

Socioeconomic Issues and Biofuel Energy

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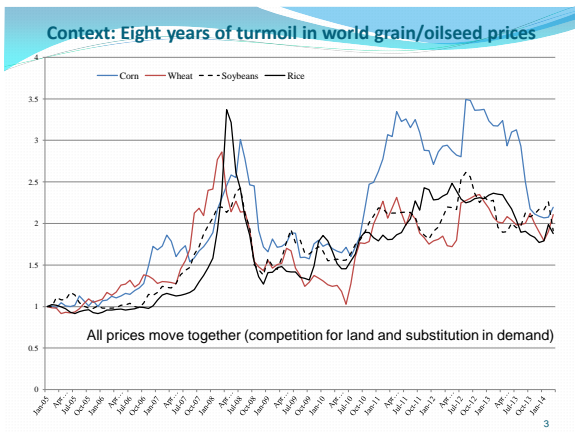
Slides for presentation NARDeP Webinar, 27 October 2014.

1

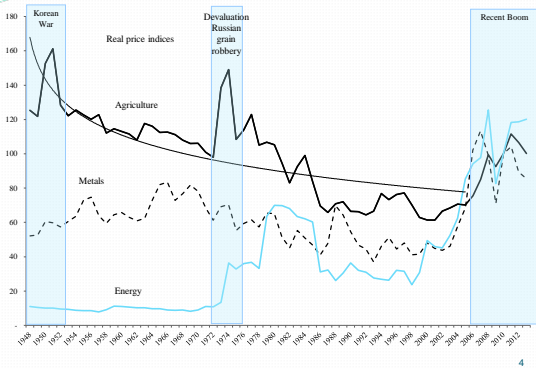
Summary

- 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

2



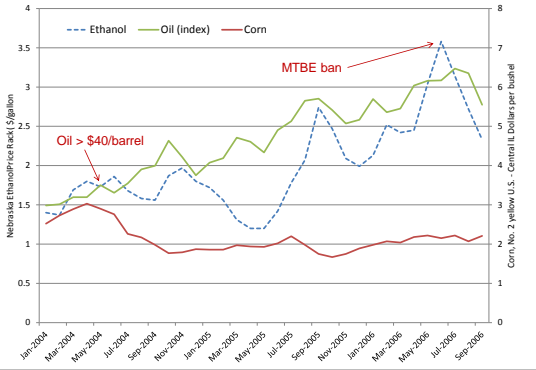
How do past price booms compare?

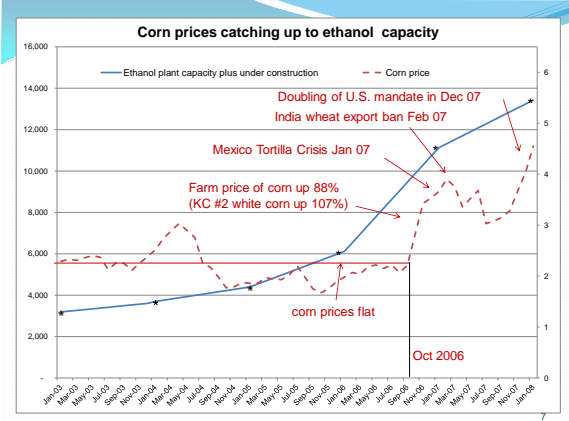


Role of biofuel policies?

- U.S. environmental and energy policy the trigger and now dominate
- U.S. agricultural policy secondary and now reactionary in new Farm Bill

Oil, Ethanol and Corn Prices Jan 2004 - Sept 2006

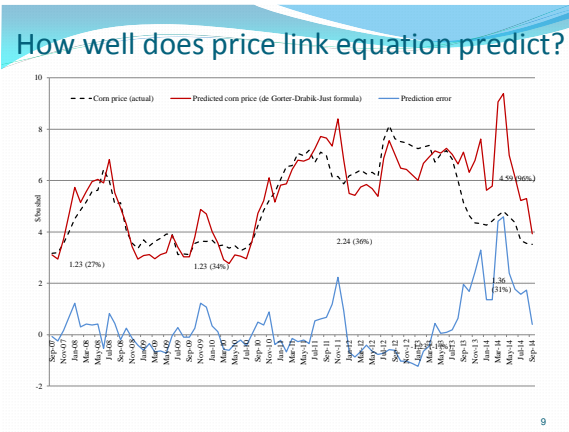




Relevant Price Linkages

Crop-Biofuel-Energy-Crude oil

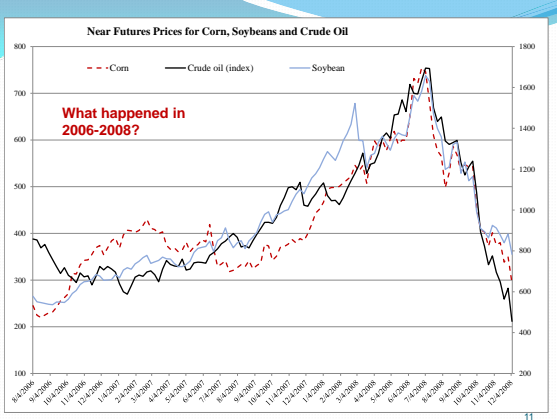
- Corn-Ethanol**
Strong positive (e.g., 4 for corn)
- Ethanol-Gasoline**
Strong positive or weak negative if mandate
- Gasoline-Crude oil**
Strong positive

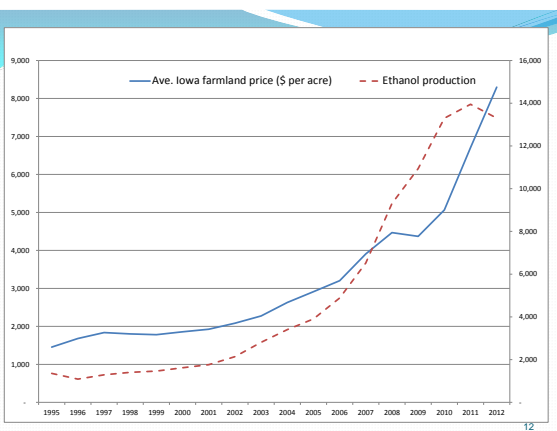


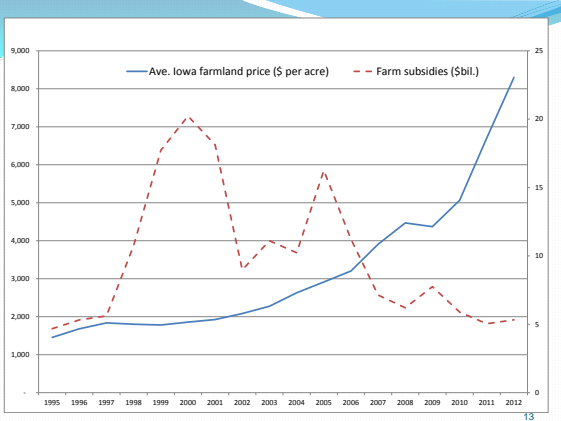
Biofuel policies the cause

- 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

10







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

	cents/gal
Fuel-related costs	
GHGs	6
Oil dep.	12
Mileage-related costs	
Local pollution	42
Congestion	105
Accidents	63

GHGs as a % of total: 2.8%

16

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 of gallon of gasoline as a result)

17

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)

18
