A Deeper Look at Prices in the Beef Complex and Beef Demand

Much discussion lately has revolved around shrinking cattle and beef supplies. These tight supplies would translate to higher prices if everything else remained unchanged. We economists like to sound fancy by using the Latin phrase “ceteris paribus”, which translates to “with other things the same.” However, there are so many moving parts in an economy that pinpointing the cause of price movements with precision is extremely difficult. A great example of this phenomenon is the start of 2013. “All else” has not remained the same, beef demand has been under pressure, and prices in the beef complex have for the most part been a disappointment. Therefore, it is appropriate to highlight the factors currently shaping beef demand but first to discuss the current situation.

Wholesale beef prices
Boxed beef values have not been able to gain much support during the first few months of 2013 (figure 1). In mid-March the Choice cutout topped out at $197.49 per hundred weight (cwt) before sliding lower and steadying in the last few weeks around $190/cwt. Mid-March was the only time this year that the Choice cutout has made a run at the $200/cwt mark - a level that has thus far eluded the market. So far in 2013, as was the case last year, the market seems to run into considerable resistance at prices north of $195/cwt. One factor that is likely limiting rallies in the cutout value is the relative price issue. Wholesale beef prices have not been able to get too far out of line with wholesale pork prices. And, with the larger than expected hog inventory, large pork supplies have been keeping pressure on pork prices, in turn limiting the upside for the beef market.

Figure 1. Boxed Beef Cutout Value, Choice 600-900 lbs Carcass, Weekly
Cattle prices
The importance of realized demand strength is underscored by price and breakeven costs for cattle feeders (figure 2). This is not to say ongoing placement and feeding costs will not be critical to cattle feeding returns, just that there is arguably more uncertainty regarding demand than supply side factors at this point. Slumping cutouts have been a factor in keeping fed cattle prices well below breakeven levels. So far this spring, any improvements in wholesale beef values have been met with resistance and limited any sustained rallies in fed cattle prices. Taking a longer view, breakeven costs are projected to decline to near $120/cwt by late 2013 resulting from a significant downward movement in feed prices; breakeven costs are then projected to increase into 2014 due primarily to escalating feeder cattle prices. The core fundamentals of historically tight cattle and beef supplies would suggest support for higher prices and convergence between prices and costs. However, how long this will take and any sustained return to profitable cattle feeding margins will largely depend on whether the tight supply situation is accompanied by improving economic conditions.

Figure 2. Steer Price vs Breakeven – Finishing Yearling Steers, Iowa, Monthly

Note: Derived using the Iowa State University Estimated Returns model. Estimates are developed to serve as a barometer of prices and costs and are not intended to represent any one operation.

A few of the culprits pressuring prices
As industry stakeholders look to the rest of 2013 and beyond it is worth taking note of a few factors driving the economic situation facing the U.S. beef industry.

A slow-growing economy has stammered consumer sentiment and held prices at bay. March job creation was announced at half the forecasted number (i.e., 88,000 compared to 200,000) and while March unemployment dropped to 7.6 percent, the reason for the drop was concerning as de-participation soared by a massive 663,000 to a record 90 million Americans who are no longer even looking for work. Furthermore, the decline in the March Restaurant Performance Index was due largely to softer sales and less customer traffic, amid higher gas prices and the continuing impact of the payroll tax hike. Restaurant operators reported a net decline in customer traffic for the fourth consecutive month.

In late January Japan agreed to allow U.S. beef imports from cattle up to 30 months old starting in February, relaxing a restriction in place for about a decade on what was once the biggest market for U.S. exports. Trade for beef from cattle slaughtered at 20 months or less resumed in 2005. It is too early to speculate on whether
Japan will return (and how long it will take) to the leading export market for U.S. beef. However, beef exports to Japan were up only 1.9 percent year over year in January/February and have been hampered by Japan’s economic recession and the increasing value of the U.S. Dollar compared to the Japanese Yen.

Beef exports to Russia had been gradually increasing the last several years. In 2012, Russia was the 6th leading destination for U.S. beef which amounted to 6.2 percent of U.S. beef exports. However, beef exports to Russia have all but ceased, down 99.5 percent year over year in January/February, as a result of Russia taking steps to enforce bans on beta agonist residues found in imported beef.

Lee Schulz

Milk Production drops during March

March 2013 23 major dairy states milk production decreased by 0.1%. February 2013 milk production was revised down 3.3% from the prior year, but when adjusted for leap year it was up by 0.2%. That is an increase of 15 million pounds. First quarter 2013 milk production was down 1.1% from the same period one year ago for a total of 50.5 billion pounds.

First quarter US 2013 milk production dropped by 1.1%. Nebraska milk production was 298 million pounds down 2 million pounds or -0.7% from one year ago. The following chart does not include the usual data since the National Ag Statistics Service of USDA has suspended the survey needed to include all of the numbers. Some of the usual graphs are missing for the same reason.

<table>
<thead>
<tr>
<th>State</th>
<th>Milk Production (million pounds)</th>
<th>% Change in Milk Production</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2012</td>
<td>2013</td>
</tr>
<tr>
<td>IA</td>
<td>388</td>
<td>392</td>
</tr>
<tr>
<td>MN</td>
<td>793</td>
<td>807</td>
</tr>
<tr>
<td>WI</td>
<td>2,329</td>
<td>2,400</td>
</tr>
<tr>
<td>IL</td>
<td>177</td>
<td>177</td>
</tr>
<tr>
<td>CA</td>
<td>3,804</td>
<td>3,678</td>
</tr>
<tr>
<td>CO</td>
<td>270</td>
<td>278</td>
</tr>
<tr>
<td>KS</td>
<td>239</td>
<td>251</td>
</tr>
<tr>
<td>ID</td>
<td>1,127</td>
<td>1,133</td>
</tr>
<tr>
<td>AZ</td>
<td>435</td>
<td>423</td>
</tr>
<tr>
<td>NM</td>
<td>736</td>
<td>715</td>
</tr>
<tr>
<td>PA</td>
<td>923</td>
<td>926</td>
</tr>
<tr>
<td>NY</td>
<td>1,138</td>
<td>1,159</td>
</tr>
<tr>
<td>TX</td>
<td>876</td>
<td>840</td>
</tr>
<tr>
<td>23-State</td>
<td>16,462</td>
<td>16,440</td>
</tr>
<tr>
<td>US, 1st quarter</td>
<td>51,044</td>
<td>50,495</td>
</tr>
</tbody>
</table>

Source: Milk Production, USDA
USDA’s “Livestock Slaughter” report said dairy producers sent 274,000 dairy cows to slaughter during March 2013, 15,000 more than February 2013 and only 4,000 less than one year ago.

Demand or Disappearance
Commercial disappearance rose by 0.6% Nov-Jan 2013 compared to the same period one year ago. Fluid milk consumption is down 2.1% for the same Nov-Jan 2013. One year ago fluid milk production was down 2.8% Nov-Jan 2012. Butter consumption was off by 14.8% Nov-Jan 2013. American cheese was +1.7% during the same period.

The total cheese production chart below is normalized to a 30 day month. This allows comparison to other months in the rate of cheese production. Thus during February 2013 we produced cheese at a daily rate higher than prior February’s or Jan 2013.

The most recent report on cheese stocks reported over 1.1 billion pounds in cold storage. That is the largest cheese stocks since September 1984.

| Livestock Slaughtered Under Federal Inspection, By Class – United States |
|---|---|---|---|---|---|---|---|---|---|
| Cattle | (1,000 head) | (1,000 head) | (1,000 head) | (1,000 head) | (percent of total) | (percent of total) | (percent of total) | (percent of total) | (percent of total) | (percent of total) |
| Steers | 1,305 | 1,110 | 1,221 | 3,774 | 3,702 | 48.1 | 48.0 | 48.0 | 47.8 | 48.4 |
| Heifers | 840 | 688 | 763 | 2,387 | 2,246 | 31.0 | 29.8 | 30.0 | 30.2 | 29.4 |
| All cows | 522 | 479 | 519 | 1,603 | 1,576 | 19.2 | 20.7 | 20.4 | 20.3 | 20.8 |
| Dairy cows | 278 | 259 | 274 | 803 | 830 | 10.2 | 11.2 | 10.8 | 10.2 | 10.9 |
| Other cows | 244 | 219 | 245 | 800 | 746 | 9.0 | 9.5 | 9.6 | 10.1 | 9.8 |
| Bulls | 46 | 37 | 42 | 129 | 121 | 1.7 | 1.6 | 1.7 | 1.6 | 1.6 |
| Total | 2,713 | 2,315 | 2,545 | 7,893 | 7,645 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

Source: Livestock Slaughter, USDA

Source: Dairy Market News, USDA
Analysis

The March 2013 Income Over Feed Cost (IOFC) calculation for milk production has declined since the first of the year. The IOFC is above one year ago but well below 2 years ago. The calculation indicates that milk prices have fallen faster than feed prices during the first quarter of the year.

The Consumer Confidence Index took a big jump for February, up 11.2 points to 69.6. The restaurant performance index rose above 100 for the second time during 2013. “Buoyed by positive sales results and a more optimistic outlook among restaurant operators, the RPI rose above 100 in March. The RPI stood at 100.6 in March, up 0.7 percent from February’s level of 99.9. March represented the second time in the last three months that the RPI stood above 100, which signifies expansion in the index of key industry indicators.”

Source: National Restaurant Association
Below is the July 2013 Class III milk price at the CME as of April 30. Class III milk for June 2013 closed at $19.52. That is $0.82 higher than last month’s dairy e-note. Class III milk has traded above $19 since the beginning of April. The trade now appears to expect somewhat higher consumption relative to supply. USDA has dropped its 2013 milk production estimate by 100 million pounds and total expected commercial supply by 200 million pounds. This estimate is 1% higher than 2012 when adjusted for the extra day in February. That growth is positive for milk prices. However assuming a normal crop year, feed costs may decline and milk supply may grow more than the projected 1%.

Dairy exports have started out above year ago levels. Butter is up 34%, cheese 9%, lactose up 37% and whey protein concentrates up 43%. Milk powders were down by 15% and dry whey was 9% lower than the same time one year ago. World dairy supplies are tighter than last year and should help support US milk prices.

As we move into the next few months some factors will begin to show. Last year’s hot weather will likely depress milk per cow compared to normal lactation curves. Cows are likely to have more days in milk that dairy producer desire because of the difficulty of getting cows pregnant during last year’s heat. This may lead to heavier culling with heifers being brought into the dairy herd at a higher rate than usual. Better quality feeds are likely to be available to dairy producers later this year. That may increase milk per cow.

Robert Tigner
A Little Bit of Winter in Springtime

Now is a good time to ponder the markets as the snow blows across the Iowa landscape. It’s been a strange year. Today, I gave my last lecture to my spring class and the weather outside looks the same as it did on the first day of class. And in some respects the markets still look very similar to mid-January as well. Figure 1 shows the July futures prices over the past three and a half months. And for the soybean market, while there has been a lot of action during that time, the prices we see today are the prices we had near the first of the year. The beans are hanging in the teens as we finish out the 2012 marketing year.

The biggest shift has come in the corn market. At the close of April, corn had given up roughly 70 cents per bushel since mid-January. All of that drop can basically be explained by the March stocks report, which actually took a dollar out of the market. But even with that drop, cash corn prices are still in the $7 range. So the tagline for the 2012 marketing year remains the same. While the drought limited production, it also brought us record high prices. And those prices remain in place today. Much of that price strength is now showing up in the basis. Having a positive basis in Iowa is unusual. Seeing bids with basis over a buck a bushel is highly unusual, just as unusual as central Iowa receiving multiple inches of snow on May 2nd. As I said, it’s been a strange year.

Figure 1. July 2013 Crop Futures (Source: CME Group).

The strong old crop prices have made the new crop bids look rather uninspiring. It’s hard to get excited about selling $5 new crop corn when old crop corn is bringing $7. But I prefer to look at the new crop markets in another way. Compared to our estimated production costs for 2013, the cash bids for new crop corn and soybeans continue to offer profitable returns to Iowa producers. And as I look back over the six years, Iowa crop producers have enjoyed quite a run of profitability. It is good to see that run continuing as we enter the 2013 growing season.

The big new crop story over the past couple of weeks has been the lack of planting progress thus far. The early May rain and snow storm will not help matters. But there is still time to get the corn crop planted in a fairly timely fashion. Figure 2 shows national corn planting progress over the past thirty-three years. So far, 2013 is the 2nd slowest planting year, only 1984 was slower on the national scale (for Iowa, the slowest year was 1993). But as the graph shows, there is typically one week every year where 30% of the national corn crop will get planted (for Iowa, over 50% gets planted that week). That week is not here yet, but it is coming. Most of the
agronomic literature I have seen suggested that for Iowa, the corn crop can still reach 95% of its full potential if planted by mid-May.

Figure 2. Corn Planting Progress (Source: USDA-NASS).

The new crop markets are still weighing the large planting intentions for corn and soybeans versus the after-effects of the drought and the impact of delayed planting. From my perspective, the national corn yield potential hasn’t really shifted yet. We entered this year with many thinking that trend-line yields might be hard to reach. As I spoke at extension meetings this winter and early spring, I was often asked about yield projections for 2013. My answer was that I was looking over something in the upper 140s for corn, similar yields to what we had in 2011. The delays in planting have not changed that outlook for me. As Figure 3 shows, when you look back at the last three years with significant early planting problems (1983, 1984, and 1993), yields are usually lower than trend. If anything, that 1983-84 pattern might give us some hope. We suffered through the drought of 1983, got off to a late start in 1984, but still achieved a trend-line corn yield.

Figure 3. U.S. corn yields
While the supply issues have dominated a lot of the recent market discussion, demand may be quietly rebuilding. The March stocks surprise may have been the opening a few of the crop demands needed to rebuild. The lower new crop prices have been enticing enough to stimulate some advance export sales. And the ethanol industry has shown signs of recovery as well. Figure 4 shows the weekly corn grind for ethanol production. Over the past three weeks, we have seen a couple of ethanol plants come back online. Before the drought, the ethanol industry was working through about 95 million bushels of corn per week. During and after the drought, that demand dropped to 85 million bushels per week. In two of the last three weeks, the ethanol industry reached back up to 90 million bushels.

Overall, while the market is displaying significant volatility, crop prices and returns still are favorable. New crop corn is hovering in the $5 range, while new crop soybeans is pricing between $11.50 and $12. Profitable margins are available. That is a good situation to be in during a strange year. With crop insurance providing good protection again this year, there is no need to rush your marketing decisions. For those of you who have done some price protection already this year, you have likely seen some benefit from that already. For those of you who haven’t, it looks like you still have some time to do so.

**Figure 4. Weekly corn grind for ethanol production.**
Dr. Chad Hart  
Associate Professor of Economics  
Extension Crop Marketing Specialist  
468 Heady Hall  
Phone: (515) 294-9911  
Fax: (515) 294-0221  
chart@iastate.edu  
www.econ.iastate.edu/~chart

Dr. Lee Schulz  
Assistant Professor of Economics  
Extension Livestock Economist  
478 Heady Hall  
Phone: (515) 294-3356  
Fax: (515) 294-0221  
lschulz@iastate.edu  
www.econ.iastate.edu/people/faculty/schulz-lee

Robert Tigner  
Extension Educator  
University of Nebraska, Lincoln  
135 West 5th Street  
Imperial, NE 69033  
Phone: (308) 882-4731  
robert.tigner@unl.edu

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, and marital or family status. (Not all prohibited bases apply to all programs.) Many materials can be made available in alternative formats for ADA clients. To file a complaint of discrimination, write USDA, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, DC 20250-9410 or call 202-720-5964.