Cycle of Market Emotions

- Wow! I feel great about this investment.
- Temporary setback. I'm a long-term investor.
- Maybe the markets aren't for me.
- Point of Maximum Financial Risk
- Point of Maximum Financial Opportunity
- Optimism
- Relief
- Hope
- Depression
- Panic
- Desperation
- Fear
- Denial
- Excitement
- Thrill
- Anxiety
- Euphoria

Adapted from Westcore Funds/Denver Investment Advisers LLC, 1998
The Cattle Cycle is Alive

• Discuss the shifts that occurred across the commodity markets.
• Highlight the increase in protein supplies facing the cattle market in expansion.
• Walk through the demand situation facing producers over the next 12 months.
• Share beef and cattle price expectations for the next 12 to 24 months.

2011-2020: The Decade of Change
The cycle is not broken. Profitability breeds optimism, and fuels cowherd expansion.

The Cattle Price Cycle
Historical U.S. Cattle Market Price Trend

Drought Change by Year

U.S. Drought Monitor Drought Change
2012

U.S. Drought Monitor Drought Change
2013

U.S. Drought Monitor Drought Change
2014

U.S. Drought Monitor Drought Change
2015

http://droughtmonitor.unl.edu
http://droughtmonitor.unl.edu
Producers are answering the economic call to expand.
Is the risk cattle prices down 50-60% from the highs?

More Pork and Poultry, and Beef is Coming.
Pork Prod. +1-2% in 2016
Broiler Prod. +1-2% in 2016
Beef Prod. +2-3% in 2016

Source: USDA
Projected 2016-18

2016 +1,029,000 hd
F2017 +769,000 hd
F2018 +300,000 hd

Source: USDA
Projected 2017-18
## Montana Cattle Numbers

*USDA est. on January 1, 2016*

<table>
<thead>
<tr>
<th>Inventory (1,000s)</th>
<th>Chng vs. ’15 (1,000s)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>All Cattle and Calves</strong></td>
<td>2,650</td>
</tr>
<tr>
<td><strong>Beef Cows</strong></td>
<td>1,486</td>
</tr>
<tr>
<td><strong>Beef Replacements</strong></td>
<td>420</td>
</tr>
<tr>
<td><strong>Calves and Feeders</strong></td>
<td>617</td>
</tr>
</tbody>
</table>

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### April 1 - U.S. Feeder Cattle and Calf Supply Outside of Feedlots

<table>
<thead>
<tr>
<th>Year</th>
<th>Cattle (million head)</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>21.9</td>
</tr>
<tr>
<td>02</td>
<td>21.5</td>
</tr>
<tr>
<td>03</td>
<td>21.8</td>
</tr>
<tr>
<td>04</td>
<td>21.6</td>
</tr>
<tr>
<td>05</td>
<td>21.3</td>
</tr>
<tr>
<td>06</td>
<td>21.2</td>
</tr>
<tr>
<td>07</td>
<td>21.0</td>
</tr>
<tr>
<td>08</td>
<td>21.3</td>
</tr>
<tr>
<td>09</td>
<td>21.3</td>
</tr>
<tr>
<td>10</td>
<td>20.4</td>
</tr>
<tr>
<td>11</td>
<td>19.3</td>
</tr>
<tr>
<td>12</td>
<td>19.6</td>
</tr>
<tr>
<td>13</td>
<td>18.8</td>
</tr>
<tr>
<td>14</td>
<td>18.8</td>
</tr>
<tr>
<td>15</td>
<td>19.9</td>
</tr>
<tr>
<td>16</td>
<td>19.9</td>
</tr>
</tbody>
</table>

*Source: USDA, forecast CattleFax*

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*F2016 vs. 2015 +6.2% (1.2 mil. hd.)*
Demand: Good, Bad or Somewhere Between?
Wholesale demand for the Choice carcass is higher than year-ago levels, while Choice carcass counts are up 4 percent.
Job market news is steady as it goes, stock market has recovered, and energy values are cheaper.
U.S. Retail Protein Prices

<table>
<thead>
<tr>
<th></th>
<th>March 2016</th>
<th>% Change vs. YA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Choice Beef</td>
<td>$6.22</td>
<td>-1.4%</td>
</tr>
<tr>
<td>All-Fresh Beef</td>
<td>$5.86</td>
<td>-3.3%</td>
</tr>
<tr>
<td>Ground Beef</td>
<td>$4.37</td>
<td>-6.5%</td>
</tr>
<tr>
<td>Composite Pork</td>
<td>$3.76</td>
<td>-3.0%</td>
</tr>
<tr>
<td>Composite Broiler</td>
<td>$1.89</td>
<td>-5.0%</td>
</tr>
<tr>
<td>Fresh Whole Chicken</td>
<td>$1.46</td>
<td>-5.3%</td>
</tr>
<tr>
<td>Boneless Breast</td>
<td>$3.27</td>
<td>-7.1%</td>
</tr>
<tr>
<td>Whole Frozen Turkey</td>
<td>$1.51</td>
<td>+0.4%</td>
</tr>
<tr>
<td>Whole Milk ($/gal.)</td>
<td>$3.19</td>
<td>-8.0%</td>
</tr>
<tr>
<td>Grade A Eggs ($/doz.)</td>
<td>$2.08</td>
<td>-2.4%</td>
</tr>
</tbody>
</table>

Source: USDA and BLS
Total near 15 bil. lbs. in 2016
+2 to +4% beef
+4 to +5% broiler
+4 to +6% pork

Currencies vs. the U.S. Dollar
(by country since July 1, 2014)

-6%  -9%  -12%
-18%  -19%  -21%
-26%  -39%  -44%
-51%

China  Japan  S. Korea  Canada  Australia  Eurozone  Mexico  Brazil  Argentina  Russia
Can U.S. Protein Exports Grow?
The Best Opportunities May Remain Overseas

<table>
<thead>
<tr>
<th>Country</th>
<th>Export Volume</th>
<th>Per Capita Equivalent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mexico</td>
<td>3.8 bil. lbs.</td>
<td>30 lbs.</td>
</tr>
<tr>
<td>Japan</td>
<td>1.9 bil. lbs.</td>
<td>15 lbs.</td>
</tr>
<tr>
<td>Canada</td>
<td>1.3 bil. lbs.</td>
<td>36 lbs.</td>
</tr>
<tr>
<td>South Korea</td>
<td>0.9 bil. lbs.</td>
<td>16 lbs.</td>
</tr>
<tr>
<td>Greater China*</td>
<td>2.0 bil lbs.</td>
<td>1.4 lbs.</td>
</tr>
</tbody>
</table>

Population by Country
- China = 1.36 bil.
- India = 1.27 bil.
- United States = 319 mil.
- Indonesia = 253 mil.
- Brazil = 202 mil.

There is more opportunity for a growing customer base beyond the U.S. borders.

Source: USDA and Census
*w/H.K., Taiwan, Vietnam

Walk Before We Run.
The Story is Not Commodities

Fed Cattle Breakevens and LC Futures
Futures 2016 Retail Beef Avg. $5.75-$5.95 (-4.5%)
2016 Forecasts:
Calves $190-$195/cwt.
Feeders $157-$162/cwt.
Fed $130-$135/cwt.

Cow-calf producers who expanded the most from 2014-2015 have the most equity at risk on the break.
How Much is a Bred Cow Worth?

<table>
<thead>
<tr>
<th>550-lb. Calf Price</th>
<th>% Chng vs. F2014</th>
<th>Bred Cow at 1.5x</th>
<th>Bred Cow at 1.65x</th>
</tr>
</thead>
<tbody>
<tr>
<td>$160</td>
<td>-33%</td>
<td>$1320</td>
<td>$1452</td>
</tr>
<tr>
<td>$180</td>
<td>-25%</td>
<td>$1485</td>
<td>$1634</td>
</tr>
<tr>
<td>$200</td>
<td>-17%</td>
<td>$1650</td>
<td>$1815</td>
</tr>
<tr>
<td>$220</td>
<td>-8%</td>
<td>$1815</td>
<td>$1997</td>
</tr>
<tr>
<td>$240</td>
<td>0%</td>
<td>$1980</td>
<td>$2178</td>
</tr>
<tr>
<td>$260</td>
<td>+8%</td>
<td>$2145</td>
<td>$2360</td>
</tr>
<tr>
<td>$280</td>
<td>+17%</td>
<td>$2310</td>
<td>$2464</td>
</tr>
</tbody>
</table>

Number of 550 lb Steer Calves Needed to Pay for a Bred Cow

Source: CattleFax
Summary

• Market expectation: Prices carved out trading ranges in 2014-15. The leverage shift to retail was extreme.

• Expansion: The U.S. market is absorbing a significant increase in protein – mainly pork and poultry. Beef supplies will add more to the protein supply into 2020.

• Demand: Domestic improvement hinges on bringing the marginal beef consumer back to the meat case. Trade needs to be a focus for all proteins.

• Profitability: Low-cost, high-return operators win. Know production goals, calculate breakeven prices, and use risk management tools. There is not a one-size-fits-all plan.

Thank you!

Lance Zimmerman, Analyst
lance@cattlefax.com
800-825-7525
Drought Change by Year

~85% U.S. Corn Production

~5% U.S. Corn Production

2015

2014

2013

2012

Monthly U.S. Hay and Corn Futures Prices

- U.S. Alfalfa Hay (Dry)
- U.S. Other Hay (Dry)
- Spot Corn Futures

Source: USDA and CME Group
The U.S. Beef Cattle Cycle
Historical 10-Year Cattle Market Trend

Adapted from University of Wyoming

Increased beef production is contributing the most to % year-over-year growth in domestic protein supplies.
Fall '13-'14 $5.5 mil. in profits
2015 $5.1 mil. in losses

Feedyard P&L will tell you more about feeder cattle demand than any other variable.
The eight month downtrend has been taken out. The next resistance area is $138 followed by $142-$144.
Fed Cattle Price as a Percent of Retail Beef Price

Source: CattleFax & USDA, 2016 Projected
* Fed price excludes drop credit
* Retail price is USDA All Fresh

USDA Protein Prices vs. Year Ago
March 2016 vs. March 2015

Source: USDA PROTEIN
Restaurants are struggling with slower customer traffic. Can lower menu prices lure customers back into restaurants?
Currencies vs. the U.S. Dollar
(by country since July 1, 2014)