Summary

- Biofuel policies had a great impact in raising crop prices
- The environmental effects of biofuels are negative
- Biofuel policy is a double-edged sword in trying to improve farm incomes and rural development
  - construction created short-term jobs in rural communities
  - higher crop prices due to biofuels are an implicit tax on value-added agriculture
How do past price booms compare?

Role of biofuel policies?
- U.S. environmental and energy policy the trigger and now dominate
- U.S. agricultural policy secondary and now reactionary in new Farm Bill
**Relevant Price Linkages**

*Crop-Biofuel-Energy-Crude oil*

**Corn-Ethanol**
- Strong positive (e.g., +4 for corn)

**Ethanol-Gasoline**
- Strong positive or weak negative if mandate

**Gasoline-Crude oil**
- Strong positive

**How well does price link equation predict?**

- Corn price (actual)
- Predicted corn price (de Gorter-Drabik-Just formula)
- Prediction error
Biofuel policies the cause

- Created a link between crop and biofuel prices
  - Ethanol price premium due to policy very high
  - Biofuel-crop price multipliers very high
- 2 states of nature for biofuel prices:
  1. Lowest when locked to energy prices
  2. Or float up and away (mandate premium)
- New counterfactual is the crop-biofuel price link
- Would not have happened without biofuel policies
With new era of prices comes new politics of U.S. Farm Bill

- Now includes environment (local air pollution; GHG emissions) and energy policy interests
- Direct payments became politically embarrassing
- Target prices/loan rates generate few subsidies & political desire to transfer $ to farmers in high/volatile price era
- “Cuts” are related to the CBO baseline and ‘mandatory’ expenditures (not to current or recent expenditures)
- Crop insurance subsidies in recent years has become biggest spending category (~ $7 bil. total US crops)
- New ‘revenue insurance’ subsidies could be big

Rising opposition from high prices

- New interest groups include coalitions of livestock organizations such as various meat, livestock, poultry and dairy producer associations
- New margin protection policies for dairy
Environmental effects of biofuel policies
GHG savings small relative to mileage related externalities

<table>
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<th>(cents/gal)</th>
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<th>Mileage-related costs</th>
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GHGs as a % of total: 2.8%

Market leakages with biofuels
- Higher prices means supply response that includes land conversion and so GHG emissions
- More fuel supply so lower crude oil prices and higher consumption (biofuels replace only $1/2$ gallon of gasoline as a result)

Socio-economic and rural development effects
- Biofuels a double edged sword in achieving improved farm income/rural development:
  - taxes value-added agriculture (e.g., livestock, dairy and poultry) that involve more farms and downstream employment
  - Higher crop prices and employment from biofuel production probably results in a net reduction in economic growth in rural areas (compared to no biofuels)