B R I E F I N G

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Post-NAFTA and the U.S. Beef Market

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Objective Analysis for Informed Decision Making

Nearly 10 years have passed since implementation of the 1994 North American Free Trade Agreement (NAFTA). Considerable debate has ensued concerning NAFTA's impacts (positive and negative) on U.S. beef producers in terms of cattle prices received, fair trade practices, and animal health risks. Prior to NAFTA, Canadian and U.S. tariffs and quotas on live cattle and meat had already been reduced by the 1989 Canadian-U.S. Free Trade Agreement (CUSTA). Similarly, Mexican and U.S. trade restrictions on feeder cattle, meat, and by-products were partly reduced prior to 1994, but complete reductions were formalized under NAFTA.

Since 1994, the United States-Canadian-Mexican borders have generally not impeded the exchange of live cattle and meat products. Legal procedures were instituted by NAFTA to deal with problems such as unfair trade practices. Examples include the 1999 petition of the Ranchers Cattlemen Action Legal Fund (R-CALF) which charged Canada with live cattle dumping into the U.S. market, Mexican import duties imposed on U.S. pork imports in 2000, and new Mexican health standards imposed on imports of low-value U.S. beef products in 2000. The later two actions were a result of alleged U.S. meat dumping into Mexico.

Supporters of NAFTA emphasize the need for less restrictive markets in North America to expand U.S. exports of livestock and meat products. Transportation cost advantages occur because distances to other foreign markets are greater than those within North America. The Mexican beef market offers particular promise for the United States because of Mexico's high feed costs and other resource constraints that limit growth of their fed beef sector. Coupled with Mexican income growth, NAFTA increased U.S. exports of lower value muscle cuts (Standard and Select grade middle meats). More recently, the United States has increased exports to Mexico of higher value beef muscle cuts (Choice grade).

Opponents of NAFTA agree that the United States has experienced export growth; however, they perceive that increased imports of live animals and meat products into the United States have more than offset those gains. In other words, U.S. cattle finishers and meat processors increasingly rely upon NAFTA partners as sources of livestock and beef carcasses to fill feedlots and processing plants at the expense of domestic producers.

Trade Trends

United States beef trade with Canada consists of imports of breeding stock and feeder cattle (small quantities), slaughter cattle (75 percent consisting of fed steers and heifers), beef carcasses, high value muscle cuts, and manufacturing and trimming beef. U.S. exports to Canada consist of breeding stock and feeder cattle (small quantities) and high value muscle cuts (primarily Select and Choice grades). The U.S.

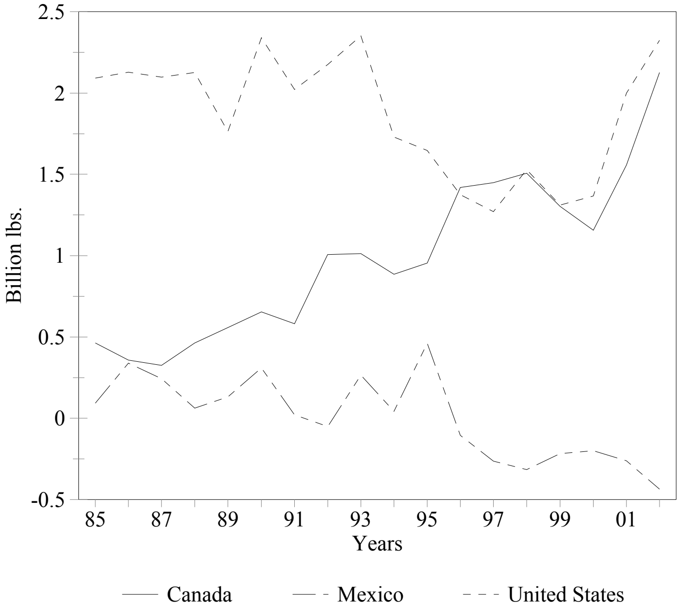

Figure 1. **U.S. Net Beef Imports, Canada and Mexico, 1985-2002**

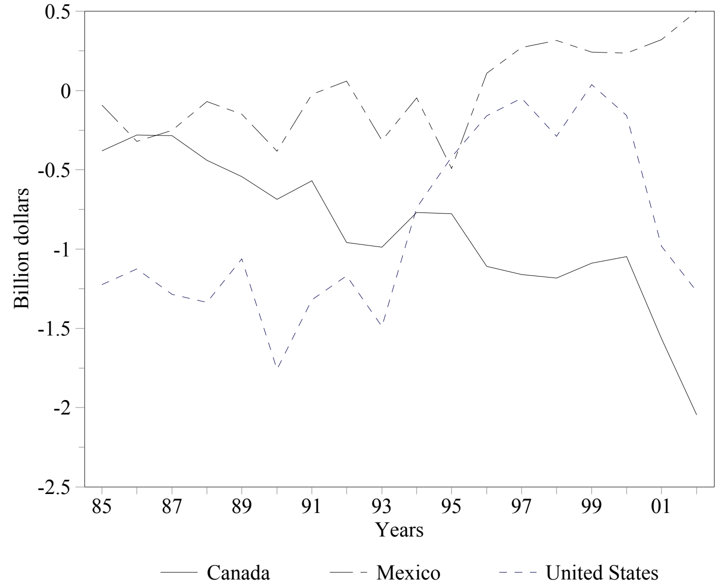

Figure 2: **U.S. Net Beef Export Value, Canada and Mexico, 1985-2002**

beef imports from Mexico primarily consist of lightweight feeder cattle for domestic growing and finishing and small amounts of low grade (manufacturing and ground) beef. U.S. exports to Mexico primarily consist of beef muscle cuts of Standard, Select, and Choice grades as well as small quantities of breeding livestock. In terms of live cattle and beef quantities, from 1985 to 2002, Canada and Mexico accounted for about 45 percent of U.S. imports and about 35 percent of U.S. exports.

United States live cattle and beef trade (measured on a carcass weight basis) with Canada and Mexico reveals opposite trends of imports relative to exports (Figure 1). For example, from 1985 to 2002 U.S. net beef imports from Canada (total beef imports less total beef exports) increased from 0.46 billion pounds to 2.13 billion pounds, or a 363 percent increase. U.S. net beef imports from Mexico, however, decreased from .09 billion pounds to -0.44 billion pounds, or a 589 percent decrease. Beef trade with Mexico turned from a deficit to a surplus in 1996. During the 1985-2002 period, net beef imports for the United States (including all beef trading partners) increased from 2.09 billion pounds to 2.32 billion pounds, or an 11 percent increase. By 2001, U.S. net beef imports decreased by nearly 4.5 percent, but a large import increase occurred in 2002 primarily from large meat imports from Canada and Brazil and large cattle imports from Canada.

Figure 2 shows U.S. beef trade on a net export *value* basis (value of total beef exports less value of total beef imports). Consistent with the pattern of net beef imports, U.S. net export value showed an increasing deficit with Canada, but a decreasing deficit with Mexico. Specifically, from 1985-2002 the net beef export value with Canada decreased from -0.38 billion dollars to -2.05 billion dollars, or a 439 percent decrease. From 1985-2002 the net beef export value with Mexico increased from -0.09 billion dollars to 0.50 billion dollars (surplus value), or a 656 percent increase. For total U.S. beef trade, the net beef export value decreased from -1.22 billion dollars to -1.27 billion dollars, or by about 4.0 percent. As in the case of trade volume, the deficit value decreased up to 2001 (4 percent), but it substantially increased in 2002.

These trade patterns indicate the U.S. net beef trade position with Canada has declined while that with Mexico has improved. Various reasons account for these trade positions, but much of it relates to relative surplus production and excess (or unutilized) capacity in the beef industries of the NAFTA countries. The Canadian cattle industry is roughly 14 percent of the size of the U.S. cattle industry. Nevertheless, Canada is a surplus producer of live cattle and beef carcasses. The United States is a deficit producer and beef packers and processors import these commodities because of excess U.S. processing capacity and domestic consumer demand. These imports contribute to U.S. meat packing and fabrication efficiencies by improving capacity utilization which lowers processing costs. Canada also sells its surplus boxed beef products into the United States and Mexico and into the Pacific Rim countries. The Mexican cattle industry is roughly 22 percent of the size of the U.S. cattle industry.

However, Mexico is a surplus producer of feeder cattle which are exported to the southern United States to be finished in commercial feedlots with excess capacity. Mexico is a deficit producer of beef muscle cuts and , therefore, imports these products from the United States and Canada.

Post-NAFTA

Nearly 10 years have elapsed since NAFTA's implementation, which begs the question of its effect on U.S. beef cattle markets during this period. The following analysis compares changes in U.S. net beef imports (live cattle and meat) with Canada and Mexico and their effects on prices and revenues in the fed cattle and feeder cattle sectors. Comparisons are made for a pre-NAFTA period of 1985-1993 and a post-NAFTA period of 1994-2002. As well, impacts are evaluated for changes in total U.S. net beef imports, i.e., aggregate beef trade that includes NAFTA countries and Japan, South Korea, Australia and New Zealand, South America, etc.

Price and revenue adjustments between the two nine-year periods are based upon parameter estimates of a statistical demand and supply model of U.S. beef industry. The model accounts for multiple economic factors in the beef marketing chain expected to affect livestock demand and supplies. These factors include net beef imports, feed costs, marketing costs, joint products, retail demand, etc. Within the context of the model, changes in net beef imports between the pre-NAFTA and post-NAFTA periods permits estimating subsequent changes in cattle prices, inventory levels, and cattle weights. This, in turn, allows estimation of industry revenue changes.

Table 1 presents the means (averages) of net beef import quantities and net beef import values for the pre-NAFTA and post-NAFTA periods for the United States, Canada, and Mexico. Table 2 gives the impacts on cattle prices and revenues (in 2002 dollars) for these two periods based on the differences in average beef trade. The salient aspects of the trade results are: (1) U.S. beef trade with Canada reduced U.S. fed and feeder cattle prices and revenues between the pre-NAFTA period and the post-NAFTA period; (2) U.S. beef trade with Mexico shows the opposite result in that U.S. cattle prices and revenues increased between the pre-NAFTA period and post-NAFTA period; and (3) the negative cattle price and revenue effects of U.S. beef trade with Canada appear to dominate the positive price and revenue effects with Mexico in both cattle sectors.

Table 1: Mean Values of U.S. Net Beef Trade, Pre-NAFTA (1985-1993) and Post-NAFTA (1994-2000)

Years/ Percent	Net Imports			Net Value		
	Canada	Mexico	United States	Canada	Mexico	United States
		(billion lbs.)			(billion dollars)	
Pre-NAFTA (1985-1993)	0.602	0.157	2.122	-0.570	-0.172	-1.308
Post-NAFTA (1994-2002)	1.373	-0.144	1.617	-1.194	0.162	-0.447
Percent Change	+128	-192	-24	-109	+194	+66

Note: *Net Imports* are total beef imports less total beef exports. *Net Value* is value of total beef exports less value of total beef imports.

Table 2: **Effects of U.S. Net Beef Imports on Prices and Revenues in the Beef Cattle Sectors, Pre-NAFTA (1985-1993) and Post-NAFTA (1994-2002).**

	Beef Sectors			
Countries	**Fed Cattle**		**Feeder Cattle**	
	($/cwt)	(billion dollars)	($/cwt)	(billion dollars)
Canada	-1.35	-0.534	-0.77	-0.452
Mexico	0.53	0.209	0.30	0.175
Total	-0.82	-0.325	-0.47	-0.277
United States	0.88	0.351	0.52	0.218

Note: Net beef imports are total beef imports less total beef exports.

CUSTA was a beginning catalyst that increased U.S. net beef imports with Canada, while NAFTA was merely an extension of this agreement to further reduce trade restrictions. As well, the western Canadian livestock feeding industry, particularly Alberta, grew because of the elimination of Canadian grain transportation subsidies in 1995. This growth contributed to expanded beef exports into the United States. The data indicate (Table 1) that average U.S. net beef imports from Canada increased by 128 percent between the pre- and post- NAFTA periods. This pattern resulted in reducing fed cattle prices and revenues by $1.35/cwt and $0.53 billion and feeder cattle prices and revenues by $0.77/cwt and $0.45 billion. The positive correlation between cattle prices and revenues in the two cattle sectors is expected since meat packer demand for fed cattle affects feedlot demand for feeder cattle.

U.S. beef trade relationships with Mexico resulted in opposite cattle price and revenue effects between the pre- and post-NAFTA periods. NAFTA eliminated trade restrictions on livestock and meat products, which increased U.S. exports of middle meats and high value muscle cuts to a growing Mexican economy. The data shows (Table 1) that U.S. average net beef imports with Mexico decreased by 192 percent between the two periods. The result was to increase fed cattle price and revenue by $0.53/cwt and $0.21 billion and increase feeder cattle price and revenue by $0.30/cwt and $0.18 billion.

The combined result of U.S. beef trade with Canada and Mexico was net reductions in prices and revenues due to the deficit position with Canada. For example, summing the country effects of Canada and Mexico (*Total* row in Table 2) indicates net reductions in fed cattle price of $0.82/cwt and fed cattle revenue of $0.33 billion. The difference reflects the fact that Canada is a more important U.S. trading partner than is Mexico in terms of imports and exports of live cattle and beef. For example, live cattle and beef import and export trade with Canada and Mexico represented about 5.5 percent and 2.4 percent of U.S. beef supplies, respectively, from 1985 to 2002.

NAFTA does not represent the complete U.S. beef trade picture. The United States also exports beef products into the markets of the Pacific Rim, Carribean countries, and Russia. As a result of increased beef exports into these areas, the negative price and revenue effects of NAFTA were substantially mitigated. For example, the U.S. net import deficit for all beef trade was reduced by 24 percent between the pre- and post-NAFTA periods (Table 1). The aggregate result was to increase fed and feeder cattle prices by $0.88/cwt and $0.52/cwt, respectively, and to increase corresponding beef revenues by $0.35 billion and $0.22 billion (Table 2). Trade liberalization, growing foreign incomes, foreign preferences for animal source proteins, and U.S. product promotion in foreign markets account for much of the overall trade improvement.

Conclusion

NAFTA has been beneficial to the U.S. beef industry due primarily to the U.S. beef trade gain with Mexico. That is, without Mexican trade concessions under NAFTA, U.S. exports of table cut beef to Mexico would have been considerably less. However, since 1994 the United States has substantially increased its beef trade deficit with Canada. Concerning beef trade with all countries, the United States has decreased its net deficit position. This resulted in increased cattle prices and revenues between the pre-NAFTA and post-NAFTA periods. Much of this overall benefit, besides increased U.S. beef exports to the Pacific Rim countries, was aided by the net effects of Mexican beef trade. That is, Mexico prevented the net negative changes in fed cattle price ($0.82/cwt) and feeder cattle price ($0.47/cwt) under NAFTA from being more negative.

It is unclear whether Canada's contribution to the U.S. beef trade position would have differed much even without NAFTA since U.S. trade liberalization with Canada was already implemented under the 1989 CUSTA. Perhaps NAFTA has made a difference for the U.S. in terms of exporting more meat to Canada, conflict resolution in trade agreements, or in terms of the Restricted Feeder Cattle Program. The latter permitted northern tier states to increase feeder cattle exports to Canada as a result of removing test requirements and other costs of animal health restrictions. Also, NAFTA's reduction in trade restrictions may have contributed to more liberal trade agreements between the U.S. and other countries, thus expanding U.S. beef exports.

The cattle price and revenue impacts presented here are subject to careful interpretation. That is, the average differences in net beef trade between the pre-NAFTA and post-NAFTA periods could reflect other factors besides NAFTA itself. These may include feed production costs, internal domestic policies, economic growth that affects consumer demand, exchange rates, or more indirect factors such as BSE (mad cow disease) in Europe and Japan.

The NAFTA impacts on U.S cattle prices and revenues are relatively small primarily because U.S. beef trade (imports and exports) with Canada and Mexico constitutes only about 7-8 percent of U.S. beef supplies. As well, the price impacts in this article refer to changes in *average* net beef imports between pre- and post-NAFTA periods, which masks the year-to-year price impacts from changes in net beef imports. Neither do the price impacts reflect the rare event (since May 2003) of the United States closing its borders to Canadian live cattle and beef due to the single case of BSE (mad cow disease) found in Canada. Beef producers and economists feel this event was a catalyst, along with low U.S. cattle inventories and strong domestic and export demand, in producing record (second half 2003) cattle and beef prices.