Biofuels and Food Prices

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Talk Overview: Review of Two Analyses

1. Look back in time and estimate what would have been crop and food prices if ethanol subsidies (price subsidy and mandate) and ethanol expansion had not occurred.

2. Look forward in time to 2012 and ask what is the current impact of subsidies on maize and soybean prices.

3. Use results to make policy recommendations.
Growth in US Ethanol Caused by Very Large Profit Margins

US Ethanol Production vs Profit Margins from 2001 to 2009.
US Subsidies Had Little Impact on Profit Margins

- Actual
- No-Subsidy

$/gallon

2005 2006 2007 2008 2009
US Ethanol Production Would Have Been Robust Even Without Subsidies

Billion liters

2005 2006 2007 2008 2009

Actual
No-Subsidy
Causes of Maize Price Increases Since 2004

- Ethanol Expansion from Subsidies
- Ethanol Expansion from Market
- All Other Forces

Bar chart showing the percentage contribution of each cause from 2006 to 2009.
US Interior Price of Maize in 2012/13 Marketing Year

- **US Yield (tons per hectare):**
  - 8.2
  - 8.5
  - 8.7
  - 8.9
  - 9.0

- **$ per ton:**
  - Inflexible Mandate
  - Flexible Mandate
  - No Mandate

The chart shows the relationship between US Yield (tons per hectare) and the US Interior Price of Maize in 2012/13 Marketing Year under different mandates.
Impact of US Mandate on Maize Price is Larger When Supplies are Tight

![Bar chart showing the impact of US mandate on maize price at different US yields. The chart compares inflexible and flexible mandates, with prices rising as US yields decrease.](chart.png)
Impact of US Mandate on Maize Price is Larger when Gasoline Price is Low

Inflexible Mandate
Flexible Mandate

Wholesale Gasoline Price ($ per liter)

$ per ton

Impact of US Mandate on Maize Price is Larger when Gasoline Price is Low

Inflexible Mandate
Flexible Mandate

Wholesale Gasoline Price ($ per liter)
Overview of Current US Policies

• Elimination of ethanol price subsidy and import tariff shows US ethanol industry has matured
• Flexibility in the ethanol mandate helps cushion impacts of a one-year feedstock disruption
• If crop supplies are extremely low, makes no sense to enforce a strong mandate
• Follow Brazil’s example by creating demand flexibility on the upside of biofuels production by increasing ability of US auto fleet to use ethanol