

Agricultural commodity prices: Minor impact from diversion of crops to biofuels

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Outline

- FAS/USDA -- who we are and what do
- Market drivers
- Current situation
- Future outlook
- Conclusions



FAS/USDA – who we are, what we do

- USDA
 - FAS
 - Diverse professional staff
 - US and International
 - Data acquisition, analysis, forecasting
 - USG experts
 - Peer-reviewed literature



Market drivers affecting commodity prices

- Supply:
 - Tight world grain supplies
 - Agricultural land converted to non ag uses
 - Foreign government policies
- Demand:
 - Strong global economic growth
 - Particularly in developing countries
 - Increased consumption of meat, dairy, veg oils
- Increasing demand for energy: electricity and transport fuel
- US dollar depreciation



Supply: Tight world commodity markets

- Overall factors developing over a long period of time include declining global yields and holdings of stocks
- Wheat--low stocks, tighter supply due to drought
- Corn—higher demand, including U.S. ethanol production
- Soybeans—strong demand from China and EU

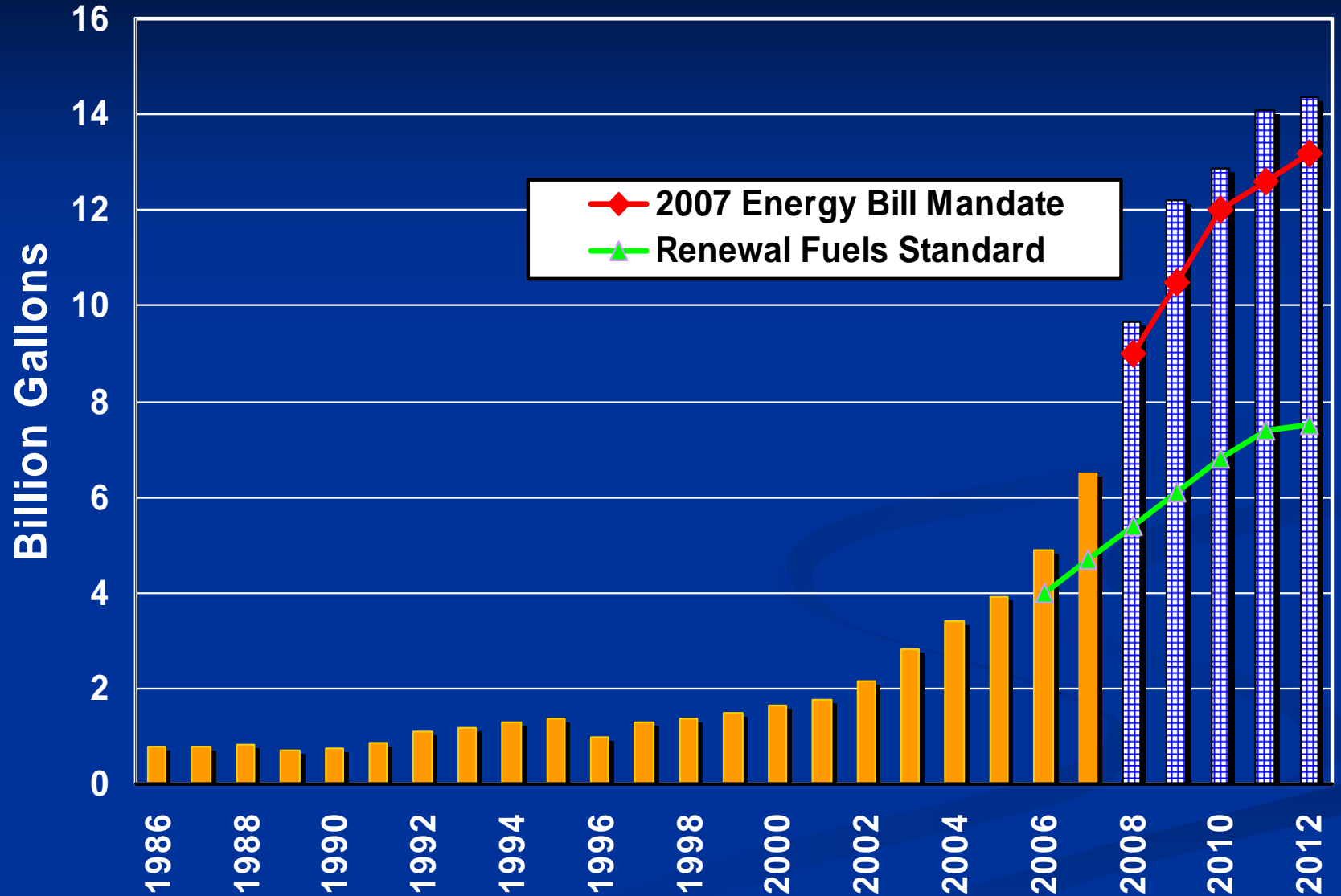


Supply: agricultural land diverted to non-ag. uses

- World ethanol production, mostly from grain except for Brazil more than doubles in 4 years
- Biodiesel, five fold increase

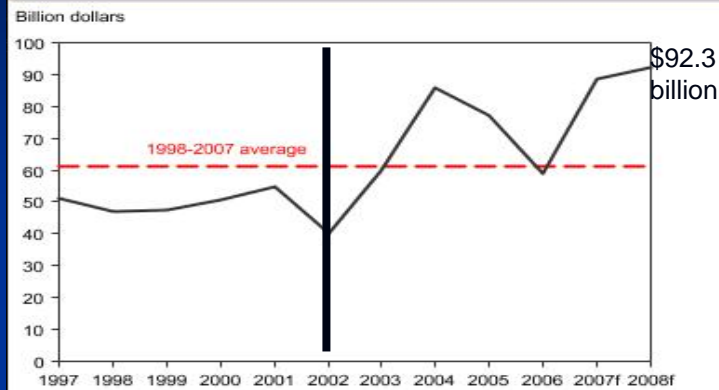


U.S. Policy: ethanol mandate

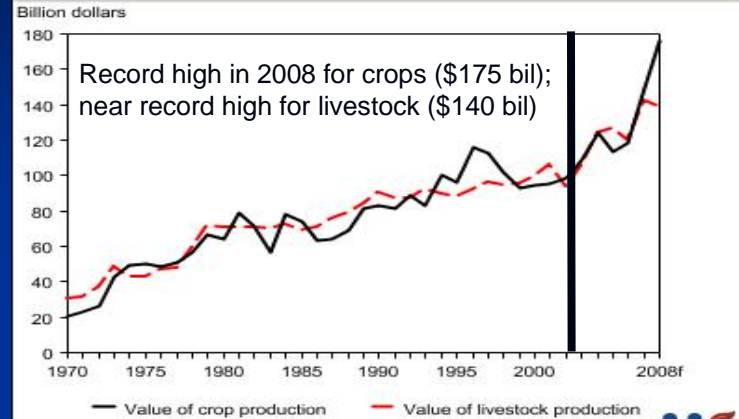


US POLICY (USDA Subsidies): Increases in demand far outweigh subsidies for corn

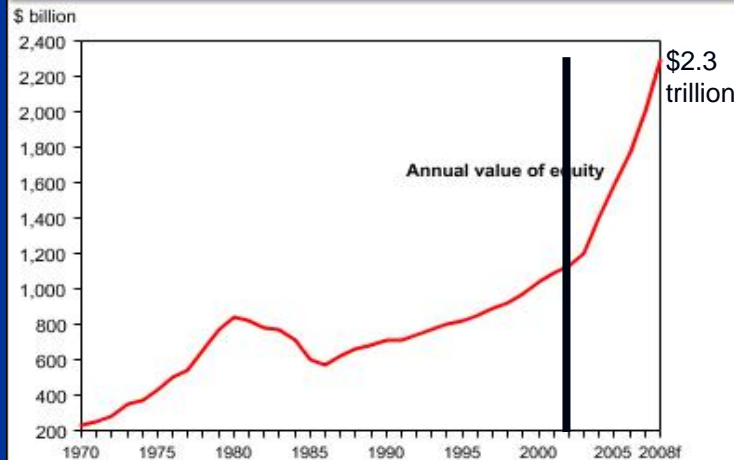
Net farm income, 1997-2008f



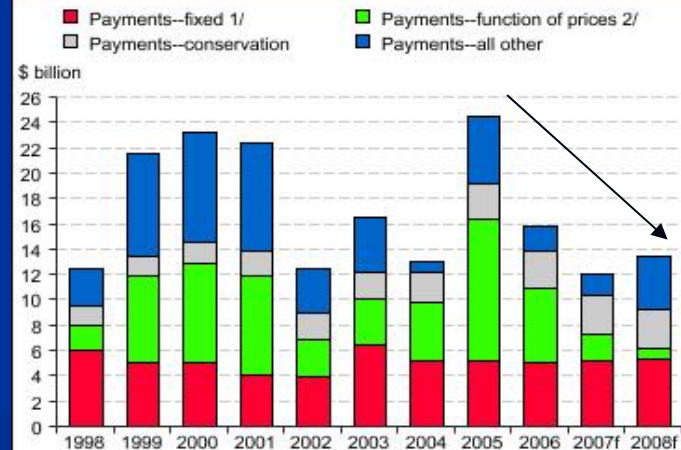
Value of crop production and livestock production, 1970-2008f



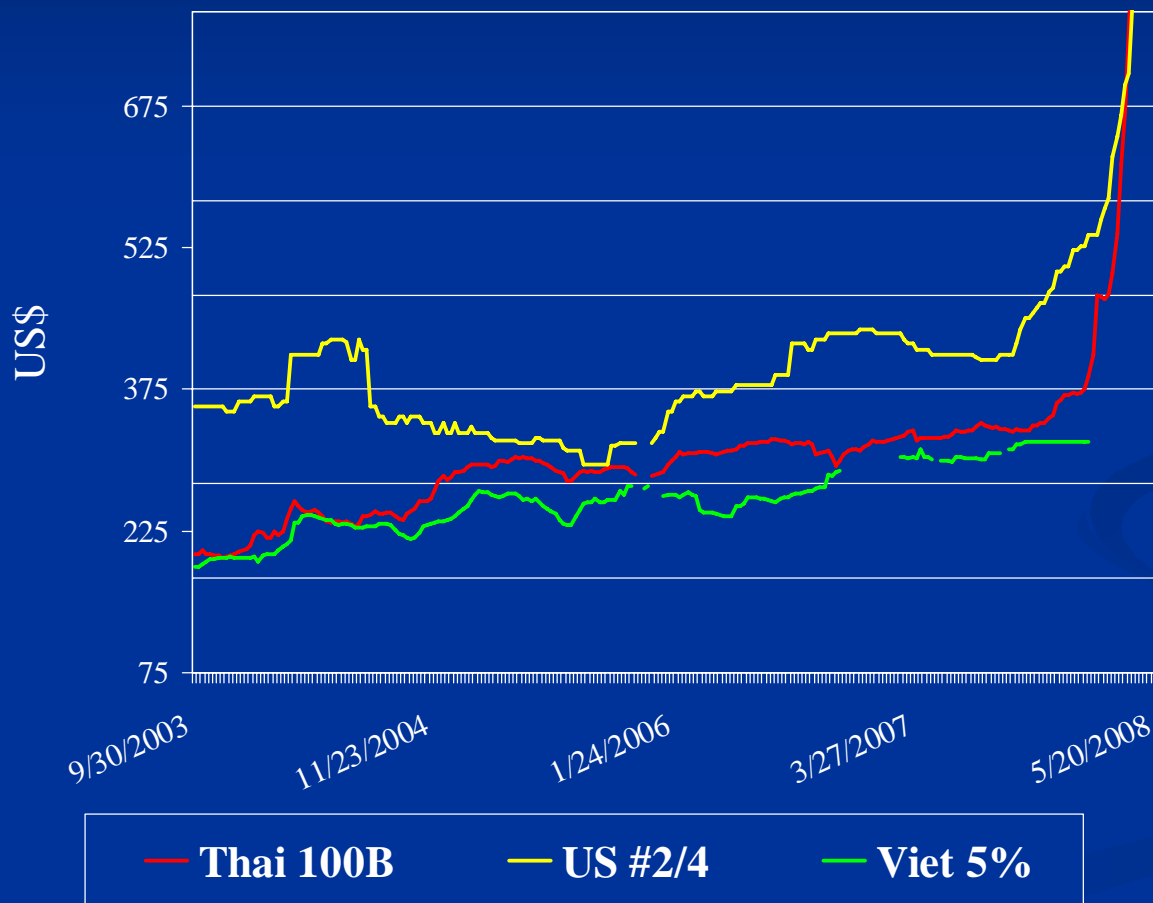
Farmers' equity in their business, 1970-2008f



Government payments, 1998-2008f



Supply: foreign government policies drive a surge in world rice prices



•EXPORTERS:

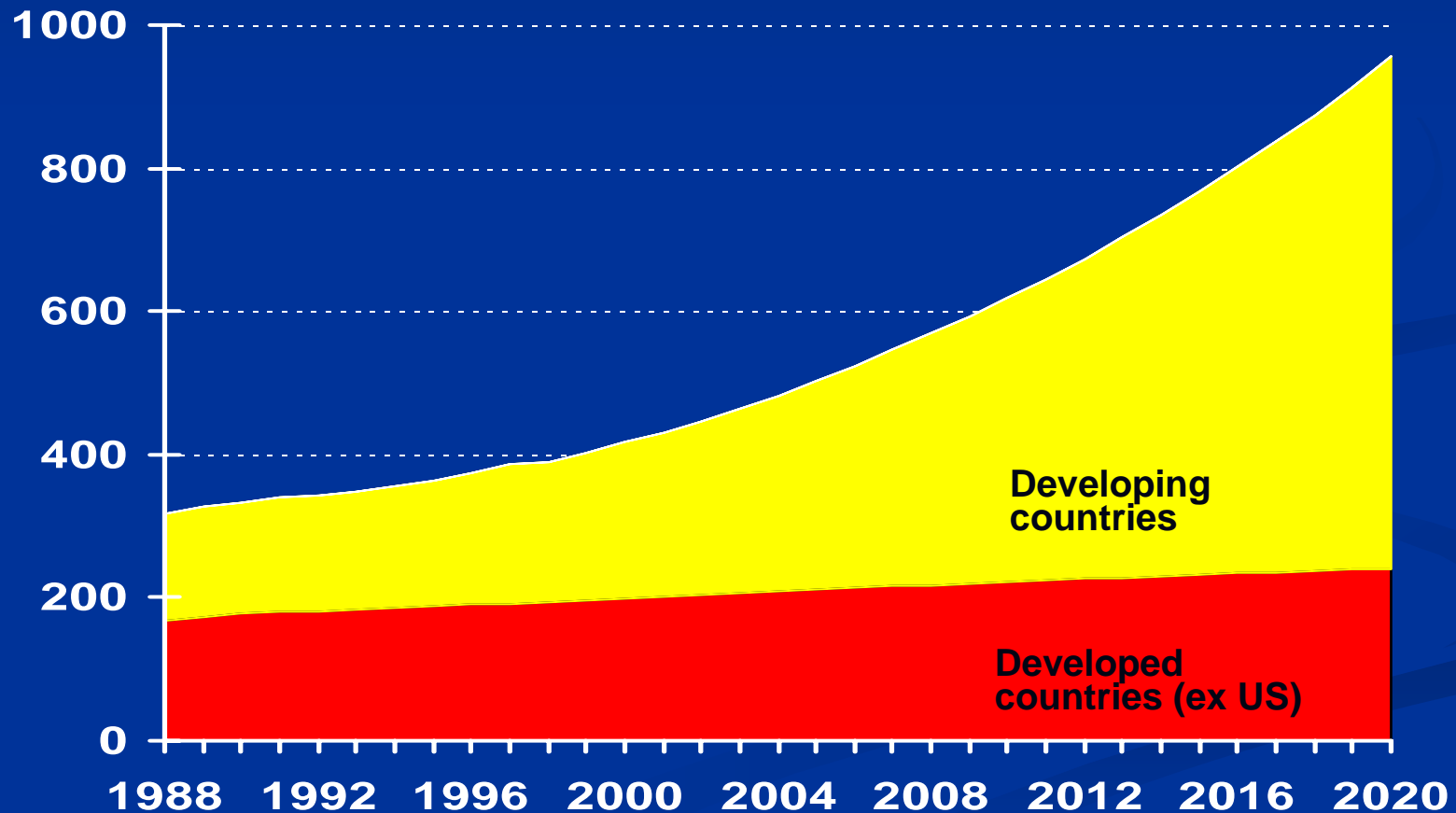
- Vietnam and India restricted exports
- China and Egypt also introduced export restrictions

•IMPORTER:

- Philippines announced unexpectedly large additional tenders

Demand: Strong economic growth, especially in developing countries, stimulates demand for food and fuel

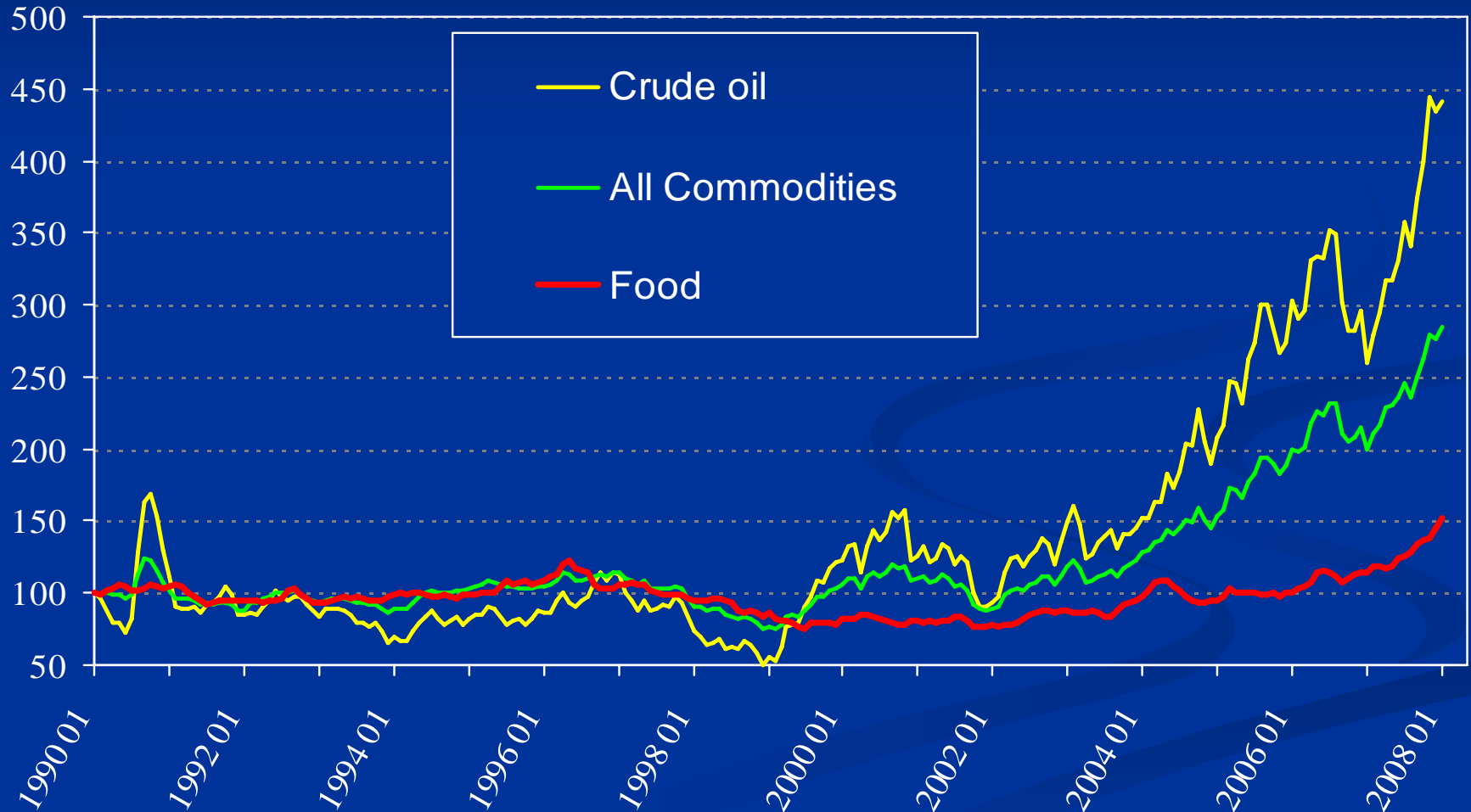
*Foreign households w/real PPP incomes greater than \$20,000 a year
(in millions of households)*



Source: Global Insight's Global Consumer Markets data as analyzed by OGA/FAS/USDA

Higher energy prices increase costs of inputs, processing, and transportation

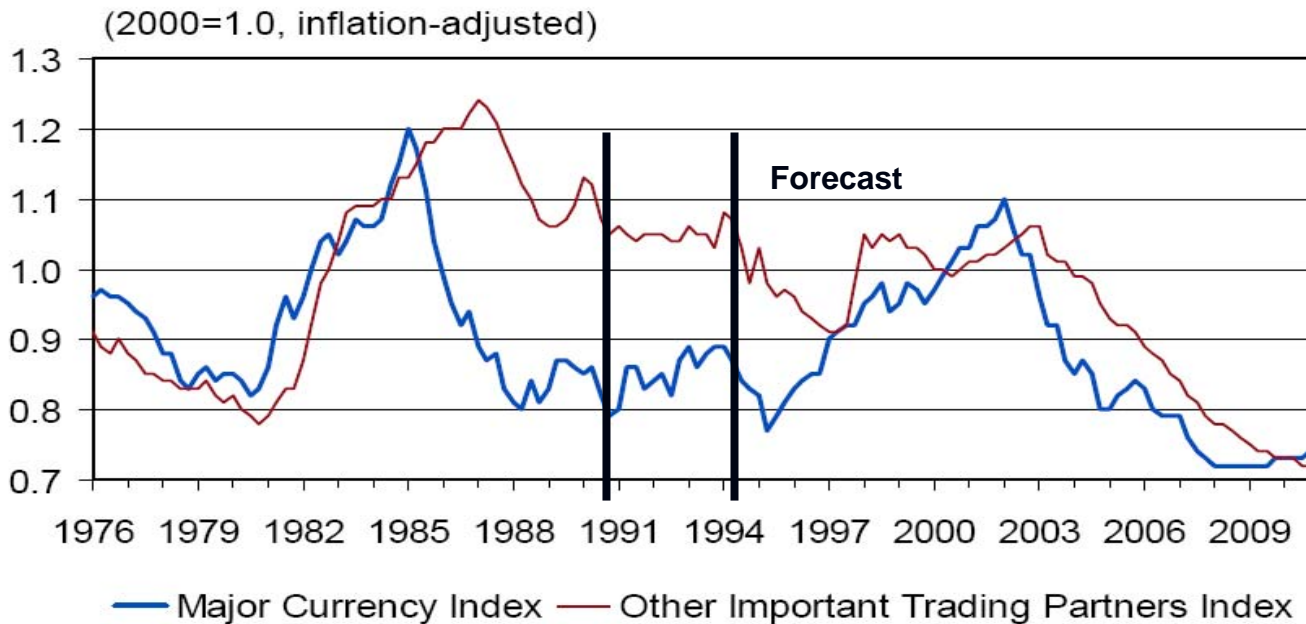
Index: January 1990 = 100



Source: International Monetary Fund: International Financial Statistics; chart prepared by ERS/USDA

US dollar: depreciation boosts world demand

The U.S. Dollar Will Depreciate Further



Why world ag commodity prices were high through June 2008

■ MACROECONOMIC FACTORS

- Higher **energy** costs driving up input costs and freight costs
- Price surge **broad based**, non-ag commodity prices increase faster
- Strong **economic growth**, especially in developing countries, boosts demand
- **Depreciating dollar** contributed to demand

Current Situation

Macroeconomic Factors since July 2008

- **Market Conditions HAVE CHANGED:**

Perceptions-scenarios are different

- **Stronger** dollar
- **Lower** energy and freight costs

- **Market Dynamics have changed:**

- **Raised** U.S. corn production forecast in August
- **Dramatic Drop** in price of corn in just two months
(from \$293 to \$172 FOB Gulf)



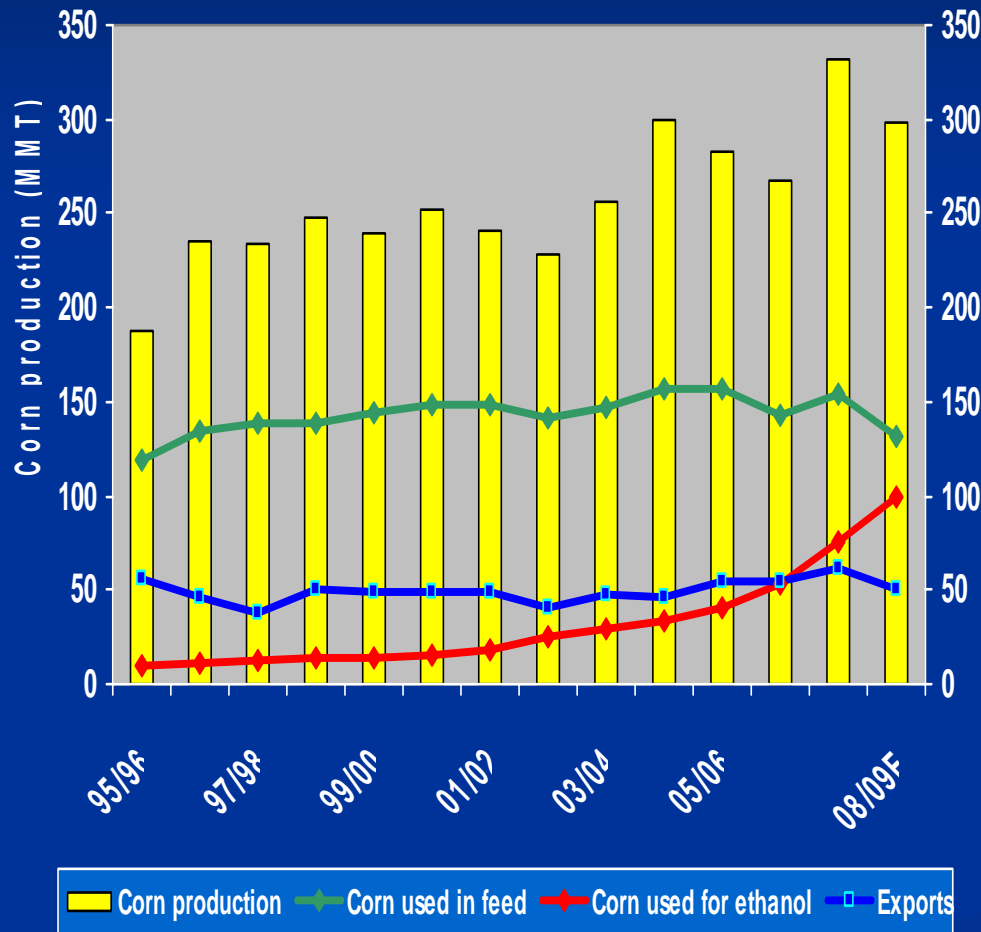
Rice Prices Respond to Changed Perceptions

Export restrictions not absolute



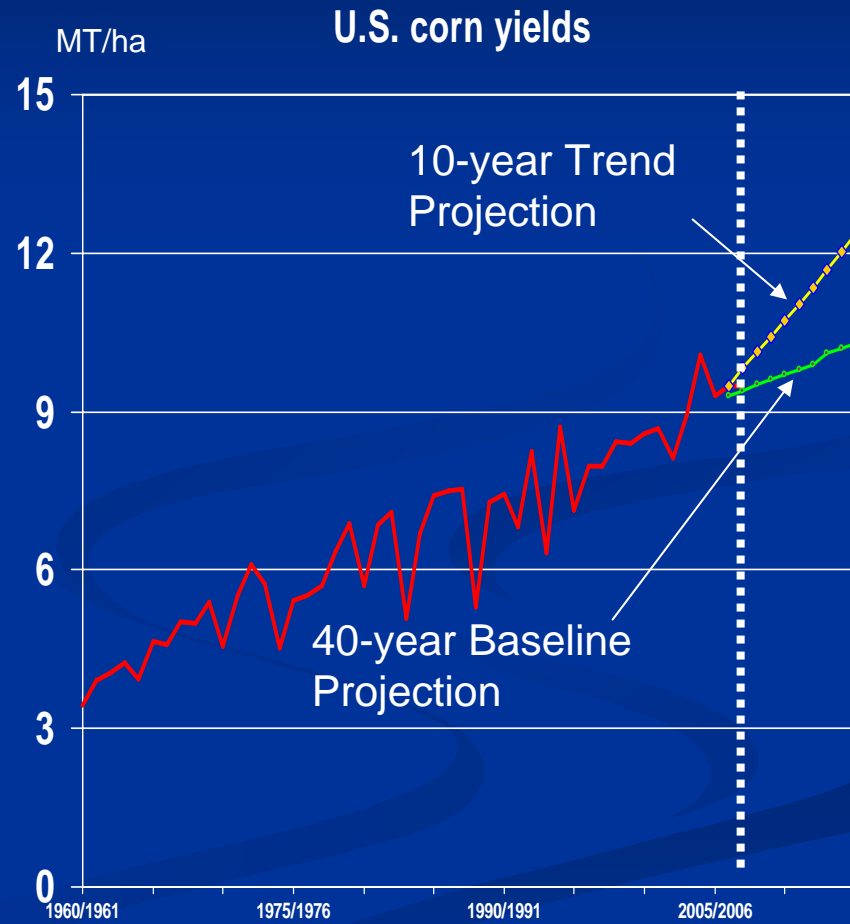
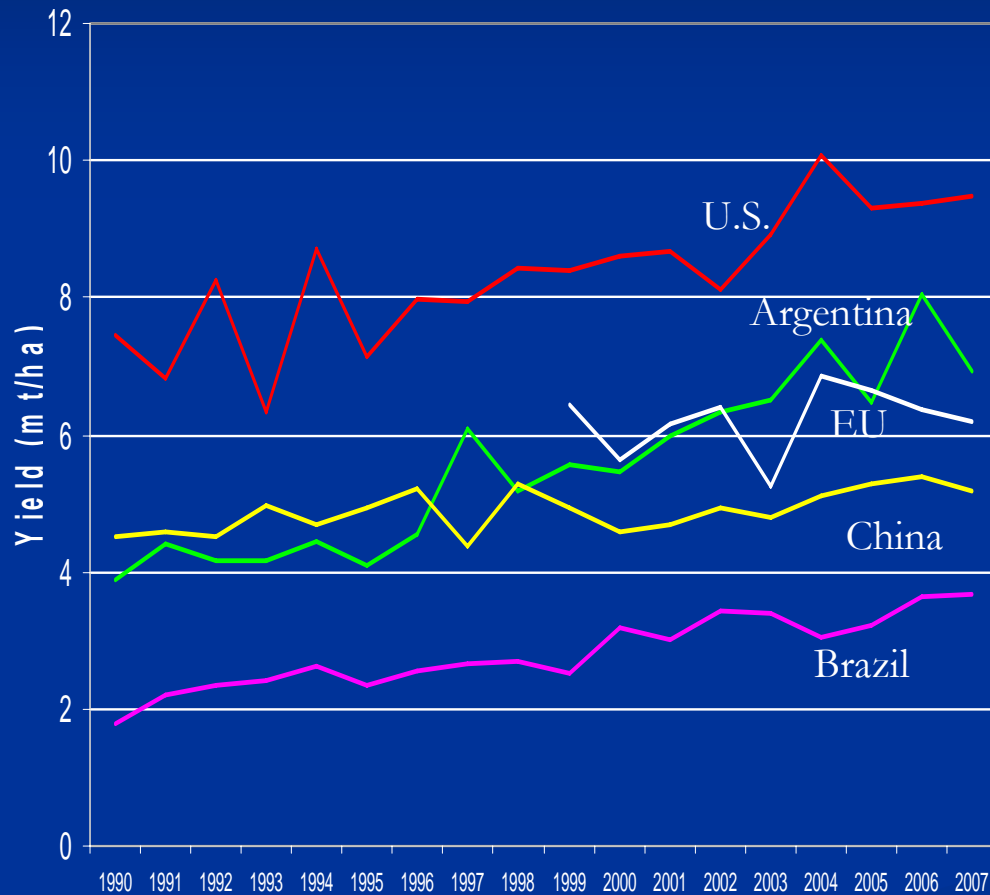
- Vietnam lifted ban on private sales
- Prospects for bumper crops in Vietnam and Thailand

Strong Demand Factors for U.S. Corn



- Ethanol production overtakes exports
- Ethanol forecast to use one third of U.S. corn production in 08/09
- But lower feed use should offset higher ethanol use, leaving total consumption unchanged in 08/09
- Livestock producers shift to cheaper grains (feed-quality wheat) and Distiller Dried Grains (DDGs)

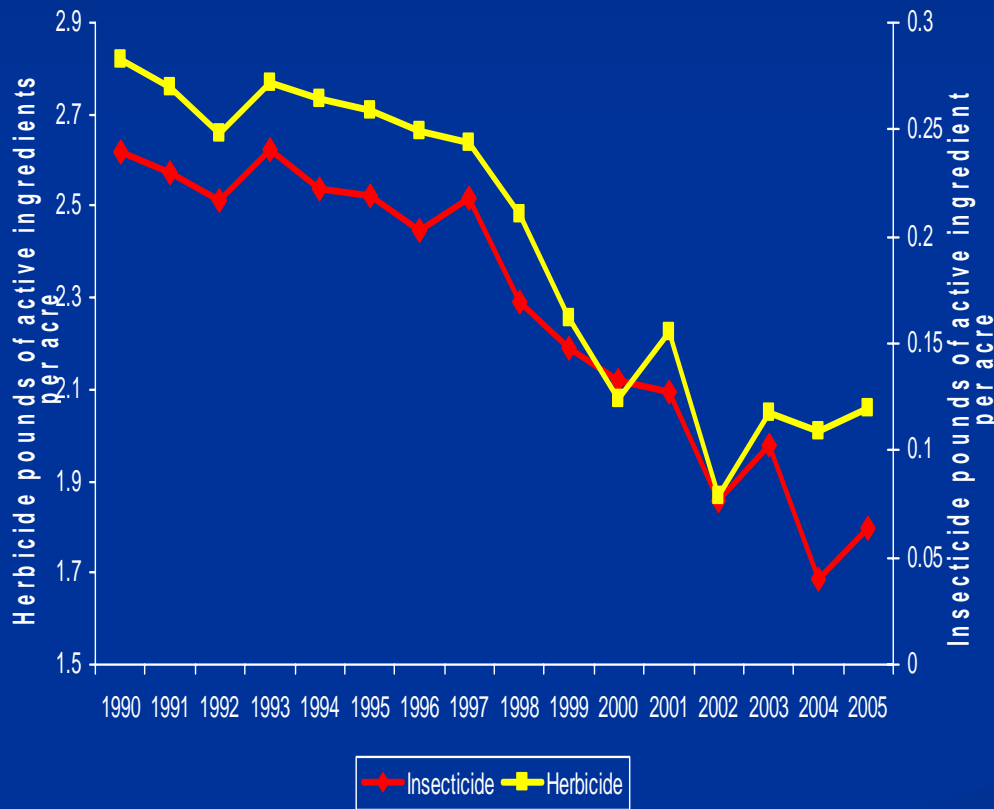
Corn yields of major producing countries: Huge untapped potential



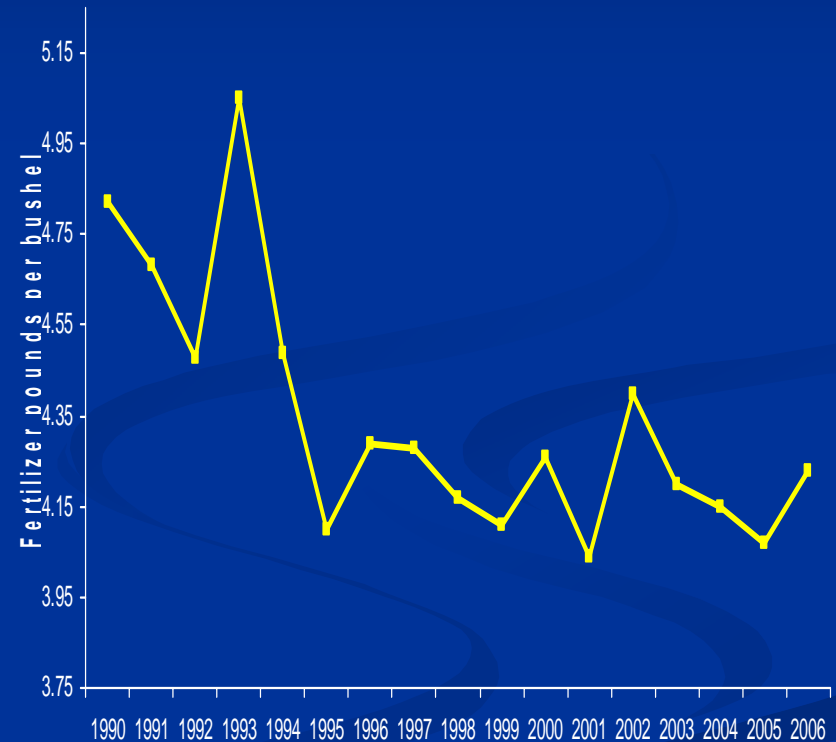
2008 – 2016 data from USDA Agricultural Baseline Projections; 10-year trend analysis from FAS

Improved Crop Plants: Herbicide, insecticide, and fertilizer usage in U.S. corn production drop significantly

Herbicide and insecticide use



Fertilizer use



Source: USDA/NASS, Agricultural Chemical Usage Report

Source: USDA/ERS

Short-Term Future

Outlook for 2008/2009

- **Wheat:** global production rebounds
- **Corn:** tight U.S. balance
- **Soybeans:** higher U.S. production largely offset by low carry-in stocks



Long Term Future

Long-Term Outlook

- Strong demand factors
- Prices expected to stay higher than previous decade

Long Term Outlook: Factors Influencing Global Agricultural Markets and Prices

- **Global economic growth** – *expanding middle class in emerging markets should keep demand firm.*
- **Value of the U.S. dollar** – *expected to remain weak in the short term so global demand for ag commodities will be high.*
- **Energy prices** – *higher oil prices increase prices for all commodities' production and transportation costs; increased demand for biofuels.*
- **Biofuels production** – *future increases depend on many factors.*
- **Additional crop land** – *high energy prices increase land use, especially in Brazil.*
- **Technological developments** – *key factor in boosting yields which would boost production and help reduce prices.*

3 Major Conclusions

1. Agricultural commodity prices are determined by multiple major factors

2. Diversion of feedstocks to biofuels is a minor factor in the recent run up of agricultural commodity prices

Additional Conclusions

- A confluence of factors are responsible for the recent run up in food prices—a “perfect storm”:
 - **higher oil prices; strong growth in demand; the depreciating dollar; weather and production shocks; increased interest from investment funds; and misguided policies by foreign competitors.**
- Oil price is now closely linked with agricultural commodity prices. Higher oil price makes biofuels production competitive even without subsidies and mandates.
- Prices of agricultural commodities and oil may moderate from their recent records, but expect prices of both to remain higher than previous levels.
- Technological innovations are key to meeting surging global demand for food and fuel.

3. Biofuels offers the potential to increase energy security, decrease greenhouse gas emissions, and increase rural development. High energy prices and U.S. policies have accelerated research and innovation in second-generation biofuels

Resources

- [USDA Website](#)
- [DOE Website](#)
- [Farm Foundation](#)
- [Peer Reviewed Studies](#)