Food and Feed vs Fuel: Renewable Fuels Perspective

Texas Ag Forum

John M. Urbanchuk
Director, LECG LLC
1255 Drummers Lane, Suite 320
Wayne, PA 19087
Tel: 215-254-4021
E-mail: jurbanchuk@lecg.com

Austin – June 9, 2008
Ethanol critics and the media have been having a field day …
But everything is not always what it seems …

“"It just can’t be all black and white."
Biofuels are only part of the reason for increasing corn and food prices.

- Increasing energy prices are driving retail costs
- Strong global demand is driving price increases
- Weather has reduced output in Australia, Europe and elsewhere shorting world grain supplies
- A weak U.S. dollar is fueling exports
- Speculation is affecting the markets
- Finally, biofuels demand
EISA 2007 contains a 36 billion gallon RFS. Corn ethanol is capped at 15 BG.
Waiving the RFS is not the answer to high corn prices

- A 50% waiver would reduce required ethanol use by 4.5 bil gal (equiv of 1.6 bil bu corn)
- Actual cut in production would be much less.
  - Industry capacity is 8.6 bil gal
  - Industry is still profitable at $5.50 corn
  - Economics favor blending ethanol at $127/bbl oil
- Consumers would be hurt by sharply higher gasoline prices as refiners would be forced to quickly produce an additional 3.1 bil gal of gasoline
Ethanol’s Role in Food Price Inflation

- “Ethanol accounts for somewhere between 2% and 3% of the overall increase in global food prices.”

- “Had it not been for ethanol, U.S. food prices would have gone up by 4.25% as opposed to 4.5%.”

Source: White House Chairman of the Council of Economic Advisers Ed Lazear
Increased Energy Costs Have Twice the Impact of Corn on Retail Food Prices

Source: LECG, "The Relative Impact of Corn and Energy Prices in the Grocery Aisle"
Corn and oil prices have increased hand-in-hand for most of the last 2 years.
There is a Direct Link Between Energy Prices and Food Prices

- Historically, food prices have surged during times of higher crude oil prices. Moreover, research shows that energy prices are quickly passed through to higher retail food prices.

- On January 1, 2007, the price of crude was just over $60 per barrel. In late May 2008, oil traded at more than $130 per barrel.

Source: “Main Street Economist: What is Driving Food Price Inflation?” Federal Reserve Bank of Kansas City, 2008
The Role of Energy and the Marketing Bill

- Just 19 cents of every dollar spent on food makes its way back to the farm, while the remaining portion of total retail food costs (the marketing bill) including labor, packaging, transportation, energy, profits, advertising, depreciation, rent, interest, repairs, business taxes and other costs not attributable to basic agricultural commodities.

- The marketing bill has a higher correlation with the CPI for food than does corn.

Global corn demand is growing strongly for both feed and industrial uses.

World Corn Demand and Supply

Source: USDA/ERS.

FSI is food, seed, and industrial (including ethanol)
Per capita income growth is stimulating food and energy demand.

Per Capita GDP

Source: IMF
Global food prices are increasing largely due to rice, wheat, and edible oils, not corn via ethanol!

FAO Food Price Index

* YTD. Source: FAO
Cereals provide most of the world’s average caloric intake. Corn plays a minor role as a cereal.

**FAO Cereals Price Index**
- 9 wheat quotations
- 16 rice quotations
- 1 corn price

*Source: FAO*
Speculation has been a major factor driving corn prices since mid-2006.

Source: CFTC
Corn exports are at record levels as a weak $ offsets high prices.

Source: USDA/ERS; Federal Reserve
U.S. Corn Production Outpaces Demand

Only 4.6% net new ethanol corn demand

Source: USDA, Goldman Sachs Commodities Research Report, April 10, 2008
The foods **directly** impacted by corn and soybeans account for only about 25% of the consumer’s food basket.

Relative Importance: CPI for Food

- Meat, poultry, fish, eggs
- Other Foods
- Fruits and Vegetables
- Cereals and bakery prods
- Non alcoholic beverages
- Dairy products
- Sugar and sweets
- Fats and oils
- Food away from home

Corn has a Minor Impact on Retail Food Prices

Source: USDA, NCGA

* Based on corn value of $4/bushel. USDA choice boneless sirloin steak. Feb. 08;
Let’s put food price inflation in a historical context.

Consumer Price Index, All Urban
(Average Annual Increase)

Source: BLS; *2008 YTD
Retail food prices are accelerating faster than the overall CPI.

Source: BLS
Ethanol is Keeping Fuel Prices Lower

- Iowa State (CARD) estimates that the growth in ethanol production and use has caused gasoline prices to be $0.29 to $0.40 lower than they might otherwise have been.

- Without ethanol to expand the available fuel supply the world’s refiners would need an additional 1.9 million barrels of crude oil per day, or 2.2 percent of current world production and crude oil prices would be 27.5% ($35.70 per barrel) higher than they are currently!
## Ethanol’s Impact on Household Gasoline and Food Spending

### IMPACT ON HOUSEHOLD GASOLINE SPENDING

<table>
<thead>
<tr>
<th>VALUE</th>
<th>SOURCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Avg. Miles per Household per Year</td>
<td>21,252 miles</td>
</tr>
<tr>
<td>C. Gallons Gasoline Purchased per Household</td>
<td>1,052 gallons</td>
</tr>
<tr>
<td>D. Ethanol Savings per Gallon</td>
<td>$0.29-0.40 per gal.</td>
</tr>
<tr>
<td>TOTAL SAVINGS PER HOUSEHOLD</td>
<td>$305.08 – $420.83</td>
</tr>
</tbody>
</table>

### IMPACT ON HOUSEHOLD FOOD SPENDING

<table>
<thead>
<tr>
<th>VALUE</th>
<th>SOURCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Avg. Household Spending on Food (2006)</td>
<td>$6,111</td>
</tr>
<tr>
<td>B. Current Food Inflation (5.1% Apr ‘08)</td>
<td>$311.66</td>
</tr>
<tr>
<td>SHARE OF FOOD SPENDING DUE TO ETHANOL*</td>
<td>$18.33</td>
</tr>
</tbody>
</table>

*The White House Council of Economic Advisors estimates that just 0.25% of food price inflation is a result of U.S. ethanol production.*
Thank you!

Questions?

“Here, you’re either great, or you’re finger lickin’ good.”