

The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search http://ageconsearch.umn.edu aesearch@umn.edu

Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C. USDA Agricultural Outlook Forum 2007

TRADEOFFS IN PRODUCTION, PRICING, AND CROPPING PATTERNS

Henry Bryant Research Assistant Professor Agricultural & Food Policy Center Texas A&M University

Presented Thursday, March 1, 2007





The Agricultural and Food Policy Center at Texas A&M University

Background

- Current US production capacities:
 - Ethanol: 5.6 billion gallons
 - Biodiesel: 0.864 billion gallons
- New capacity under construction:
 - Ethanol: 6.2 billion gallons
 - Biodiesel: 1.7 billion gallons
- Fossil energy situation highly uncertain

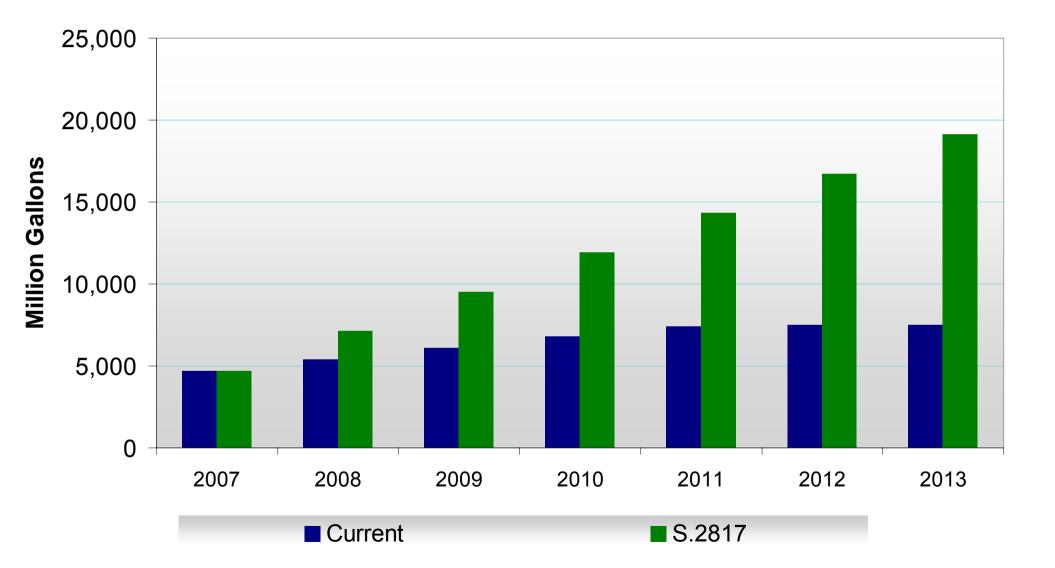


Policy Situation

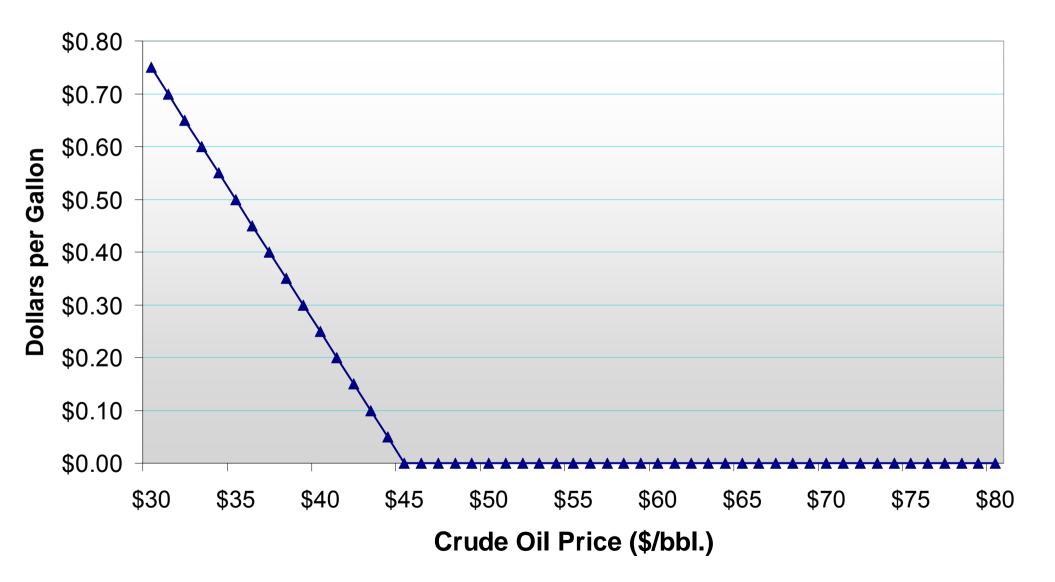
- Current Renewable Fuel Standard unlikely to bind
- Current ethanol subsidy rapidly getting expensive, even as market incentives for ethanol production are high
- Proposal for higher RFS (S.2817)
- Proposal for variable ethanol subsidy (S.4000)



Current and S.2817 Renewable Fuel Standards



S.4000 Variable Ethanol Subsidy

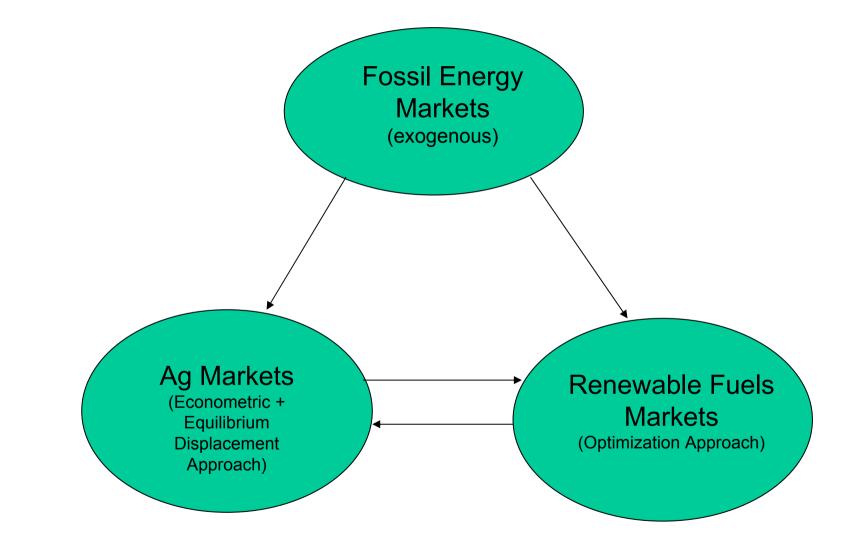


Four Policy Scenarios

- Current situation continues
- Higher RFS is set (and current subsidy remains)
- Variable ethanol subsidy replaces the fixed subsidy (and RFS is unchanged)
- Higher RFS and variable ethanol subsidy

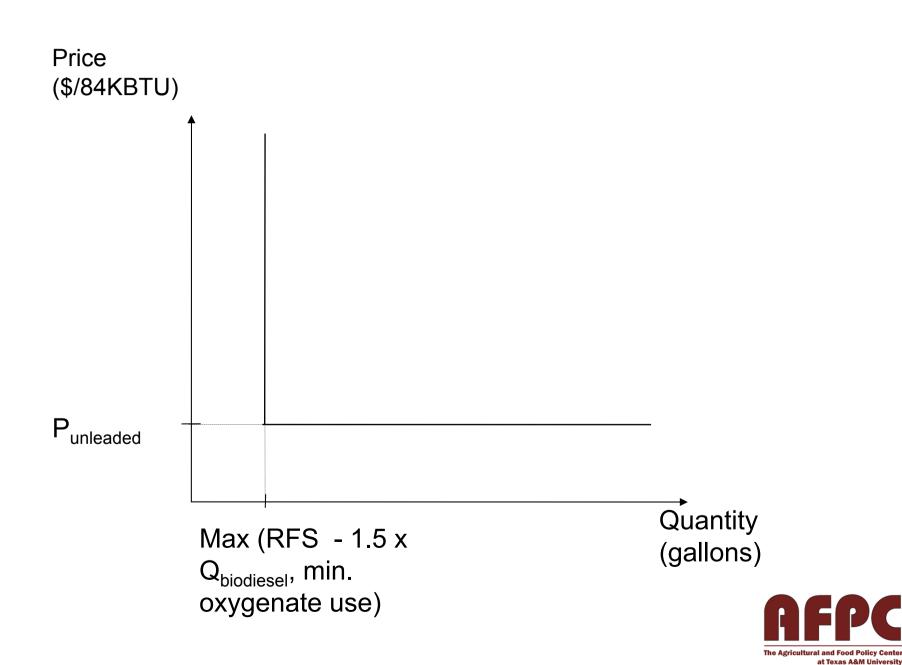


Agricultural and Energy Market Interaction (AEMI) Model Overview

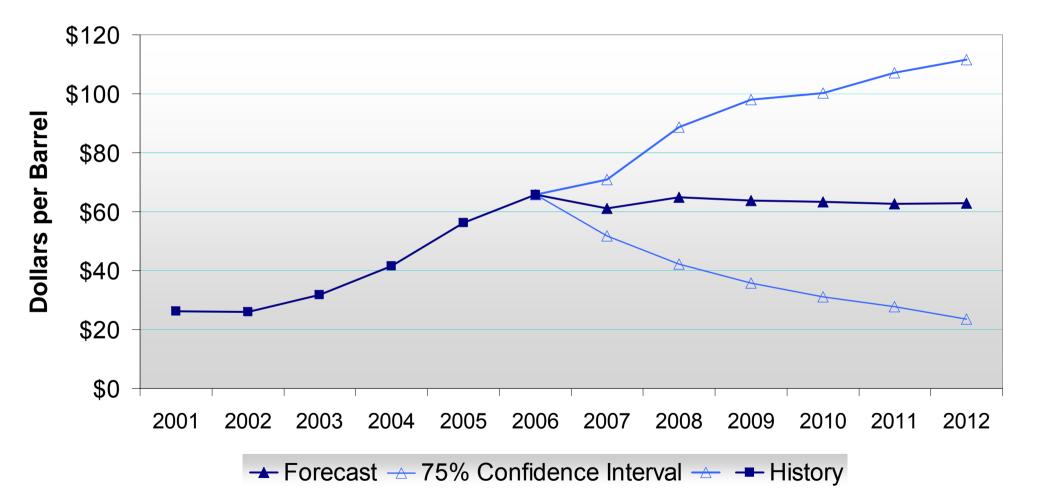




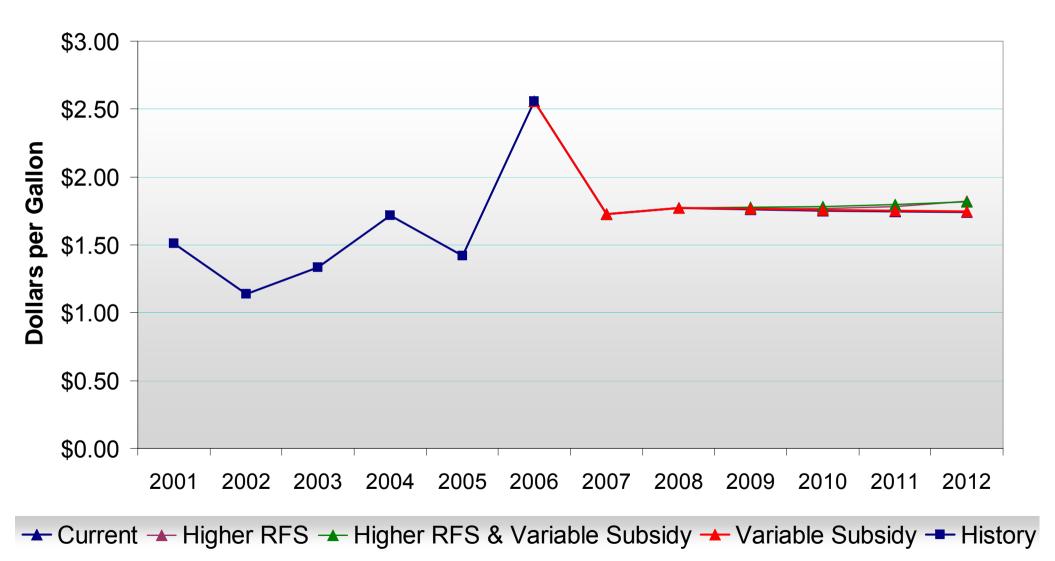
Ethanol Demand



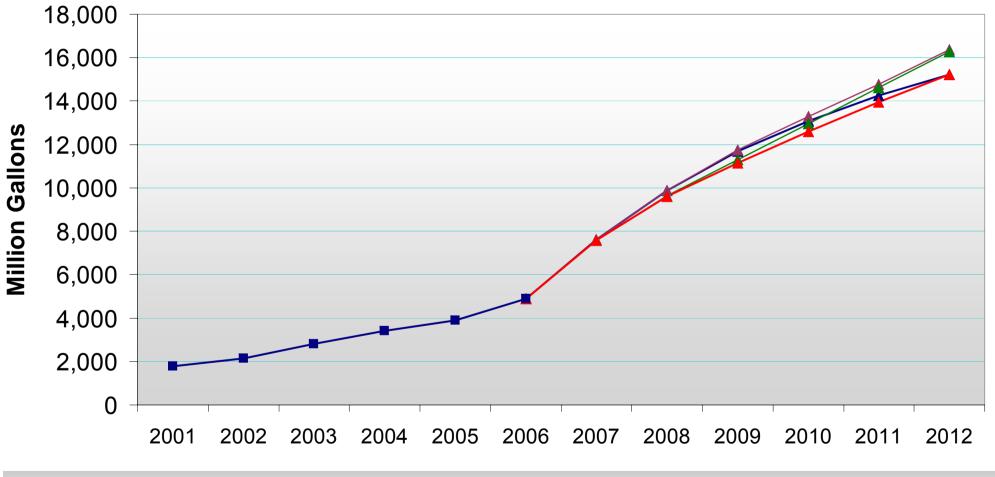
Light Sweet Crude Oil Price Cushing, OK



Ethanol Price U.S. Average

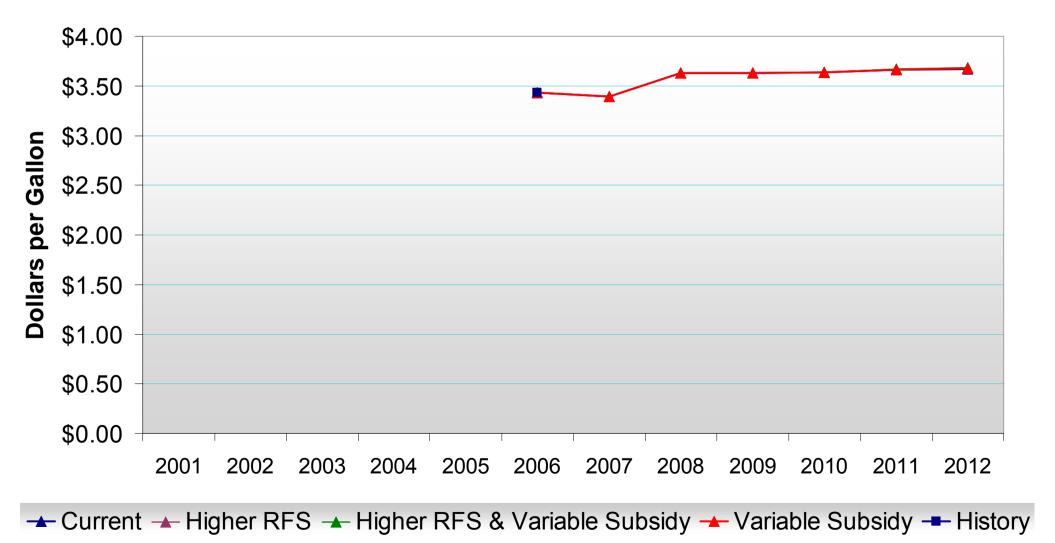


Ethanol Production United States

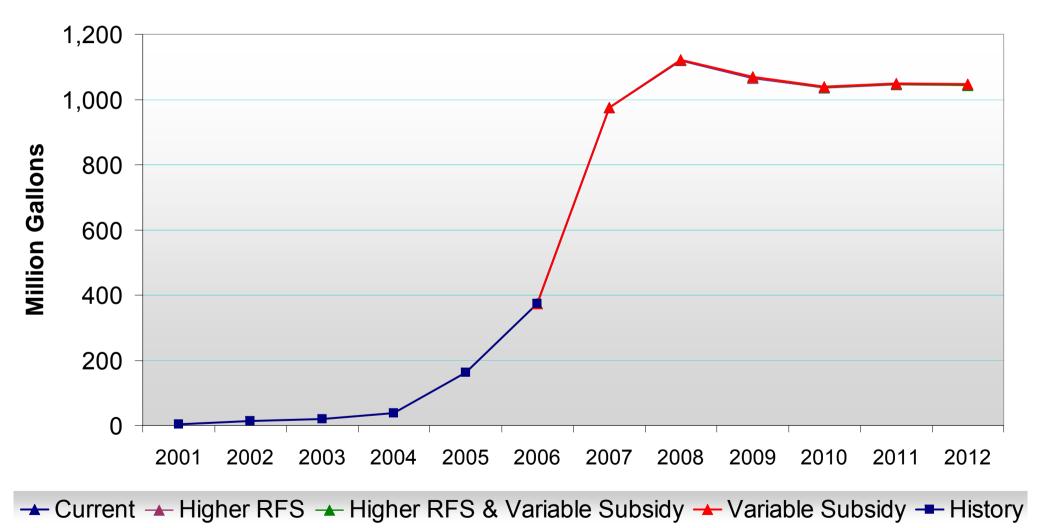


← Current ← Higher RFS ← Higher RFS & Variable Subsidy ← Variable Subsidy ← History

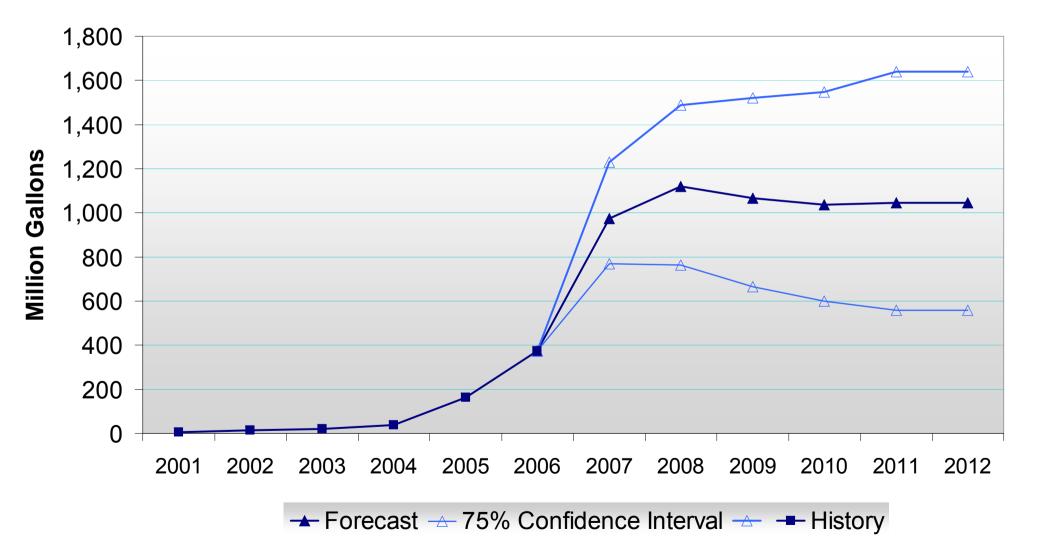
Biodiesel Price U.S. Average



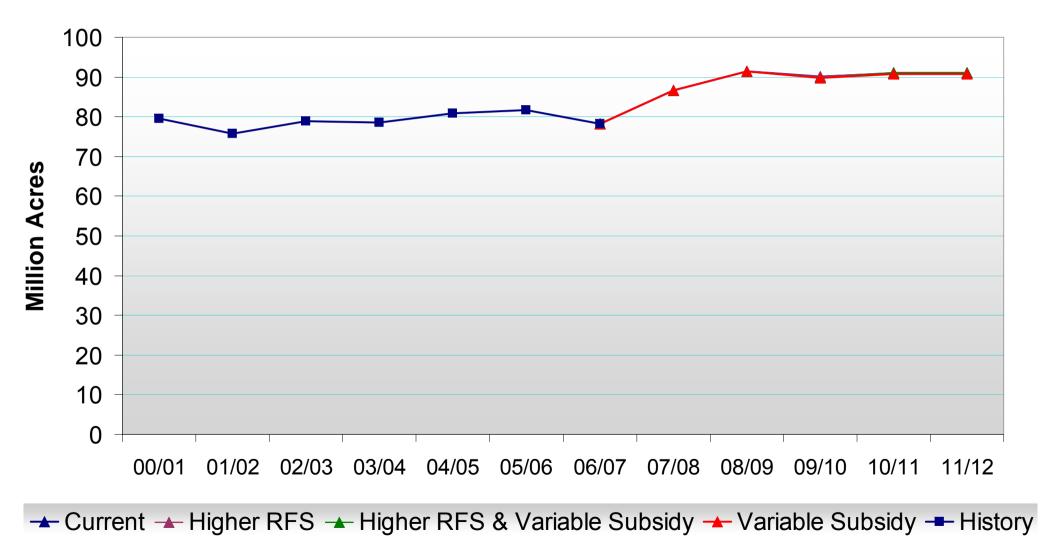
Biodiesel Production United States



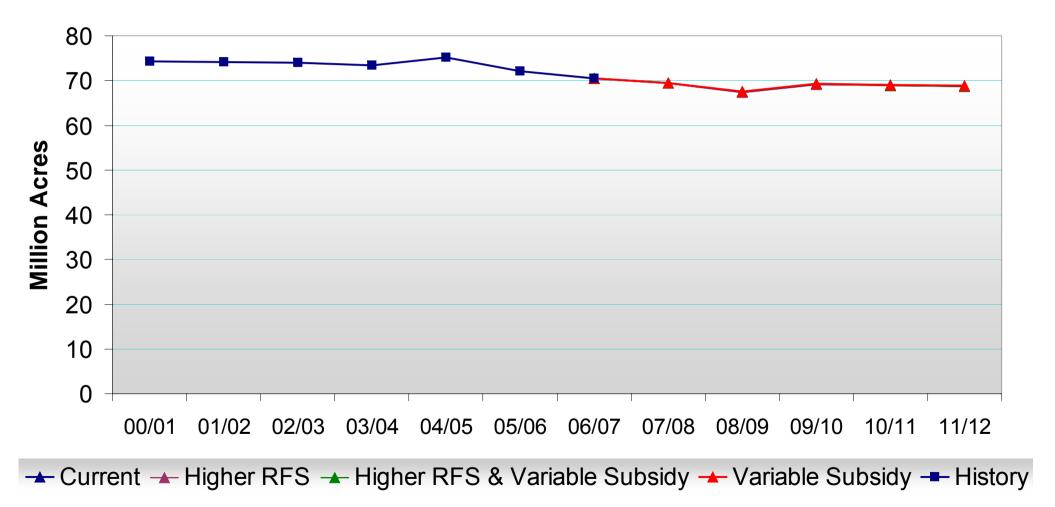
Biodiesel Production United States



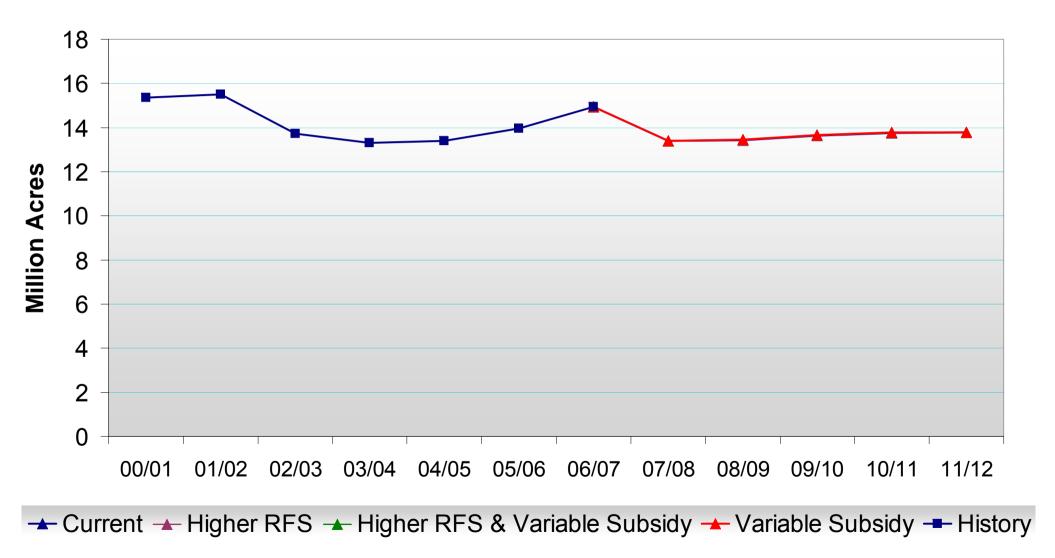
Corn Planted Acres United States



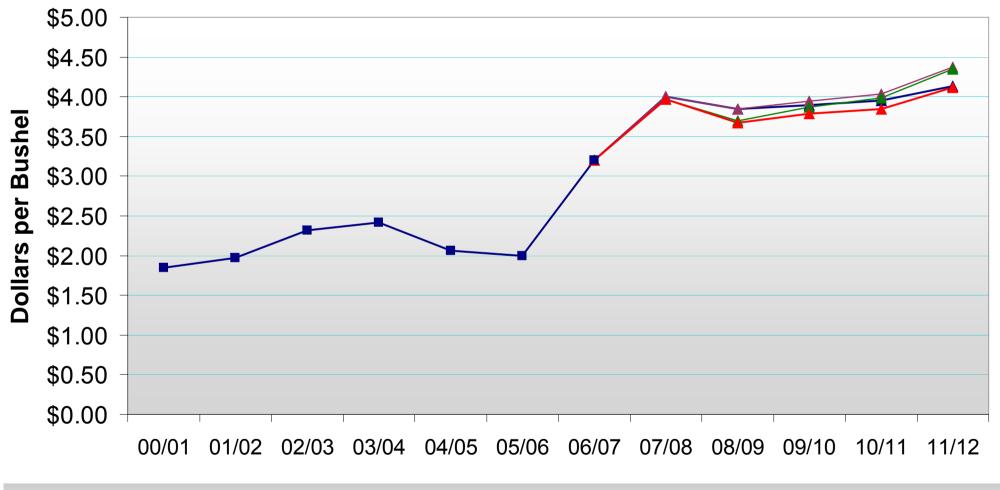
Soybean Planted Acres United States



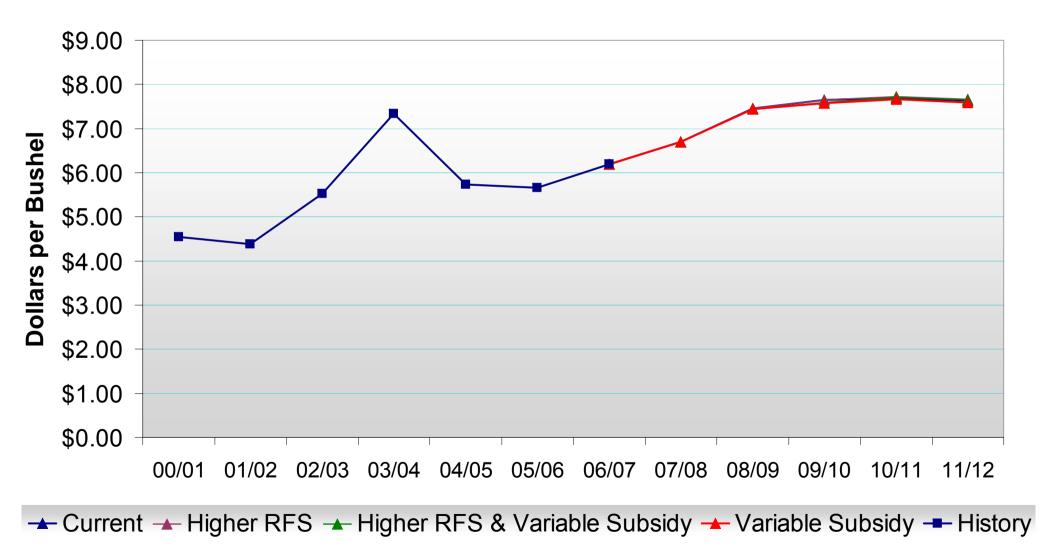
Cotton Planted Acres United States



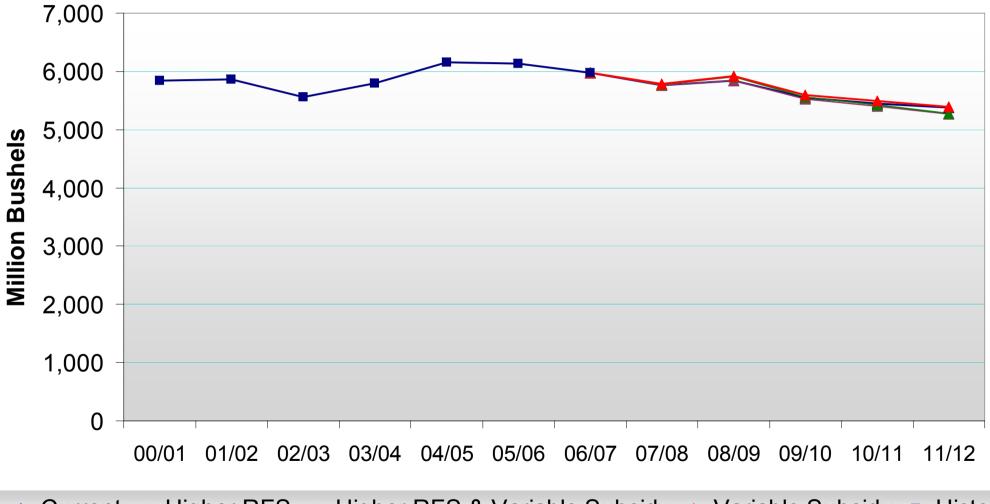
Corn Price U.S. Average Farm Price



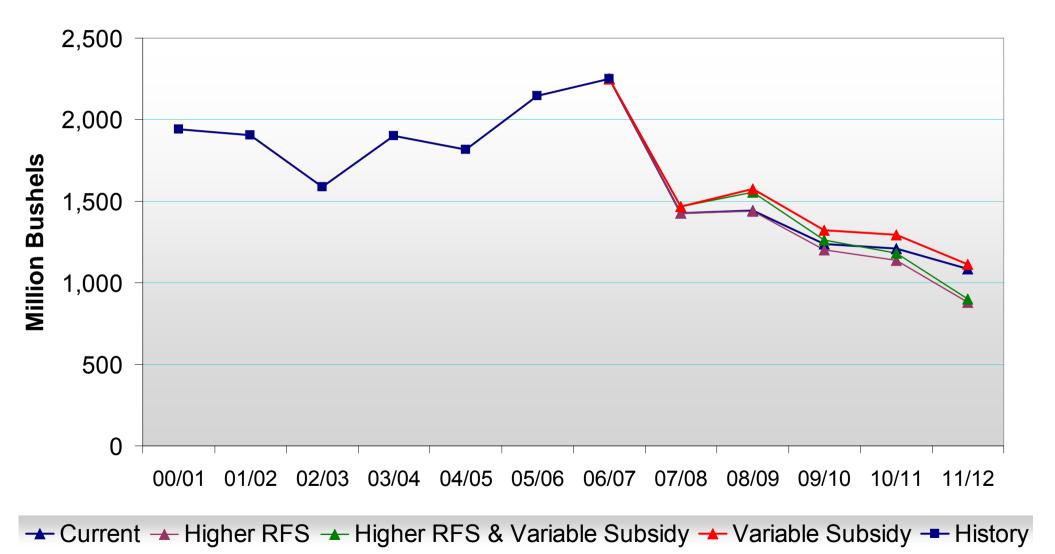
Soybean Price U.S. Average Farm Price



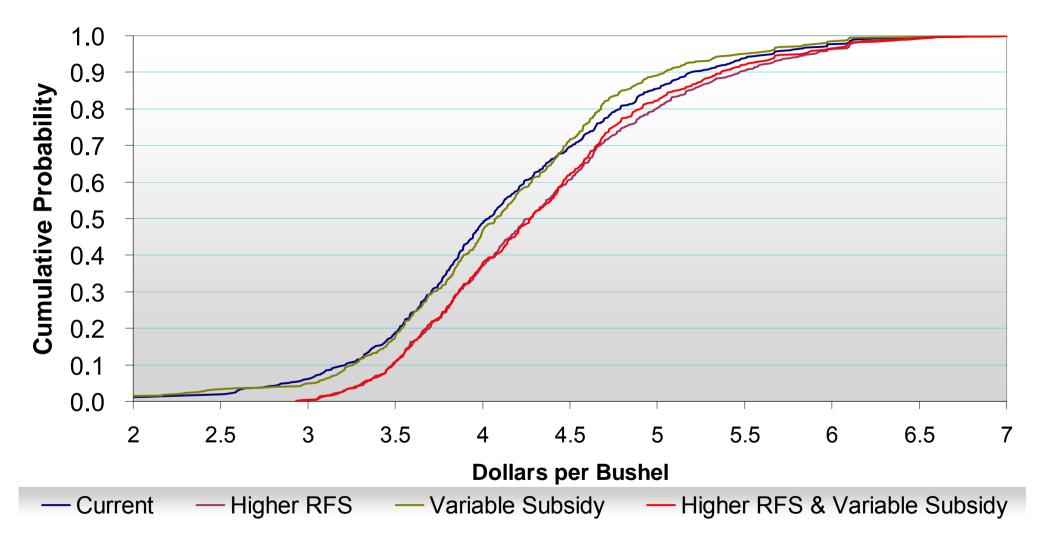
Corn Feed Use



Corn Exports



Corn Price U.S. Average Farm Price, 2011/2012



Effects of Alternative Policy Configurations on Expected 2011/12 Crop Prices (relative to the current configuration)

	Current	Higher RFS	Variable Subsidy	RFS + Variable Subsidy
Corn	4.14	4.37	4.11	4.35
Soybeans	7.63	7.66	7.59	7.65
Wheat	4.21	4.22	4.20	4.21
Cotton	0.579	0.580	0.578	0.580



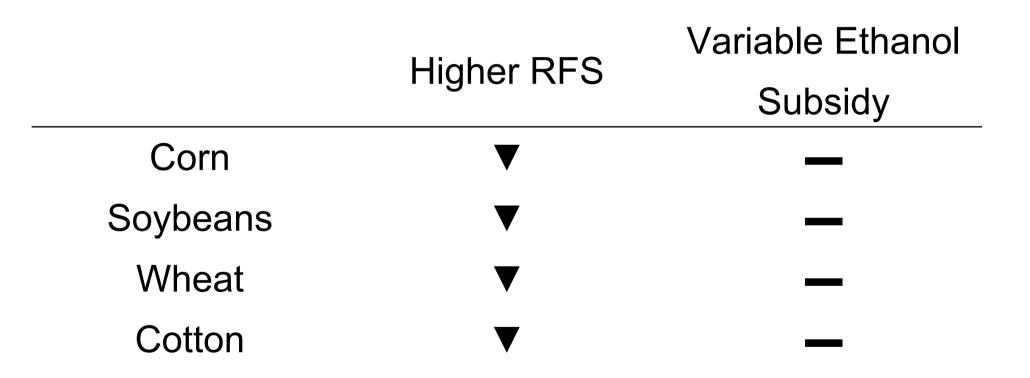
Higher

Effects of Alternative Policy Configurations on Uncertainty Regarding 2011/12 Crop Prices (relative to the current configuration)

	Higher RFS	Variable Ethanol	
		Subsidy	
Corn	\checkmark	\checkmark	
Soybeans	\checkmark		
Wheat	—		
Cotton	—		



Effects of Alternative Policy Configurations on Uncertainty Regarding 2011/12 Planted Acres (relative to the current configuration)





Conclusions

- We are likely to produce a lot more ethanol in coming years, and somewhat more biodiesel
- Biodiesel capacity glut possible
- Prices for crops are likely to continue to rise
- More acres in corn, fewer acres in other crops



Conclusions

- Effects on ag economy of different policy scenarios are minimal over the next 5 years
- However, relative to the current policy configuration:
 - The higher RFS leads to higher prices for major crops
 - The higher RFS would reduce uncertainty regarding the trajectories of acres and prices
 - The variable ethanol subsidy would reduce price uncertainty for corn

