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**U.S Department of Agriculture**  
**Agricultural Outlook Forum 2001**  
**February 22 & 23, 2001**

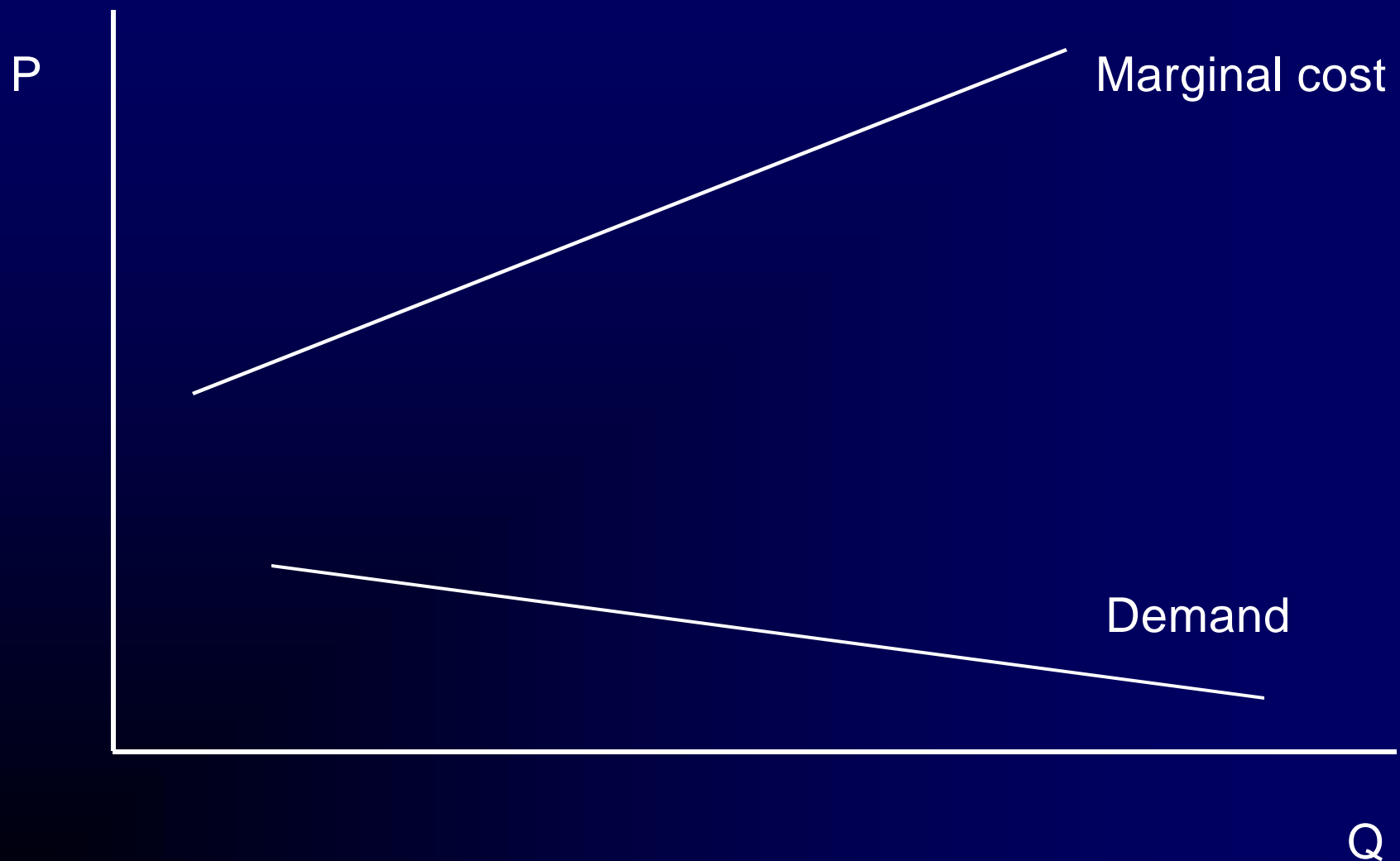
**THE MARKET FOR CARBON SEQUESTRATION: HOW REAL,  
HOW SOON, AND HOW VALUABLE FOR FARMERS?**

Bruce A. Babcock, Director  
Center for Agricultural and Rural Development  
Iowa State University

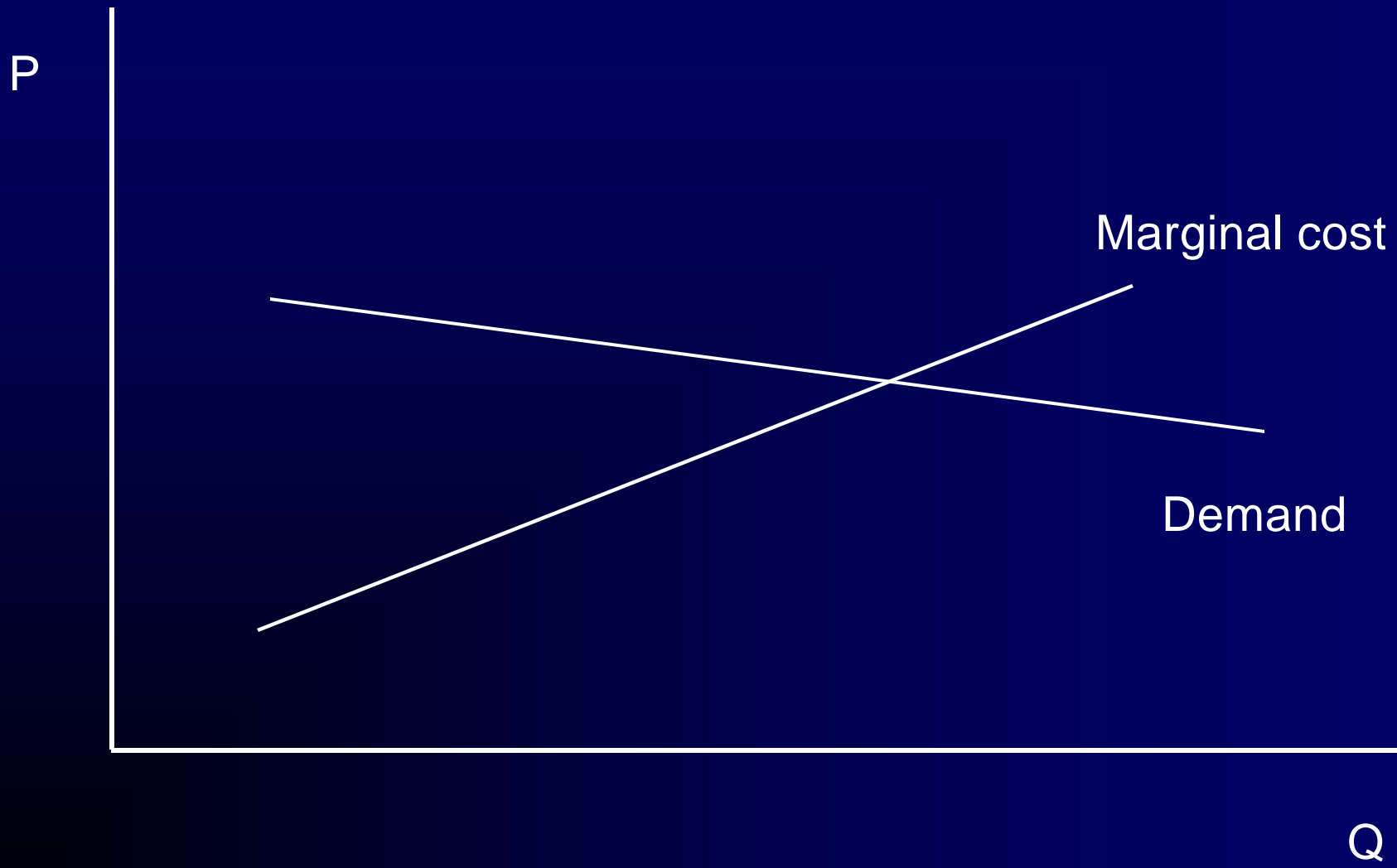
# **THE MARKET FOR CARBON SEQUESTRATION: HOW REAL, HOW SOON, AND HOW VALUABLE FOR FARMERS?**

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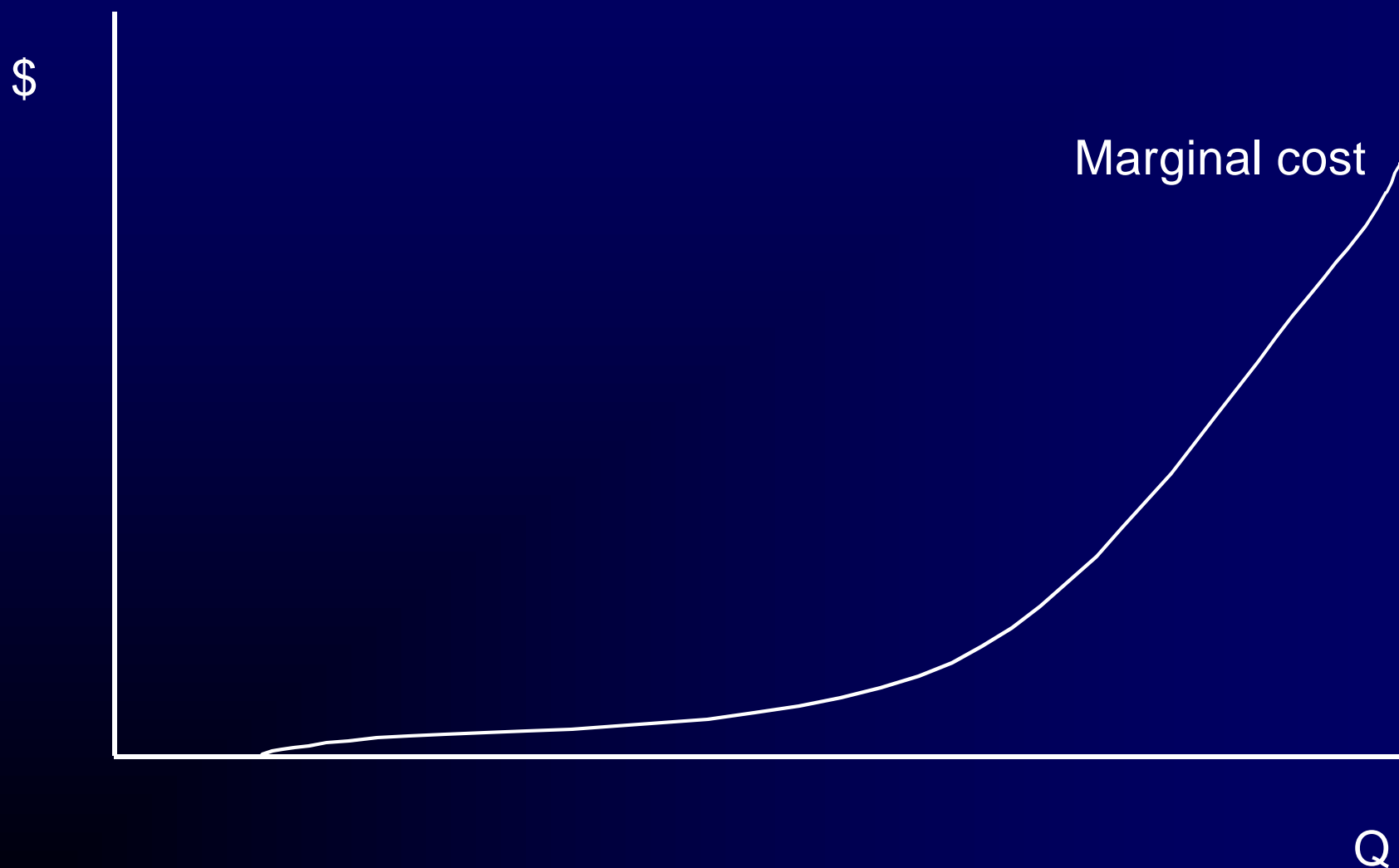
## No Viable Market: Willingness to Pay Too Low



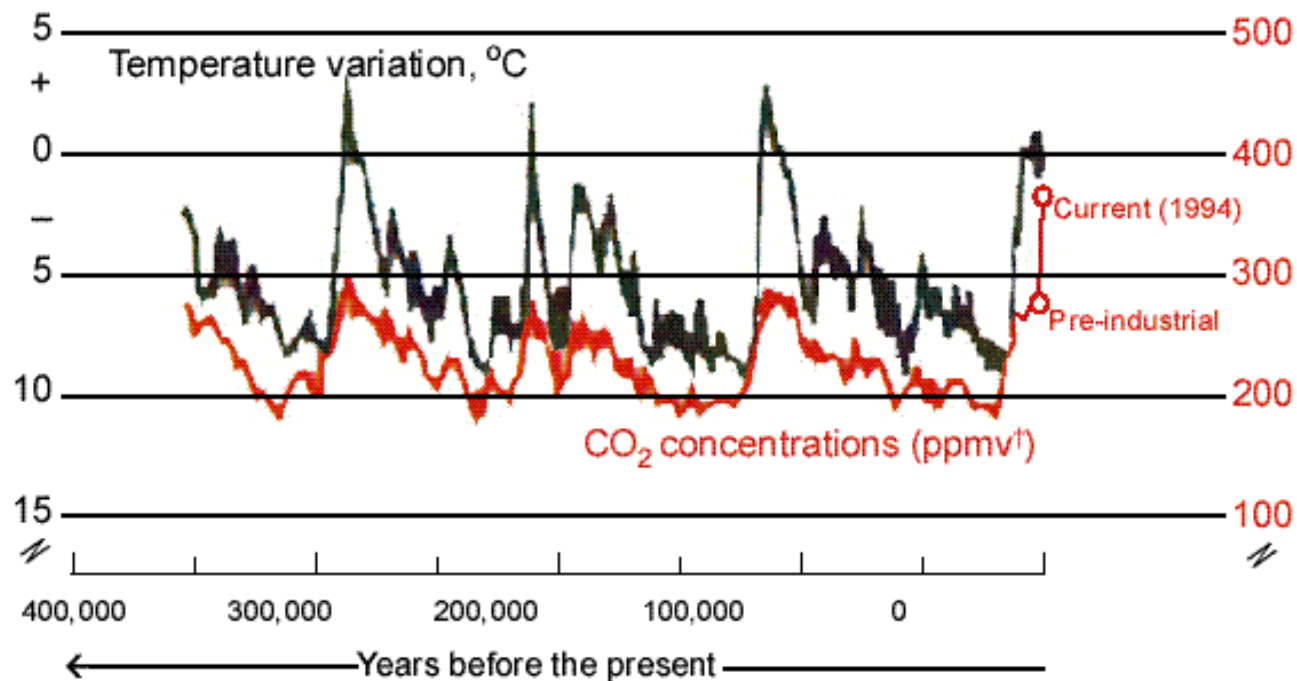
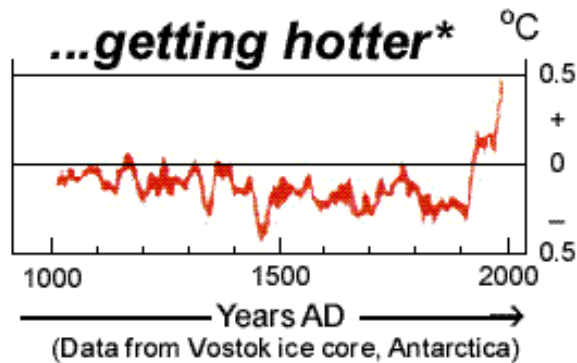
## Viable Market: Willingness to Pay Higher, Marginal Cost Lower



## Marginal Cost of Supplying Reductions in Greenhouse Gases



# Hot...



<sup>†</sup> Parts per million volume

\*Variation in surface temperature  
of northern hemisphere

Sources: CDIA C, Oak Ridge  
National Laboratory; OECD





# Four Sources of Demand

- Ratified international treaty to reduce greenhouse gas emissions.
- Carbon friendly farm bill.
- Unilateral initiative by the new administration.
- Production of “atmospheric neutral” products.

# Ratified International Treaty

- Given the lack of progress of current negotiations and sentiment in U.S. Senate, outlook is dim.
- But unratified treaty could drive demand today if:
  - Countries were told which practices will eventually count towards meeting reduction goals.

# Farm Policy Demand

- Does Congress need “public good” justification for farm income support?
- Provision of environmental goods is one justification.

# Added Benefit of Farm Policy Demand

- Inducing farmers to sequester carbon would demonstrate the feasibility of using carbon sinks.
- Increase the likelihood that sinks will be eventually counted.

# Unilateral Reduction in U.S. Emissions

- Why do it?
  - Put other major emitters on the defensive
  - Break the negotiation log jam'
  - Unilaterally accept carbon sinks as valuable
  - Demonstrate the feasibility of trading schemes

# Unilateral Reduction in U.S. Emissions

- Disadvantages
  - Many Americans don't think we need to cut emissions at all.
  - Ill-conceived program could be costly.

# **Demand for Atmospheric Neutral Products**

- Will demand for green products grow?
- Need a “poster child” event to drive demand.
- But even though climate change is geologically rapid, it is media-event slow.

# Conclusions

- Outlook for carbon markets uncertain.
- Agriculture has the potential to generate large amounts of carbon credits, but demand is not likely to be large, unless
  - Negotiations result in a list agriculture activities that will “count”
  - Congress needs an environmental farm bill
  - Administration decides to act unilaterally.