impacts, where those impacts are often attributable to more access to the market in Canada. Lettuce belongs to this category. Also, the California strawberry industry has experienced higher exports to Canada and Mexico as a consequence of the policy changes under NAFTA. Strawberry imports from Mexico have increased as well in the past 10 years, showing that Mexico, too, has profited from better access to markets in the United States, but the net effects are still positive.

Increased exports of California commodities to the NAFTA partners is sometimes accompanied with higher imports of the same commodities from those countries. Bell peppers offer an example where the net impacts of NAFTA on California agriculture are hard to identify due to such increased two-way flow of products. The table grape industry shipped more to both Canada and Mexico, and Mexico shipped more the United States. Parts of the U.S. fresh tomato industry that compete directly with Canadian greenhouse products or Mexican field tomatoes have faced increased competitive pressure, but most of the California industry competes much less directly with Canada or Mexico and thus has probably gained from NAFTA.

A number of commodities, for example watermelons, have experienced enormous increases in shipments from Mexico, but while the numbers appear threatening, such imports often occur in the U.S. off-season and can therefore have relatively small direct effects.

For a few commodities, additional competition from Mexico or Canada seems likely to have reduced prices enough to offset any gains from expanded market access or better economic growth in the three markets. One commodity industry for which this impact seems most evident is the avocado industry. Mexican avocados are now shipped into a part of the U.S. market where they compete directly with California avocados. Avocado shipments from Mexico to the United States had been prohibited for almost 80 years due to phytosanitary concerns. Beginning in 1993, the United States opened several U.S. states to Mexican avocados and extended the period of such imports. California and other states in southwestern U.S. still do not receive avocados from Mexico. The change in phytosanitary regulations occurred as NAFTA was being implemented, and we have attributed the increased imports to NAFTA. However, even without NAFTA, it is likely that the U.S. import ban would have been addressed under WTO rules dealing with SPS issues. Therefore, it may not be correct to attribute this increase in imports directly to NAFTA, even though they occurred when NAFTA was being implemented.

The California asparagus industry faced increased pressure from Mexican asparagus shipments following the policy changes under NAFTA. The value of imports from Mexico has doubled during the second half of the 1990s, while exports from the United States have decreased in recent years.

A clearly positive effect of NAFTA overall is the improved treatment of Sanitary and Phytosanitary issues (SPS). Trade disputes over SPS issues will continue so long as there are pest and disease issues and agricultural trade. However, NAFTA contributed an agreed approach to solving technical issues and a set of procedures for dealing with disputes. The key to satisfactory dispute resolution is for all three NAFTA partners to acknowledge the importance of objective, science-based evidence and protocols in dealing with SPS issues.

Summary and implications

This study has found that among all the factors that have influenced the economics of California agriculture over the past 12 years, NAFTA has probably played a relatively small role. For example, the WTO agreement of 1994 and exchange rate movements have likely been much more important to trade overall. Furthermore, as usual, weather has had the most dramatic impacts on production and prices. After reviewing the best evidence available for California agriculture as a whole and across many commodities, we find that NAFTA has generally had a slight positive impact, but that is not true for every industry and, of course, it is not true for every farm. Furthermore, we were not able to assess the effects of NAFTA for every commodity industry, and some that are lower in terms of total revenue share in California may well have been negatively affected by NAFTA.

The research conducted in this study may have implications for trade negotiations that are now underway. First, short-term economic impacts of trade agreements must not be oversold. For example, the Mexican economy and Mexican agriculture are both small compared to the United States, and freer trade with Mexico could only have had marginal effects on the economy of the United States. Sometimes, given all the publicity about trade agreements, it seems that simple facts such as this are lost. Looking forward, the Free Trade Area of the Americas may be important for many reasons, but the impacts on the U.S. economy overall will almost surely be small. For California agriculture, the short-term impacts may be roughly the same magnitude as those of NAFTA, although the specific commodity patterns will be different. The prospects for the impacts of the current WTO negotiations are larger simply because these negotiations promise to lower barriers on a global basis. However, the WTO negotiations launched in Doha last year are unlikely to result in free trade and may only reduce trade barriers gradually over another decade or so.

A second implication is that in discussing results of trade agreements, negotiators and trade analysts can reduce disappointments and frustrations by explicitly acknowledging that, while economies gain from freer trade, there are winners and losers among specific groups. As net exporters, U.S. and California agriculture are likely to be significant beneficiaries of more open world markets for agricultural products, but that is not true for every commodity industry that comprises California agriculture. In negotiating trade agreements, it is important to acknowledge that some industries may face adjustments and may even shrink in response to additional competition. Perhaps it would be useful for trade policy officials and analysts to emphasize at the outset which industry adjustments seem likely, both on the downside and upside, so that industries and firms can plan ahead.

Finally, trade policy analysts should probably devote even more effort to discussing how they expect trade agreement implementation to proceed and then quantify the results as they evolve during implementation. Accurate and timely information can forestall widespread reactions that are based on narrow observations relative to the full array of data available. It is our assessment that NAFTA has not had the dire consequences that some have ascribed to it. However, neither has NAFTA solved the severe economic problems that California agriculture has faced in recent years. ■

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