



California Agriculture and Global Challenges: Resources Prices and Prospects

**2012 California Ag Summit
January 27, 2012**

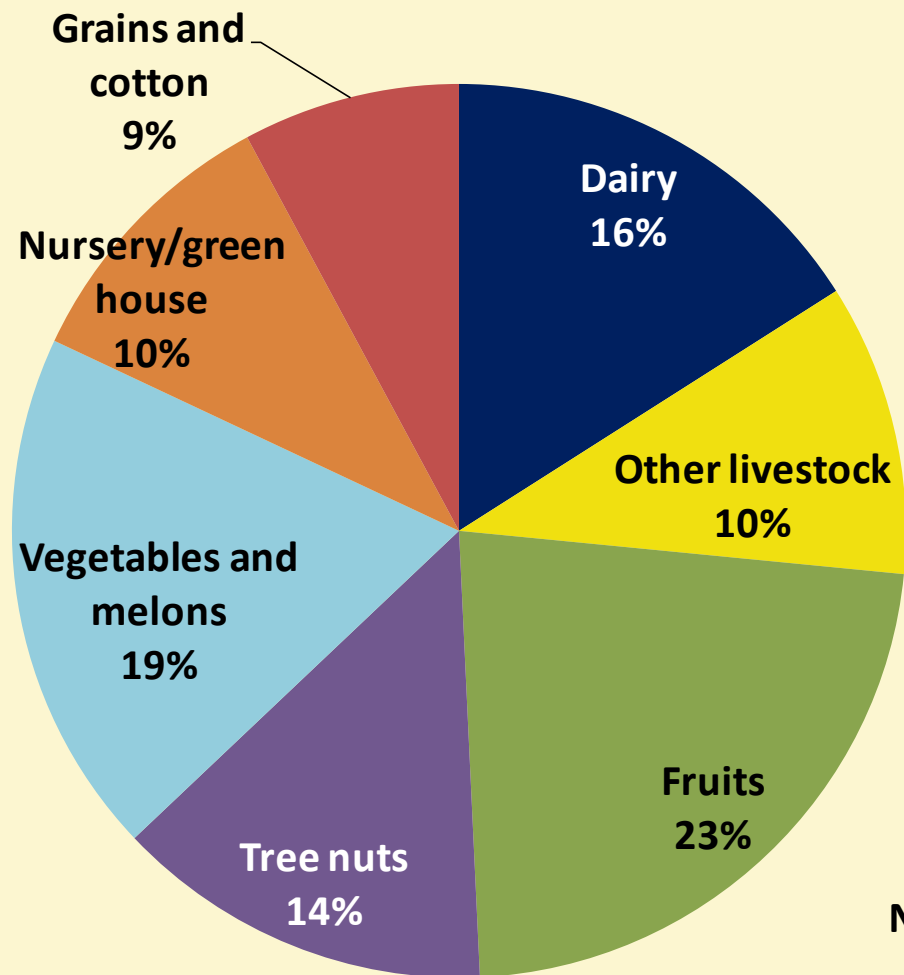
**Daniel A. Sumner
University of California Agricultural Issues Center**

Outline and Main Points

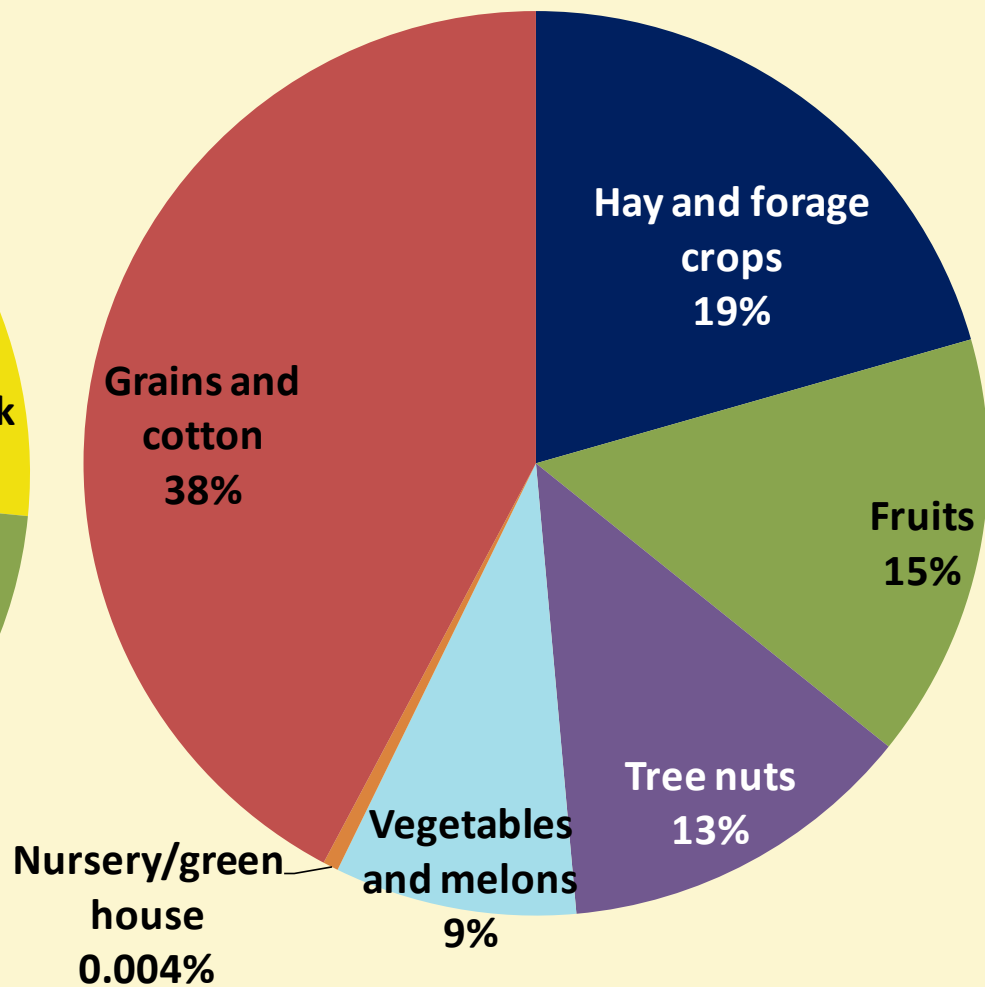
- **GOAL OF THIS TALK:**
 - **SET THE STAGE FOR THE PRESENTATIONS AND DISCUSSION TO FOLLOW.**
- **California agriculture is large, diverse and integrated with world markets**
- **Over many decades real commodity prices have declined, but recent increases may signal a reversal for global commodities and many “California” crops**
- **Major questions: will the supply/demand balance return to the trend of lower real prices, which allows better diets for the world poor? What challenges face production agriculture here and globally?**
- **Asking where agriculture is heading requires considering forces driving both the supply side and the demand side.**

California 2010 cash receipts and acreage, by commodity grouping

Cash receipts

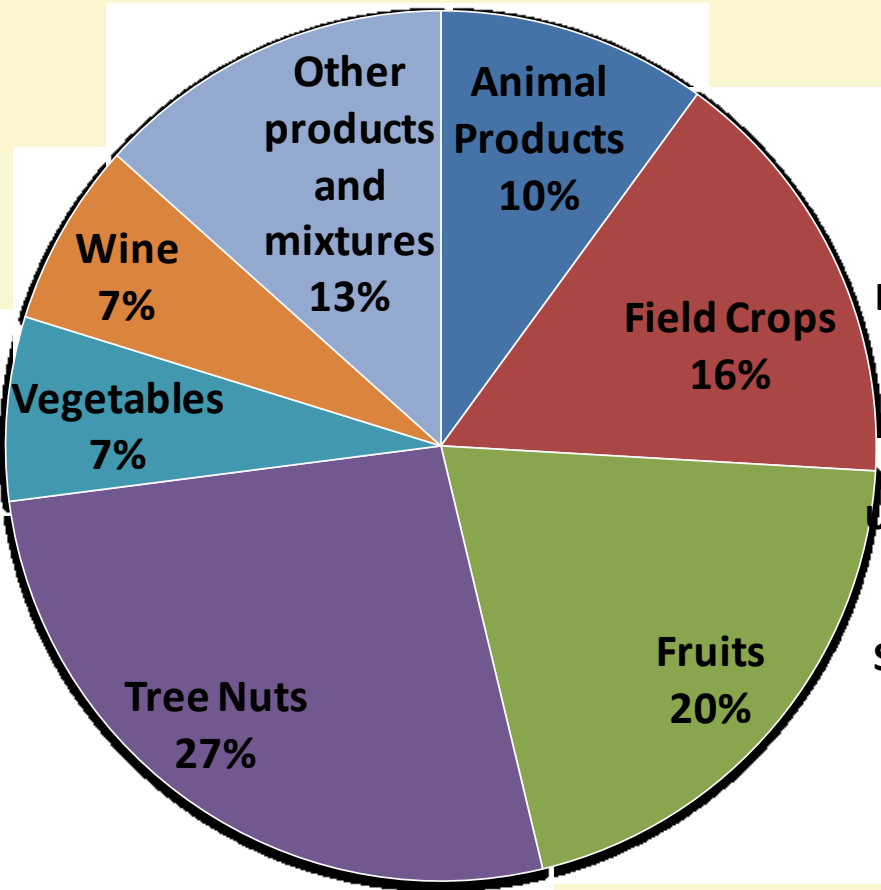


Acreage

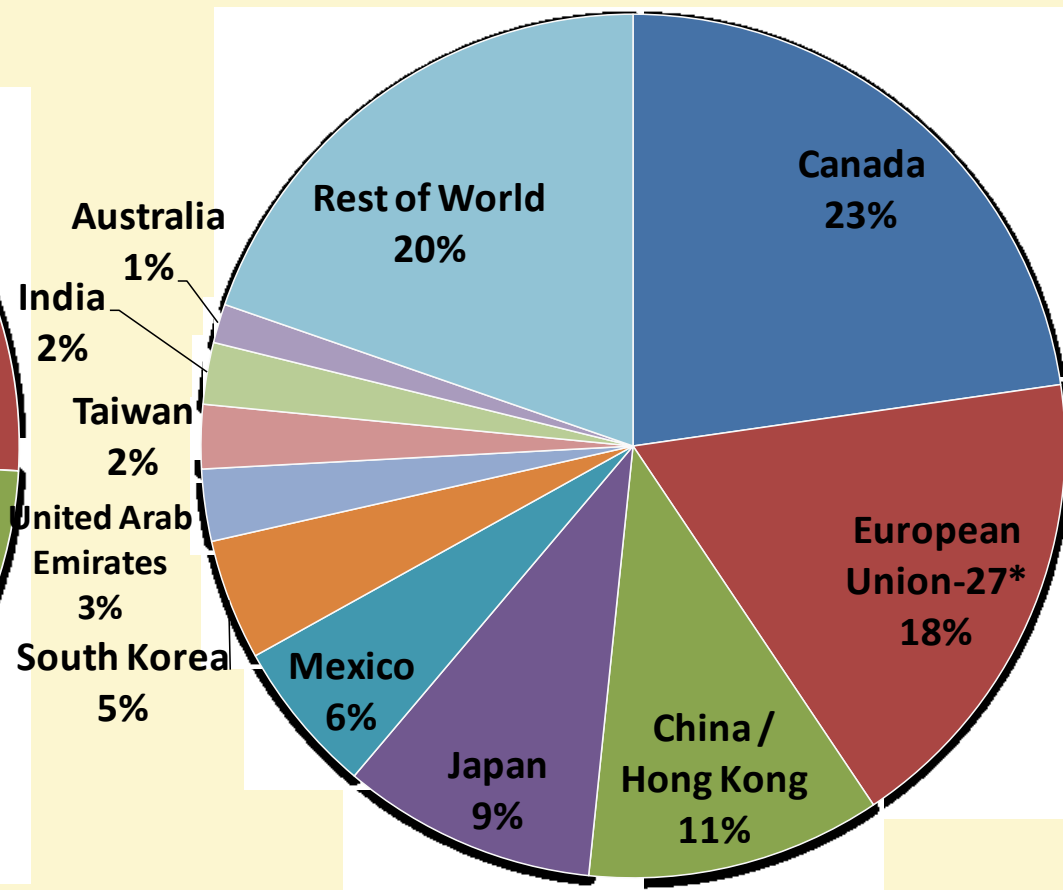


California 2010 exports, by commodity group and destination

Commodity Group



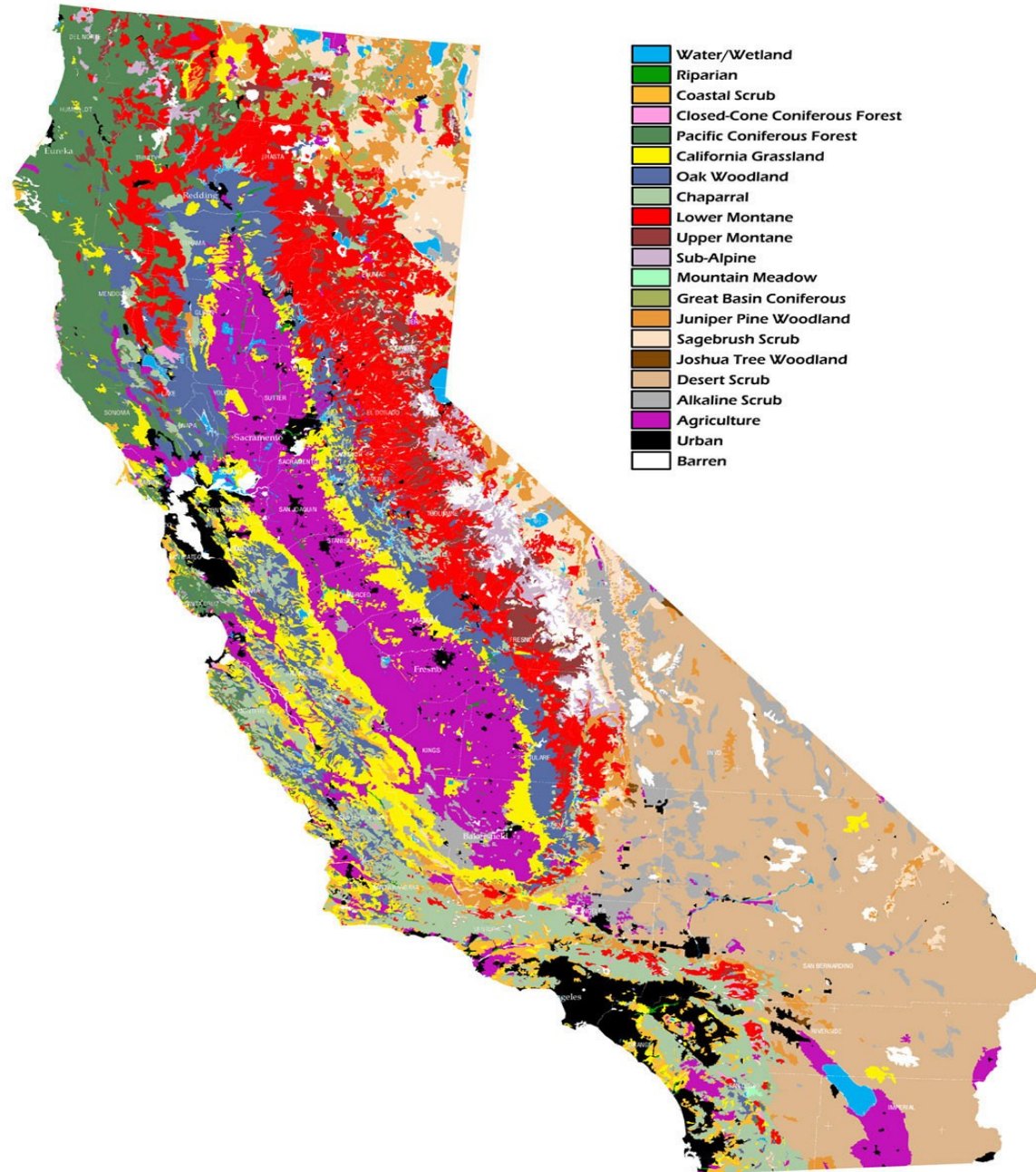
Destination



California has a variety of climate and land use zones

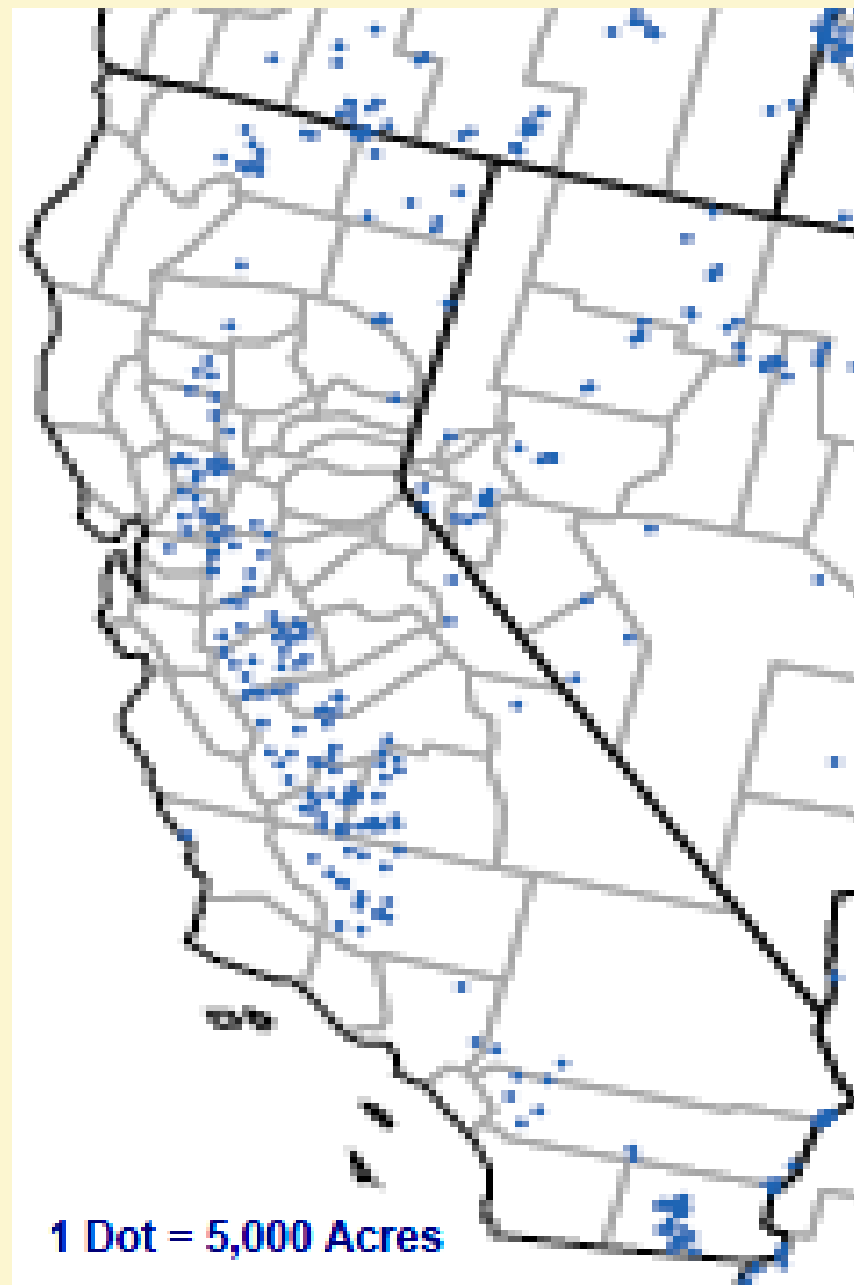
This natural diversity allows diverse agriculture to thrive

A relatively small share of the total land mass is suitable for high-productivity irrigated crops



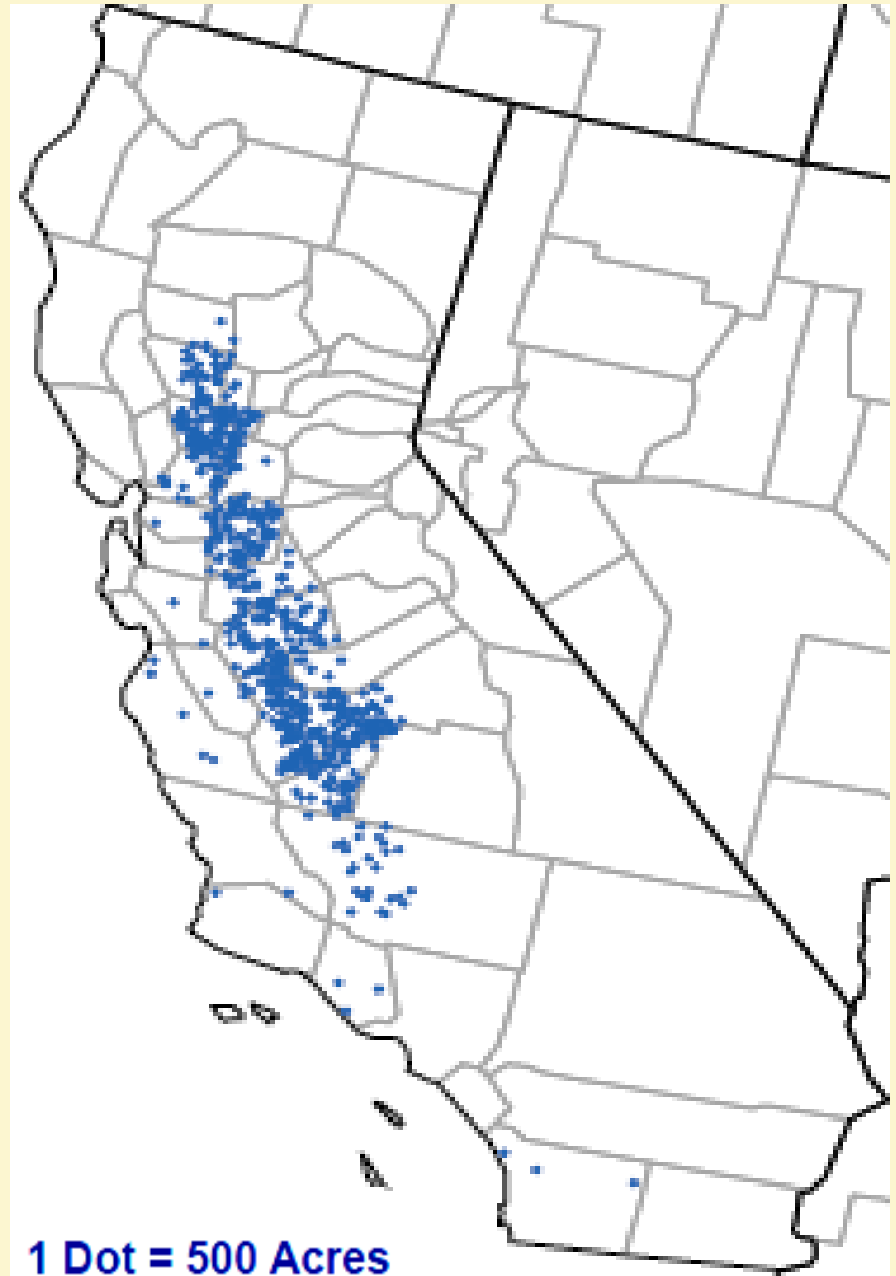
Geographic diversity of alfalfa acreage

- **Alfalfa acreage is not concentrated and is spread across climate zones within the state**
- **Production occurs from Shasta County in the North to Imperial County in the South**

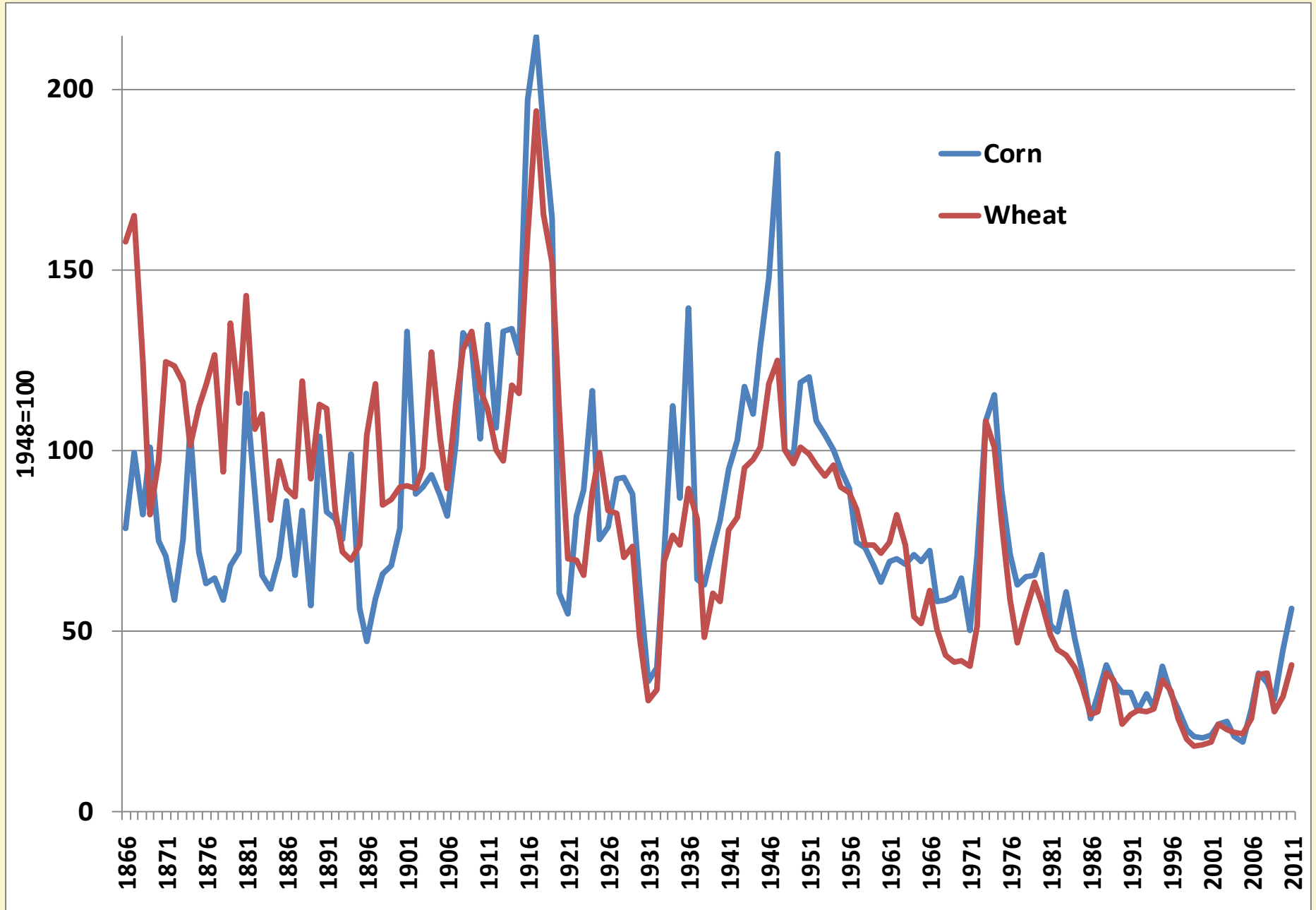


Geographic diversity of tomato acreage

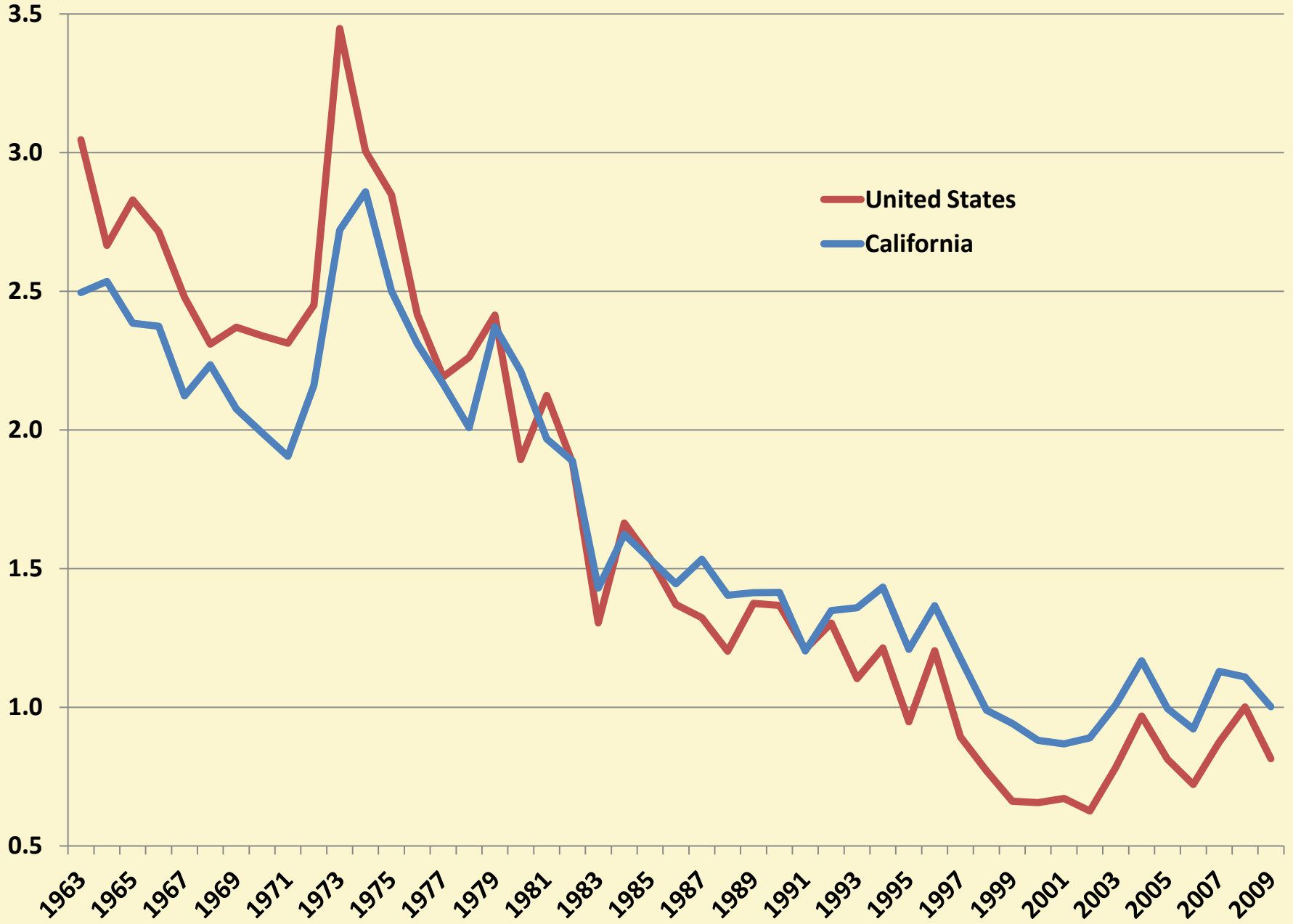
- **Most tomato acreage is for processing tomatoes**
- **Tomato acreage is mainly in the Central Valley from Chico to Bakersfield**
- **Production takes place in several different climate zones**



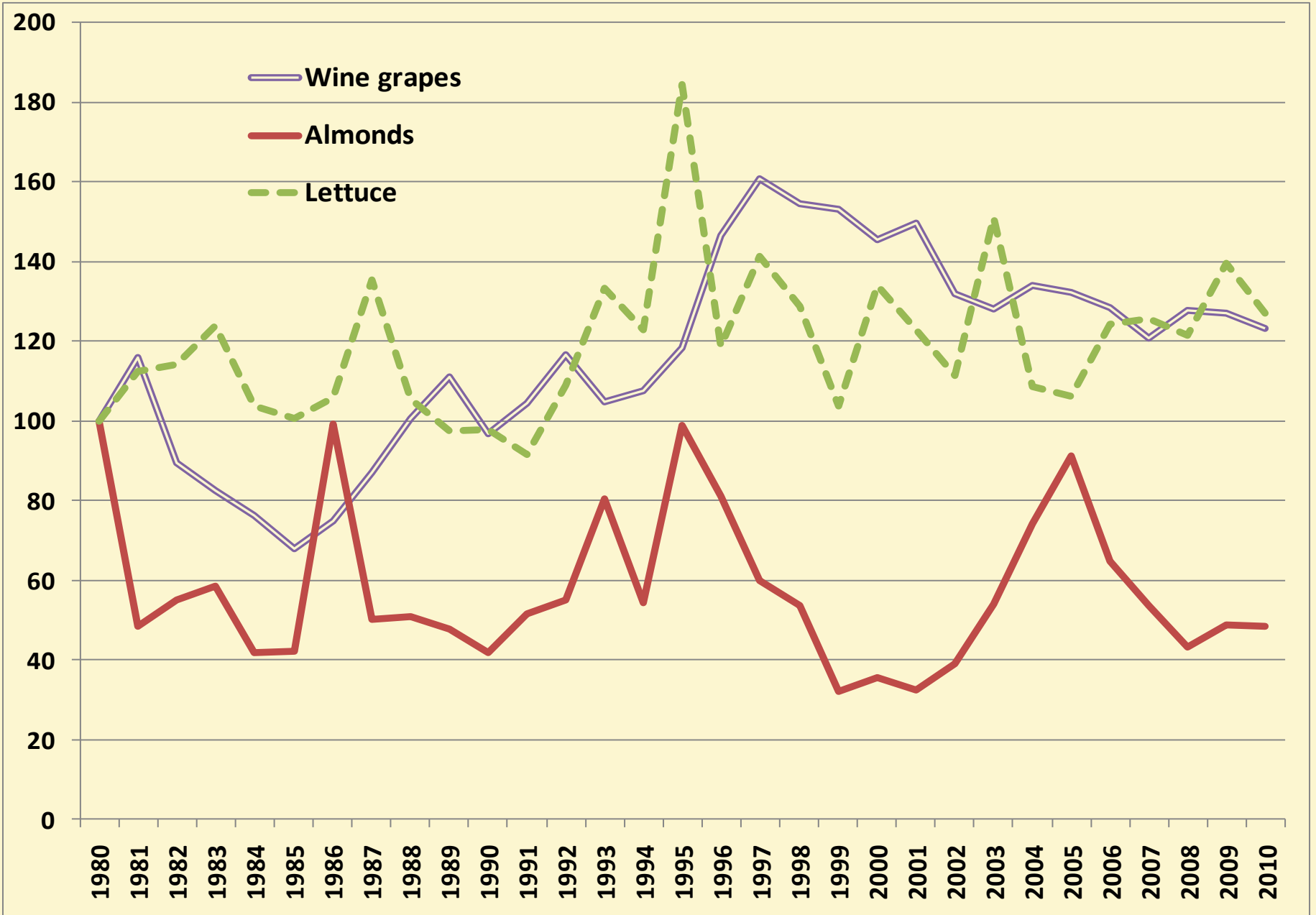
Index of real corn and wheat prices, 1866-2011



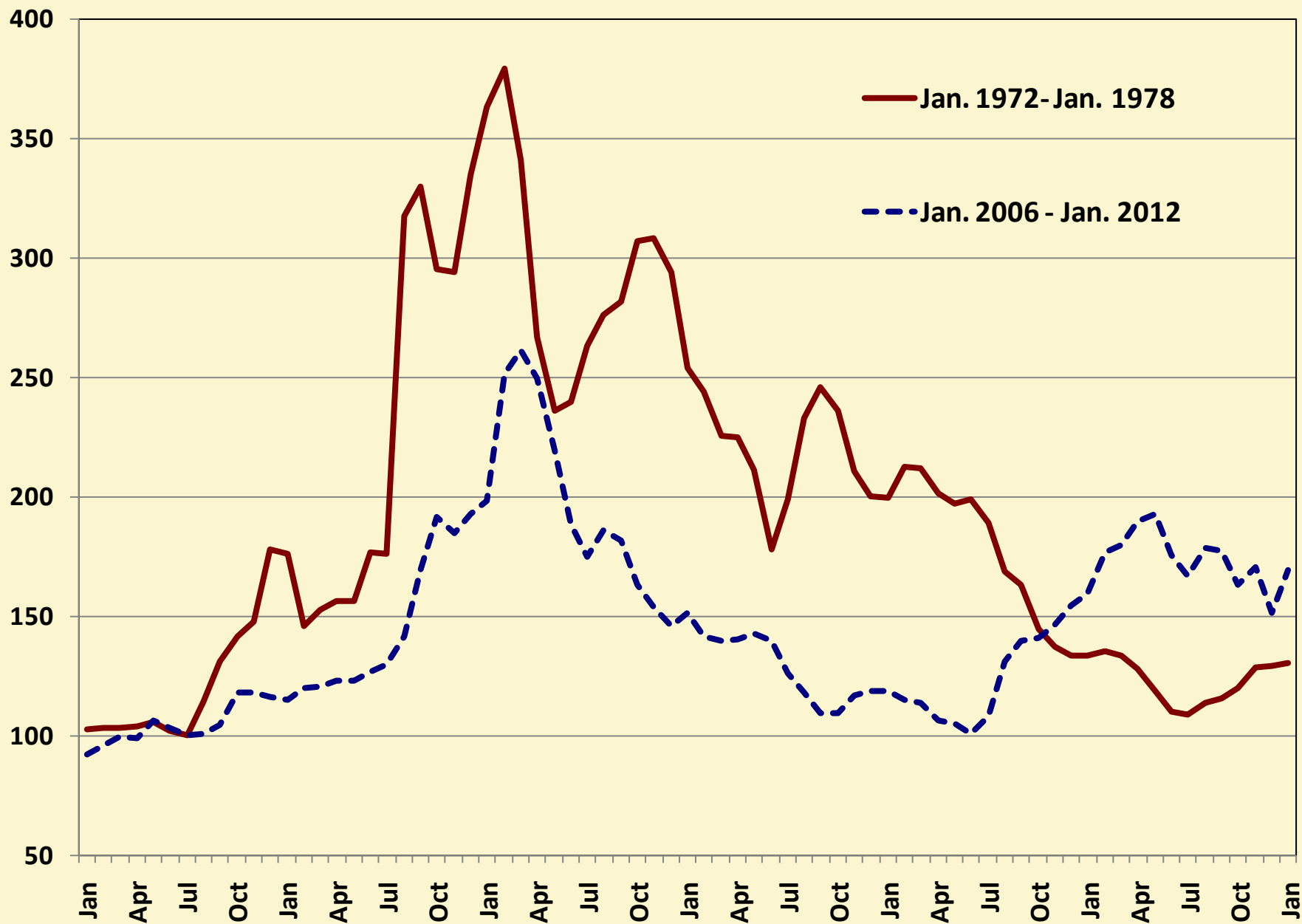
Gross domestic product from crop and animal production as a share of total gross domestic product in California and the United States, 1963-2009



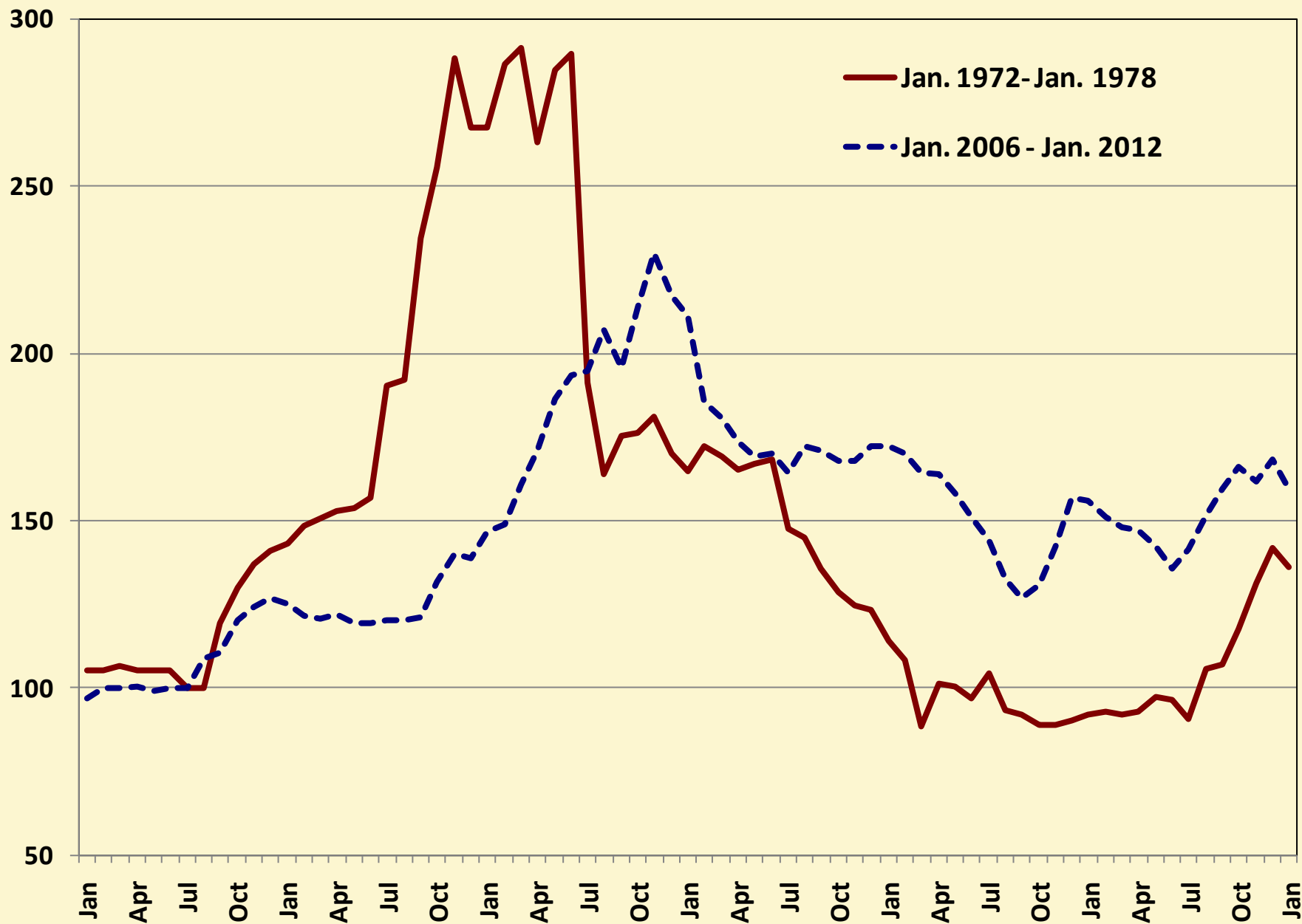
Index of real prices of California wine grapes, lettuce and almonds, 1980-2010



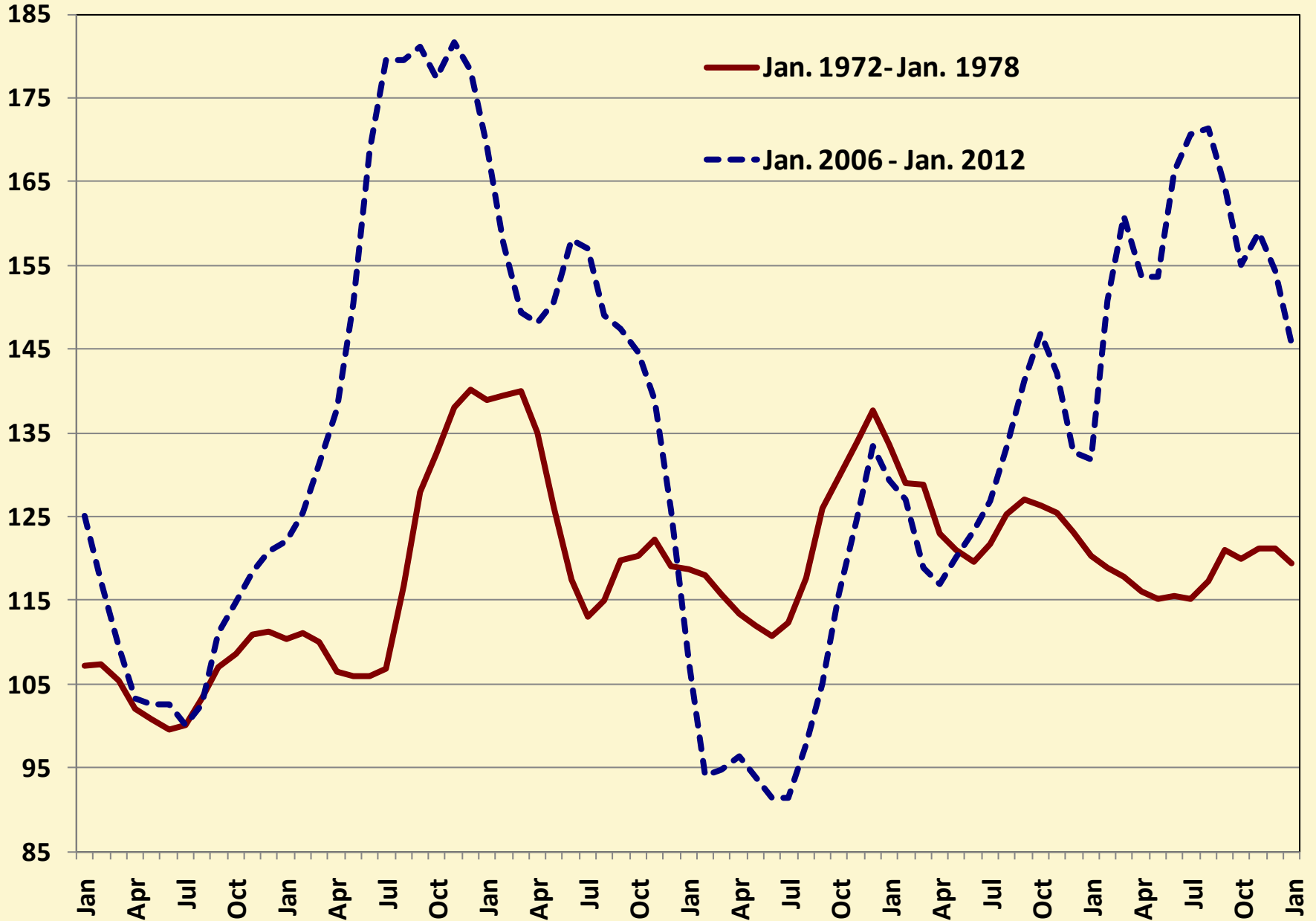
U.S. indexed real wheat prices, 1972-78 and 2006-2011



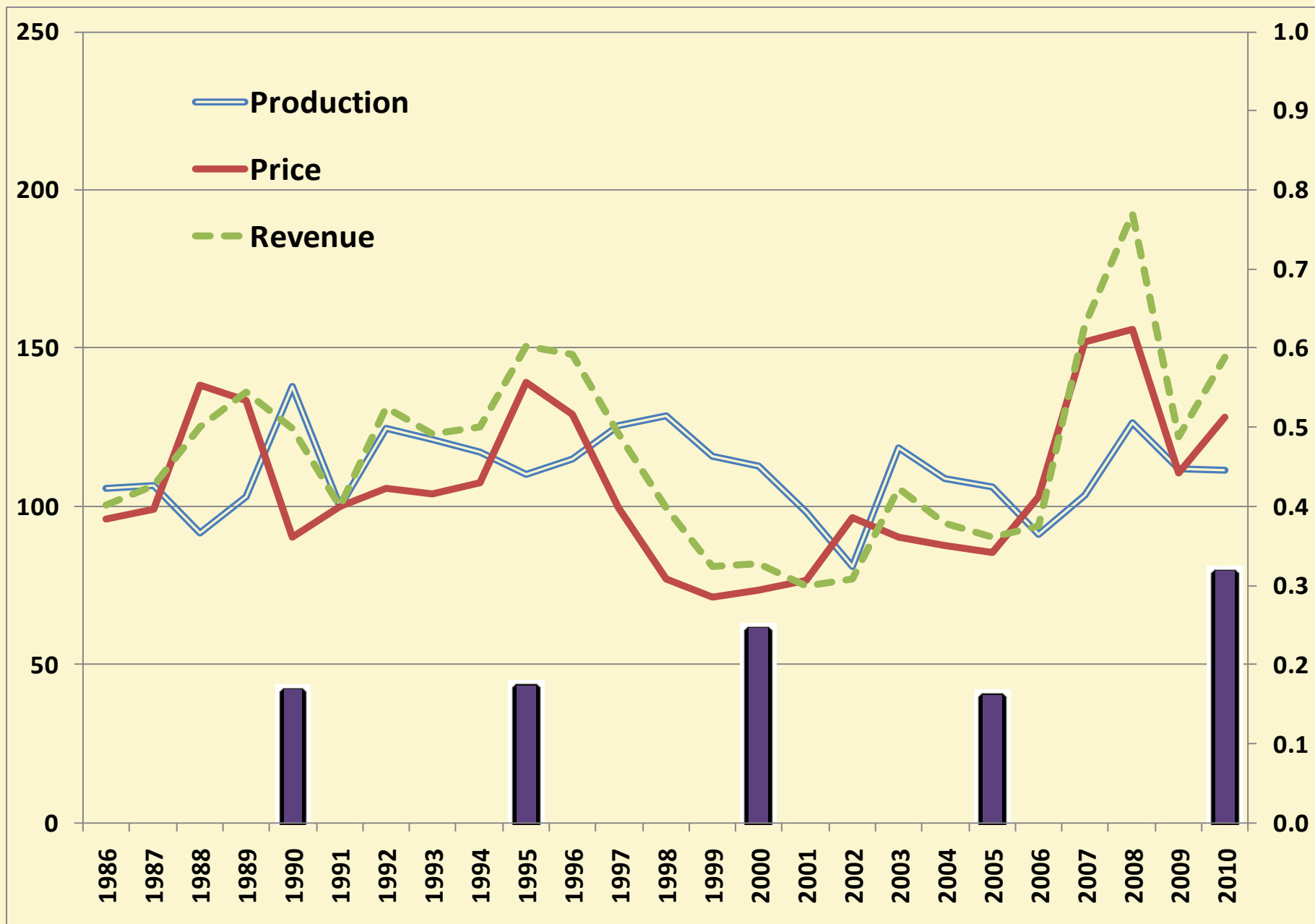
U.S. indexed real rice prices, 1972-78 and 2006-2011



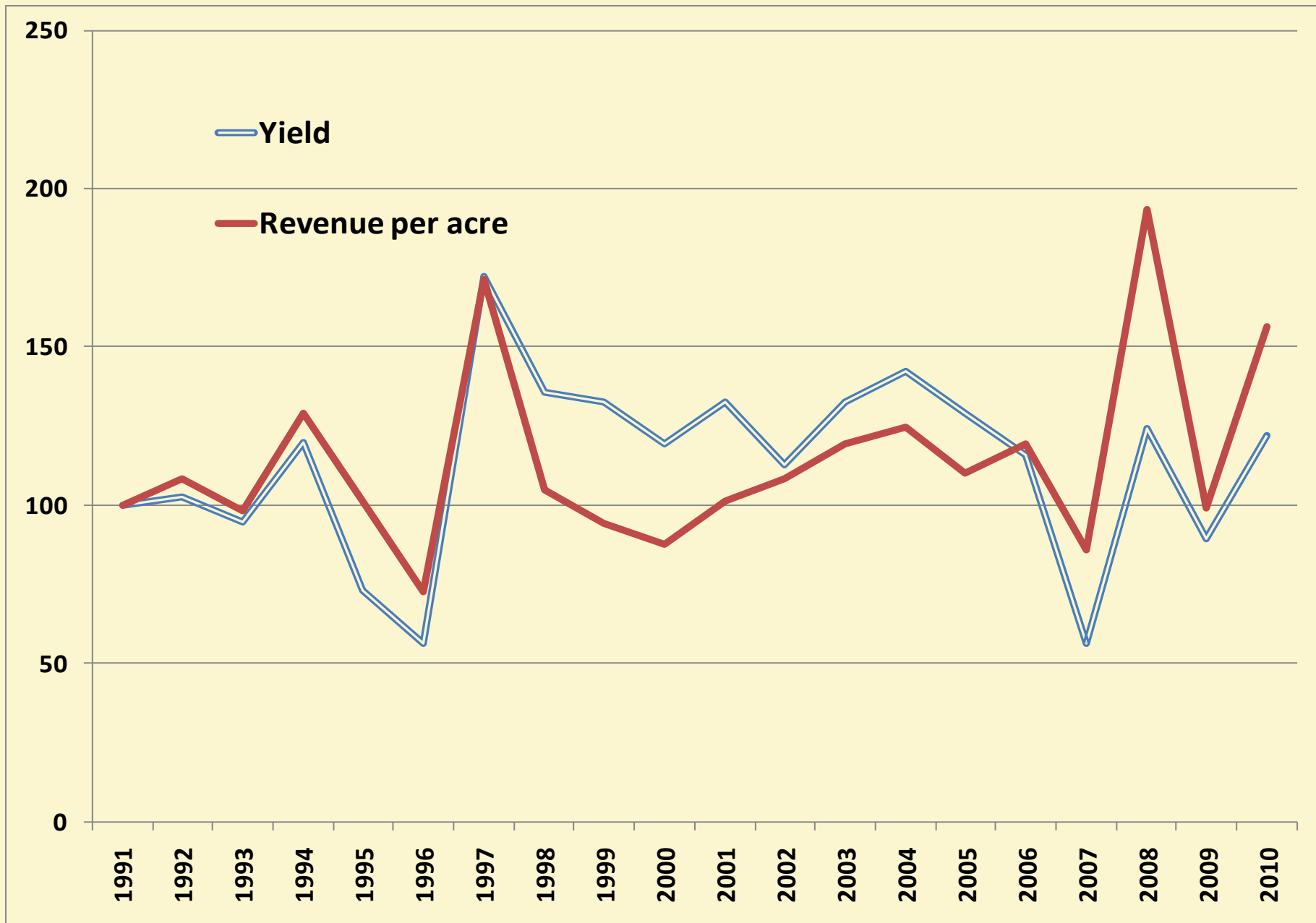
U.S. indexed real milk prices, 1972-78 and 2006-2011



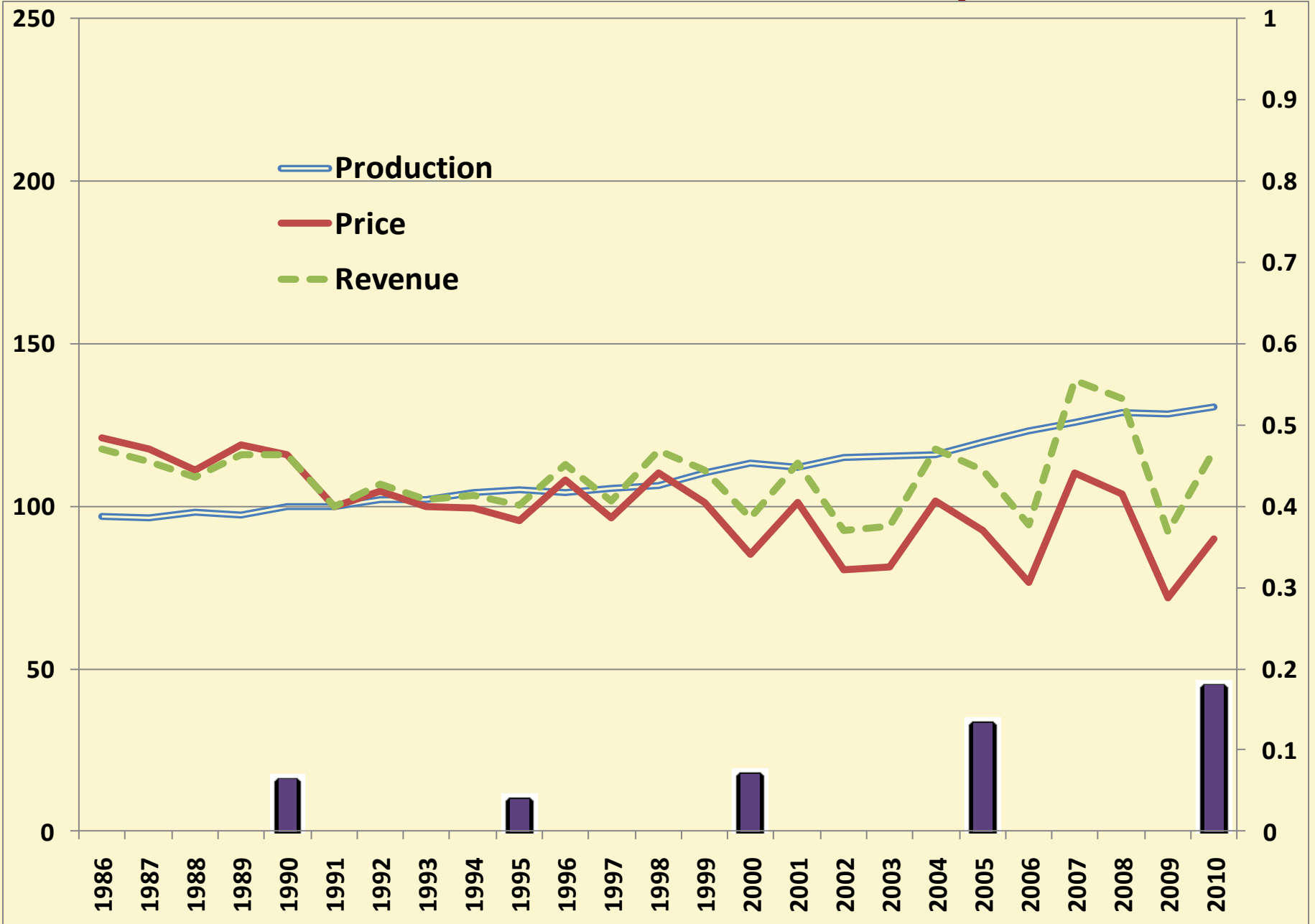
Index of real U.S. wheat production, price and revenue (1991=100) with coefficient of variation for revenue at 5 year intervals



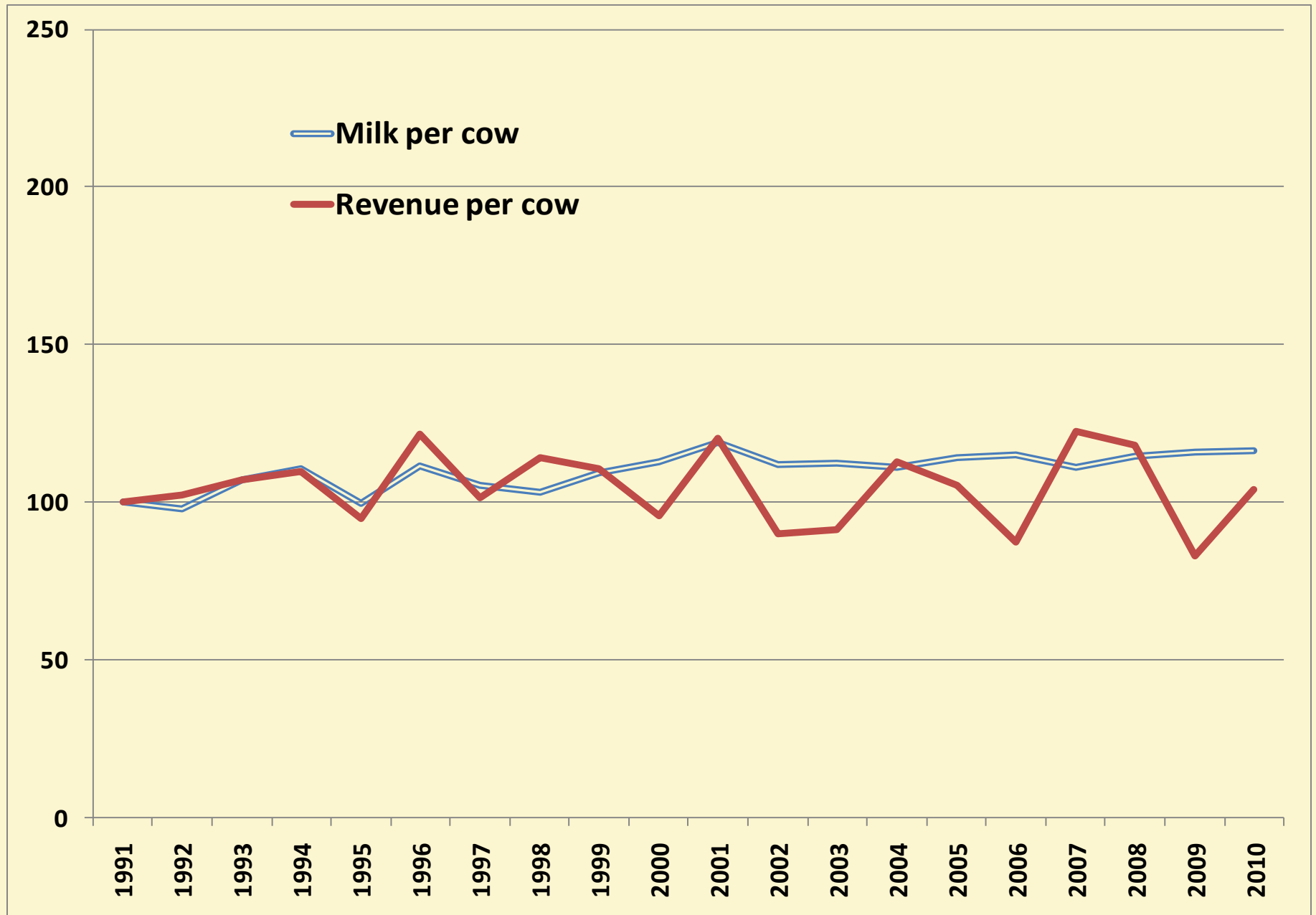
Index of yield and real revenue per acre for wheat in Sumner County, Kansas (1991=100)



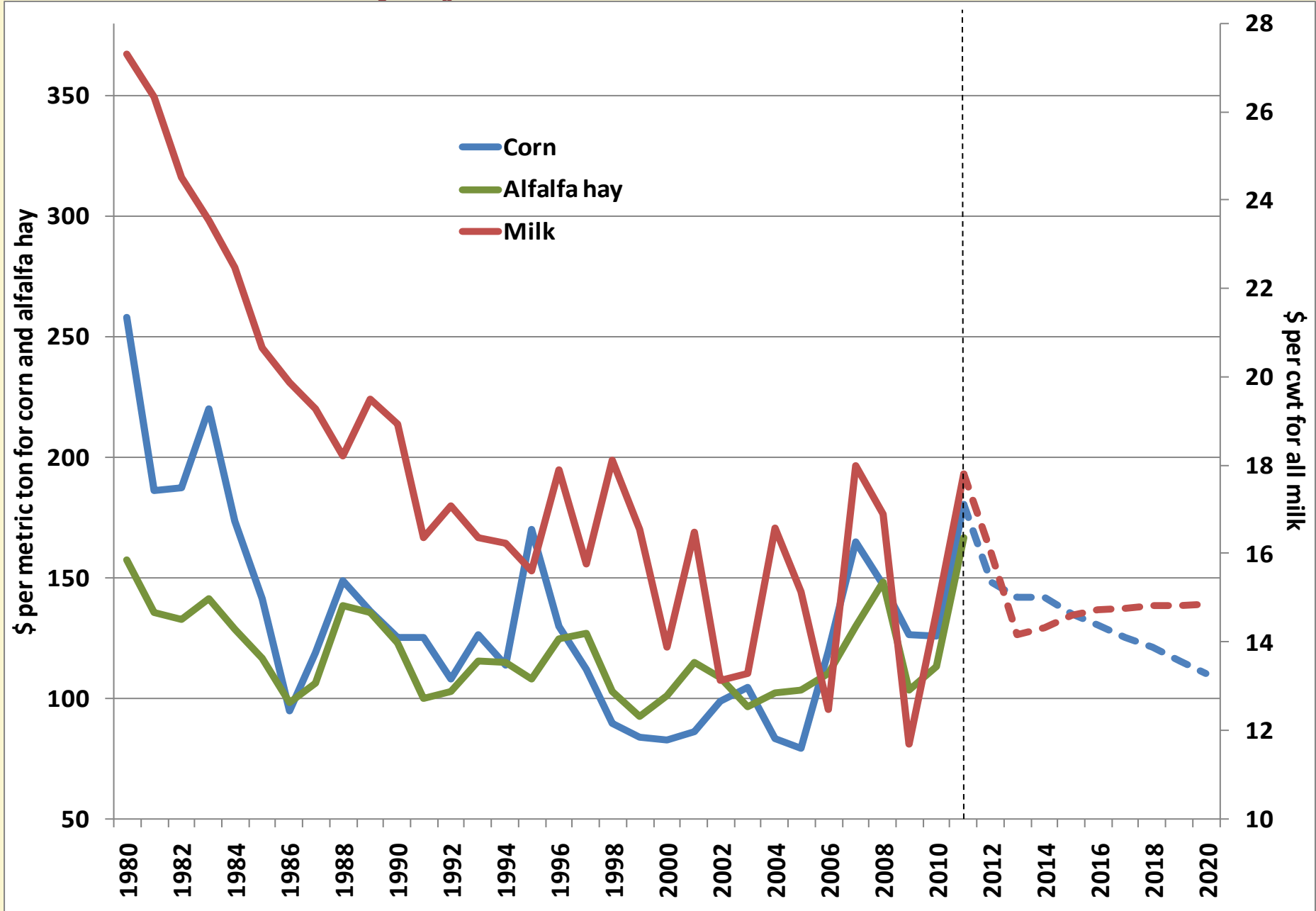
Index of real U.S. milk production, price and revenue (1991=100) with coefficient of variation for revenue at 5 year intervals



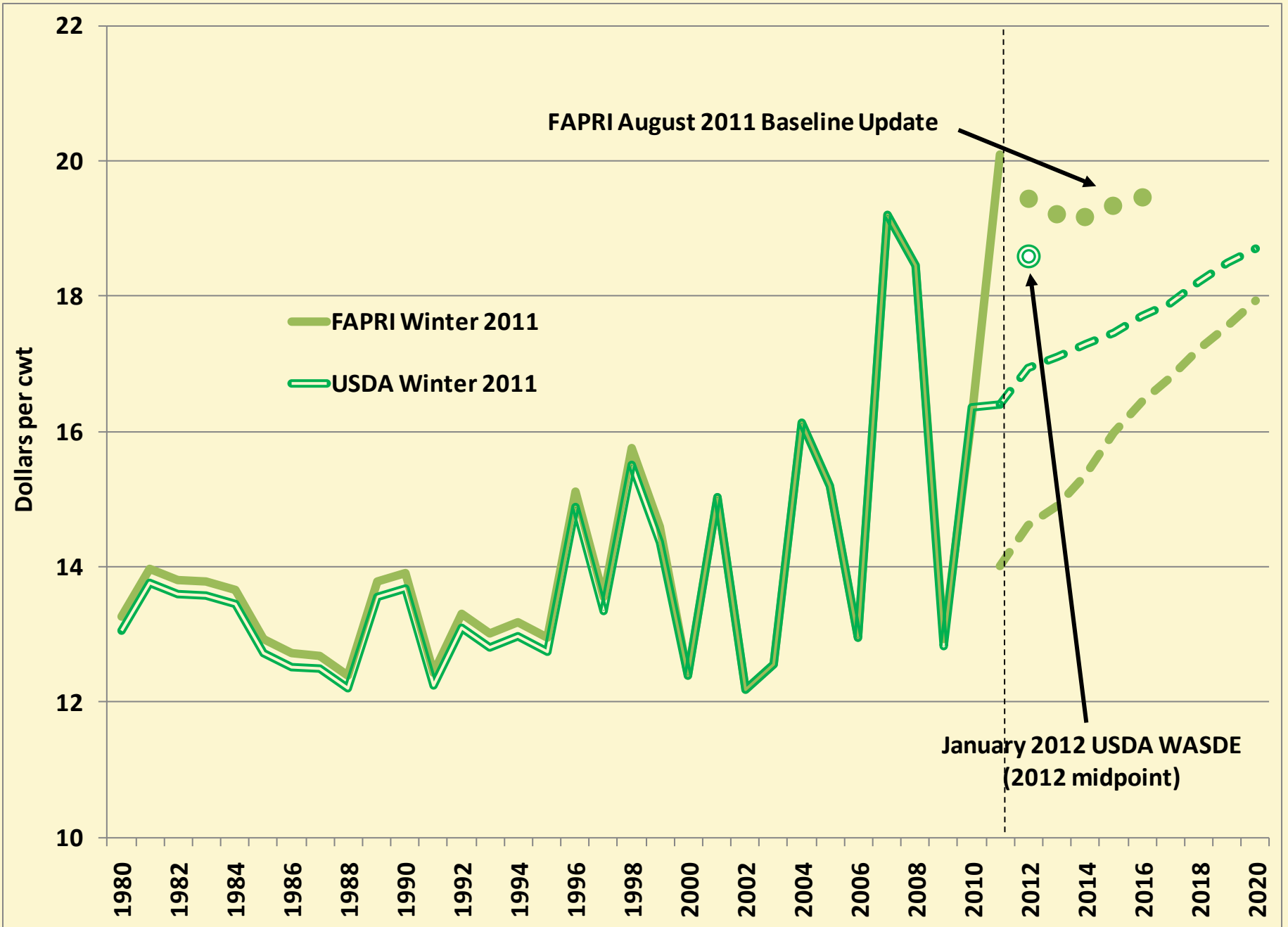
Index of milk and real revenue per cow in Tulare County, California (1991=100)



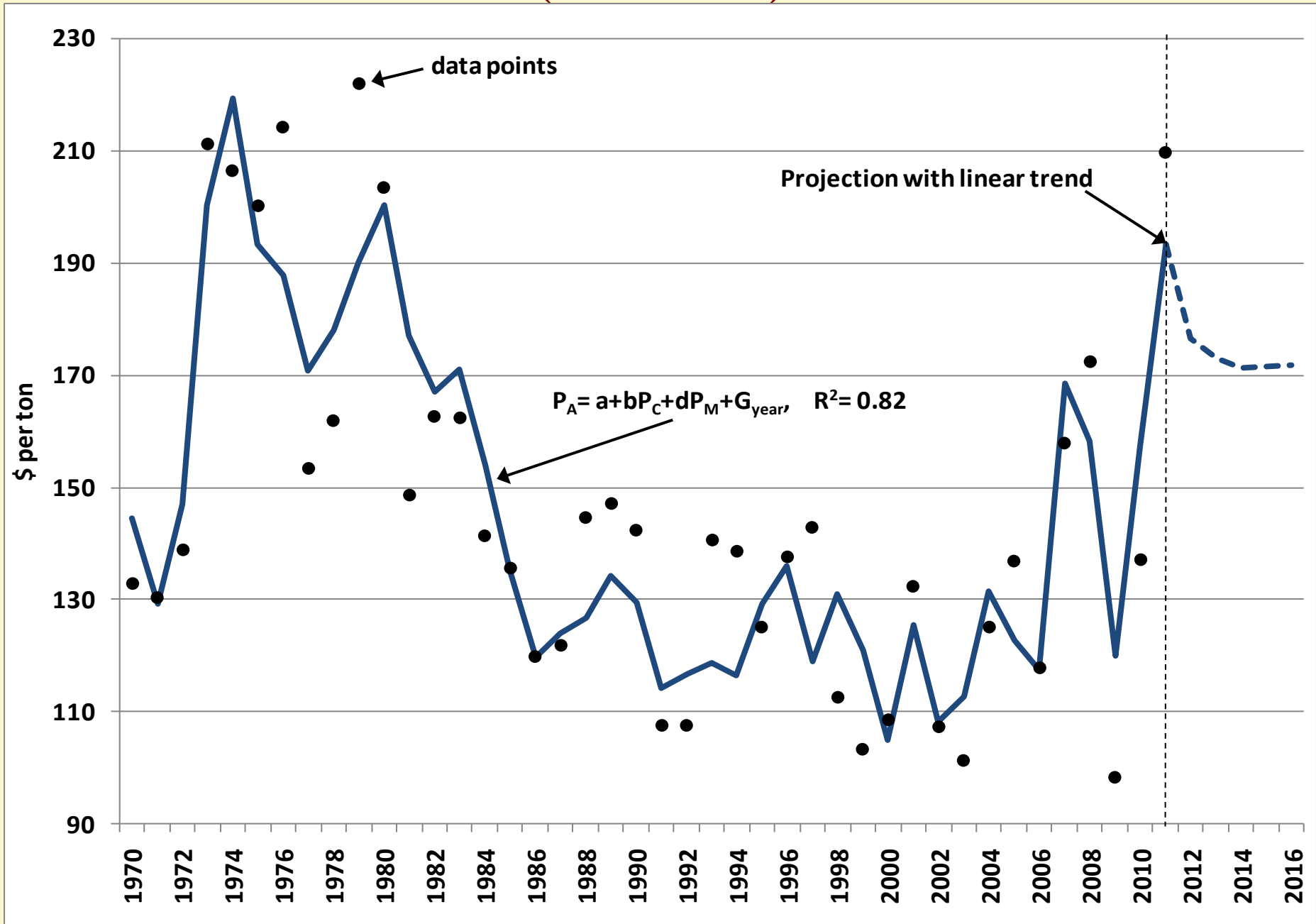
Real prices for alfalfa hay, corn and all milk with 2011 USDA projections for corn and milk



U.S. price for all milk, 1980-2010 with projections



Real Price of California Alfalfa: Data, Fitted Values and Projections (2005 dollars)



What forces are driving these recent and ongoing trends?

- **The Prof. McCalla develops the economic reasoning and data.**
- **I foreshadow a few issues**
 - **Use of farm resources to produce fuel**
 - **Increased demand from income growth in developing countries**

And, importantly:

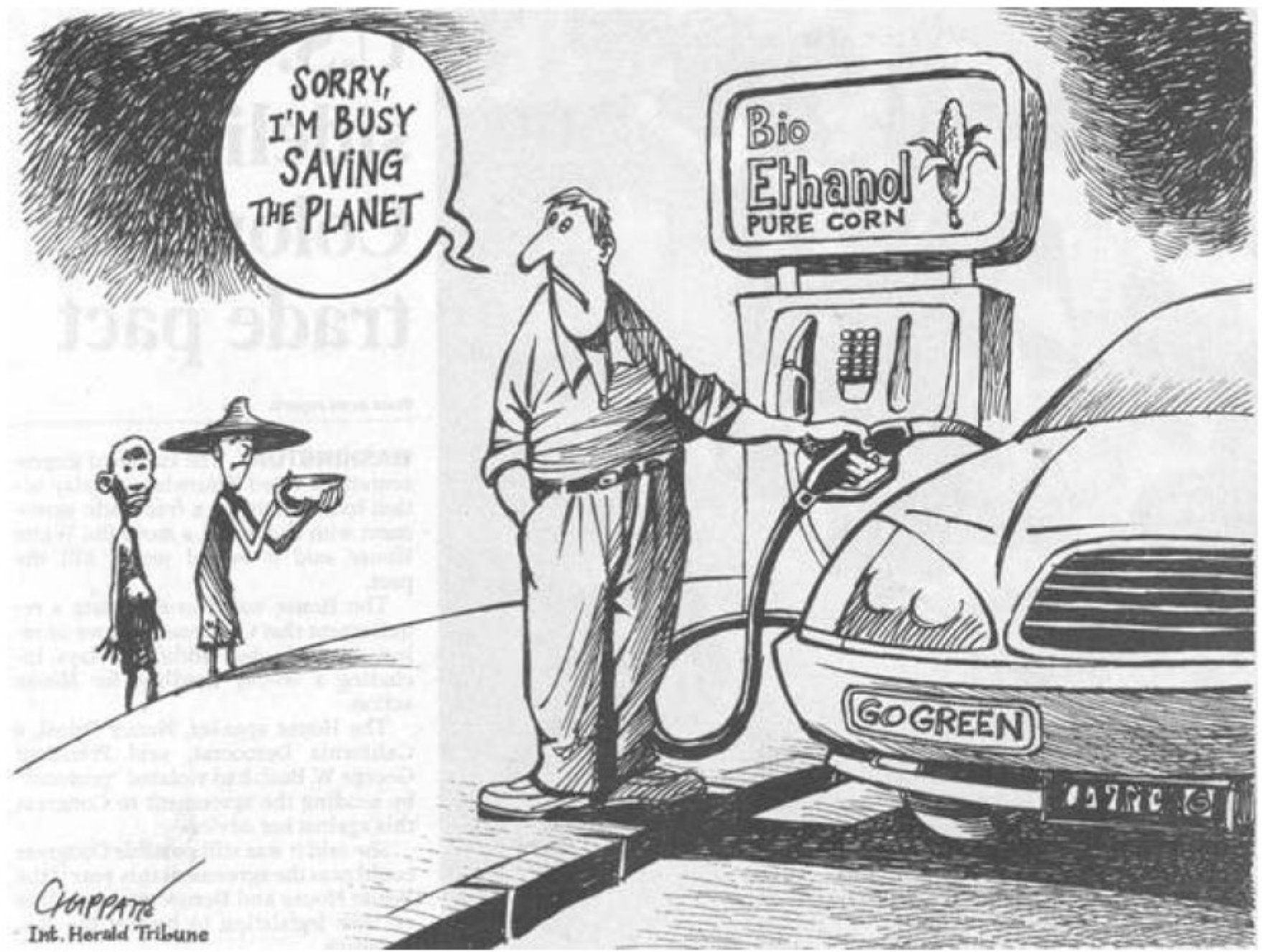
- **Dampened commitment to agricultural R&D leading to slowing productivity growth**

SORRY,
I'M BUSY
SAVING
THE PLANET

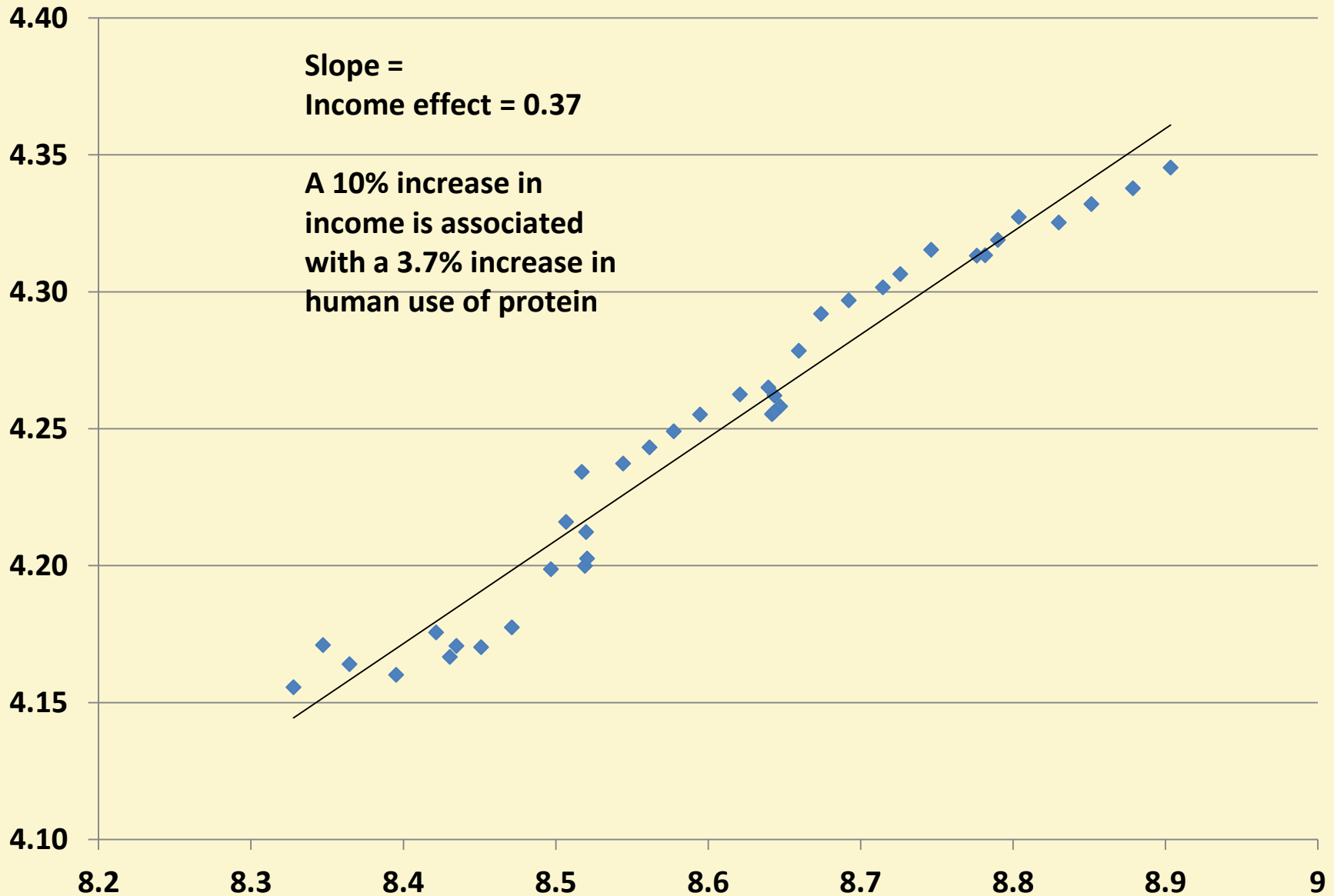
Bio
Ethanol
PURE CORN

GO GREEN

CHIPPATE
Int. Herald Tribune



Real world per capita income vs. world per capita protein for food, (natural logs) 1969-2007



Thank you.
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