HOW NAFTA WILL AFFECT AGRICULTURE IN THE UNITED STATES: REGIONAL IMPACTS

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After more than a year of intense discussions, the North American Free Trade Agreement (NAFTA) negotiations were completed on August 14, 1992, in Washington. The result will be the largest free trade area in the world covering all trade between more than 360 million people and economies of more than $7 trillion in Gross Domestic Product (GDP).

Fast Track

Consideration of the NAFTA is subject to the "fast-track" procedures provided by Congress for trade agreements.

The schedule is as follows: Ninety days after the official notice to Congress of the intent to enter into a trade agreement, the president may sign the agreement. In the case of the NAFTA, this notice was on September 18, 1992, so that means late December, 1992, is the earliest the agreement may be signed. Only after signing the trade agreement may implementing legislation be submitted, but there is no deadline for submitting such legislation.

Once the legislation is submitted, it will be entitled to "fast-track" treatment, meaning that Congress will vote "yes" or "no" on the agreement within ninety legislative days. No amendments are allowed. In recent cases, passage has taken considerably less than ninety days because Congress and the administration have collaborated on the drafting of implementing legislation.

Following the above schedule, a Congressional vote on the NAFTA might be expected perhaps as early as the spring of 1993. But no specific deadline can be specified because we do not know when the implementing legislation will be submitted. Clearly this "fast track" is only "fast" by Washington standards.

Although the NAFTA has been negotiated, implementing legislation is required for it to become effective. An intense public policy debate should be anticipated during 1993. This paper is designed to contribute to that debate.

Economic Effects of the NAFTA

The NAFTA negotiation successfully established what will become essentially free trade among the United States, Canada and Mexico. It builds on the 1988 agreement between the United States and Canada by strengthening that agreement somewhat and by adding Mexico to the free trade area. The NAFTA will reduce tariffs to zero for almost all products—both industrial and agricultural. It will improve access for services and investment and improve rules related to intellectual property.

Free trade in North America means faster economic growth in all three countries. There is a broad consensus among economic studies that economic growth rates are likely to increase by around 0.5 percentage points in Mexico and by perhaps 0.1 percentage points in the United States compared to the results with no NAFTA. The reason for the difference in percentage effects between countries is, of course, that the Mexican economy is so much smaller than the U.S. economy. Opening our market to Mexican exports and gaining better access to U.S. exports means much more in relative terms to the Mexican economy.

Improved growth rates translate into increased employment. The analytical studies done on the NAFTA all point to enhanced employment prospects for U.S. workers. An increase in economic activity of $30 billion (about 0.5 percent of GDP in 1991) translates into roughly 1 million additional jobs. On net, we may expect the NAFTA to generate employment growth of roughly this order of magnitude (Office of the U.S. Trade Representative).

This enhanced growth and employment applies to the economy in rural America as it does to the urban areas. It is important to remember that most of the economic activity in rural areas is not in agriculture and, whereas we do not want to underestimate the influence of farming as a core industry, at the same time we do not want to neglect the benefits of the NAFTA in the manufacturing and service industries. The rest of this paper deals with commodity influences but, for rural areas, the general stimulus to economic growth is at least as important.

Commodity Effects

Between the United States and Mexico, all nontariff barriers are converted to tariffs and all tariffs are either eliminated immediately or phased out gradually with transition periods of up to fifteen years. For a few particularly sensitive farm commodities, tariff rate quotas effectively limit imports to some specified amount by introducing a two-tier tariff scheme. The first-tier tariff is set at low or zero rates, but once some pre-specified amount of imports have entered, any additional imports would be subject to a high tariff. These second-tier tariffs are likely to be prohibitive in the early years of the transi-

tion. Gradual market opening is achieved for these commodities by expanding the imports allowed under the low or zero duty by 3 percent each year and by lowering the tariff applied on any additional imports. By the end of the transition period, all tariffs will be reduced to zero (Sumner).

U.S. Department of Agriculture (USDA) analysis indicates that U.S. agricultural exports are expected to be $2.0 billion higher than without NAFTA by the end of the transition. Livestock, meat and grains will account for much of the expansion. Cash receipts in agriculture will be about 3 percent higher compared with projected receipts without NAFTA (U.S. Department of Agriculture, Aug. 1992).

Mexico's main exports to the United States have been tropical and horticultural crops such as coffee, fruits and vegetables. U.S. imports of these products also are likely to expand with the agreement (U.S. Department of Agriculture, July, 1992).

The previous section has outlined the national commodity impacts. More detail on individual commodity results is now available in *Preliminary Analysis of the Effects of the North American Free Trade Agreement on U.S. Agricultural Commodities* from USDA's Office of Economics.

Livestock and Meat. Mexico is one of the fastest growing export markets for U.S. meat, especially fresh/chilled/frozen and processed products.

NAFTA will phase out the 10 percent tariff on U.S. pork entering Mexico, significantly increasing pork exports to Mexico and doubling exports by the end of the transition period. Beef exports to Mexico will expand due to income improvement.

NAFTA will increase live cattle trade in both directions between the United States and Mexico. As constraints such as tariffs, licenses and export taxes are removed, more young cattle from Mexico will be fed in the United States and more U.S. slaughter cattle will be shipped to Mexico. However, Mexican imports and exports will remain small relative to the total U.S. market, so the NAFTA will have effects on total U.S. cattle production and prices.

U.S. poultry exports have increased rapidly in recent years, from $16 million in 1987 to over $110 million in 1991, and Mexican demand is expected to continue to grow. U.S. exports will benefit from the removal of Mexico's import licensing requirement and economic growth in Mexico.

Dairy Products. Mexico is the world's largest market for milk powder and represents the most important outlet for U.S. nonfat dry milk exports. NAFTA will increase Mexican income growth and Mexican demand for dairy products. Overall, NAFTA will allow the United States to obtain a larger share of the Mexican dairy import market.

Cotton. NAFTA will provide an increased export market for the U.S. cotton industry. Although Mexico has been a cotton exporter in the past, it has been a net importer in recent years. Mexico has not filled its quota for imports into the United States since 1984/85. Liberalization will increase U.S.-Mexico trade in textiles and apparel, increasing Mexican demand for U.S. cotton in either raw cotton form or as textiles manufactured in U.S. mills.

Sugar. There is a fifteen-year transition period for sugar. U.S. tariffs on sugar from Mexico will decline by 15 percent over the first six years, and then be phased out to zero over the balance of the transition period. By year seven, Mexico will establish border protection, equal to that of the United States, for imports from third countries.

Under the NAFTA, Mexico retains its current export allocation to the U.S. market of 7,258 metric tons. Any additional access to the U.S. market depends on Mexico becoming a net exporter of sugar. The USDA analysis indicates that Mexico is unlikely to become a net sugar exporter and little impact on sugar trade is anticipated (Sumner).

Nuts, Fruits, and Vegetables. Mexican income growth will increase that country's consumption of fruits and vegetables, thus limiting Mexico's export potential to the United States and expanding the market for U.S. produce in Mexico.

NAFTA will provide increased market opportunities from reduced barriers and income growth in Mexico for U.S. horticultural commodities. The most significant gainers will include fresh apples, pears and peaches. U.S. exports of fresh vegetables to Mexico (counter-seasonal to their production) will also increase as Mexican consumers increase demand for high-quality fresh produce. U.S. tree nut exports to Mexico, already having grown from $8 million to $16 million during 1987-91, will continue to expand as NAFTA eliminates Mexico's 15 to 20 percent tariffs.

Grains and Oilseeds. NAFTA assures the United States access under an initial tariff quota of 2.5 million metric tons into the Mexican corn market. U.S. corn exports to Mexico in 1991, when exports were subject to import licensing requirements, were 1.3 million metric tons. Under NAFTA, as the tariffs are reduced and incomes grow, U.S. corn exports to Mexico will increase steadily over the longer term. NAFTA implies a small increase in U.S. corn prices and production.

U.S. sorghum exports will increase due to the immediate elimination of the sorghum tariff. U.S. wheat exports will increase under NAFTA as a result of the elimination of tariffs and licensing and higher Mexican incomes. U.S. wheat exports to Mexico are expected to grow to 1 to 1.5 million tons per year within a decade.

Under NAFTA, Mexico will reduce its 15 percent seasonal duty on

soybeans to 10 percent, which will then be phased out over ten years. The United States has traditionally supplied three-fourths of Mexico's imports of soybeans and meal. Mexico's demand for grains and oilseeds for feeding is expected to increase as its livestock and poultry sectors expand. The elimination of the seasonal duty will help increase the U.S. share of Mexico's soybean and product imports.

The gain in U.S. corn, sorghum, wheat and oilseed exports is expected to approach an additional 5 million tons per year by the time NAFTA is fully implemented.

Translating Commodity Impact into Regional Effects

Tables 1 and 2 indicate the importance of various commodities in each of the fifty States (U.S. Department of Agriculture, forthcoming). The simplest approach to linking national commodity impacts to how agriculture in each region will likely be affected by the NAFTA is to apply the national impacts to the commodity outputs in each state. However, there are additional considerations.

To consider how some policy or other economic event affects agriculture across regions of the country, it is useful to begin with an evaluation of commodity impacts. To at least a first order of magnitude, knowing what commodities a region produces provides a sense of what the policy change means to the agriculture in a region. That is the basic approach we take for an assessment of the North American Free Trade Agreement.

Of course, some refinements (and perhaps more than refinements) are in order. Commodity definitions need to be specified carefully to assess regional implications of a change in the commodity demand conditions on a national level and, often, significant disaggregation is required. For example, sometimes analysis of U.S. agriculture treats citrus as though it were a single industry. But, the lime, grapefruit, fresh market orange and juice orange industries are quite distinct. They differ in the markets they compete in and in the potential competition from Mexico and elsewhere. They are also different in different regions of the country. For example, the orange industry in California is likely to gain from the NAFTA. California oranges are used primarily for fresh consumption and face little potential import competition from Mexico. We expect export gains for the California orange industry. Little of the crop goes for juice, particularly as a share of total revenue. The Florida orange industry is primarily a juice supplier. The frozen concentrate orange juice produced faces strong import competition, especially from Brazil, but increasingly from Mexico. The NAFTA, by gradually eliminating the existing U.S. tariff (approximately 30 percent *ad valorem* equivalent) will make Mexican juice more competitive in the U.S. market relative to both Brazil and to Florida. USDA analysis indicates that Florida will

Table 1. Cash Receipts for Five Principal Commodities by States, 1991

State	Total Cash Receipts	Commodity	Cash Receipts	Commodity	Cash Receipts	Commodity	Cash Receipts	Commodity	Cash Receipts	Commodity	Cash Receipts
Alabama	2,978	Broilers	1,148	Cattle/calve	646	Grnhs/nurs	200	Peanuts	188	Eggs	167
Alaska	27	Grnhs/nurs	15	Dairy prods	3	Hay	2	Potatoes	2	Barley	1
Arizona	1,890	Cattle/calve	516	Cotton	405	Dairy prods	208	Lettuce	149	Hay	100
Arkansas	4,311	Broilers	1,370	Cattle/calve	520	Soybeans	503	Rice	475	Cotton	441
California	17,887	Dairy prods	2,455	Grnhs/nurs	1,954	Cattle/calve	1,682	Grapes	1,446	Cotton	993
Colorado	3,761	Cattle/calve	2,244	Corn	275	Wheat	208	Dairy prods	166	Hay	161
Connecticut	463	Grnhs/nurs	135	Eggs	82	Dairy prods	71	Tobacco	49	Aquaculture	26
Delaware	620	Broilers	392	Soybeans	45	Corn	37	Grnhs/nurs	34	Dairy prods	17
Florida	6,141	Oranges	1,173	Grnhs/nurs	998	Tomatoes	2/	Cane/sugar	484	Dairy prods	373
Georgia	3,978	Broilers	1,126	Peanuts	631	Eggs	290	Cattle/calve	266	Hogs	209
Hawaii	597	Cane/sugar	198	Pineapples	108	Grnhs/nurs	82	Macad.nuts	35	Cattle/calve	33
Idaho	2,616	Cattle/calve	667	Potatoes	493	Dairy prods	319	Wheat	255	Sugarbeets	211
Illinois	7,509	Corn	2,681	Soybeans	1,958	Hogs	1,172	Cattle/calve	740	Dairy prods	339
Indiana	4,475	Corn	1,237	Soybeans	958	Hogs	824	Cattle/calve	304	Dairy prods	270
Iowa	10,179	Hogs	2,916	Corn	2,466	Cattle/calve	2,057	Soybeans	1,808	Dairy prods	483
Kansas	6,935	Cattle/calve	4,272	Wheat	981	Corn	405	Hogs	323	Sorghum grai	296
Kentucky	3,179	Tobacco	843	Cattle/calve	758	Horses/mules	466	Dairy prods	264	Soybeans	218
Louisiana	1,793	Cotton	388	Cattle/calve	221	Cane/sugar	192	Soybeans	174	Rice	169
Maine	445	Potatoes	109	Eggs	86	Dairy prods	85	Aquaculture	39	Cattle/calve	25
Maryland	1,332	Broilers	384	Grnhs/nurs	197	Dairy prods	182	Soybeans	95	Corn	81
Massachusetts	476	Grnhs/nurs	143	Cranberries	97	Dairy prods	65	Eggs	20	Apples	19
Michigan	3,081	Dairy prods	643	Corn	393	Cattle/calve	285	Soybeans	266	Grnhs/nurs	266
Minnesota	6,936	Corn	1,216	Dairy prods	1,149	Soybeans	1,009	Cattle/calve	978	Hogs	907
Mississippi	2,422	Cotton	685	Broilers	579	Cattle/calve	252	Soybeans	248	Aquaculture	207
Missouri	3,861	Cattle/calve	874	Soybeans	730	Hogs	534	Corn	388	Dairy prods	334
Montana	1,531	Cattle/calve	666	Wheat	406	Barley	156	Hay	74	Sugarbeets	57
Nebraska	8,821	Cattle/calve	4,783	Corn	1,754	Hogs	878	Soybeans	449	Sorghum grai	192
Nevada	276	Cattle/calve	141	Hay	48	Dairy prods	38	Potatoes	15	Hogs	2
New Hampshire	143	Dairy prods	43	Grnhs/nurs	33	Apples	11	Cattle/calve	7	Hay	6
New Jersey	660	Grnhs/nurs	203	Dairy prods	52	Eggs	34	Peaches	27	Blueberries	24

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Table 1. Cash Receipts for Five Principal Commodities by States, 1991—Continued

State	Total Cash Receipts	Commodity	Cash Receipts	Commodity	Cash Receipts	Commodity	Cash Receipts	Commodity	Cash Receipts	Commodity	Cash Receipts
New Mexico	1,501	Cattle/calve	752	Dairy prods	221	Hay	113	Peppers, chil	59	Onions	45
New York	2,868	Dairy prods	1,387	Grnhs/nurs	347	Cattle/calve	208	Apples	133	Hay	72
North Carolina	4,924	Tobacco	1,055	Broilers	777	Hogs	659	Turkeys	431	Grnhs/nurs	295
North Dakota	2,556	Wheat	854	Cattle/calve	497	Barley	213	Sunflowers	191	Sugarbeets	172
Ohio	3,893	Soybeans	767	Corn	761	Dairy prods	592	Hogs	415	Cattle/calve	325
Oklahoma	3,808	Cattle/calve	2,226	Wheat	383	Grnhs/nurs	273	Broilers	189	Dairy prods	152
Oregon	2,454	Cattle/calve	444	Grnhs/nurs	358	Dairy prods	204	Wheat	154	Hay	104
Pennsylvania	3,503	Dairy prods	1,347	Cattle/calve	448	Grnhs/nurs	294	Mushrooms	256	Eggs	222
Rhode Island	71	Grnhs/nurs	39	Dairy prods	5	Eggs	4	Potatoes	2	Apples	2
South Carolina	1,225	Tobacco	191	Cattle/calve	135	Broilers	116	Grnhs/nurs	88	Cotton	87
South Dakota	3,264	Cattle/calve	1,470	Hogs	397	Corn	297	Soybeans	290	Wheat	287
Tennessee	1,978	Cattle/calve	485	Dairy prods	262	Tobacco	210	Cotton	203	Soybeans	186
Texas	12,126	Cattle/calve	6,157	Cotton	1,572	Dairy prods	683	Grnhs/nurs	564	Broilers	509
Utah	731	Cattle/calve	283	Dairy prods	149	Hay	55	Turkeys	45	Grnhs/nurs	26
Vermont	433	Dairy prods	311	Cattle/calve	45	Grnhs/nurs	23	Hay	13	Maple prods	11
Virginia	2,095	Cattle/calve	412	Broilers	305	Dairy prods	269	Tobacco	197	Turkeys	123
Washington	3,947	Apples	800	Dairy prods	558	Cattle/calve	534	Wheat	373	Potatoes	272
West Virginia	330	Cattle/calve	104	Broilers	55	Dairy prods	34	Turkeys	29	Apples	24
Wisconsin	5,449	Dairy prods	2,850	Cattle/calve	924	Corn	349	Hogs	230	Grnhs/nurs	143
Wyoming	813	Cattle/calve	590	Sugarbeets	55	Hay	42	Barley	26	Sheep/lambs	24

1/All cash receipts data are reported in million dollars. 2/Not available.
Source: Economic Research Service.

Table 2. Receipts Shares for Principal Commodities by States, 1991

State	Total Cash Receipts	Commodity	Share	Commodity	Share	Commodity	Share	Commodity	Share	Commodity	Share
Alabama	2,978	Broilers	0.39	Cattle/calve	0.22	Grnhs/nurs	0.07	Peanuts	0.06	Eggs	0.06
Alaska	27	Grnhs/nurs	0.56	Dairy prods	0.11	Hay	0.07	Potatoes	0.07	Barley	0.04
Arizona	1,890	Cattle/calve	0.27	Cotton	0.21	Dairy prods	0.11	Lettuce	0.08	Hay	0.05
Arkansas	4,311	Broilers	0.32	Cattle/calve	0.12	Soybeans	0.12	Rice	0.11	Cotton	0.10
California	17,887	Dairy prods	0.14	Grnhs/nurs	0.11	Cattle/calve	0.09	Grapes	0.08	Cotton	0.06
Colorado	3,761	Cattle/calve	0.60	Corn	0.07	Wheat	0.06	Dairy prods	0.04	Hay	0.04
Connecticut	463	Grnhs/nurs	0.29	Eggs	0.18	Dairy prods	0.15	Tobacco	0.11	Aquaculture	0.06
Delaware	620	Broilers	0.63	Soybeans	0.07	Corn	0.06	Grnhs/nurs	0.05	Dairy prods	0.03
Florida	6,141	Oranges	0.19	Grnhs/nurs	0.16	Tomatoes	2/	Cane/sugar	0.08	Dairy prods	0.06
Georgia	3,978	Broilers	0.28	Peanuts	0.16	Eggs	0.07	Cattle/calve	0.07	Hogs	0.05
Hawaii	597	Cane/sugar	0.33	Pineapples	0.18	Grnhs/nurs	0.14	Macad.nuts	0.06	Cattle/calve	0.06
Idaho	2,616	Cattle/calve	0.25	Potatoes	0.19	Dairy prods	0.12	Wheat	0.10	Sugarbeets	0.08
Illinois	7,509	Corn	0.36	Soybeans	0.26	Hogs	0.16	Cattle/calve	0.10	Dairy prods	0.05
Indiana	4,475	Corn	0.28	Soybeans	0.21	Hogs	0.18	Cattle/calve	0.07	Dairy prods	0.06
Iowa	10,179	Hogs	0.29	Corn	0.24	Cattle/calve	0.20	Soybeans	0.18	Dairy prods	0.05
Kansas	6,935	Cattle/calve	0.62	Wheat	0.14	Corn	0.06	Hogs	0.05	Sorghum grai	0.04
Kentucky	3,179	Tobacco	0.27	Cattle/calve	0.24	Horses/mules	0.15	Dairy prods	0.08	Soybeans	0.07
Louisiana	1,793	Cotton	0.22	Cattle/calve	0.12	Cane/sugar	0.11	Soybeans	0.10	Rice	0.09
Maine	445	Potatoes	0.24	Eggs	0.19	Dairy prods	0.19	Aquaculture	0.09	Cattle/calve	0.06
Maryland	1,332	Broilers	0.29	Grnhs/nurs	0.15	Dairy prods	0.14	Soybeans	0.07	Corn	0.06
Massachusetts	476	Grnhs/nurs	0.30	Cranberries	0.20	Dairy prods	0.14	Eggs	0.04	Apples	0.04
Michigan	3,081	Dairy prods	0.21	Corn	0.13	Cattle/calve	0.09	Soybeans	0.09	Grnhs/nurs	0.09
Minnesota	6,936	Corn	0.18	Dairy prods	0.17	Soybeans	0.15	Cattle/calve	0.14	Hogs	0.13
Mississippi	2,422	Cotton	0.28	Broilers	0.24	Cattle/calve	0.10	Soybeans	0.10	Aquaculture	0.09
Missouri	3,861	Cattle/calve	0.23	Soybeans	0.19	Hogs	0.14	Corn	0.10	Dairy prods	0.09
Montana	1,531	Cattle/calve	0.44	Wheat	0.27	Barley	0.10	Hay	0.05	Sugarbeets	0.04
Nebraska	8,821	Cattle/calve	0.54	Corn	0.20	Hogs	0.10	Soybeans	0.05	Sorghum grai	0.02
Nevada	276	Cattle/calve	0.51	Hay	0.17	Dairy prods	0.14	Potatoes	0.05	Hogs	0.01
New Hampshire	143	Dairy prods	0.30	Grnhs/nurs	0.23	Apples	0.08	Cattle/calve	0.05	Hay	0.04
New Jersey	660	Grnhs/nurs	0.31	Dairy prods	0.08	Eggs	0.05	Peaches	0.04	Blueberries	0.04

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Table 2. Receipts Shares for Principal Commodities by States, 1991—Continued

State	Total Cash Receipts	Commodity	Share	Commodity	Share	Commodity	Share	Commodity	Share	Commodity	Share
New Mexico	1,501	Cattle/calve	0.50	Dairy prods	0.15	Hay	0.08	Peppers, chil	0.04	Onions	0.03
New York	2,868	Dairy prods	0.48	Grnhs/nurs	0.12	Cattle/calve	0.07	Apples	0.05	Hay	0.03
North Carolina	4,924	Tobacco	0.21	Broilers	0.16	Hogs	0.13	Turkeys	0.09	Grnhs/nurs	0.06
North Dakota	2,556	Wheat	0.33	Cattle/calve	0.19	Barley	0.08	Sunflowers	0.07	Sugarbeets	0.07
Ohio	3,893	Soybeans	0.20	Corn	0.20	Dairy prods	0.15	Hogs	0.11	Cattle/calve	0.08
Oklahoma	3,808	Cattle/calve	0.58	Wheat	0.10	Grnhs/nurs	0.07	Broilers	0.05	Dairy prods	0.04
Oregon	2,454	Cattle/calve	0.18	Grnhs/nurs	0.15	Dairy prods	0.08	Wheat	0.06	Hay	0.04
Pennsylvania	3,503	Dairy prods	0.38	Cattle/calve	0.13	Grnhs/nurs	0.08	Mushrooms	0.07	Eggs	0.06
Rhode Island	71	Grnhs/nurs	0.55	Dairy prods	0.07	Eggs	0.06	Potatoes	0.03	Apples	0.03
South Carolina	1,225	Tobacco	0.16	Cattle/calve	0.11	Broilers	0.09	Grnhs/nurs	0.07	Cotton	0.07
South Dakota	3,264	Cattle/calve	0.45	Hogs	0.12	Corn	0.09	Soybeans	0.09	Wheat	0.09
Tennessee	1,978	Cattle/calve	0.25	Dairy prods	0.13	Tobacco	0.11	Cotton	0.10	Soybeans	0.09
Texas	12,126	Cattle/calve	0.51	Cotton	0.13	Dairy prods	0.06	Grnhs/nurs	0.05	Broilers	0.04
Utah	731	Cattle/calve	0.39	Dairy prods	0.20	Hay	0.08	Turkeys	0.06	Grnhs/nurs	0.04
Vermont	433	Dairy prods	0.72	Cattle/calve	0.10	Grnhs/nurs	0.05	Hay	0.03	Maple prods	0.03
Virginia	2,095	Cattle/calve	0.20	Broilers	0.15	Dairy prods	0.13	Tobacco	0.09	Turkeys	0.06
Washington	3,947	Apples	0.20	Dairy prods	0.14	Cattle/calve	0.14	Wheat	0.09	Potatoes	0.07
West Virginia	330	Cattle/calve	0.32	Broilers	0.17	Dairy prods	0.10	Turkeys	0.09	Apples	0.07
Wisconsin	5,449	Dairy prods	0.52	Cattle/calve	0.17	Corn	0.06	Hogs	0.04	Grnhs/nurs	0.03
Wyoming	813	Cattle/calve	0.73	Sugarbeets	0.07	Hay	0.05	Barley	0.03	Sheep/lambs	0.03

1/All cash receipts data are reported in million dollars. Shares based on data in Table 1. 2/Not available.
Source: Economic Research Service.

be a successful competitor, but the potential for more imports from Mexico does put pressure on the Florida orange industry not shared by the California industry.

Other examples of regional differentiation are the dairy industry, with respect to the share of fluid use, and the wheat industry, with respect to differences in types of wheat. These examples indicate the general principle that, in order to understand regional impacts, one must examine commodity effects at a sufficient level of disaggregation.

Sometimes the geographic placement of an industry is itself important in how the industry fares with a policy change. In the case of the NAFTA, the industries in the Southwest United States anticipate locational advantages through lower cost access to Mexico. Industries located near ports or transport facilities also gain directly. However, to the extent that a commodity in one state has a close substitute produced in other states, it does not matter if a direct export gain is realized.

To illustrate: This summer the U.S. Department of Commerce circulated data showing exports to Mexico by sector, by state. These data indicated the value of goods shipped from each state to Mexico, including agriculture. These data had some obvious errors, but the more important problem was that for most of agriculture, such information tells us little or nothing about how a region or its commodity producers may be affected. For example, there were almost no agricultural exports reported from Indiana to Mexico. But we know that corn, soybeans and hog exports to Mexico are significant nationally and are likely to expand with the NAFTA. Clearly, it does not matter to corn producers in Indiana if the product is shipped from Indiana or Illinois or Iowa. For the corn industry in Indiana, benefits from the NAFTA include higher prices and higher production. The demand curve facing the U.S. industry shifts out.

Finally, commodities also vary regionally in the importance of indirect cross-commodity impacts. In dealing with the feed and livestock industries, economists are accustomed to incorporating effects of supply shifts or demand shifts that apply to one commodity—say corn to other commodities—say from soybeans or hogs. These interactions (particularly on the supply side) are likely to vary regionally. For example, in Idaho, sugar beets compete with potatoes for land, whereas in southern Minnesota, sugar beets and corn are related. The NAFTA is likely to increase the demand for potatoes and potato products and will likely have a small cross-effect on the sugar industry. There will be a larger local effect on sugar supplies in Idaho than in Minnesota. Also, an effect on the demand for sugar, and therefore sugar acreage, would affect the potato industry in Idaho but have much less influence on the potato industry in Maine.

All these examples indicate the care with which regional analysis

should be undertaken. However, the major point remains that the first and key steps are to understand and specify correctly the policy shift itself and to model correctly the commodity impacts on a national basis.

Conclusion

The NAFTA will benefit all regions of the American economy. The gains in rural areas and even for farm families will arise from both increased demand for agricultural commodities and improved economic prospects outside of agriculture.

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