Biofuel policies and markets in an uncertain world

FAPRI-Missouri | Seth Meyer | April 2009 Meyer, Thompson and Westhoff

What is FAPRI?

- Food and Agricultural Policy Research Institute (FAPRI)
 - Joint institute of University of Missouri and Iowa State University
- U.S. Congress provides much of our funding to prepare projections of agricultural markets and analyze the effects of alternative policies
- Objectivity and neutrality are important
- With stronger linkages between energy and agriculture our area of analysis has expanded significantly

Key elements of US biofuel bolicy

tax credits

Given to fuel blenders per gallon blended

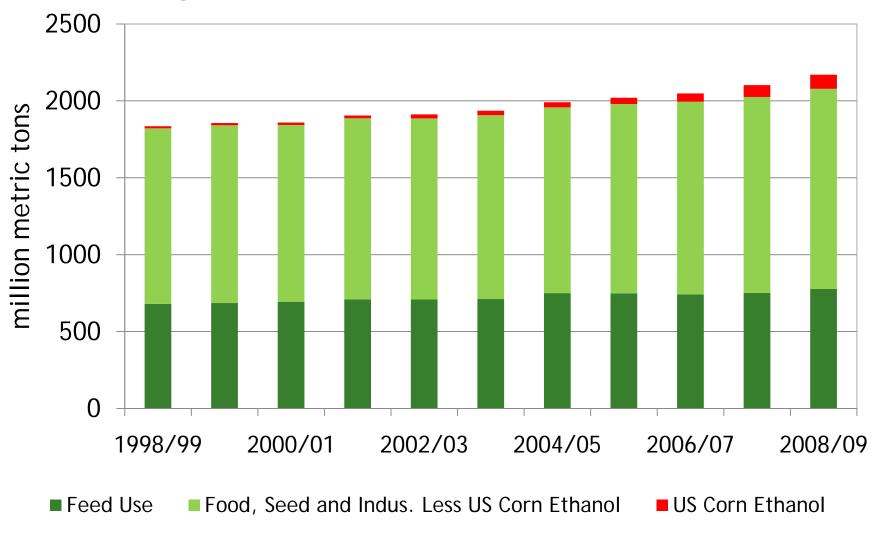
ethanol tariffs

 Specific tariff on imports from most countries

Renewable Fuel Standard

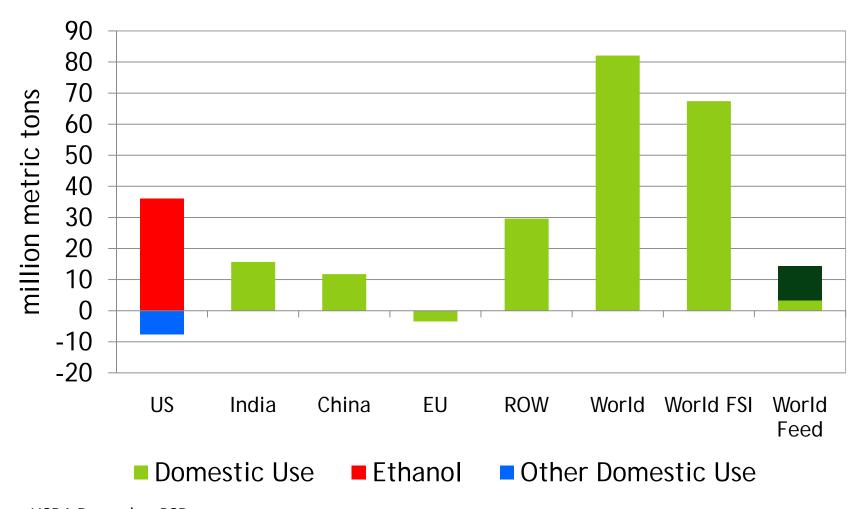
 Minimum levels of biofuel use

World grains use



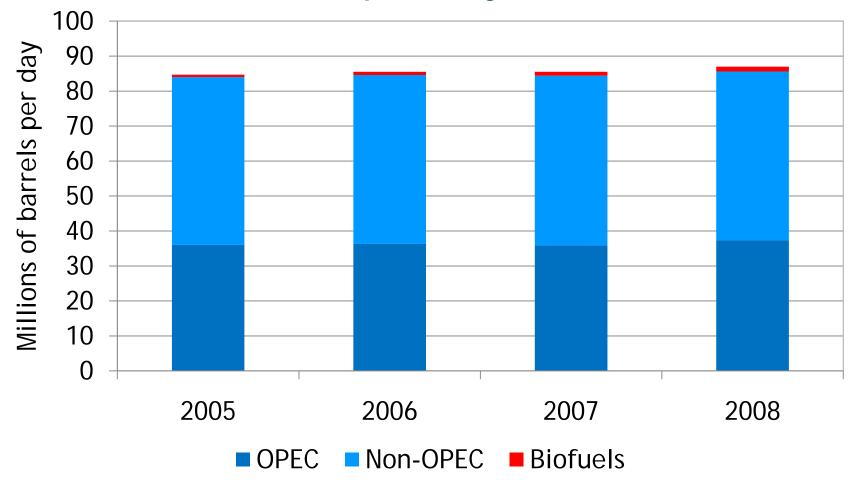
Source: USDA December PSD

Change in grain domestic use between 2005/06 and 2007/08



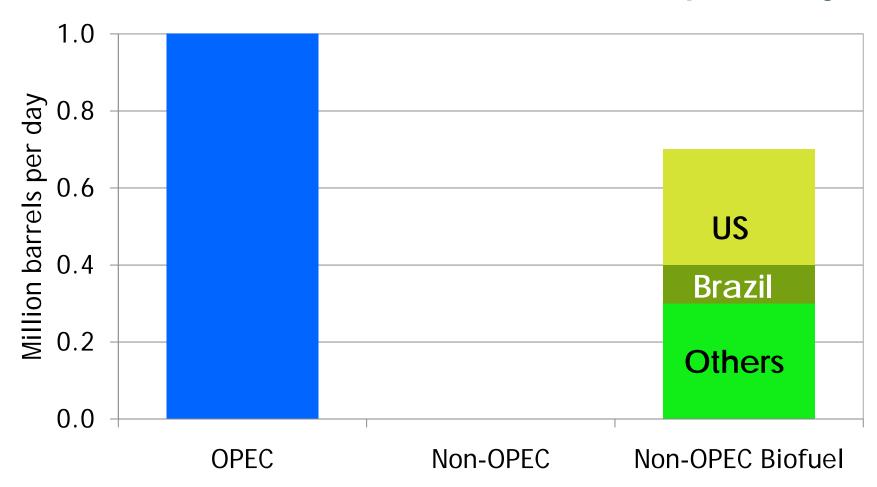
Source: USDA December PSD

World oil and biofuel supply millions of barrels per day



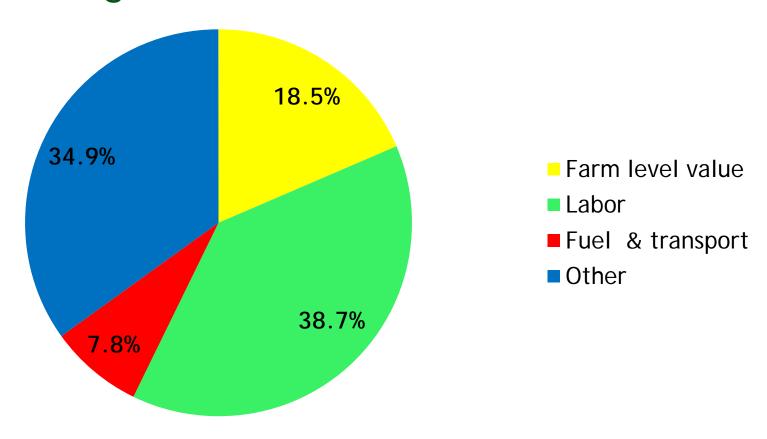
Source: International Energy Agency

Change in world oil and biofuel supply 2006 to 2008 millions of barrels per day



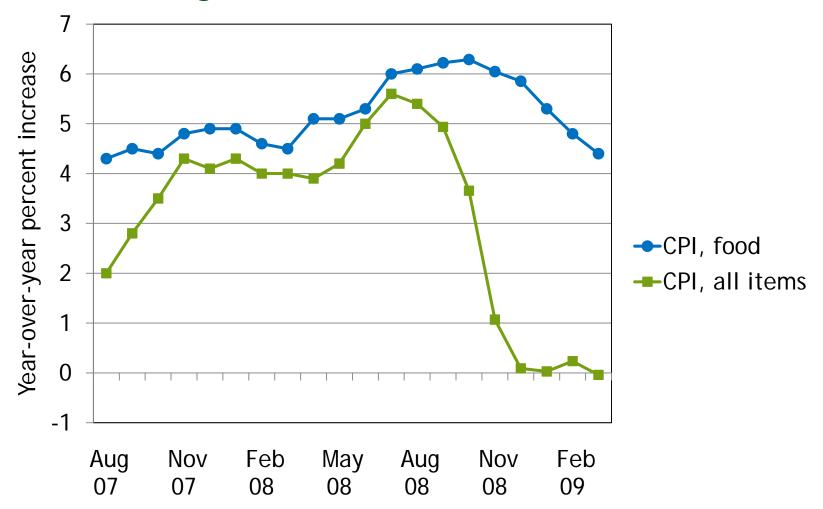
Source: International Energy Agency

Food expenditures: farm value and marketing bill, 2006



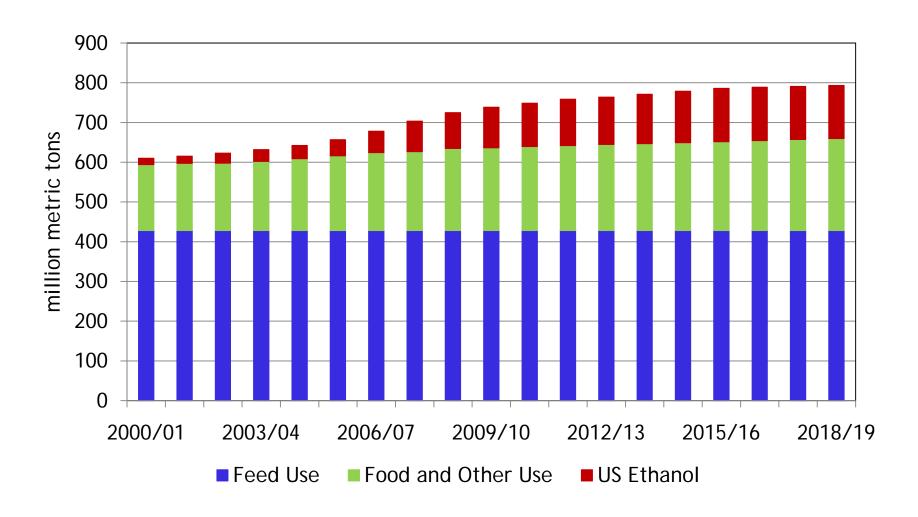
Source: USDA Economic Research Service

Food and general inflation



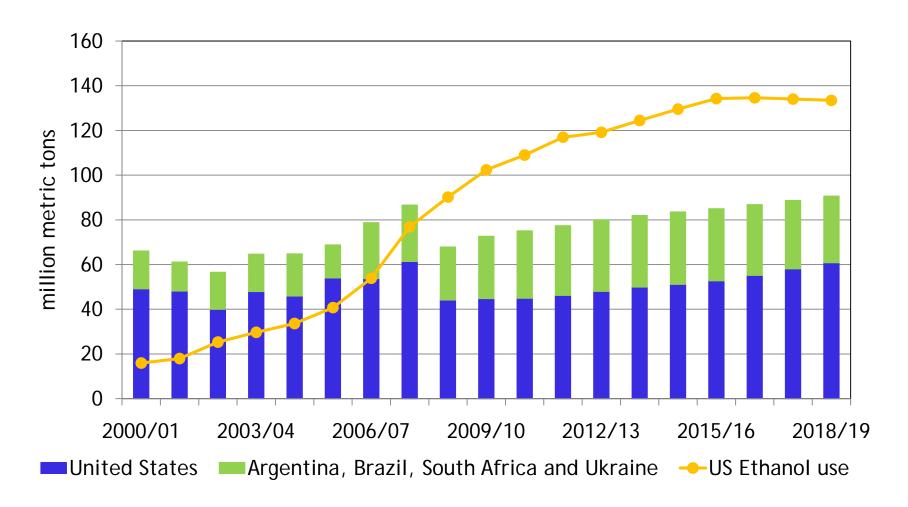
Source: www.bls.gov

World corn feed, food and ethanol use



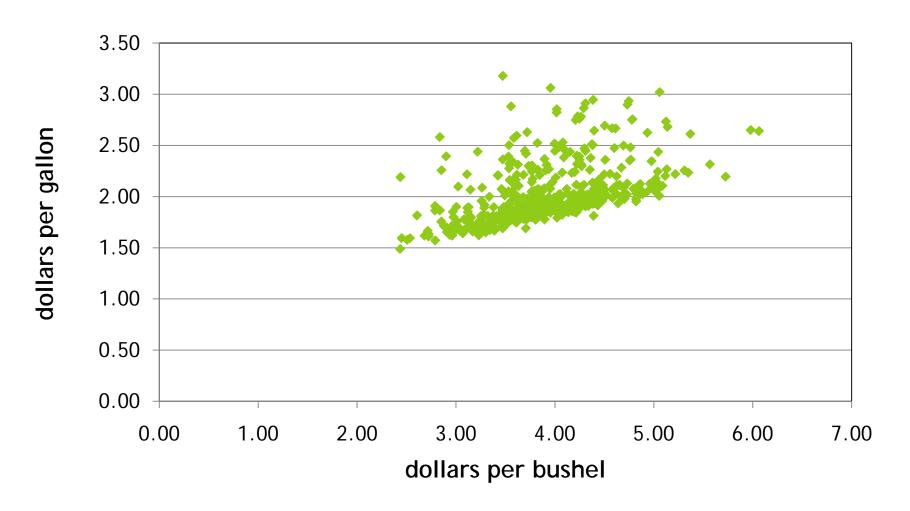
Source: FAPRI 2009 baseline Note: Tax credits and tariffs extended

Corn net-exports and ethanol use



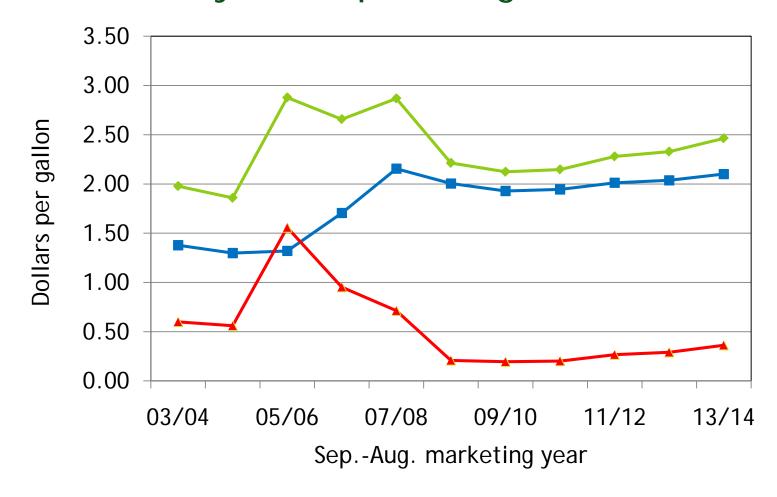
Source: FAPRI 2009 baseline Note: Tax credits and tariffs extended

Corn prices and wholesale ethanol prices 2012/13



Source: FAPRI-MU stochastic analysis Note: Tax credits and tariffs extended

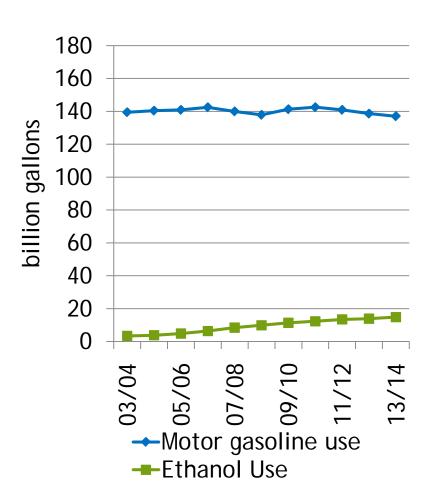
Ethanol dry mill operating costs and returns



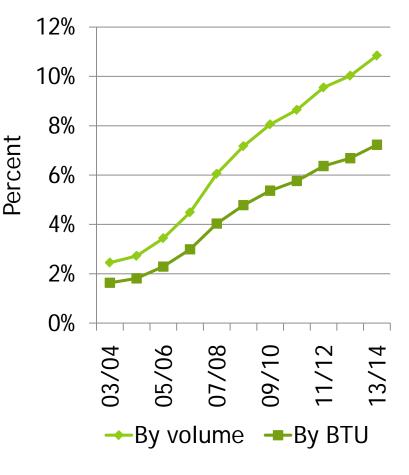
→Ethanol + DDG value →Operating costs →Net operating return

Source: FAPRI-MU report #01-09 Note: Tax credits and tariffs extended

Motor gasoline and ethanol use



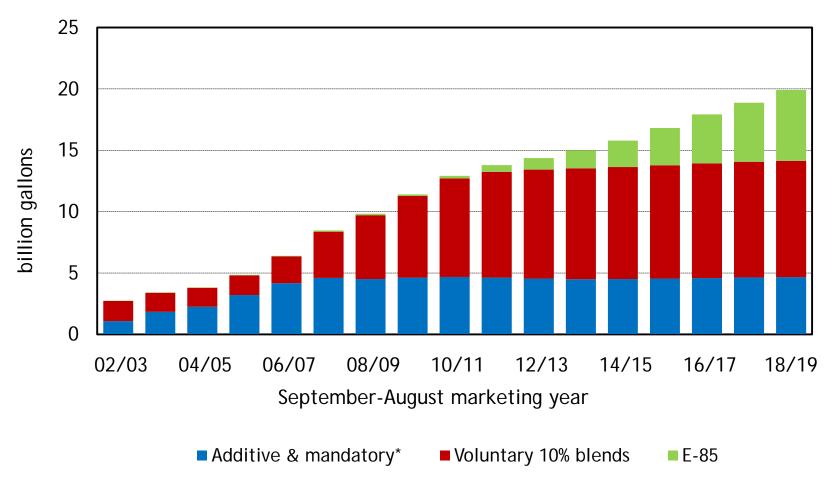
Ethanol share of total



Source: FAPRI-MU report #01-09

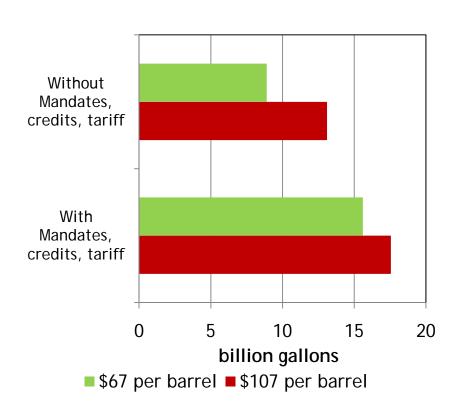
Note: Tax credits and tariffs extended

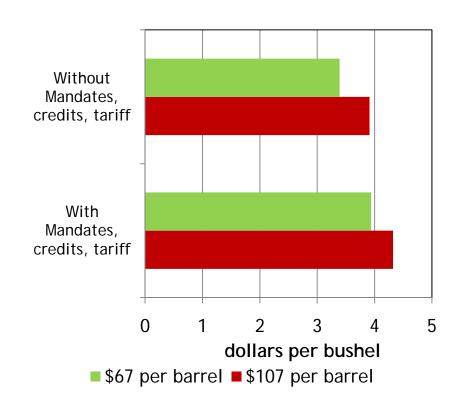
Ethanol consumption by category



Source: FAPRI-MU report #01-09 *To meet air quality requirements and state mandates

Policies and oil prices both effect ethanol markets





Source: FAPRI-MU Report #06-08

For more information

- For more on the FAPRI US stochastic outlook, go to <u>http://www.fapri.missouri.edu/</u> and click on the March 5 "FAPRI US Baseline Briefing Book"
- Ethanol policy changes to ease pressures in corn markets: could they work? Choices 24(1)
- How does petroleum price and corn yield volatility effect ethanol markets with and without an ethanol mandate? Energy Policy 37(2009)
- Coming soon: Updated reports on alternative biofuel policy options.
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