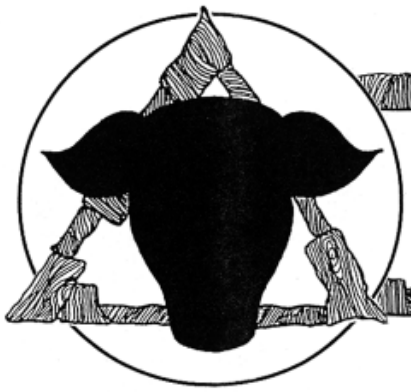

International Beef and Cattle Trade

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Introduction

The decline in cattle prices since the second quarter of 1994 has resulted in numerous analyses regarding its cause and effects. One of the more volatile issues has been U.S. trade in beef and live cattle, primarily the latter, due to increasing trends (since the mid-1980s) in U.S. live cattle imports from Canada and Mexico. As a result, producers have raised questions concerning the extent of cattle import increases, reasons why cattle imports have increased, and their role in reducing cattle prices in the current crisis. At the same time, producers desire information about the economic effects of expanding beef exports. Statistical results indicate that live cattle imports from Canada reduced feeder price by $1.70 cwt from 1994 to 1995, and that live cattle imports from Mexico reduced feeder price by $1.05 cwt 88 percent of the time between 1988 and 1994. The contribution of GATT, beyond normal economic growth, is expected to expand U.S. beef exports and result in increasing live cattle price by about $2.00 cwt.

International trade in beef and cattle continue to grow in importance to the U.S. cattle industry. In 1995, U.S. beef exports totaled 1.82 billion pounds, exceeding 7 percent of domestic production for the first time (Table 1). At the same time, 1995 beef imports declined to 2.1 billion pounds, the lowest level in a decade. The USDA projects that in 1996 the U.S. will become a net exporter of beef and veal, showing a small surplus of about 40 million pounds.

Five major markets account for about 97 percent of U.S. beef and veal exports. They include Japan (57 percent), Canada (18 percent), Mexico (14 percent), South Korea (11 percent), and Taiwan (2 percent). The majority of U.S. live cattle exports are to Mexico (57 percent) and Canada (40 percent), yet cattle exports constitute less than 1 percent of domestic slaughter. The emphasis of U.S. beef export growth has been in the Asia-Pacific region, due to increasing population and income, demand for animal-source proteins, and lower trade barriers. As much as increasing exports offer income benefits to producers, greater reliance on such markets increases risk of income volatility due to shifts in world demand and supply and perhaps decisions of the World Trade Organization (WTO).

Gatt Implications

Since the latter 1980s, the U.S. has also experienced rapid growth in fed beef exports to the Asia-Pacific markets, i.e., Japan, South Korea, Taiwan, and Hong Kong. Japan is the largest customer of U.S. choice and prime quality beef, accounting for about 56 percent of total U.S. beef exports in 1995. In 1988, Japan purchased 503.5 million pounds of U.S. beef (carcass weight), in 1995 they purchased 1,004.5 million pounds for a nearly one hundred fold increase. Significant income and population growth, preference

for animal-source proteins, and lower trade barriers account for the export increases to the Asian markets (USDA, Agricultural Outlook 1996). Economists anticipate that with implementation of the recent 1994 Uruguay Round of general Agreement on Tariffs and Trade (GATT), U.S. beef exports will continue to be robust as meat import tariffs and quotas are relaxed, particularly with respect to Japan and South Korea (*Beef Magazine*, 1995). Political barriers aside, China is also considered to be a potential market for high quality beef with its economic growth and increasing beef demand.

Overall, beef export growth has implications for U.S. cattle prices. An example of export growth (including GATT) and its price effects is given for the Japanese and South Korean markets. According to the recent provisions of GATT, trade restraints are to be downsized to minimum levels by the year 2000. The National Cattlemen's Beef Association estimates this will mean an increase in U.S. beef exports of 100,600 metric tons, but also the U.S. will import an additional 84,260 metric tons of processed beef. The former occurs since Japan is to reduce its 50 percent import tariff to 38.5 percent, and South Korea will expand its annual beef quota from 106,000 metric tons to 225,000 metric tons. The latter occurs since GATT replaced the 1979 U.S. Meat Import Law with a new tariff-quota provision, implying liberalization of beef imports from Australia and New Zealand (*Beef Magazine*, 1995). Under these assumptions, the MSU study shows the net effect of export growth including GATT would be to increase fed cattle price by $9.90 cwt by the year 2000. However, the GATT contribution itself (above the normal expected growth) is estimated at about 20 percent, thus, a fed cattle price increase of about $2.00 cwt would be attributed exclusively to GATT.

U.S. and Canadian Beef Trade

Bi-lateral trade between the U.S. and Canada in beef consists of boxed beef and live cattle with minor trade in variety meats and hides and skins. Tables 1 and 2 give data on exports and imports for beef and live cattle. U.S. boxed beef exports to Canada are primarily fed beef of choice grade quality, while imports of Canadian boxed beef are fed beef equivalent to U.S. select grade quality (Andrews). Though U.S. beef exports to Canada have grown significantly since the later 1980s, the U.S. is still a net importer with respect to its northern neighbor. For example, on a carcass weight basis, in 1988 U.S. exports to Canada were 52.6 million pounds and U.S. imports from Canada were 172 million pounds, or 119.4 million pound net imports. In 1995, U.S. exports to Canada were 312 million pounds and U.S. imports from Canada were 445.6 million pounds, or 133.6 million pound net imports (USDA, LDP, 1995 and 1996). Note, however, the USDA projects that in 1996 the U.S. will switch to being a net exporter of beef when considering all countries (Table 1).

The live cattle trade consists of feeder cattle, slaughter cattle, and breeding stock. As with boxed beef, the U.S. has maintained a net import position. In 1988, U.S. live cattle imports from Canada were 487.5 thousand head and live cattle exports were 128.5 thousand head, or net imports of 359 thousand head. In 1995, U.S. live cattle imports from Canada were 1,132.7 thousand head and U.S. live cattle exports were 94.5 thousand head, or net imports of 1,038.2 thousand head. Thus, the net import position for live cattle has increased. Considering total live cattle imports, Mexico, of course, is the other important U.S. trading partner. Imports from Mexico primarily consist of feeder/stocker cattle, while the majority of imports from Canada are primarily slaughter cattle (94 percent in 1994 and 1995).

The majority of U.S. live cattle exports are also to Canada and Mexico. A higher proportion of breeding stock is exported to Mexico (80 percent), while a relatively higher proportion of feeders and slaughter cattle are exported to Canada (60 percent), based on 1994 data (USDA, FDLP, 1996). Historically the U.S. net import position in live cattle reflects excess capacity and demand requirements in U.S. cattle finishing and meat packing (Lesser). In addition, favorable U.S. cattle prices (1987-93), exchange rates, and import tariff reductions (cattle from Mexico) have been incentives for the Canadian and Mexican live cattle suppliers. Since the U.S.-Canadian Free Trade Agreement (1989) and the North American Free Trade Agreement (NAFTA, 1994), most trade barriers between the U.S. and Canada and the U.S. and Mexico have been non-tariff, i.e., health and sanitary conditions. Currently, tariffs on livestock and meat trading are minimal, permitting a relatively free flow of beef and livestock across the borders.

Trade in variety meats and hides and skins with Canada and Mexico, both in terms of quantity and value, is considerably smaller than that of beef and live cattle. In 1995, U.S. exports of variety meats to these two countries were about 11 percent of total variety meat exports, while exports of hides and skins represented about 8 percent of total hides and skins

exports. Countries of the Asian Rim and also Italy are the most important U.S. customers for by-products (USDA, FDLP, 1996).

Since 1994, a question of concern to many beef producers has been the impact of the U.S.-Canadian live cattle trade on U.S. feeder and fed cattle prices. The concern was primarily centered among the northern tier states as producers observed increasing livestock-truck movements from Canada, the slaughter destination points primarily being Washington, Colorado, and Nebraska. To properly evaluate the economic consequences of imports, the impact of increasing U.S. beef exports to Canada must also be considered. A statistical study at Montana State University (MSU) of domestic and trade factors affecting beef prices compared these impacts, based on trade changes from 1994 to 1995. USDA data indicate that the U.S. increased its net live cattle imports from Canada by 16.1 percent, but also decreasing its net fed beef imports from Canada by 24.3 percent. The statistical results show that when accounting only for these trade changes, fed cattle price actually increased slightly by $0.43 cwt and feeder cattle price also increased by $0.89 cwt. But if the focus was only on live cattle imports, the results indicate U.S. fed cattle price decreased by $0.87 cwt and feeder price decreased by $1.74 cwt.

U.S. and Mexican Beef Trade

The U.S. exports a number of beef products to Mexico including beef and beef variety meats, cattle, hides and calf skins, and bull semen. The U.S. mainly imports cattle and a minor amount of beef. In 1994, the U.S. enjoyed a significant trade surplus with respect to Mexican trade in beef and cattle with export value of $1.35 for every dollar of import value. The combined impacts of drought in northern Mexico and the peso devaluation in December, 1994 dramatically altered this picture in 1995. The value of beef exports to Mexico dropped by 59 percent while the number of Mexican cattle imported jumped to a new record of 1.65 million head. However, in early 1996 import and export patterns are returning to previous levels with beef exports up significantly and Mexican cattle imports sharply lower than 1995 levels. It is likely that Mexico will continue to supply stocker and feeder cattle to the U.S. market and continue to import significant quantities of beef (Jacques, Peel and Henneberry).

Price Impacts of Mexican Cattle Imports

The impact of Mexican cattle imports on U.S. feeder cattle prices depends on both the total quantity of imports and the distribution of imports throughout the year. Since 1986, annual imports of Mexican cattle have trended up. This corresponds to a period of time when U.S. prices have generally been very attractive. Exports were likely enhanced after 1988 when export quotas in Mexico were eliminated.

The current seasonal pattern ranges from a low of about 2 percent of the annual total imported in July and August to a high of 15 percent in December. Prior to 1988, exports were bunched in the last part of the year with December representing 25 percent of annual exports on average. This, in part, reflects the impact of the quota. Exports in December and January have declined and a larger proportion of exports occur in February, March and April compared to the earlier period. This means that imports are increasingly spread out, thus reducing the impact in any given month.

Table 3 summarizes the estimated price impacts (in 1992 dollars) of Mexican cattle imports on three weight classes of lightweight feeder steers at Oklahoma City. Since most Mexican cattle imported into the U.S. are lightweight steers, price impacts were estimated for 300 to 400, 400 to 500, and 500 to 600 pound steers. The values reported in Table 3 are based on statistical estimates of a system of price equations for each weight group over the period 1973 - 1992 (Cockerham). In each equation, monthly average steer price, in a derived demand framework, is specified to be a function of output values, i.e. fed cattle price; prices of related inputs, such as corn, soybean meal, and hay prices; Mexican cattle imports and seasonal variables.

Table 3 indicates that, on average from 1988 through 1992, Mexican cattle imports had the greatest impact on 400 - 500 pound steer prices, reducing them by an average of $0.44/cwt or about $1.98 head. During this period, the average level of imports was 87,624 head per month or an annual average of 1.05 million head. Monthly imports ranged from zero to a maximum of 304,053 head in January 1988. The highest monthly import level ever recorded was 336,228 head in December 1986. At these record levels, the price of 400 - 500 pound steers is reduced about $2/cwt. This means a loss in value per head of about $9.

Over the period 1988 - 1994, monthly import levels less than 150,000 head occurred 88 percent of the time. This means that 88 percent of the time, the impact of Mexican cattle imports was a reduction of 400 - 500 pound steer prices of $1.05/cwt. or less. Seven percent of the time, monthly imports were in excess of 200,000 head and would have reduced the price of 400 to 500 pound steers by $1.40/cwt. or more.

Regional impacts of imported cattle are certainly greater in areas closer to the border. Because of the size and distance of the Oklahoma City market from the border, it is assumed here that impacts measured at Oklahoma City are representative of national level impacts. It is also important to remember that the price impacts reported here represent loss in revenue to U.S. sellers of feeder cattle. Mexican cattle represent an input into stocker and feeding operations and thus benefit other cattle industry sectors as well as meat consumers. Moreover, cattle imports are only part of the bigger trade picture and must be balanced against the value of meat exports.

Table 1. U.S. Beef and Live Cattle Exports and Imports

	U.S. Beef Exports	U.S. Beef Imports	U.S. Live Cattle Exports	U.S. Live Cattle Imports
Year	(Mil Lbs., Carcass Wgt)		(Thous. Head)	
1988	690.0	2,405.8	321.4	1,332.2
1989	1,022.6	2,178.4	169.1	1,459.4
1990	1,006.4	2,355.9	119.9	2,135.0
1991	1,188.5	2,406.5	311.0	1,939.1
1992	1,323.8	2,439.8	321.8	2,255.3
1993	1,275.0	2,401.3	153.4	2,499.1
1994	1,610.8	2,370.7	230.8	2,082.5
1995	1,820.8	2,103.5	94.5	2,786.2
1996	2,120.0	2,080.0	——	———

Note: "F" refers to forecast for year 1996.
Source: *USDA Red Meats Yearbook* (1995) and *USDA Livestock, Dairy, and Poultry Situation and Outlook* (1996).

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Table 2. U.S. Beef and Live Cattle Trade with Select Countries: Canada, Mexico, and Japan

	U.S. Beef Exports (Mil Lbs.)			U.S. Beef Imports (Mil Lbs.)		U.S. Cattle Imports (Thous. Head)	
Year	Can.	Mex.	Jap.	Ocea.	Can.	Can.	Mex.
1988	52.6	10.7	503.5	1,722.5	172.0	487.5	844.2
1989	98.2	37.4	715.5	1,476.7	239.3	584.7	873.6
1990	191.1	74.7	574.4	1,662.2	222.4	873.8	1,261.2
1991	258.9	72.9	534.1	1,684.7	223.0	904.7	1,034.2
1992	249.4	172.8	692.1	1,650.6	331.1	1,273.2	982.0
1993	243.5	194.9	719.8	1,467.7	407.4	1,202.3	1,296.6
1994	285.7	120.0	832.4	1,404.2	462.2	1,010.3	1,072.1
1995	312.0	92.3	1,004.5	1,249.8	445.6	1,132.7	1,653.4

Note: Can., Mex., and Jap., refer to Canada, Mexico, and Japan, respectively. Ocea. Refers to Oceania countries of Australia and New Zealand.
Source: *USDA Red Meats Yearbook* (1995) and *USDA Livestock, Dairy, and Poultry Situation and Outlook* (1996).

Table 3. Average Monthly Price Impacts of Feeder Cattle Imports From Mexico (1992 dollars).

	300 - 400 pounds		400 - 500 pounds		500 - 600 pounds	
	$/cwt	$/head	$/cwt	$/head	$/cwt	$/head
73-92 avg.	-0.36	-1.26	-0.38	-1.74	-0.29	-1.58
88-92 avg.	-0.42	-1.49	-0.44	-1.98	-0.32	-1.78
Maximum	-1.85	-6.46	-1.98	-8.90	-1.48	-8.11
100,000 hd	-0.66	-2.30	-0.70	-3.16	-0.52	-2.88