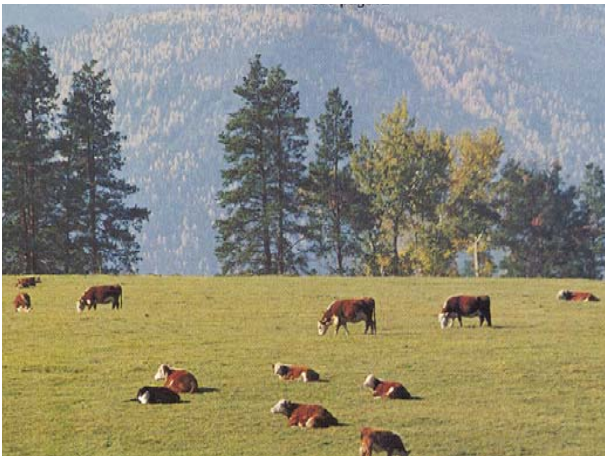


A Dim Or Bright Future For U.S. Agriculture?

Gary Brestler

MSU Department of Agricultural Economics and Economics

Ag In Uncertain Times



November 4, 2009



OUTLINE

- 1. Changing Agriculture**
- 2. Agricultural Productivity**
- 3. Commodity Price Behavior**
- 4. Strategic Business Management**
- 5. Is There A Future For Agriculture?**

Changing Food And Fiber Sector

- 1. Rapid Globalization**
- 2. Agricultural Industrialization**
- 3. Trade Liberalization**
- 4. Reduced Government Roles**
- 5. Changing Policy Environment**
- 6. Biotechnology**
- 7. Accountability**
- 8. Business Restructuring**

I Hate Change!

General Eric Shinseki

(U.S. Army Chief Of Staff)

“If You Don’t Like Change,

You Are Going To Like Irrelevance Even Less”

Four Drivers Of Change

1. **Technology**
 - a. **Biotechnology**
 - b. **Information Technology**
 - c. **Transportation Technology**
 - d. **Packaging And Food Processing**

Four Drivers Of Change

2. **Population And Income Growth**
 - a. **Developed Countries – High Income**
 - **Food Safety**
 - **Convenience**
 - **Processes**
 - b. **Developing Countries**
 - **Increasing Middle Class**
 - **Demands For Animal Source Protein**

Four Drivers Of Change

3. Trade/Government Involvement

a. Protectionism Is Expensive

- New Zealand
- EU
- Canada
- United States

b. Increased Competitiveness

- Information Technology
- Transportation Technology₇

Four Drivers Of Change

4. **Demographics**
 - a. **Two Incomes**
 - **Wealth**
 - **Convenience/Process**
 - b. **Single Head Of Household**
 - **Lack Of Wealth**
 - **Lack Of Time**
 - c. **Seniors**
 - **Health**
 - **Eating Habits**
 - d. **Ethnicity**
 - **Changing Food Demands**

Implications Of Change

Farms/Ranches Of The Future

1. **Two Types Of Farms/Ranches**
 - a. **Traditional Commodity Production**
 - **Use Newest Technologies**
 - **Lowest Cost Producers**
 - **High Volume, Low-Margin**
 - **Large Scale Producers**
 - **Manage Price And Production Risks**

Implications Of Change

Farms/Ranches Of The Future

b. Value Enhanced Producers

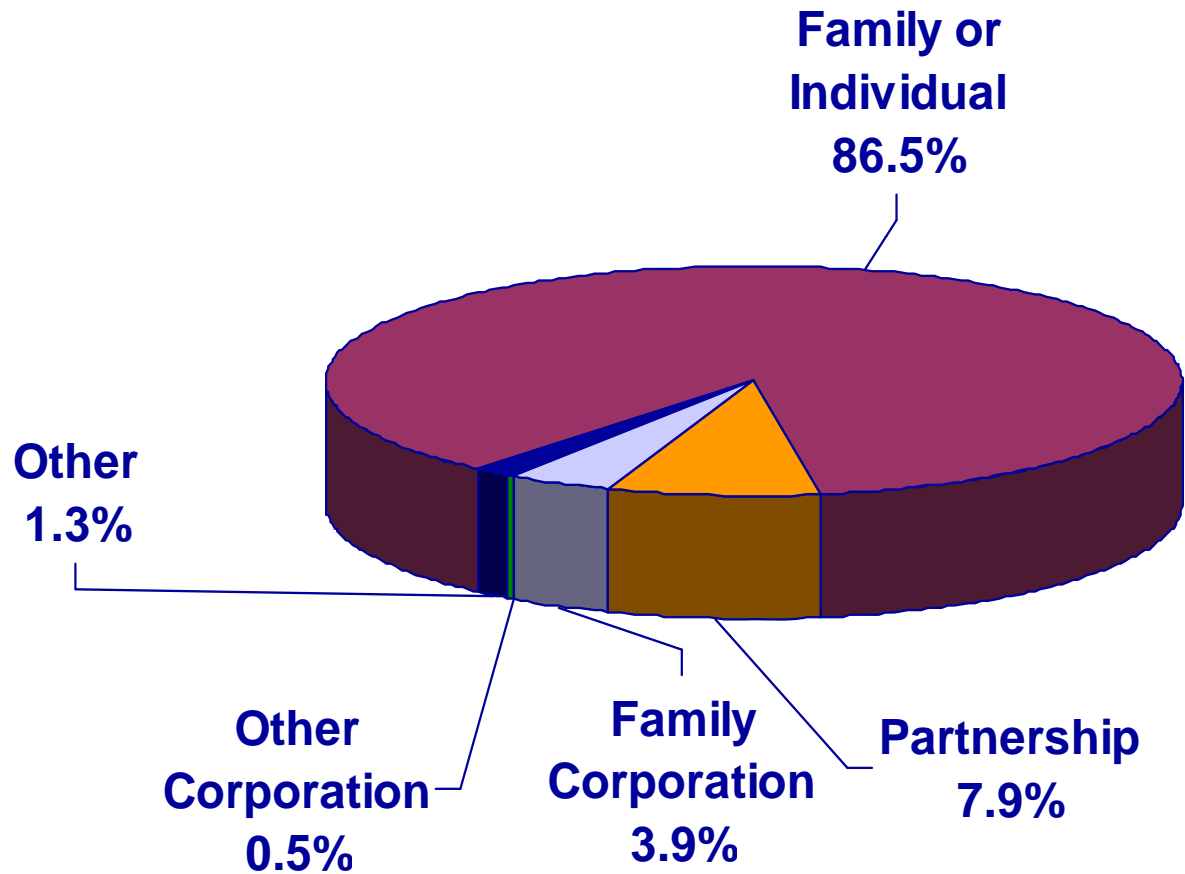
- Focus On Expanding Margins
- Identity Preservation
- Specialty Products
- Nutraceuticals/Low Input/
Animal Welfare
- Marketing, Entrepreneurial,
And Negotiation Skills
- Market Coordination And
Risk Sharing

Implications Of Change

Food Systems Of The Future

1. **Restructuring Is Well Underway**
 - a. **Commodity Markets Are Becoming Less Important**
 - b. **Increased Contracting**
 - c. **Higher Concentration**
 - **Tradeoffs Between Market Power And Efficiency**
 - d. **Loss Of Independence**
 - e. **More Risk Sharing**
 - f. **Control?**

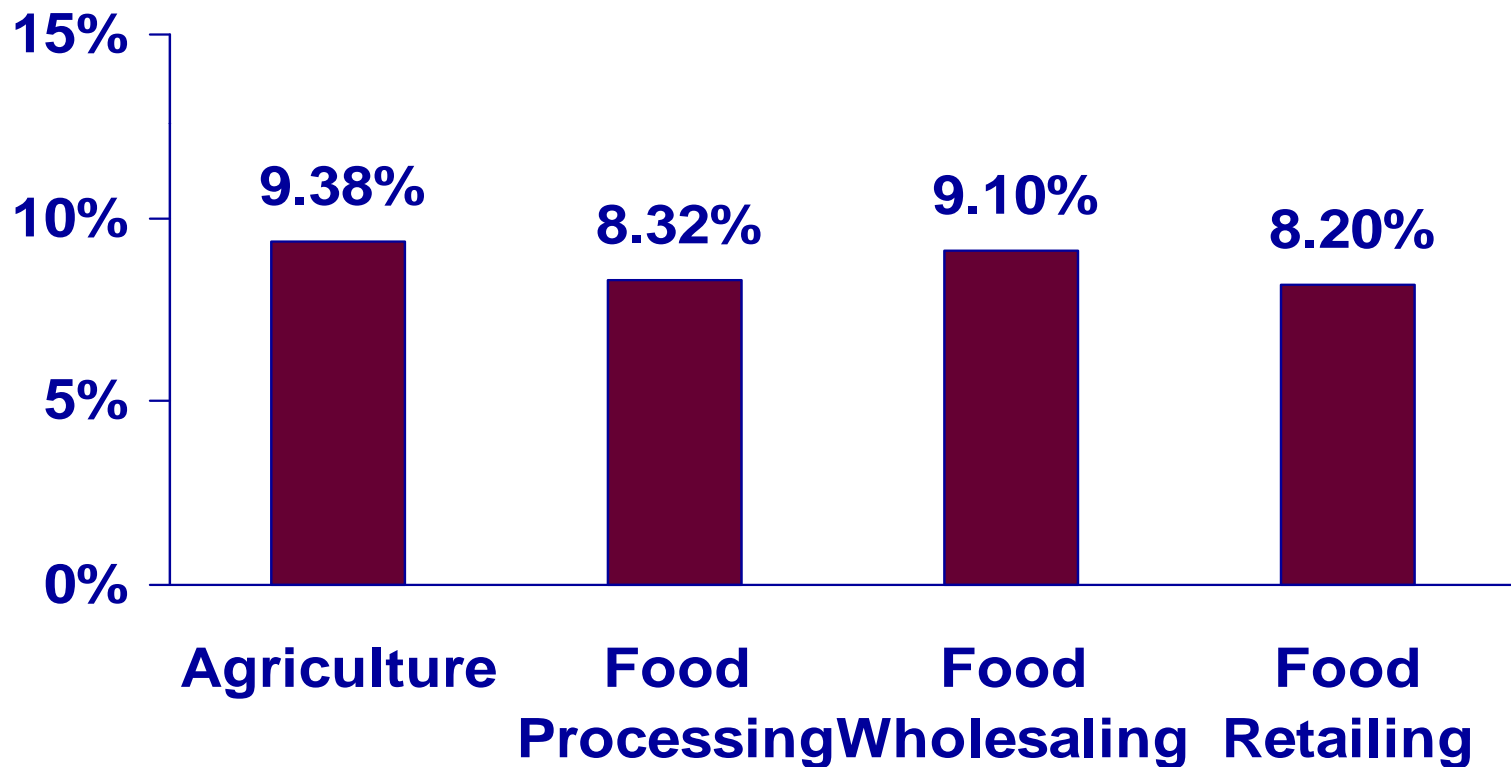
U.S. Farm Ownership: 2007



Source: NASS

Production Agriculture And Agribusiness Returns

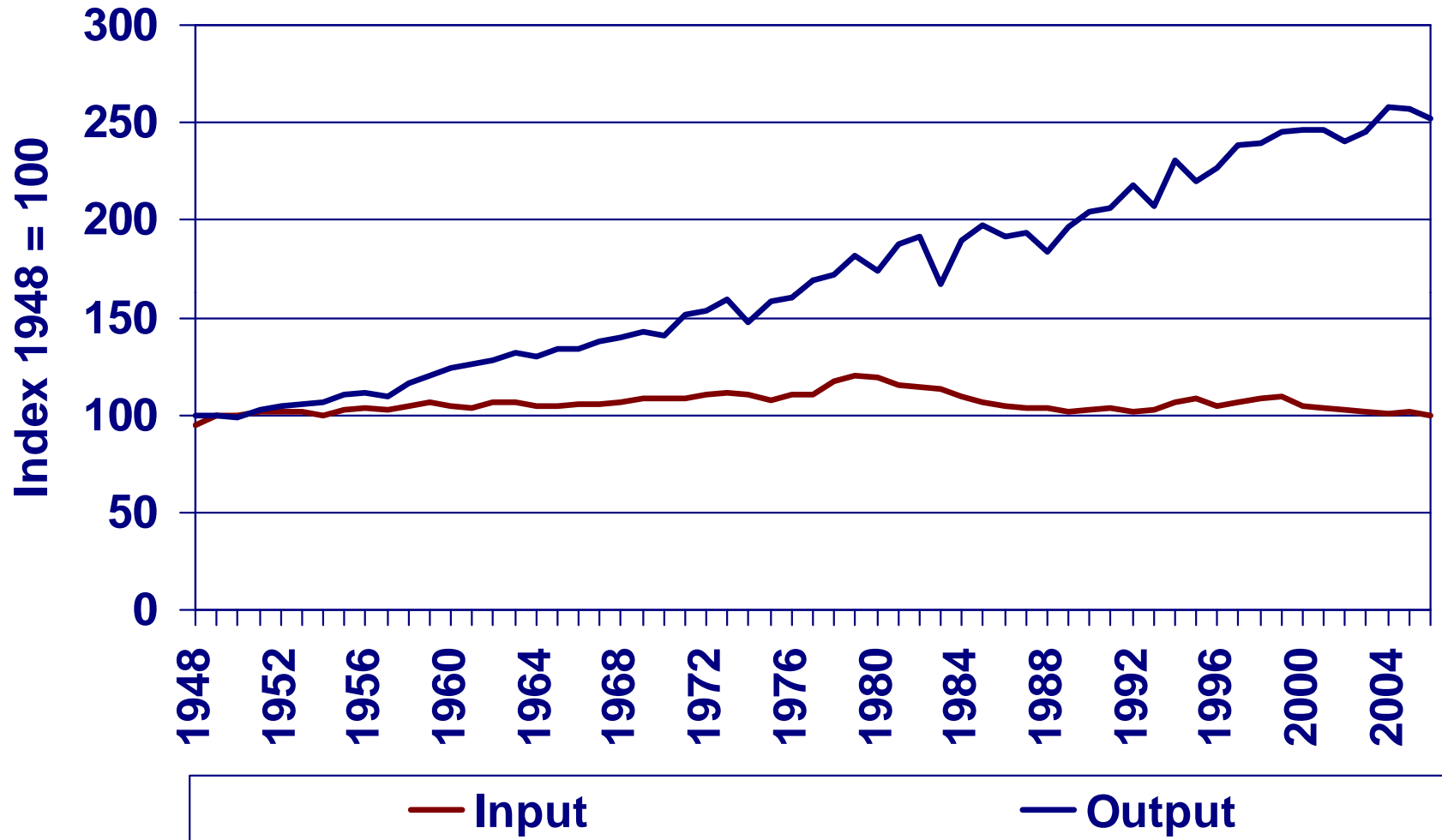
10 Year Average Return on Assets by Industry, 1997-2006



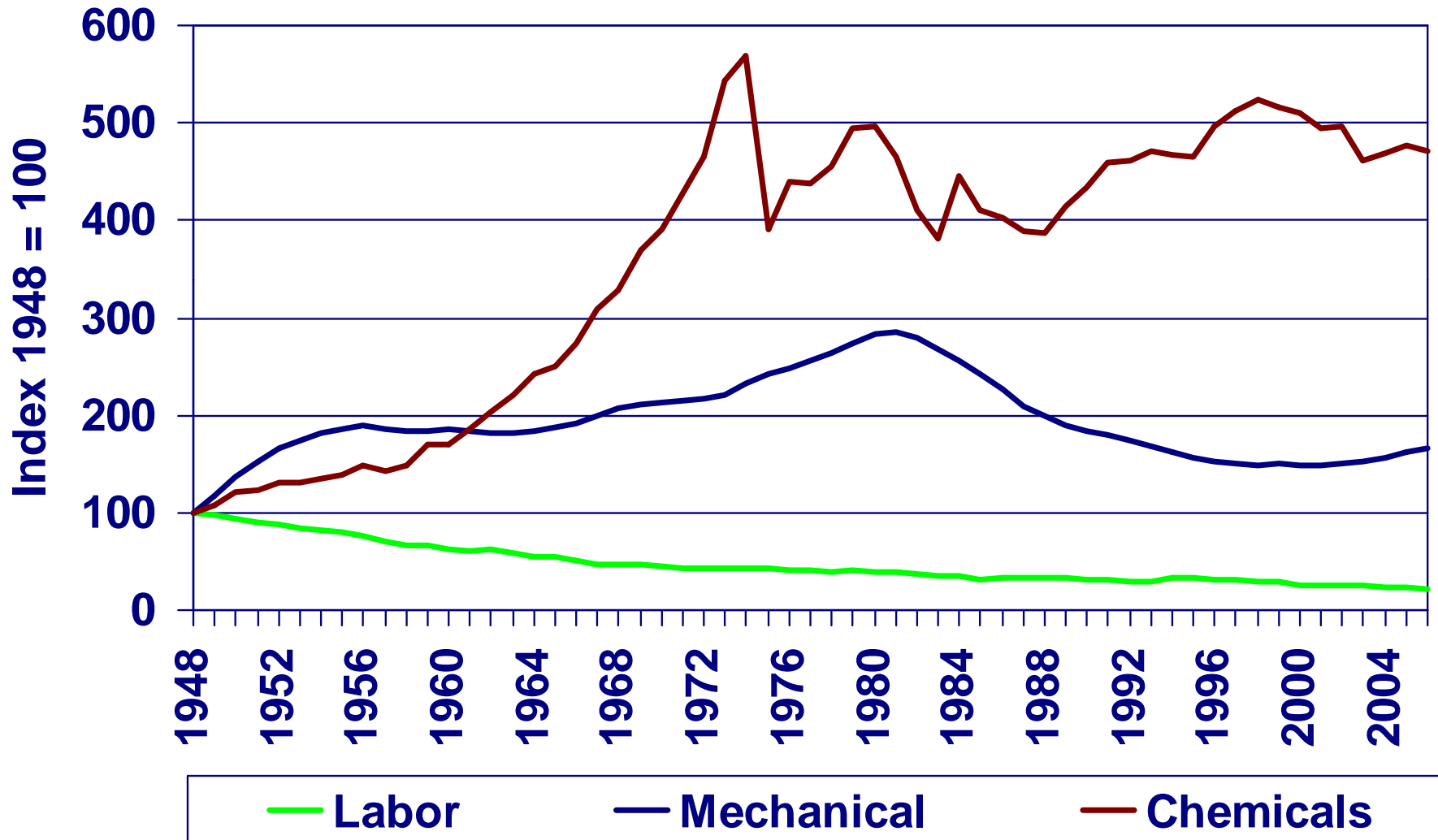
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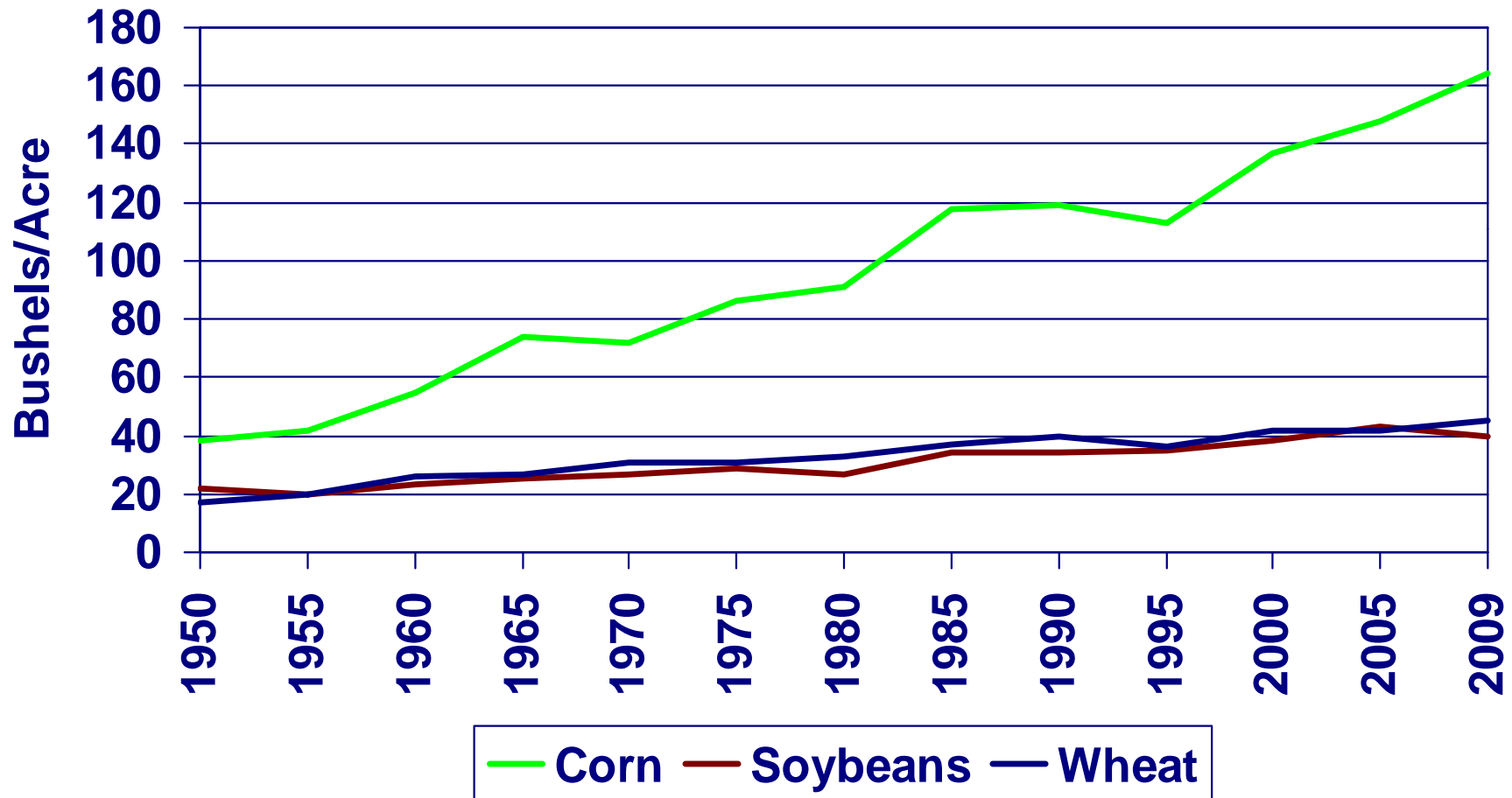
U.S. Farm Productivity



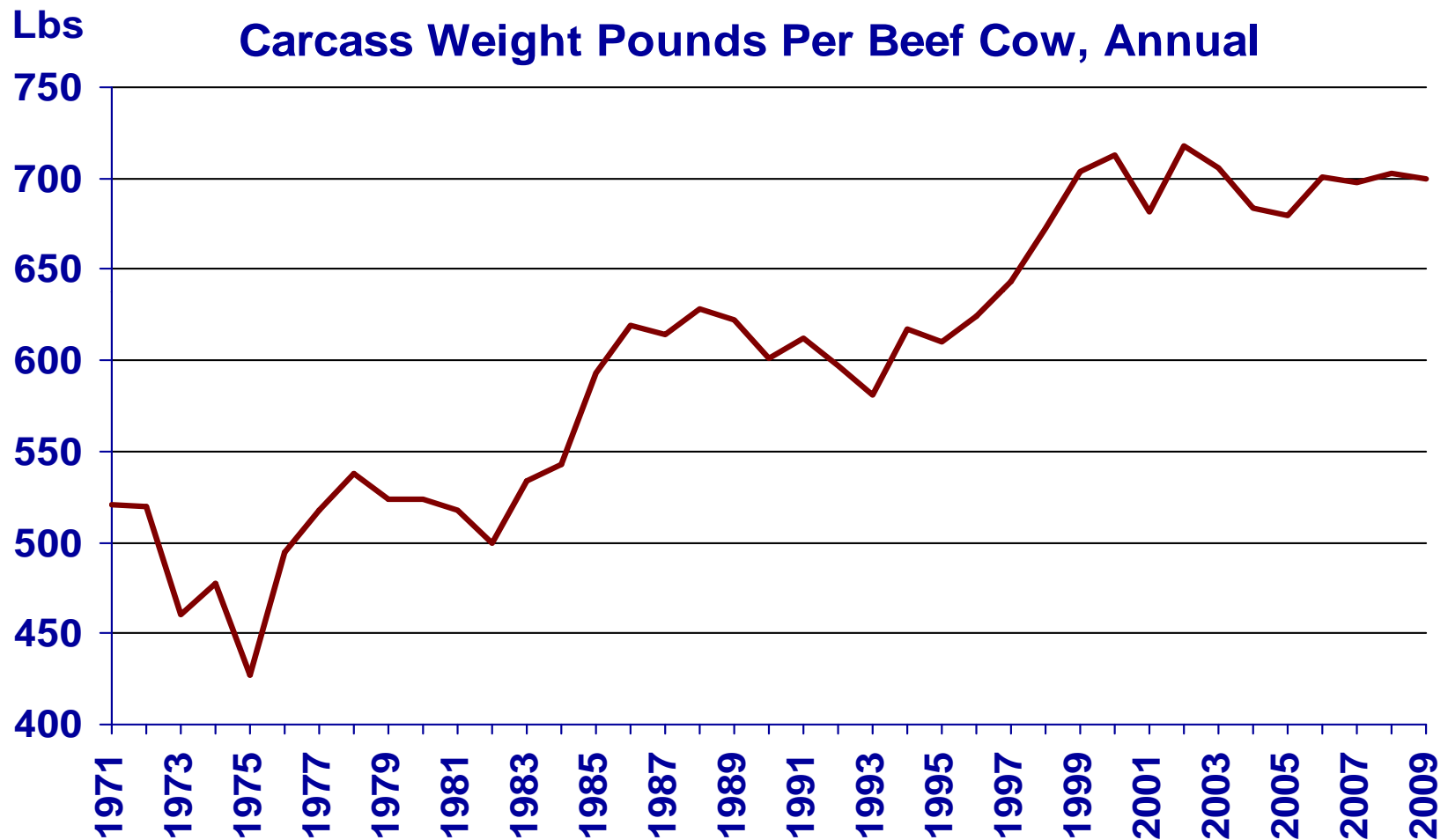
Farm Input Usage



U.S. Crop Yields



Productivity of U.S. Beef Cow Breeding Herd

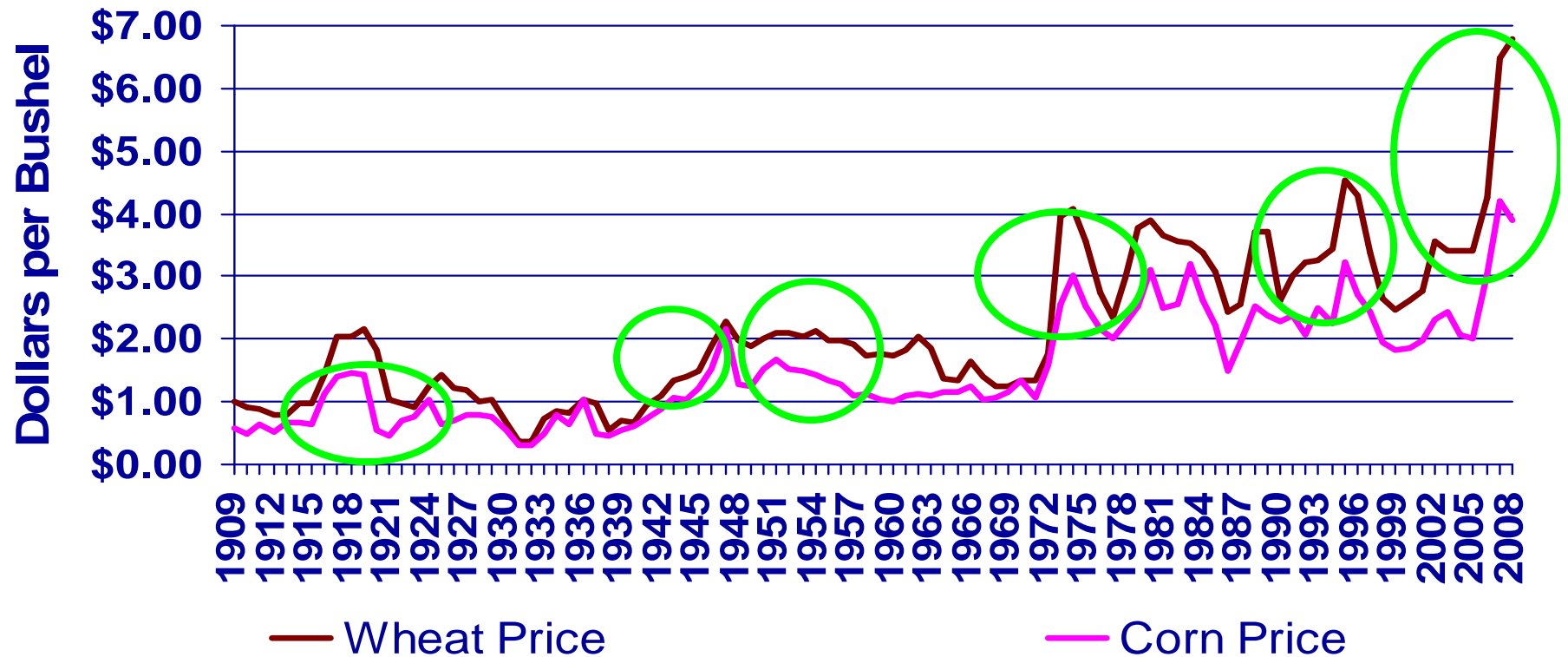


Source: Livestock Marketing Information Center & MSU Agricultural Marketing Policy Center

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Corn And Wheat Prices 1909-2008



Variability Of Prices

1. **Not A Function Of Mega Political Times (Other Than WWII)**
 - a. **Economics Provides The Fundamental Explanation For Periods Of Above/Below Average Prices**

2. **Relatively Inelastic Demand For Food And Agricultural Commodities**
 - a. **Small Changes In World Production Triggers Large Changes In Price**
 - b. **Provides Appropriate Market Signals Regarding Production**

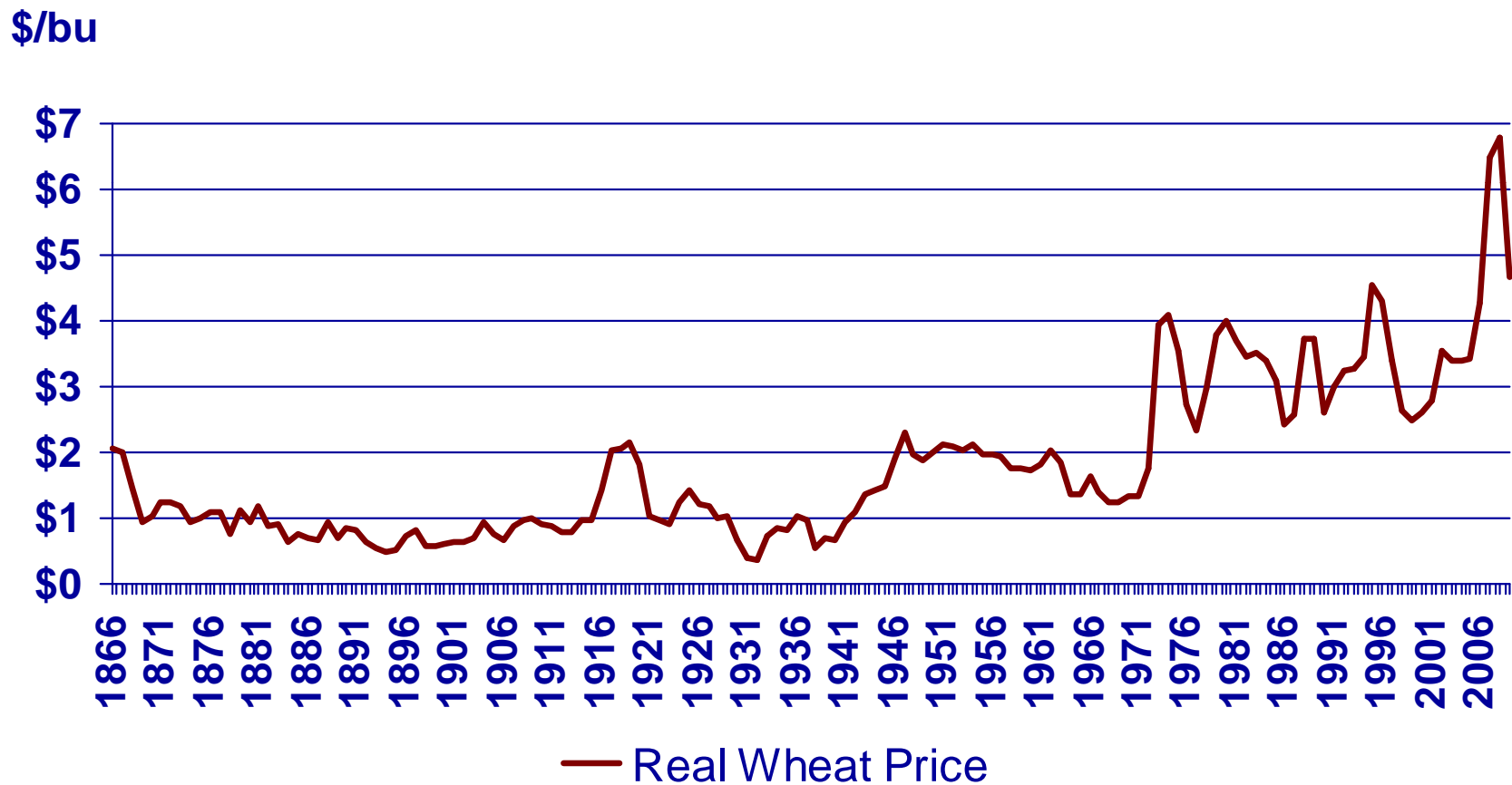
Long Run Price Expectations

1. **Over The Long Run, Commodity Prices Will Gravitate Towards The Average Cost Of Production**
 - a. **Caused By Entry/Exit Of Commodity Producers**
 - b. **High Prices Invite Entry**
 - c. **Low Price Encourage Exit**
 - d. **The Industry Will Experience “Normal” Returns In The Long Run**

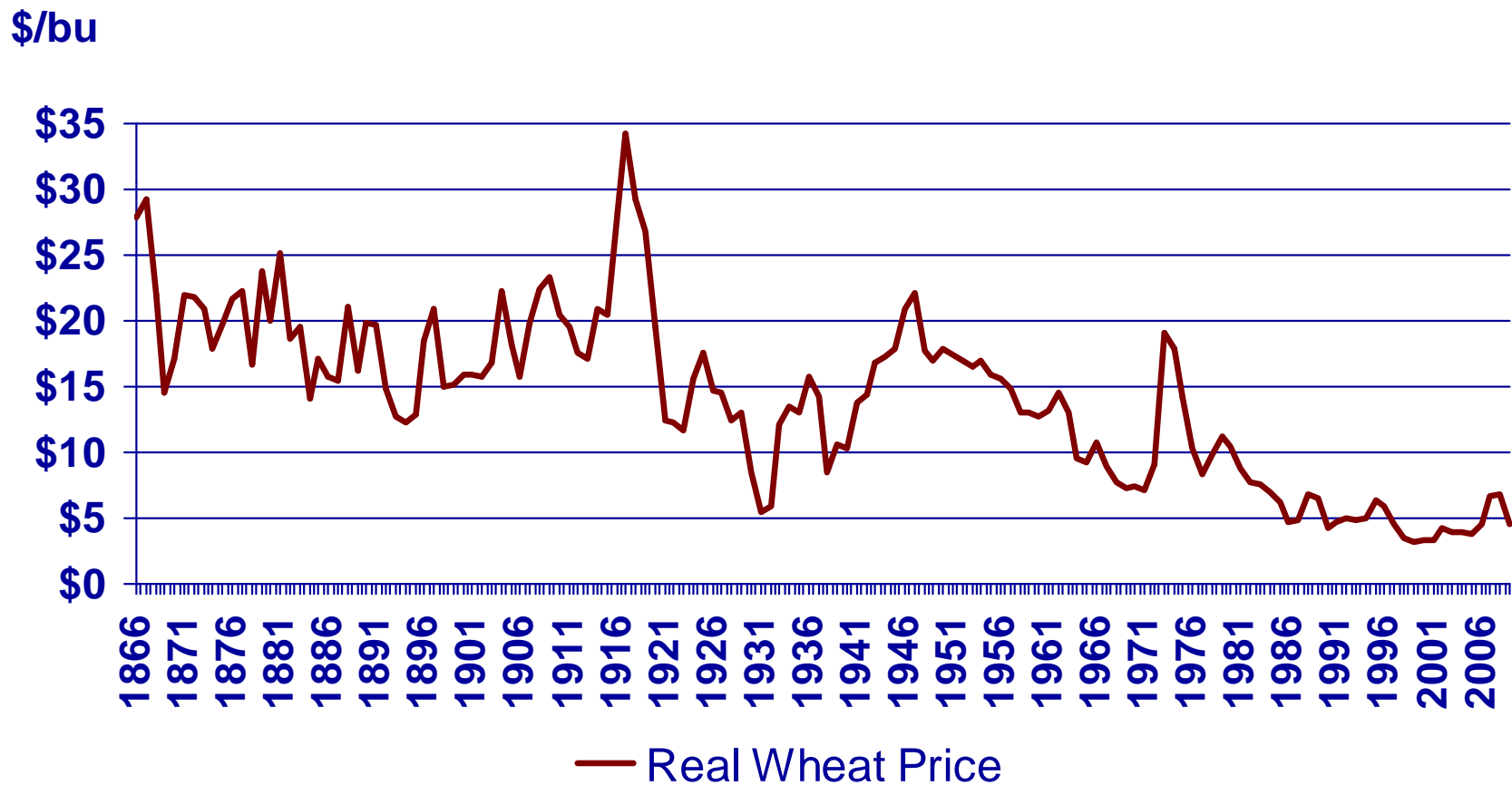
Long Run Price Expectations

2. **Over The Long Run, Real Commodity Prices Will Decline**
 - a. **Commodity Products Are By Definition Undifferentiated**
 - b. **The Only Competitive Strategy Is To Adopt Better Technology**
 - c. **Lowers Production Costs Per Unit**
 - d. **Prices Gravitate Towards Those Lower Unit Costs And Generate Average Returns**
 - e. **Good For Consumers**

U.S. Wheat Price, 1866-2009

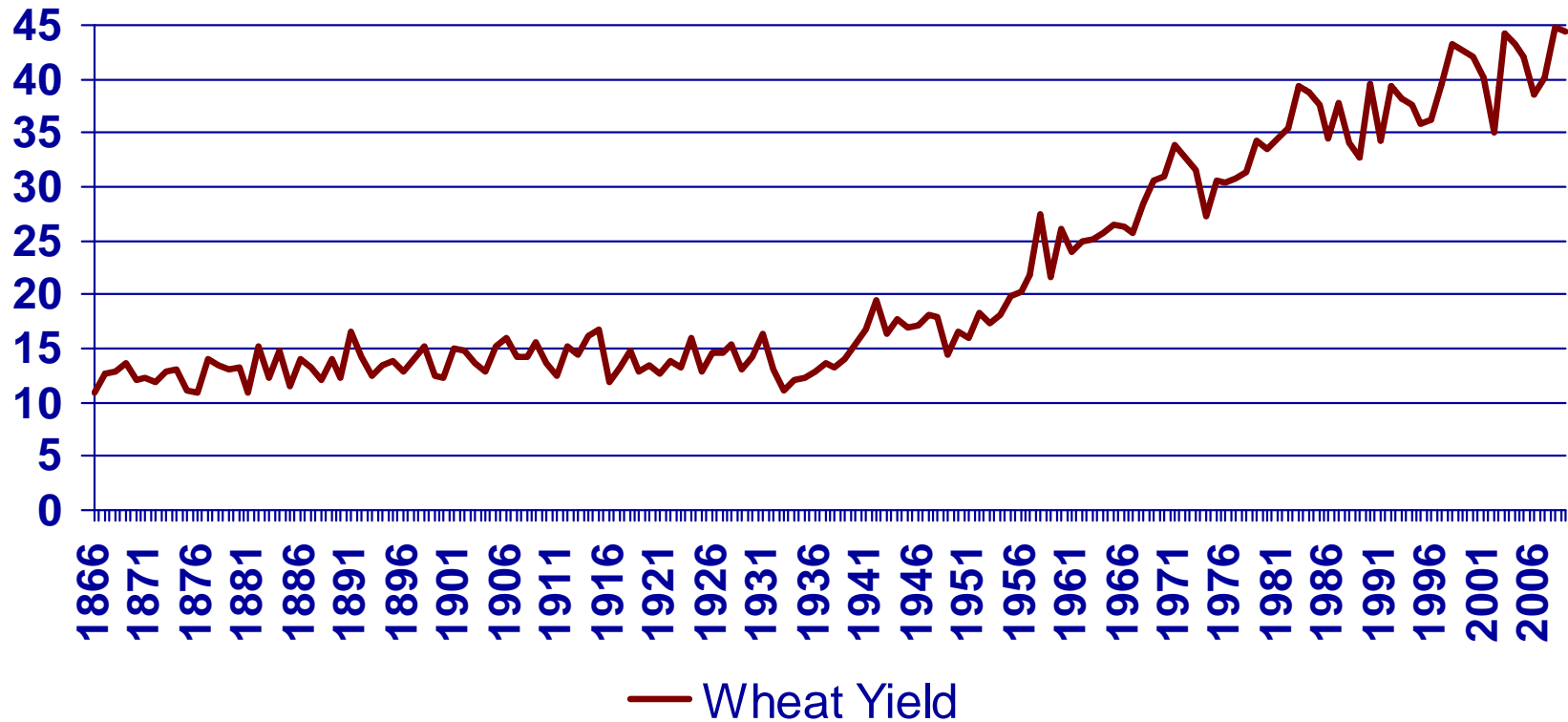


Real U.S. Wheat Price, 1866-2009



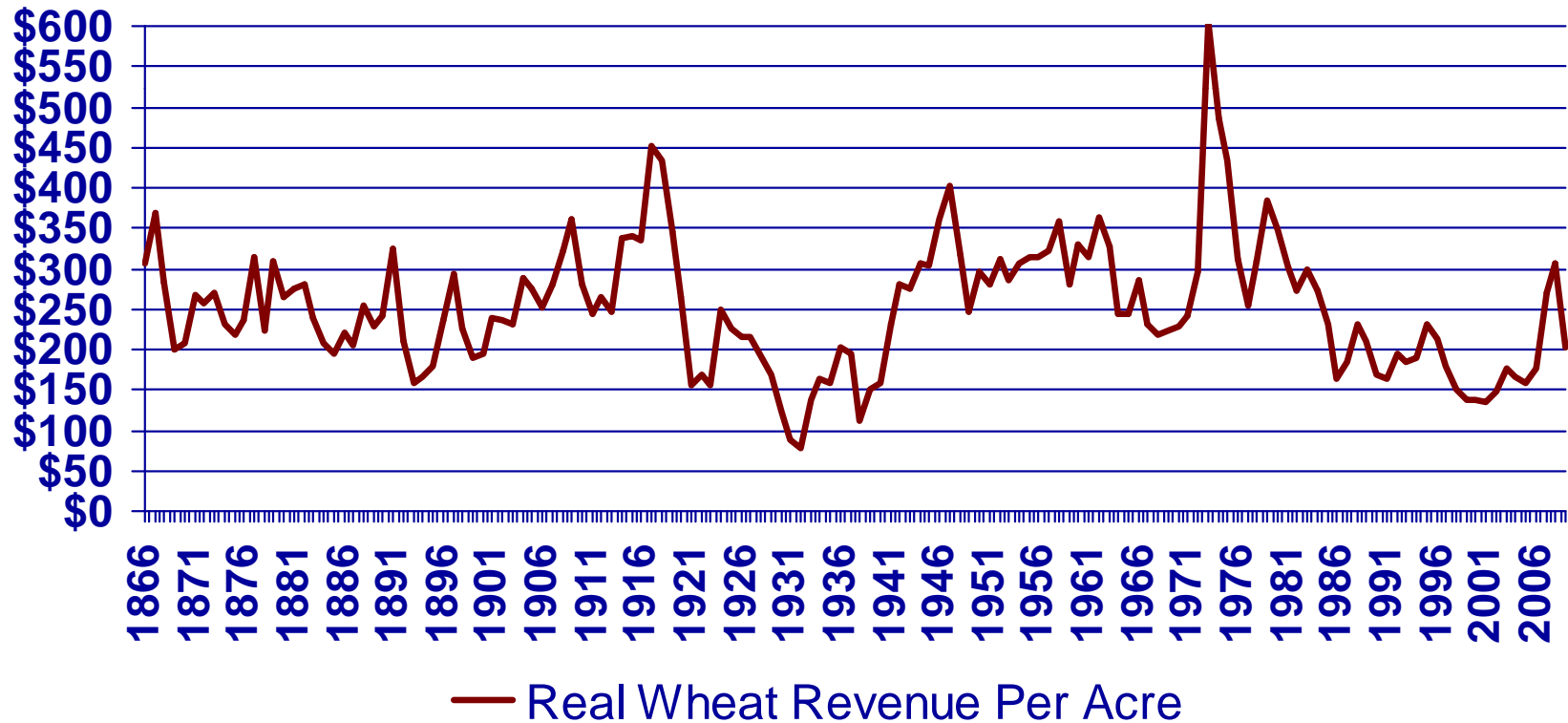
Wheat Yield, 1866-2009

bu/ac



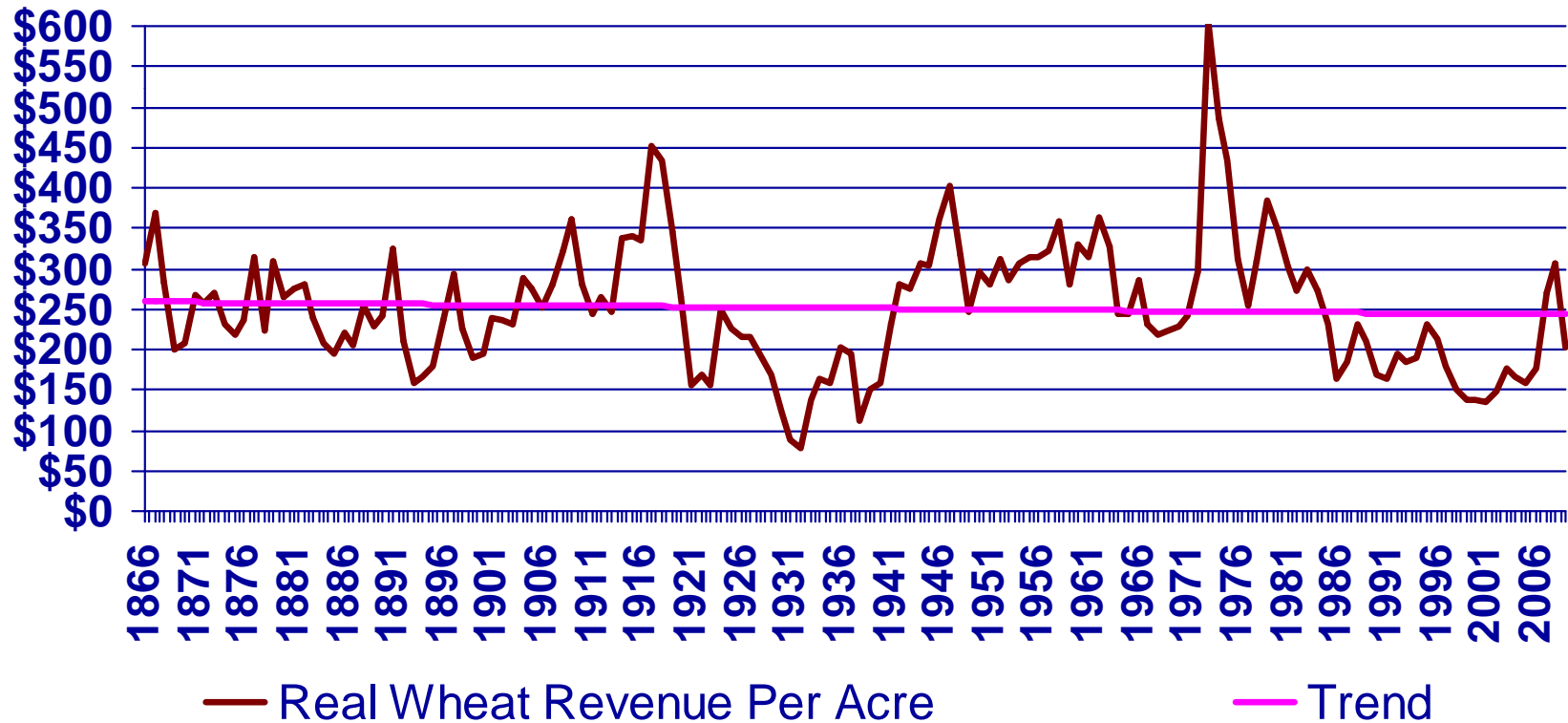
Real Wheat Revenue Per Acre 1866-2009

\$/acre



Real Wheat Revenue Per Acre 1866-2009

\$/acre



Management Implications

1. **Agricultural Producers Operate In One Of The Most Competitive Sectors**
 - a. **This Is Why Agribusiness Are Not Generally Interested In Being Agricultural Commodity Producers**
 - b. **For A Producer To Earn Above Average Returns, They Must Be Low Cost Operations**
2. **Huge Role For Price Risk Management**
 - a. **When One Experiences Record Prices, TAKE THEM!**

Management Implications

3. **This Provides Some Context For The Current Situation**
 - a. **Commodity Market Prices Are Certainly Depressed Below Recent Record Levels**
 - b. **But, They Are Above Long Run Average Prices**
4. **Have Long Run Unit Costs Increased?**

Management Implications

5. **The Use Of “Trends” For Evaluating Land Purchases**
 - a. **Most Repayment Capacity Problems Stem From Purchasing Assets At High Prices Based On Expectations Of Continued Record Commodity Prices**
 - b. **The Trend We Need To Consider Is That Based On The Economics That I Have Presented Here**

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Strategic Business Management

1. **In Competitive Markets, Entry and Exit of Firms**
 - a. **Causes Industries to Earn Normal Returns**

2. **However, Within Industries**
 - a. **Some Firms Earn Below-Average Returns**
 - b. **Some Firms Earn Above-Average Returns**

Strategic Business Management

- 1. What Determines The Difference?**
 - a. Luck**
 - b. Capitalization/Innovation**
 - c. Management Expertise (Risk)**
 - d. Selected Management Strategy**

- 2. Strategic Business Management Is Used to Generate A Competitive Advantage**
 - a. Generate Above-Average Returns**

Strategic Business Management

1. All Successful Firms Must Face A Decision Regarding Strategic Directions

2. Three Strategies That Can Lead to a Competitive Advantage
 - a. Low-Cost Producer Strategy
 - b. Differentiated Product Strategy
 - c. Focus Strategy

Strategic Business Management

Low-Cost Producer Strategy

1. Requires That a Firm Be THE Lowest Cost Producer (Commodity Beef)
 - a. Adoption of Technology
 - b. Increase Productivity
 - c. Reduce Costs
 - d. Typically Employed By Agricultural Producers
 - e. The Reason Why Inflation-Adjusted Commodity Prices Continue to Decline

Strategic Business Management

Differentiation Strategy

- 1. Produce a Truly Different Product**
 - a. Quality (Certified Angus Beef)**
 - b. Convenience**
 - c. Consistency**
 - d. Service**
 - e. Not Typically Used by Agricultural Producers**

- 2. Differentiation is Costly and Risky**

Strategic Business Management

Focus Strategy

1. **Concentrating on a Specific (Niche) Market**
 - a. **Provider of Specialty Products to a Market Segment**
 - b. **Laura's Lean Beef**
2. **Increased Dependence Generates Increased Risk**
 - a. **Single-Source Suppliers**
 - b. **Single-Source Buyers**

Strategic Business Management

BEST Strategy?

- 1. Depends**
 - a. Type of Industry**
 - b. “Life Cycle” of the Industry**
 - c. Number of Market Participants**
 - d. Number of Competitors**
 - e. Size of Industry**
 - f. Ability to Handle Risk**
 - g. Skill Set**

Strategic Business Management

WORST Strategy?

1. Anything “In The Middle”
2. Can’t Out-Compete Anyone



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Grab Your Shades!



Why The “Bright” Future?

1. **By Bright, I Refer To The Continued Receipt Of Normal Profits On Average Over The Long Run**
2. **Public And Private Research Efforts Improve Productivity**
3. **U.S. Has Tremendous Institutional Strength**
 - a. **Strong Property Rights**
 - b. **Stable Political Environment**

Why The “Bright” Future?

4. **U.S. Has A Fantastic Infrastructure**
 - a. **Transportation And Processing**
 - b. **Financial Institutions**
 - c. **Risk Management Opportunities**
 - d. **Research And Education**
5. **Not By Accident**
 - a. **But, Firms Must Be Able To Keep Profits To Compensate For Risk Taking**

Who Has The “Bright” Future?

1. **Above Average Profits Depend Upon The Development Of A Strategic Advantage**
2. **Commodity Producers Need To Generate Low-Cost Advantages**
 - a. **Size**
 - b. **Technology**
 - c. **Efficiency**
3. **Differentiated/Focus Producers Need To Be Excellent Entrepreneurs**

Montana State University

