Cattle Price Determination in Ontario

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The purpose of this note is to explain how cattle prices are determined in Ontario and to analyze reasons for pricing volatility in the province. In all Canadian farm product markets, from cattle to vegetables, the first determinant of pricing is the overall North American market conditions, particularly reflected in US commodity pricing. The second key driver of pricing in Canada is the exchange rate of the Canadian dollar, while the third driver is the cost of transportation and local supply and demand. This driver is called the spread or basis. Ontario cattle price determination is therefore defined by the following arithmetic: *US Price ÷ Exchange Rate ± Spread/basis = Ontario Price*

This note examines each of these three areas of price determination in order to analyze changes that might explain recent volatility and weakness in Ontario cattle prices.

US Prices for Cattle and Beef

US cattle prices are primarily derived by the balance of supply and demand for beef in North America. Beef demand is defined as the amount consumed at any given price. It is widely understood that beef demand declined (lower consumption and pricing) during the 1980's and 1990's. Research has shown that North American beef demand has been relatively strong and very stable from 2005 through 2007. Basically, the stronger that North American beef demand is for any given supply level, the higher the price and vice versa.

With regard to supplies, as expected, the greater the supply for any given demand level, the lower the price and vice versa. The starting point of the supply is the cow herd. The larger the cow herd, the larger the calf crop and, ultimately, the greater the slaughter and production volumes. Important supply indicators are the USDA and Statistics Canada cattle inventory reports issued in the winter and summer. Other important indicators are the monthly US and Canadian Cattle on Feed Reports. Each of these reports provides insights into short term and longer term beef supplies in North America.

The US calf crop and beef cow herd have been steady to modestly declining over the past three years. Overall, US and North American beef production has also been reasonably steady over the same period. Expectations are that this stability should continue into 2008. Relative to history, overall cattle numbers are lower in recent years, but production levels in 2006-2008 are very high due to larger carcass weights.

The combination of stable but large volume supplies has combined with stable but relatively strong demand to result in historically high US cattle prices in the 2006-2008 period.

Exchange Rate

With regard to the value of the Canadian dollar, a simple arithmetic rule applies: if the exchange rate appreciates, the value of the Canadian commodity declines in Canadian dollars and if the exchange rate depreciates, the value of the Canadian commodity increases in Canadian dollars. To further examine the role of the exchange rate, assume, for example, that cattle are priced at US$90/cwt in Nebraska. If that is the case, the equivalent value in Canadian dollars would have been C$139/cwt in early 2003 when the C$ was worth 0.65 cents US (US$90/.65). That same US$90 steer would be worth just C$87 during October 2007 when the exchange rate was at 1.03. As such, the Canadian dollar appreciation of the past three years has resulted in 37% lower cattle pricing for Ontario producers, simply as a result of that arithmetic process.

Price Spread/Basis

The third component of price determination in the Ontario cattle industry is the local price spread or basis. An important part of the price spread or basis is transportation. Regarding transportation, the premise is that the price in Canada will be the US price adjusted for exchange rate less the transport cost of shipping the product to the US, if Canada is on an export basis. This is the case for hogs and cattle in most of Canada. In the past, especially prior to BSE, at certain times of the year, the Ontario cattle industry has been on an import basis and pricing was above the US price. Since the border opened to fed cattle in 2005, however, Ontario has essentially been on an export basis. Further to that, fuel surcharges, border fees and the BSE-related age certification expenses have increased the costs of exporting cattle significantly. As such, the added costs of transport and export compliance are bid into the price of cattle locally, resulting in much lower relative cattle pricing than prior to BSE.

Another important part of the spread, however, is local supply and demand conditions. These conditions determine whether Ontario is on an export or import basis for cattle. Ontario federally inspected plant capacity is about 15,000 head per week. Ontario fed cattle marketings (local slaughter plus slaughter exports) have ranged up to 16,000 head during 2007. Average marketings have been around 14,000 over the past two years. That suggests that on average, over the year, local supply and demand have been in reasonable balance in Ontario. Over the course of the year, however, marketings can be greater than or less than local capacity. For example, fourth quarter and early first quarter marketings are typically very large in Ontario while summer marketings are lighter. The resulting price spread typically reflects that relationship. For example, during 2006, the Ontario price ranged from being well above the US price (import basis) in Canadian dollars to being well below the US price in Canadian dollars (export basis). In addition, Quebec fed cattle have become a greater presence in the Ontario slaughter mix.

The recent labour layoffs and resulting reductions in provincial slaughter at the Cargill plant in Guelph, however, have resulted in a significant decrease in local demand for cattle. As such, local supplies (marketings) are now greater than demand. With lower demand for cattle relative to supplies, Ontario packers may exercise greater pricing leverage than they normally can. Directionally and logically, this demand change has likely contributed to a reduction in the local price.

The final component of the local spread factor is the competitiveness of local packers. The bid price on cattle is the difference between the revenue received and the cost of operations plus a target margin. The higher the cost of operations, the less packers can bid on cattle. The July 2007 CFIA Specified Risk Material regulations have imposed much higher costs on Canadian packers than their US counterparts. This means that packers in Ontario must lower their cattle bids compared to before the new regulations.

Summary

Of the three components of price determination in Ontario, the US price has been very strong and relatively stable, having a positive impact on the overall price level in Ontario. On the other hand, the other two components, the exchange rate and local spreads/basis, have resulted in very strong downward pressure on the Ontario price. The net result of those two factors is very depressed local cattle pricing in the province.