Outlook for Livestock and Poultry

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World Agricultural Outlook Board, USDA

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About Those Forecasts...

“Everything makes sense in hindsight, a fact that analysts exploit every evening as they offer convincing accounts of the day’s events...the illusion that we understand the past fosters overconfidence in our ability to predict the future.”

- Daniel Kahneman
Thinking, Fast and Slow
2011
Outline

• What about the U.S. consumer?

• 2015 outlooks for cattle, hogs and poultry

• Wild cards to watch
Protein Prices Relative to Wages in United States

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<tbody>
<tr>
<td>Wage, $/hr</td>
<td>$9.44</td>
<td>$12.04</td>
<td>$15.69</td>
<td>$18.07</td>
<td>$20.60</td>
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<tr>
<td>Beef, $/lb</td>
<td>$2.25</td>
<td>$2.52</td>
<td>$3.61</td>
<td>$3.97</td>
<td>$5.60</td>
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</table>
% of wage   | 24%    | 21%    | 23%    | 22%    | 27%    |
| Pork, $/lb | $1.13  | $2.34  | $2.79  | $2.94  | $4.02  |
% of wage   | 12%    | 19%    | 18%    | 16%    | 20%    |
| Chicken, $/lb | $1.34 | $1.51  | $1.73  | $1.75  | $1.96  |
% of wage   | 14%    | 13%    | 11%    | 10%    | 10%    |
| Eggs, $/dz | N/A    | $1.11  | $1.34  | $1.99  | $2.02  |
% of wage   | 9%     | 9%     | 11%    | 11%    | 10%    |

All values are nominal. Source: Bureau of Labor Statistics Average Hourly Earnings of Total Private Production and Nonsupervisory Employees. USDA/ERS retail meat price spreads.
Per Capita Disappearance of Chicken and Eggs Growing, Pork Higher and Beef Down

Meat Pounds Per Capita


Eggs Per Capita


- Beef
- Pork
- Chicken
- Eggs
Total Per Capita Disappearance of Red Meat and Poultry Higher

Pounds Per Capita

Consumer Confidence and Restaurant Performance Index

Confidence 1985=100

Source: Conference Board and National Restaurant Association. Less than $50k category is average of $25-$35k and $35-$50k.
Record Crops in 2014

- Corn and soybean yields above trends
- Lower feed prices
- General improvement in pasture and rangeland conditions in most areas
Prices for Corn and Soybean Meal vs. Inflation

1997=100

Source: USDA and Bureau of Labor Statistics. Corn price is marketing-year weighted average price received by farmers. Soybean meal is Decatur marketing-year simple average of 48 percent protein meal. Hay is marketing-year weighted average price received by farmers. CPI is seasonally adjusted Consumer Price Index for All Urban Consumers.
Prices for Cattle, Hogs and Broilers vs. Inflation

Source: USDA and Bureau of Labor Statistics. Livestock prices are annual averages. Cattle price is 5-Area Direct Total for all grades, hogs are National Base, Live equivalent 51-52 percent lean, broilers are Wholesale National Composite Weighted.
### Livestock and Poultry Price Forecasts for 2015

<table>
<thead>
<tr>
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<th>2013</th>
<th>2014</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cattle, $/CWT</td>
<td>$126</td>
<td>$155</td>
<td>$157-$167</td>
</tr>
<tr>
<td>Hogs, $/CWT live equivalent</td>
<td>$64</td>
<td>$76</td>
<td>$54-$58</td>
</tr>
<tr>
<td>National Broiler Composite, $/lb</td>
<td>$1.00</td>
<td>$1.05</td>
<td>$0.97-$1.03</td>
</tr>
<tr>
<td>Turkey, $/lb</td>
<td>$1.00</td>
<td>$1.08</td>
<td>$1.02-$1.08</td>
</tr>
<tr>
<td>Eggs, N.Y. Wholesale Price, $/dozen</td>
<td>$1.25</td>
<td>$1.42</td>
<td>$1.25-$1.34</td>
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</tbody>
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**Fund Hog Futures Net Position vs. Total Open Interest**

Note: Futures only. Fund net position is the total of managed money and other reportables.
Fund Fed Cattle Futures Net Position vs. Total Open Interest

Note: Futures only. Fund net position is the total of managed money and other reportables.
Beef Production Forecast Slightly Lower in 2015, Pork and Poultry Higher
Change in Meat Production 2004 to 2013: Number Slaughtered vs. Weights

Billion Pounds

-1.0 0.0 1.0 2.0 3.0 4.0 5.0

Cattle Hogs Broilers

Note: Cattle and Hogs are on dressed basis, broilers are on ready to cook basis.
Change in Meat Production 2013 to 2014: Weights Partially Offset Declines for Beef and Pork

Note: Cattle and Hogs are on dressed basis, broilers are on ready to cook basis.
February 19, 2013: 56 Percent of Continental U.S. in Drought

Source: U.S. Drought Monitor
February 11, 2014: 38 Percent of Continental U.S. in Drought

Source: U.S. Drought Monitor
February 10, 2015: 29 Percent of Continental U.S. in Drought

Source: U.S. Drought Monitor
Cow-Calf Returns Skyrocket

Source: Livestock Marketing Information Center; USDA

$/Cow

Beef Heifers Held for Replacement, 1000 Head
2014 Beef Cow Inventory Increase Largest Since 1994

Year-over-year Change, Million Head

-1.0
-0.5
0.0
0.5
1.0
1.5

Cattle Herd on January 1, 2015, Expands For First Time Since 2007

Million Head


85 90 95 100 105 110 115 120
Record U.S. Beef Imports in 2014

Imports, Million lbs

90% ground beef, $/lb

Beef Imports (t+1)  90 percent lean ground beef
Robust Farrow-to-Finish Returns for Hogs in Iowa

Source: Iowa State University
Rebound in Pigs Per Litter after PEDv

2004-2013 Annual Growth Rate = 1.5%
Ratio of Broiler Composite Price Relative to Feed Cost Rebounds

Source: WAOB estimates, 3-month moving average of ratio. Corn price is monthly marketing-year weighted average price received by farmers. Soybean meal is Decatur simple monthly average of 48 percent protein. Assumes 1 lb of feed is 30 percent soybean meal and 70 percent corn. NE Composite is a weighted average of thighs, drumsticks, breasts and wings.
Important Factors for 2015

• U.S. Dollar strength vis-à-vis other exporters

• Lower U.S. exports

• Expected larger pig crops in the U.S.
U.S. Dollar Strength Relative to Competitors a Headwind for Exports

Source: USDA-ERS. Real export-weighted exchange rates for each commodity.
Chinese Yuan Strengthening Relative to Euro and Canadian Dollar

Index
12/15/14=100

All values are nominal
U.S. Meat Exports Lower in 2015

Beef & Pork, Billion Pounds

Broilers, Billion Pounds

- Beef
- Pork
- Broilers
Much Larger U.S. Pig Crop Expected in 2015

Year-over-year % Change

-6.0%
-4.0%
-2.0%
0.0%
2.0%
4.0%
6.0%
8.0%