

# Biofuels: The most price-distorted products on the planet by 2010?

William A. Ward  
Director, Center for International Trade  
Professor of Applied Economics and Statistics  
Clemson University

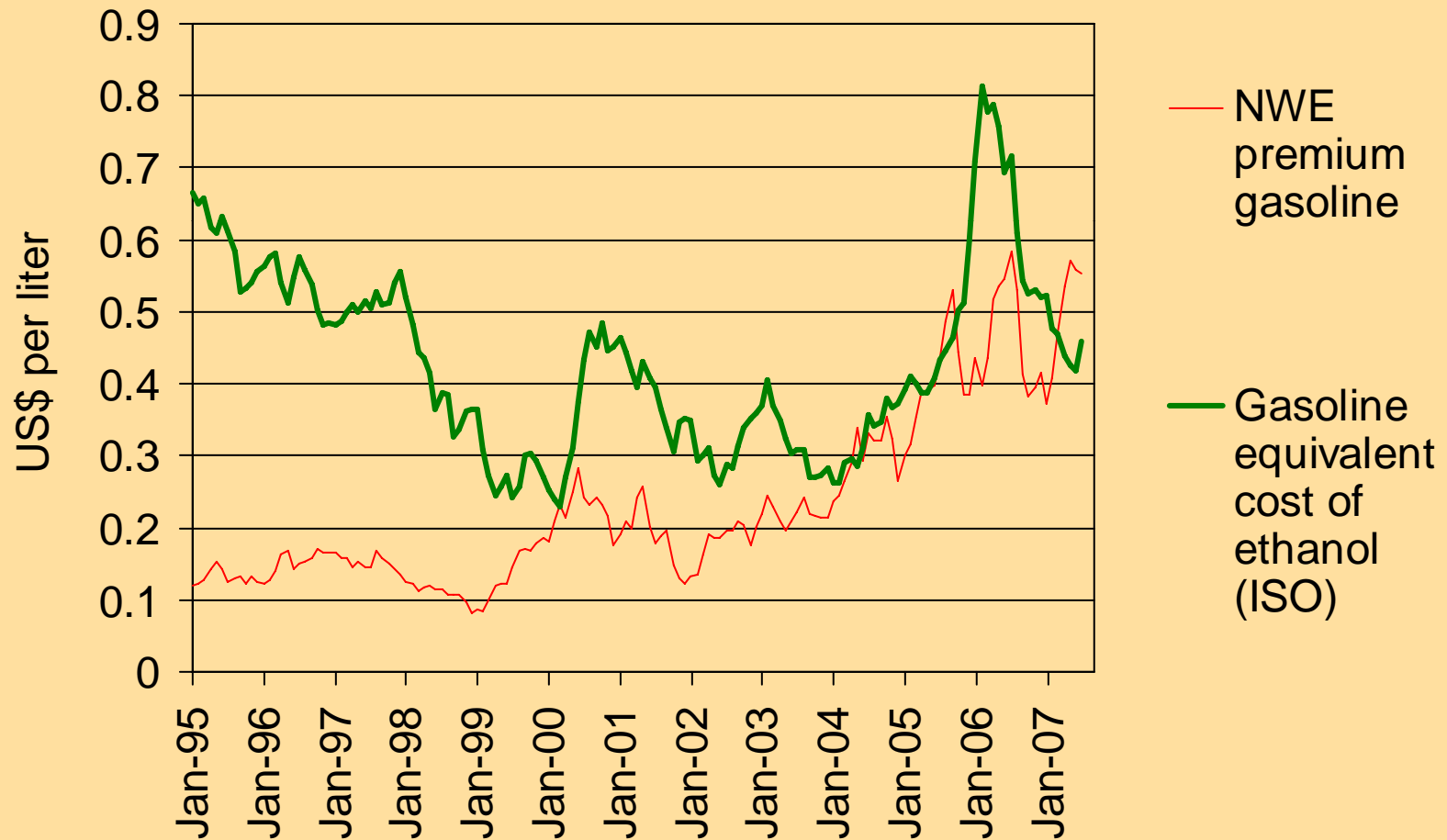
# Factors driving biofuel policies

- Touting domestic biofuels as a path to energy independence (self-sufficiency)
- OECD farm lobby interest in new markets
- Hope for rural employment and economic development in poor countries/regions
- Hope biofuels will solve environmental problems such as climate change

# Basic problem with biofuels

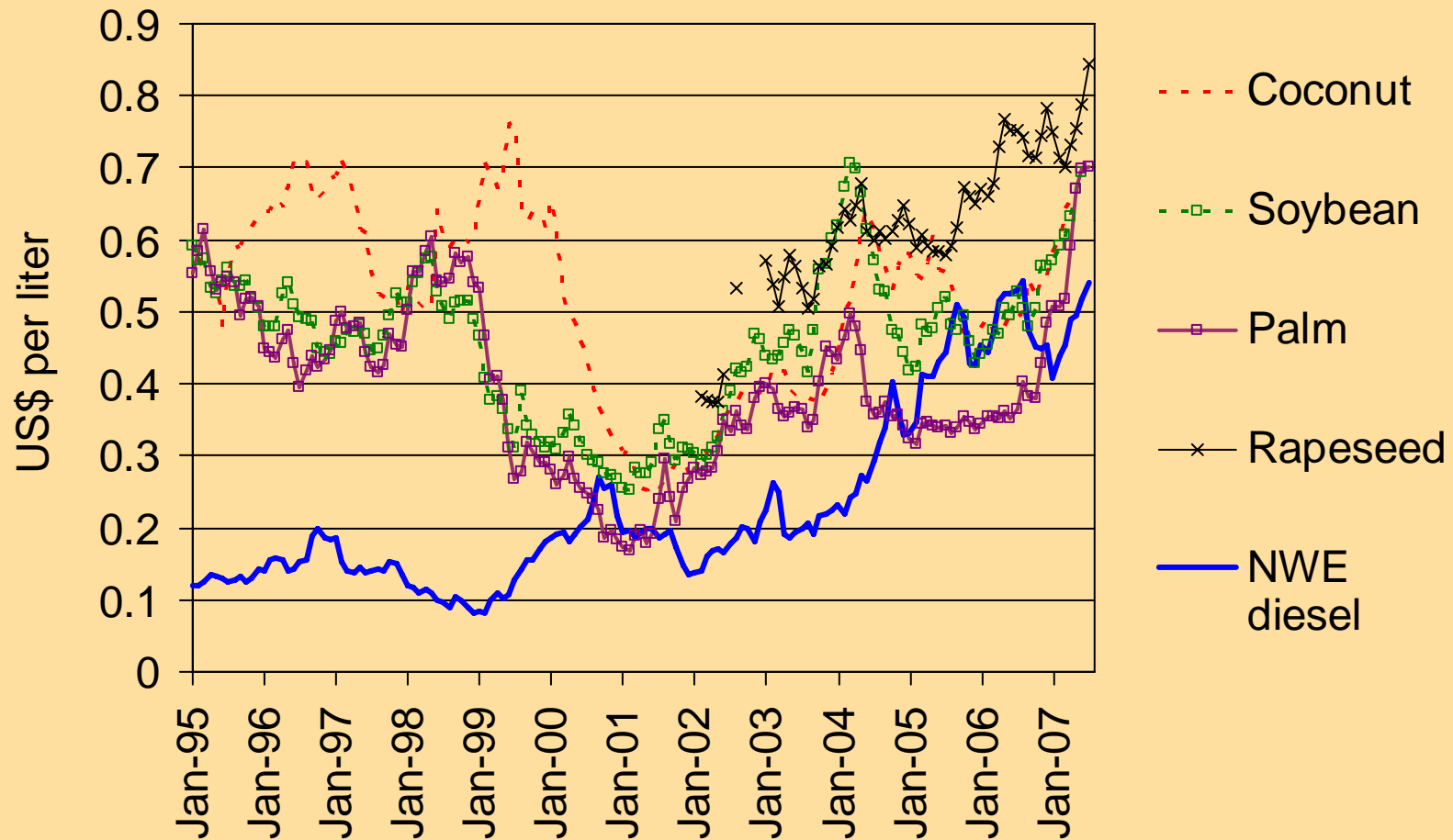
- Domestic production and consumption of biofuels has been economic only under a few favorable circumstances (Brazil in 2005 and 2007), but uneconomic most of the time
- Combined with policy hype, the economic disadvantage has led to heavy subsidies for domestic production and high levels of border protection (especially for ethanol—which has been closer to being economic than biodiesel)

# Economics of ethanol production from sugarcane



\*83% sugar and 17% molasses, and molasses priced at 25% of sugar;  
20% fuel economy penalty for ethanol

# Vegetable oil vs. diesel prices



\*Price data from USDA FAS, World Bank and Energy Intelligence

# Types of Biofuel Policies Pursued

- policies to replace consumption of petroleum fuels through
  - Mandating biofuel use
  - Reductions in fuel taxes for biofuel relative to petroleum fuels
- policies to stimulate domestic biofuel production via
  - Producer subsidies,
  - Import tariffs to protect local producers and to limit government support to local producers only
  - Tax-funded research to develop new or improved technologies

# Government support for consumers and domestic producers

## Tax reduction in US\$ per liter of biofuel

	<b>Ethanol</b>	<b>Biodiesel</b>
Germany	0.83	0.60 (end-July 2006)
Australia	0.33	0.33
USA (credit)	0.135	0.26 or 0.13
<b>Thailand</b>	<b>0.65 (April 2006)</b>	
<b>São Paulo</b>	<b>0.30 (June 2005)</b>	

**High import tariffs on ethanol** to prevent subsidies from going to imports

USA: \$0.1427 per liter + 2.5/1.9%

EU: US\$0.26 / 0.14 per liter

Brazil: 20%