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Retail Prices and Beef Demand

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CORNHUSKER ECONOMICS

University of Nebraska–Lincoln Extension

Retail Prices and Beef Demand

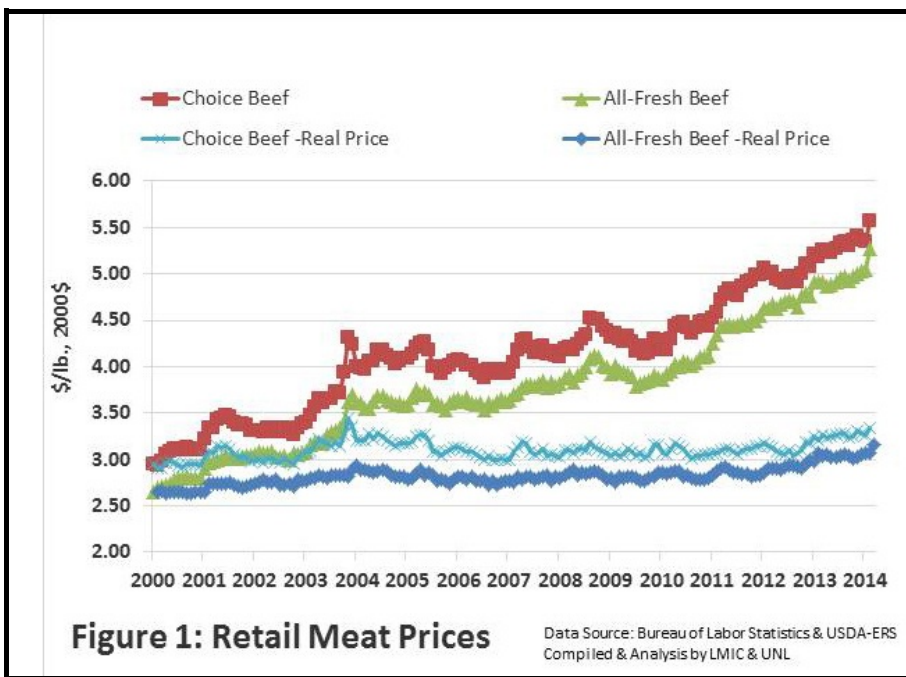
Market Report	Yr Ago	4 Wks Ago	4/11/14
<u>Livestock and Products,</u>			
<u>Weekly Average</u>			
Nebraska Slaughter Steers, 35-65% Choice, Live Weight.....	\$127.63	\$150.88	\$150.79
Nebraska Feeder Steers, Med. & Large Frame, 550-600 lb.....	160.74	227.17	236.15
Nebraska Feeder Steers, Med. & Large Frame 750-800 lb.....	139.84	179.62	181.50
Choice Boxed Beef, 600-750 lb. Carcass.....	190.60	240.72	225.50
Western Corn Belt Base Hog Price Carcass, Negotiated.....	81.52	113.58	120.24
Pork Carcass Cutout, 185 lb. Carcass, 51-52% Lean.....	81.91	118.75	126.24
Slaughter Lambs, Ch. & Pr., Heavy, Woolled, South Dakota, Direct.....	+	153.75	151.00
National Carcass Lamb Cutout, FOB.....	288.12	374.82	374.01
<u>Crops,</u>			
<u>Daily Spot Prices</u>			
Wheat, No. 1, H.W. Imperial, bu.....	7.06	7.07	6.54
Corn, No. 2, Yellow Nebraska City, bu.....	+	4.46	4.71
Soybeans, No. 1, Yellow Nebraska City, bu.....	14.38	13.59	14.43
Grain Sorghum, No. 2, Yellow Dorchester, cwt.....	11.32	8.02	8.16
Oats, No. 2, Heavy Minneapolis, MN, bu.....	4.13	4.66	4.46
<u>Feed</u>			
Alfalfa, Large Square Bales, Good to Premium, RFV 160-185 Northeast Nebraska, ton.....	245.00	182.50	210.00
Alfalfa, Large Rounds, Good Platte Valley, ton.....	227.50	127.50	115.00
Grass Hay, Large Rounds, Good Nebraska, ton.....	217.50	107.50	107.50
Dried Distillers Grains, 10% Moisture, Nebraska Average.....	247.50	232.50	237.50
Wet Distillers Grains, 65-70% Moisture, Nebraska Average.....	89.00	66.00	66.50
+ No Market			

Retail beef prices have continued to rise over the last several years (Figure 1, next page). They hit a record high in February 2014, with choice-beef prices selling for an average of \$5.57 per pound, 7.6 percent more than a year ago. Average all-fresh beef sold for \$5.28 per pound, more than 7.5 percent over the previous year. Compared to February 2010, choice beef prices have risen by 33.2 percent and all-fresh beef by 34.7 percent. Beef prices have nearly doubled since the year 2000.

“Why are we seeing record high prices?” and “How have these prices been impacted by inflation?” First, we can analyze how these prices have been impacted by inflation over the last several years. Figure 1 shows real “beef prices” adjusted for inflation (put in the year 2000 dollars). Real beef prices still trend upwards, but not to the extent that nominal prices are trending. Real retail choice beef prices are up 15.2 percent, and real all-fresh beef prices are up 18.5 percent since the base year.

During 2014, prices have continued to climb. The rise is partly due to a reduction in supply. The inventory of all cattle and calves are currently at historical lows; less animals equals less pounds of beef available. With the tighter supplies and higher prices, some may automatically assume demand will wane. However, the decline in supplies may cause higher prices, but those higher prices do not necessarily mean a reduction in demand. It is important to understand what demand really is, and to understand the main drivers of that demand before determining how the higher prices might impact the demand for beef.

To help understand and to assist in analyzing demand, beef demand can be subdivided into two demand groups; domestic demand and foreign demand. In recent years the foreign demand for United States beef has continued to grow, and has become an increasingly important market. In 2013, beef and veal exports exceeded 2.58 billion



pounds (carcass weight basis), up 5.3 percent compared to 2012. Japan accounted for over 26 percent of the total exported beef in 2013, with an increase of 49.3 percent over the previous year. Other major importers of U.S. beef during the same period were Hong Kong and Taiwan, which increased imports; while Vietnam and Russia limited or halted their imports.

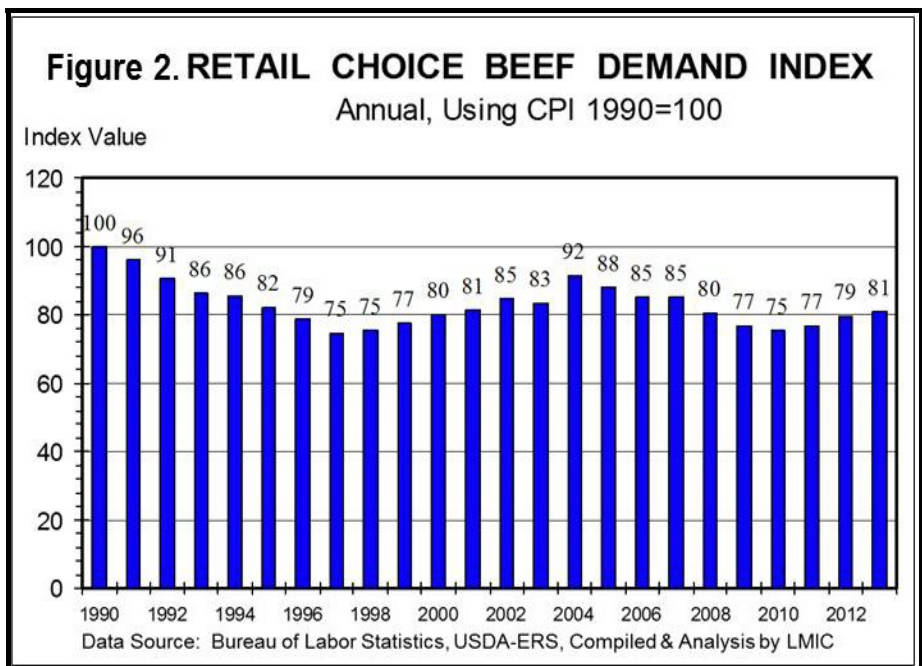
During this time domestic beef demand remained relatively strong. Figure 2 illustrates a demand index measure where each bar represents a percent of beef consumed over time relative to the base year (i.e. 1990 = 100 or 100%). For example, retail choice beef demand was about 1.5 percent more in 2013, as compared to 2012. This chart describes a change in total domestic consumption of beef, not to be confused with per capita consumption. Per capita consumption is a measure of the amount of beef, on average, each person in the U.S. would have to consume to account for the amount of beef attributed to domestic consumption. Per capita consumption is a crude measure of consumer preferences; a decreasing value indicates consumption per person is declining. This says nothing about total consumption. Case in point, the overall demand for beef in the U.S. has been relatively stable, while at the same time, per capita consumption has declined. Basically, population increases have matched or outweighed individual consumption declines.

To more clearly understand demand changes, let's go back to basic economics and review the difference between what causes changes in quantity demanded versus changes

in demand. Demand is represented as a demand curve or schedule as illustrated in Figure 3 (on next page), where prices are represented on the vertical axis and quantity on the horizontal axis. The single curve is representative of various combinations of prices and quantities. The curve as a whole is a map of all demand factors held constant (consumer preferences, prices of other meat, exchange rates, etc.) except its own price. When only its own price varies, the change is shown by movement along the demand curve and is known as a change in the quantity demanded. When one of the other factors change, e.g., consumer preferences, a whole new schedule is created. This second case is a shift or change in demand. The law of demand suggests that quantity demanded increases (decreases), as prices decrease (increase). Point A in Figure 3

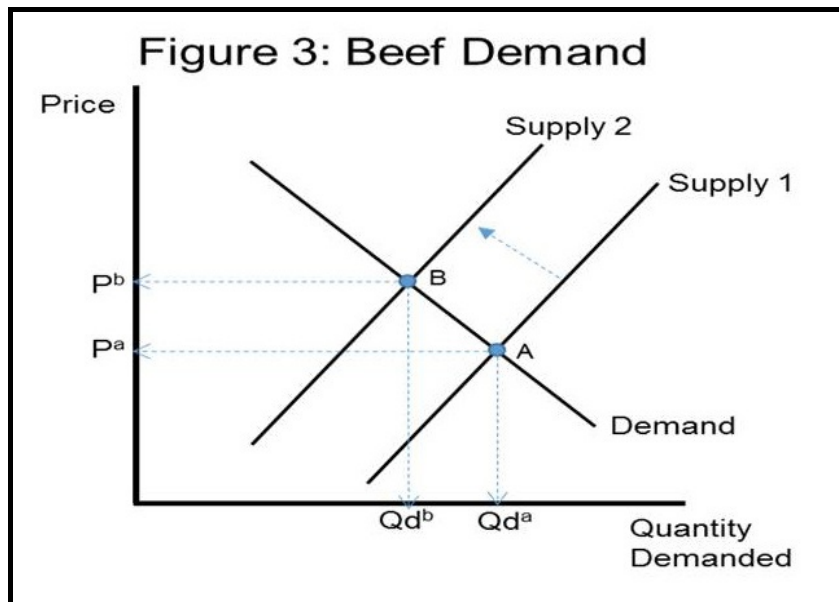
represents quantity demanded, and refers to the quantity consumers would be willing to purchase (Q^d) for a given price (P^a), while all other factors are held constant.

Armed with knowledge about the nature of demand, a discussion about the current situation in the beef complex



can be better understood. Recent drought and herd downsizing across the U.S. has resulted in a contraction of supplies or a shift in supply. This is noted by moving the beef supply curve (Supply 1) to the left to a new curve (Supply 2), without a change in any other factors. The decrease in beef supply causes beef prices to rise from P^a to P^b , and for quantity demanded of beef to decrease from Q^d^a to Q^d^b . Without considering any other factors it is likely prices will remain high, especially as supplies

remain limited. If supplies become even more restricted, prices could be driven higher. One scenario that would support this happening would be the retention by producers of more and more heifers for breeding purposes. This effectively would reduce feeder cattle numbers, making it possible to see even higher beef prices. Remember, this happens without any changes to the demand for beef, just changes in available quantities.



The bottom-line is that if supply reductions happen, beef prices are driven higher, and those higher prices act as a rationing device for the available quantity. The reduction in supply causes a limited amount of product available, therefore consumers cannot buy and consume as much beef. This does not mean a reduction or shift in beef demand. A shift in beef demand is caused by changes in consumer's disposable income; changes in prices of competing meats (pork and poultry); shifts in consumer tastes and preferences (e.g., health concerns); disruptions in the production system (e.g., disease outbreaks, BSE, foot and mouth); economic conditions around the world; and foreign exchange rates.

Let's look at factors that could cause shifts in beef demand. Consider what would be expected to happen if the following situations occurred during the coming year. If the economy continues to improve (i.e., more consumers with more disposable income), it could be expected that there would be a positive increase for beef demand, a shift outward of the demand schedule. Prices would increase, since in the short-run supply is fixed. What about in the case where the production of pork and poultry products were to increase? Assuming that pork and poultry are substitutes for beef and the increased production floods the domestic market, it can be expected that consumers would want more of the pork and poultry meats. They would be more inclined to purchase less beef, putting pressure on beef prices which would likely decline. This is where the export markets become critical. If foreign demand somehow were to expand during this same time period (e.g., a new trade agreement, or a relaxing of a current trade limitation), beef quantities would be shortened, putting pressure on for prices to rise. The effect on price would then depend on the amount of the increase in quantity exported versus the amount of the quantity lost by substitution. If more was ex-

ported than lost to substitution there would be a price increase, but if less were exported than lost there would be a price decline.

Analyzing any single event is simple and straightforward. But when many of the factors change at once, as illustrated in the previous example, it becomes complex and the question of an exact change in quantity demanded or

demand is difficult, if not impossible to predict. The value of this "fundamental" analysis is in its power to quickly put in perspective the impact of events and situations, and in explaining long-term trends or phenomena in the market.

The outlook for beef demand in 2014 still remains uncertain. Supplies for beef cattle will remain tight throughout the year, which will continue to maintain retail prices at or above their current levels. This reduction in supply, causing increases in beef prices, does not guarantee beef demand in 2014 will decline. Several of the other factors mentioned here warrant monitoring and may play a hand in how or if beef demand shifts in the coming year. Having a working knowledge of economic fundamentals and applying them correctly provides an explanation of how the market might be expected to react, and an indication of where beef demand may be headed.

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