About FAPRI

• Funding from Congress to analyze agricultural markets and alternative policies
• Additional work on
  – Commodity Transportation
  – Biofuels
  – Farm Level Impact Analysis
  – Environmental

Baseline Assumptions

• Constant Policy Baseline
• Assume continuation of
  – $0.51 per gallon ethanol tax credit
  – $0.54 per gallon import tariff on ethanol
  – $1.00 per gallon biodiesel tax credit

Baseline Assumptions

• Dry mill process (currently most common)
  – 2.73 gallons ethanol/bushel of corn in 2006 growing to 2.88 gallons ethanol/bushel of corn in 2016.
  – 17 pounds of distillers grains/bushel of corn
• Wet mill process
  – 2.69 gallons ethanol/bushel of corn in 2006 growing to 2.76 gallons ethanol/bushel of corn in 2016.
  – 14 pounds of corn gluten feed and meal/bushel of corn
  – 1.6 pounds of corn oil/bushel of corn

Uncertainty and Volatility

• Uncertainty introduced through:
  – Yields
  – Trade
  – Domestic Demand
  – Input Price Indices
• Volatility looks at the nature of the relationship between variables.

Corn Yields: Adding Uncertainty
Corn Yields: Adding Uncertainty

Ethanol and Petroleum Prices 2007/08

Ethanol and Petroleum Prices 2016/17

Biofuels Increasing Volatility?

Biofuels Increasing Volatility?

Capacity and Utilization Behavior

- Capacity largely determined in previous periods
- Utilization rate determined completely in current period
Ethanol Prices: 2011-2016 average

Corn Supply and Use: 2011-2016 average

Ethanol Dry Mill Returns over Operating Costs: Tax Credits Expire

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