

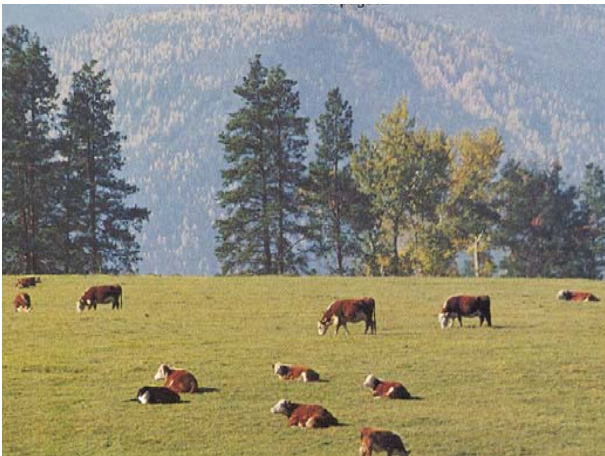
# A Dim Or Bright Future For U.S. Agriculture?

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**Gary Brestler**

**MSU Department of Agricultural Economics and Economics**

***Ag In Uncertain Times***



**November 4, 2009**



# OUTLINE

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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**

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- 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!**

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**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

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

# Four Drivers Of Change

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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

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## 3. Trade/Government Involvement

### a. Protectionism Is Expensive

- New Zealand
- EU
- Canada
- United States

### b. Increased Competitiveness

- Information Technology
- Transportation Technology<sub>7</sub>

# Four Drivers Of Change

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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

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## 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

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## 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

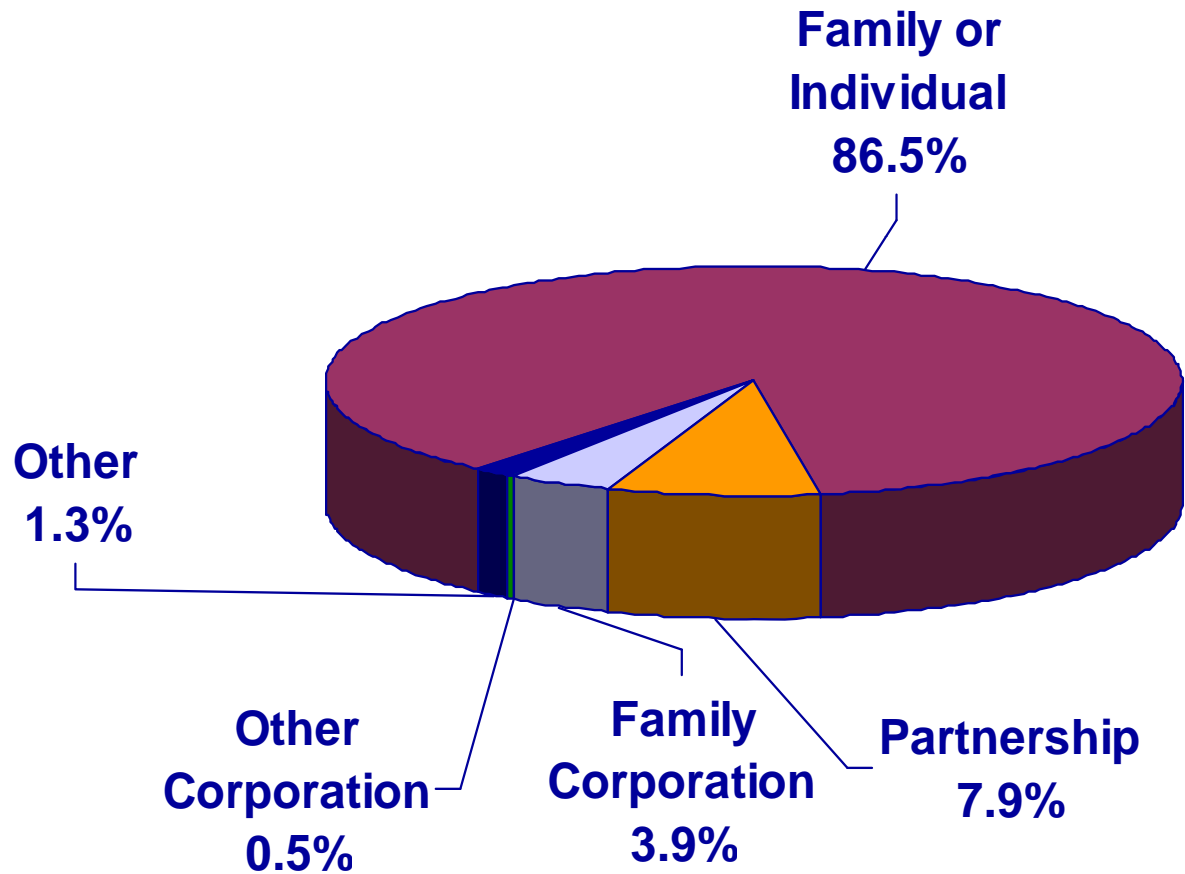
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## Food Systems Of The Future

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

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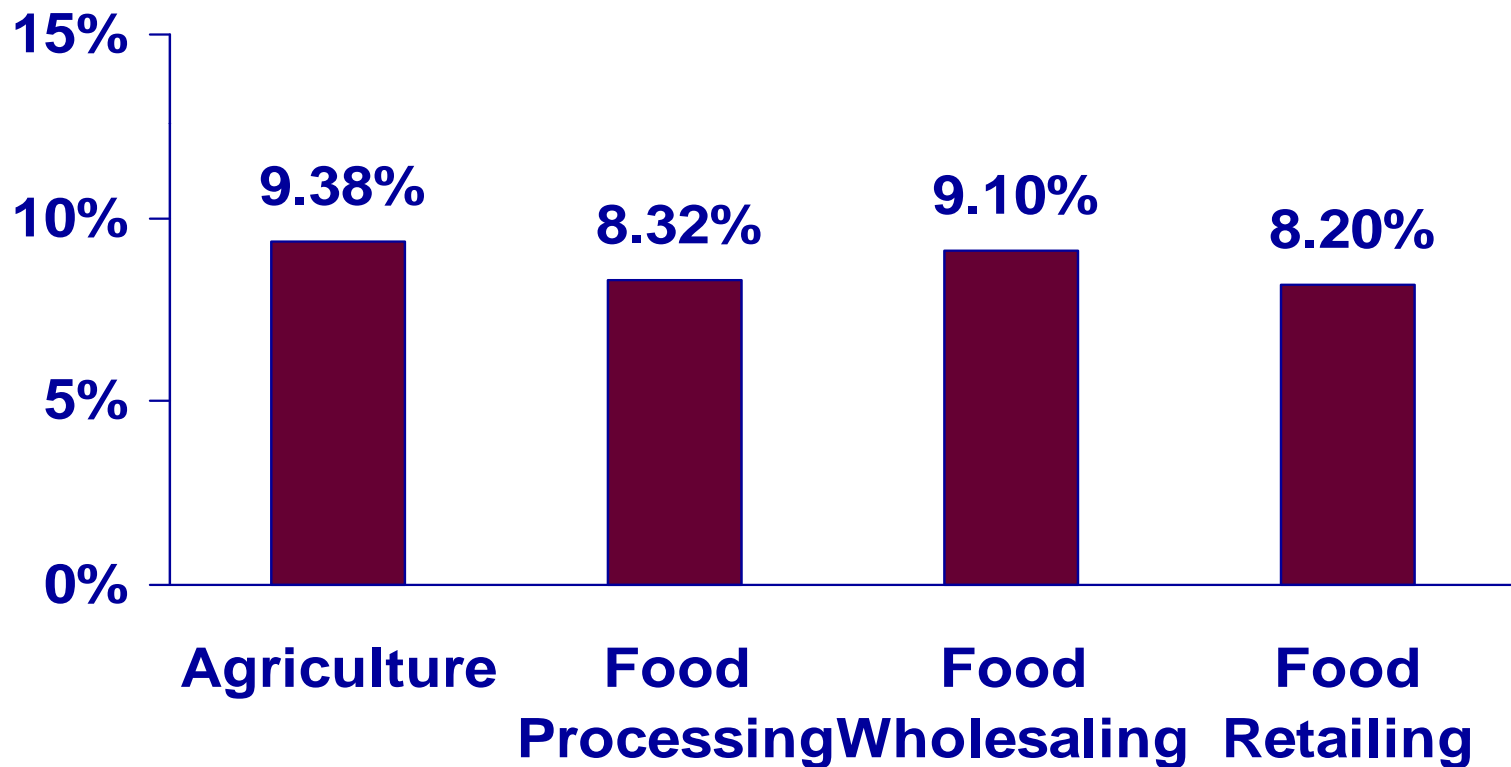


Source: NASS

# Production Agriculture And Agribusiness Returns

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

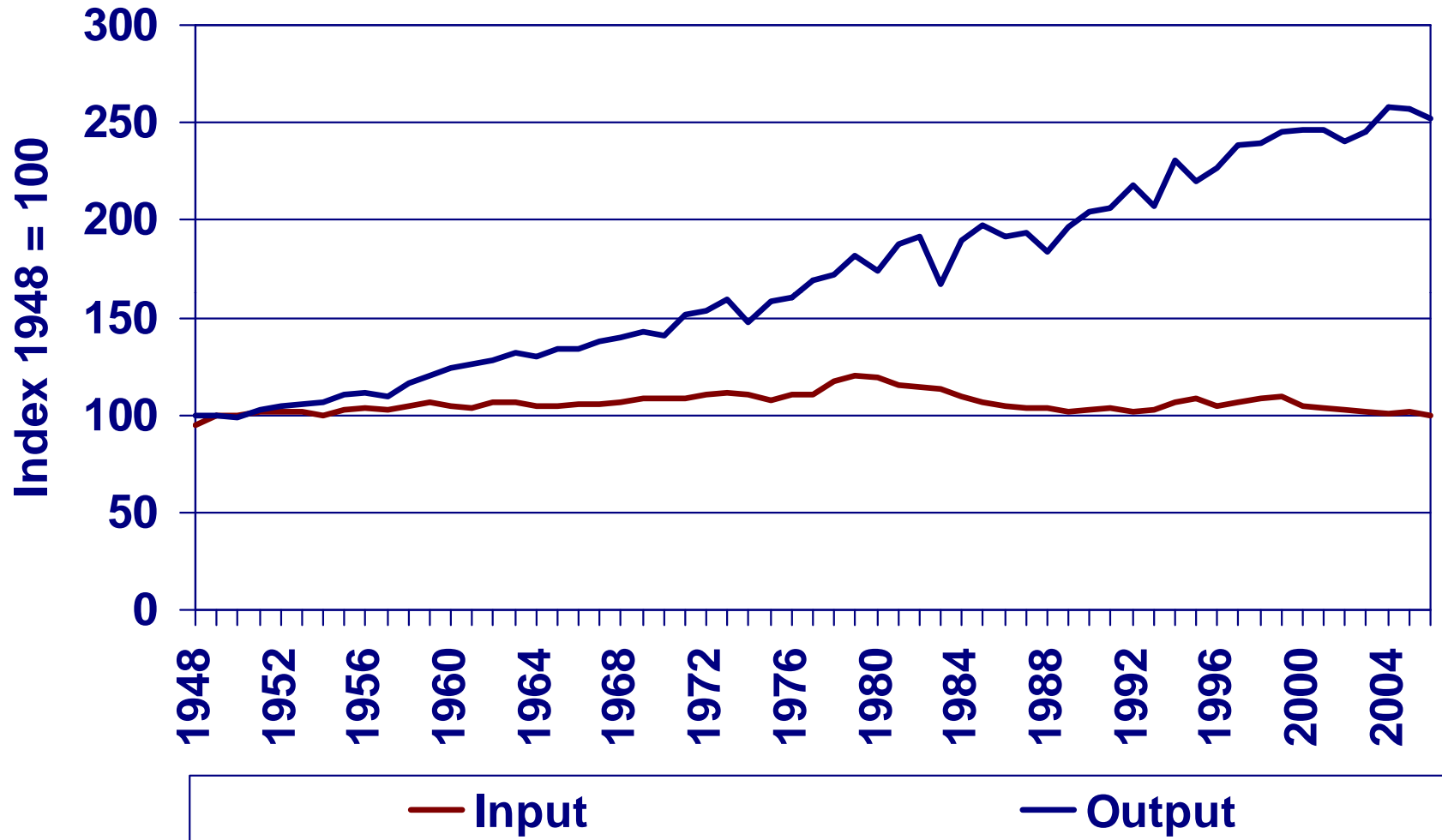


# OUTLINE

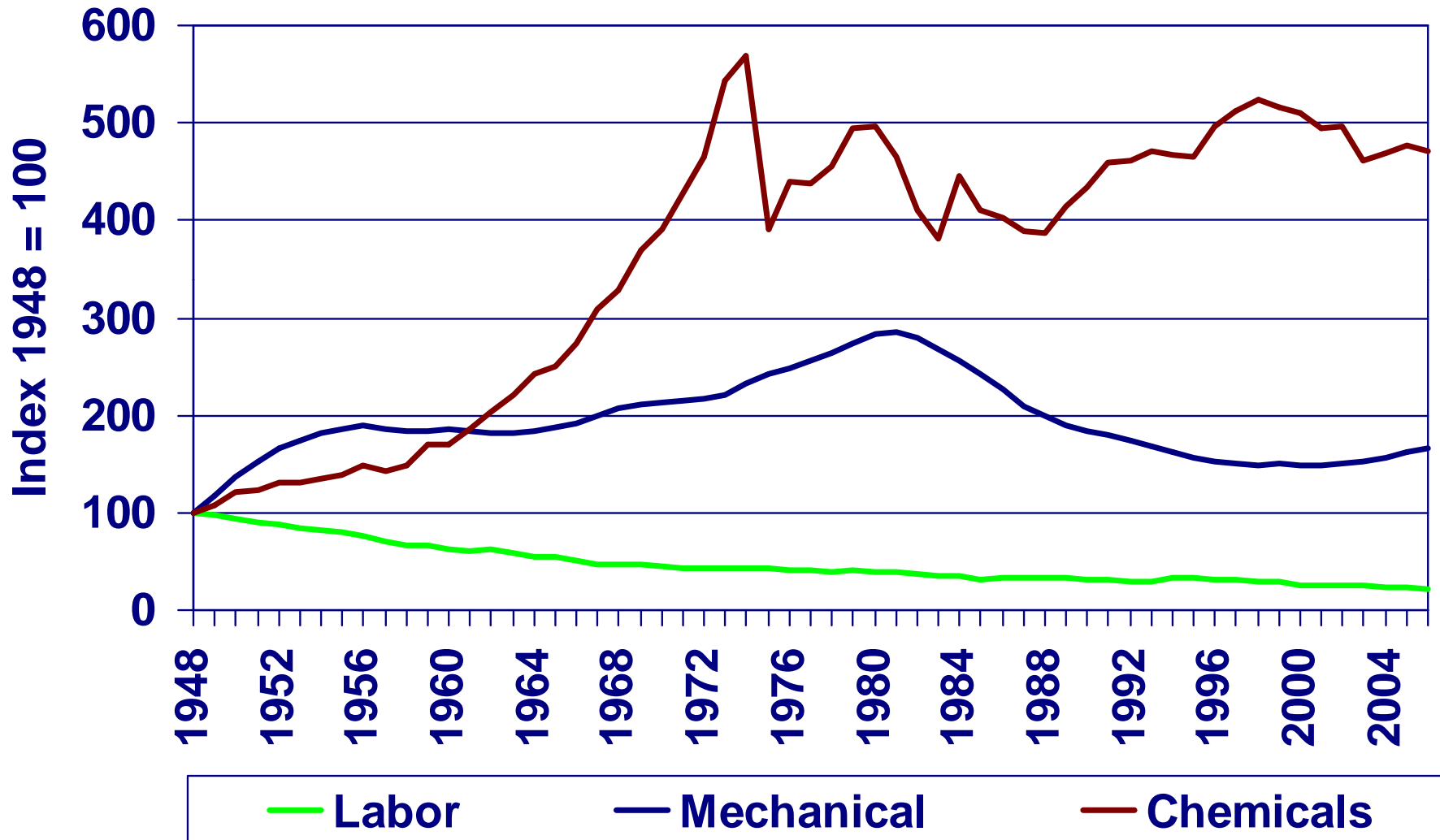
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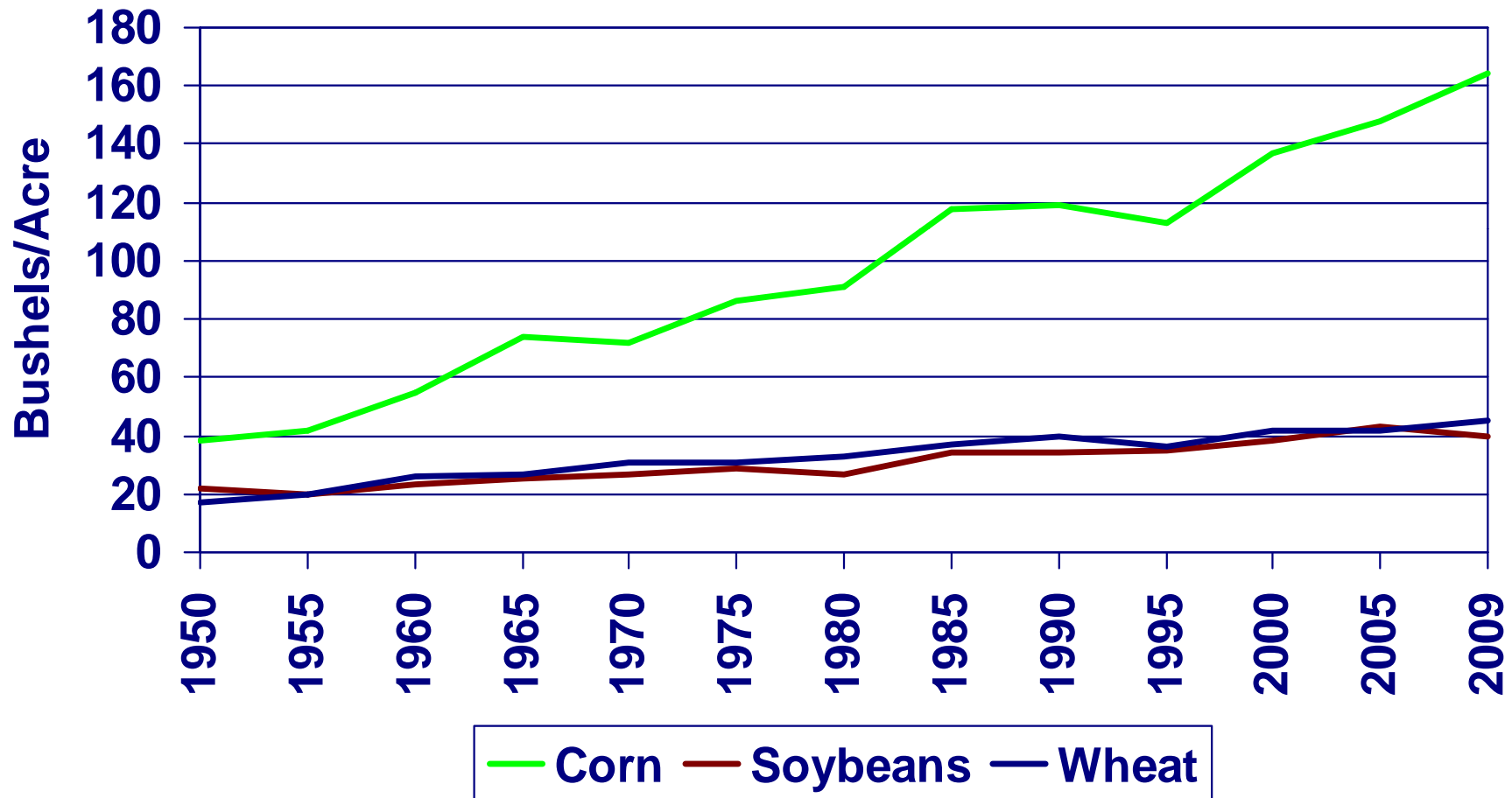
# U.S. Farm Productivity



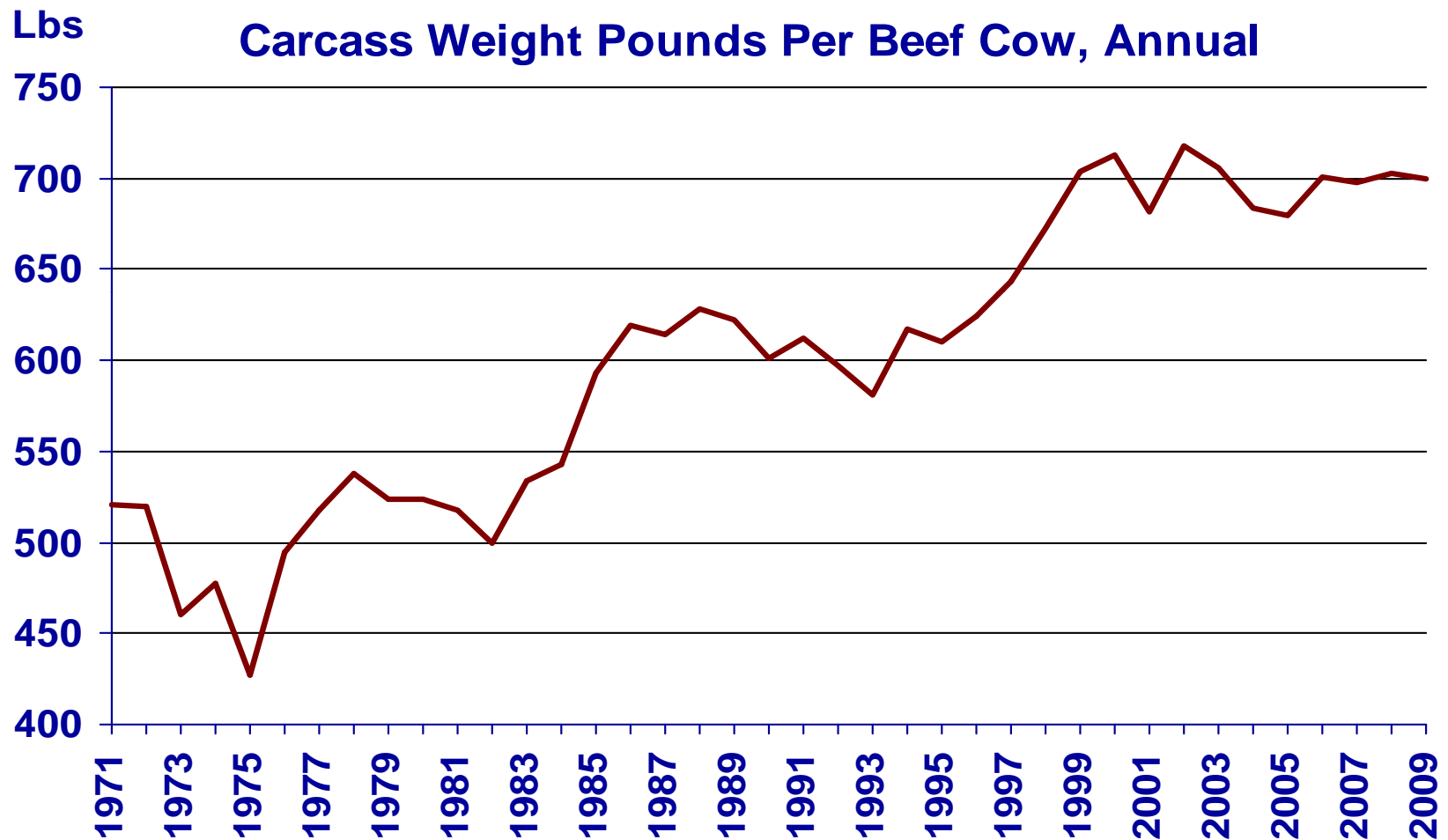
# Farm Input Usage



# U.S. Crop Yields



# Productivity of U.S. Beef Cow Breeding Herd



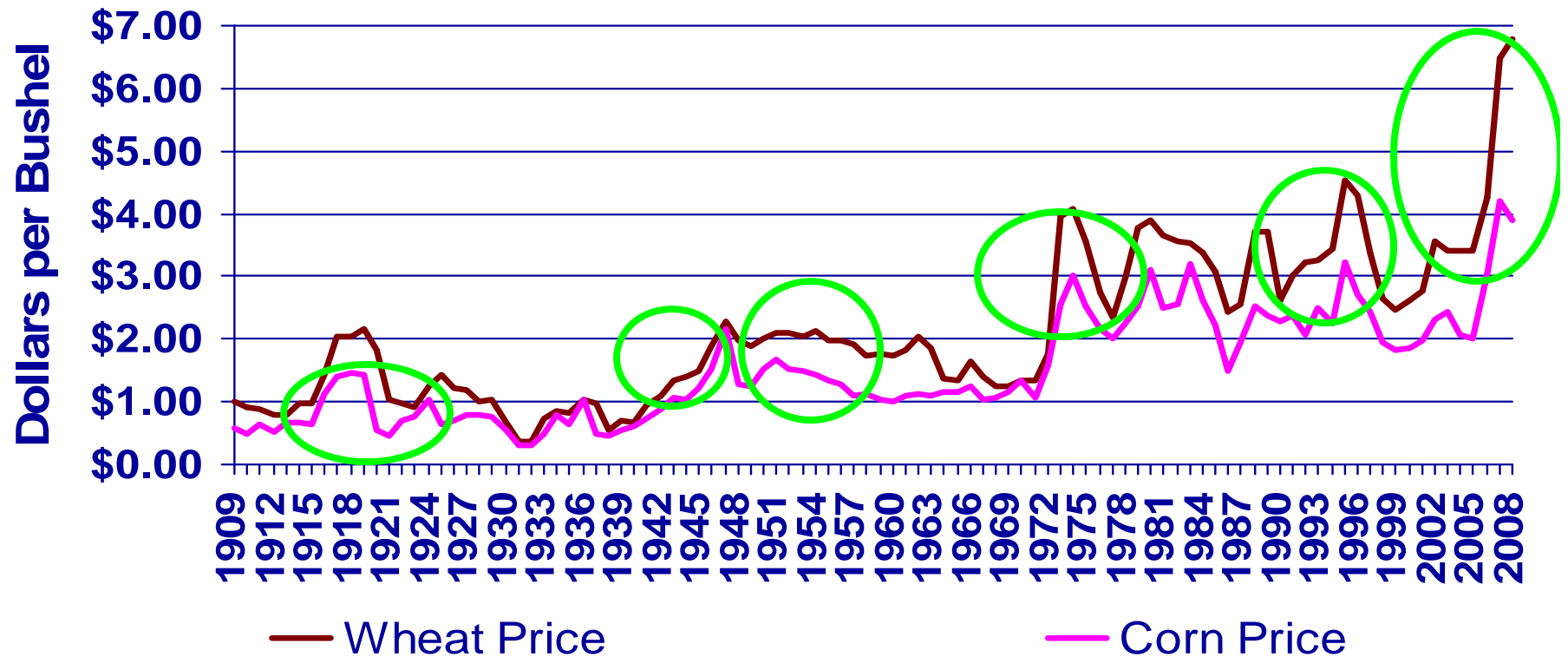
Source: Livestock Marketing Information Center & MSU Agricultural Marketing Policy Center

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# Corn And Wheat Prices 1909-2008



# Variability Of Prices

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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

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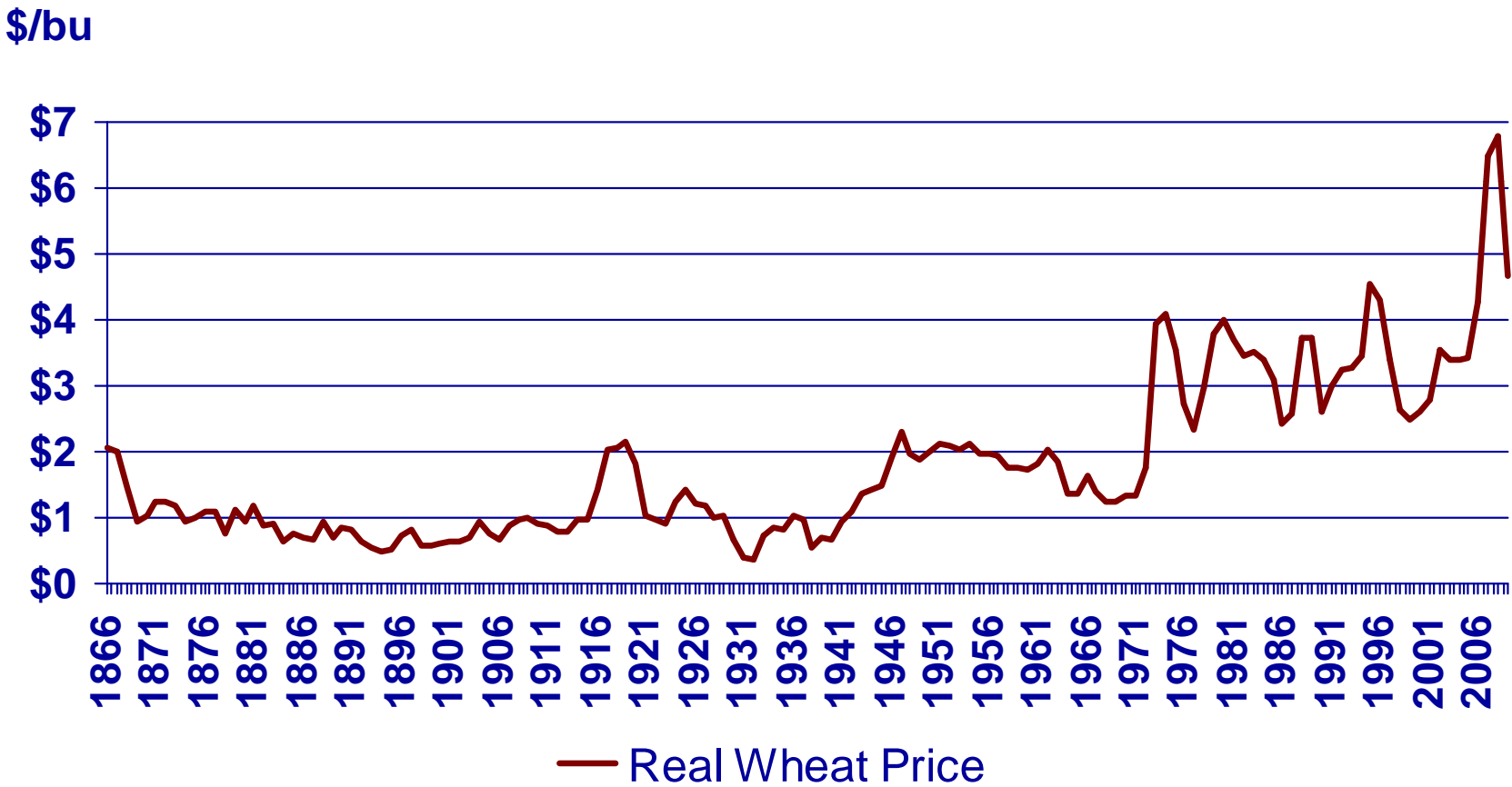
1. **Over The Long Run, Commodity Prices Will Gravitate Towards The Average Cost Of Production**
  - a. **Caused By Entry/Exit Of Commodity Producers**
  - b. **High Prices Invite Entry**
  - c. **Low Price Encourage Exit**
  - d. **The Industry Will Experience “Normal” Returns In The Long Run**

# Long Run Price Expectations

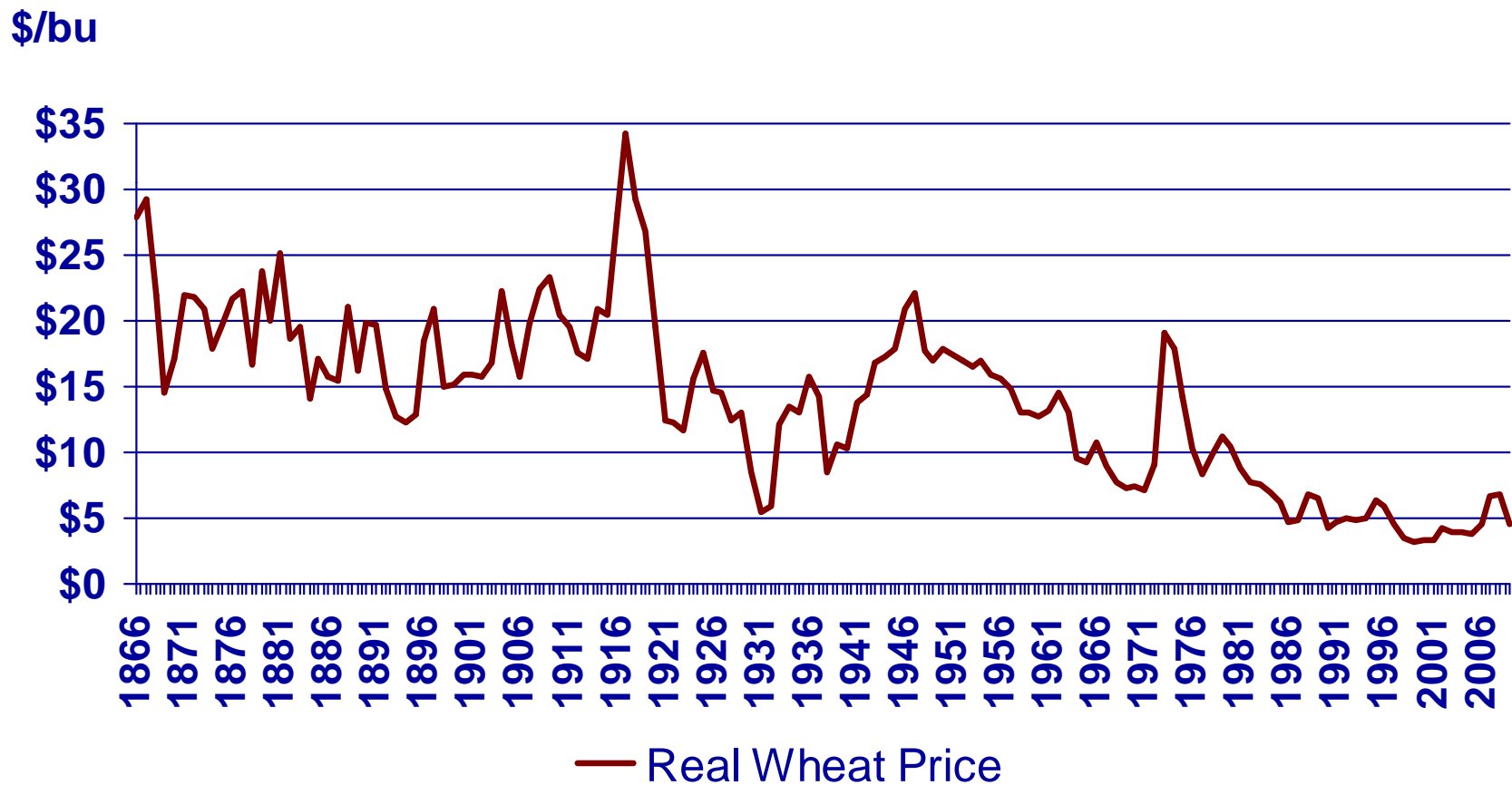
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2. **Over The Long Run, Real Commodity Prices Will Decline**
  - a. **Commodity Products Are By Definition Undifferentiated**
  - b. **The Only Competitive Strategy Is To Adopt Better Technology**
  - c. **Lowers Production Costs Per Unit**
  - d.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

# U.S. Wheat Price, 1866-2009

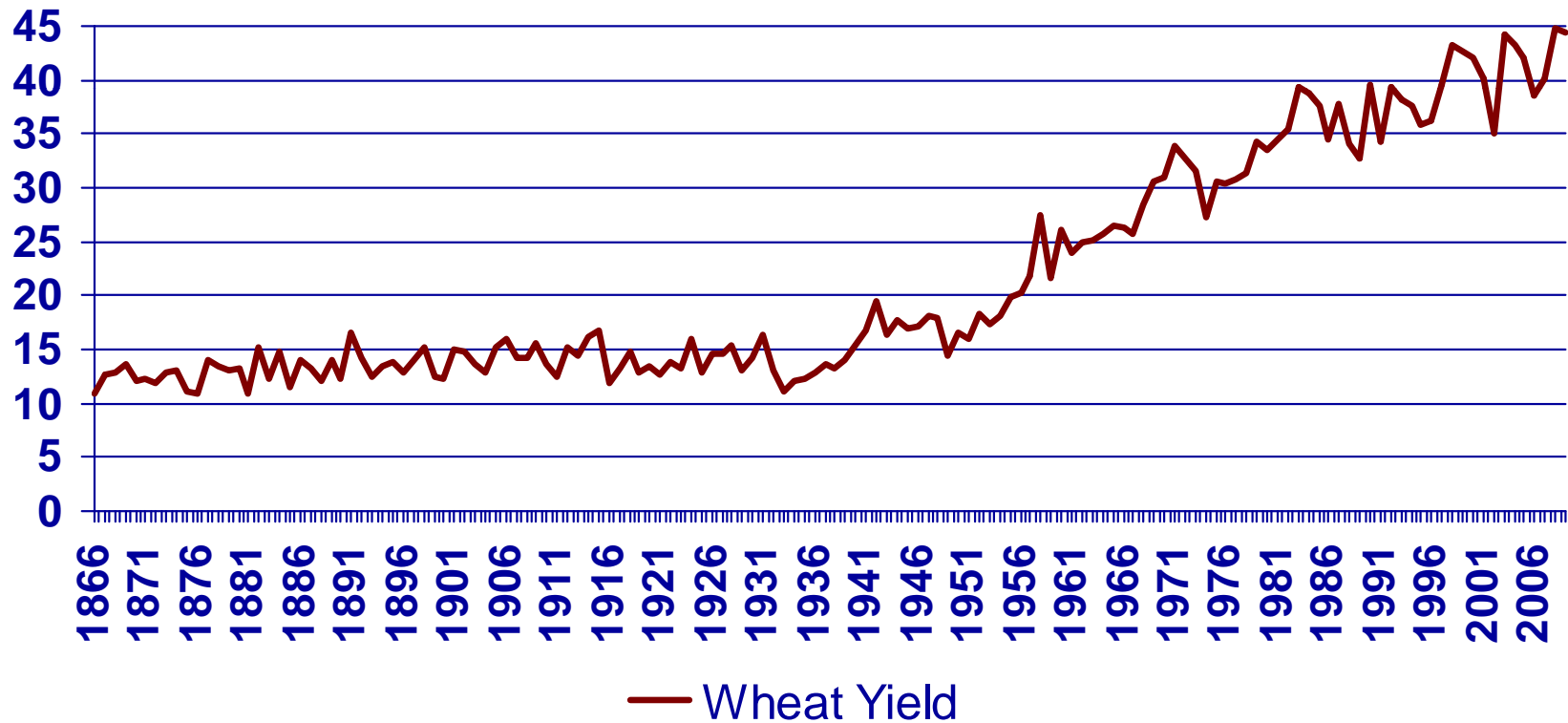


# Real U.S. Wheat Price, 1866-2009



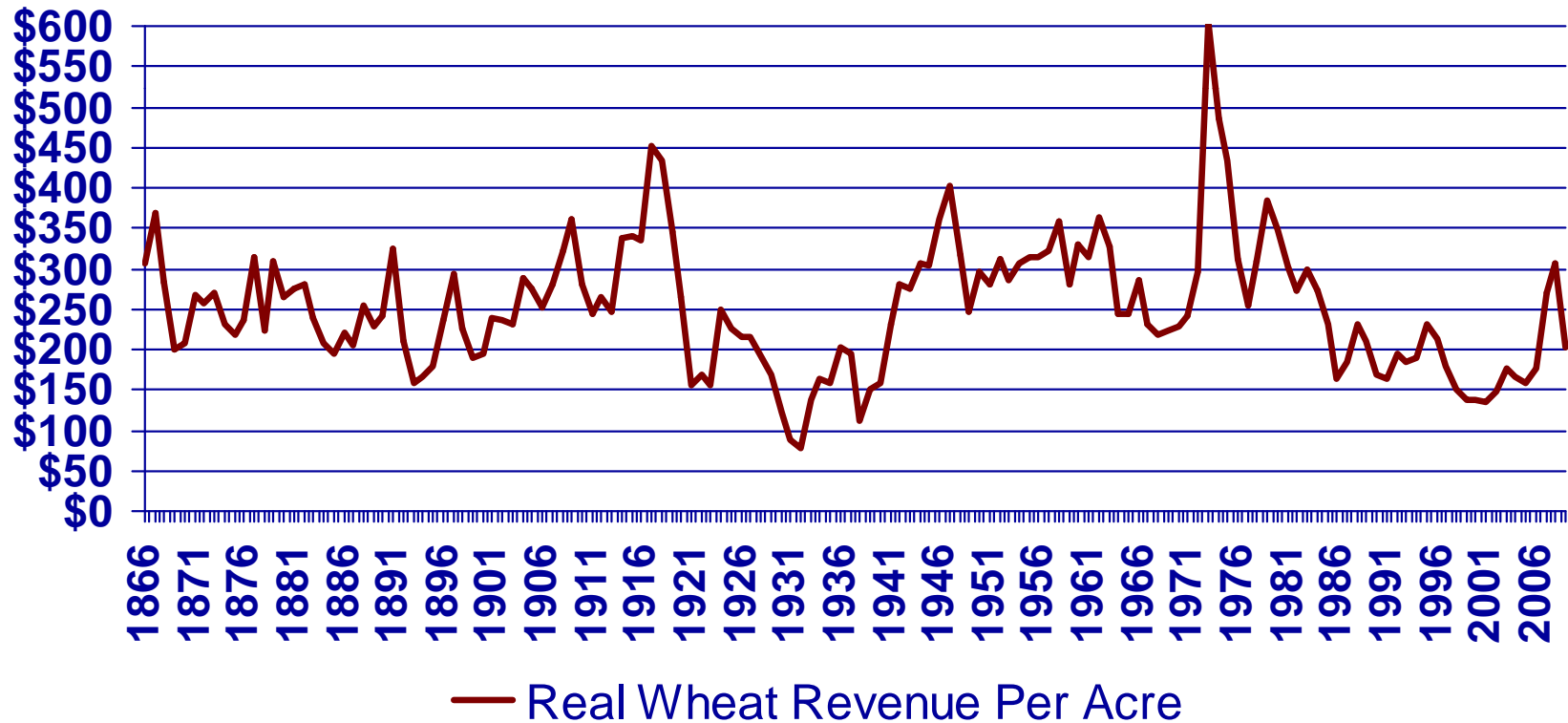
# Wheat Yield, 1866-2009

bu/ac



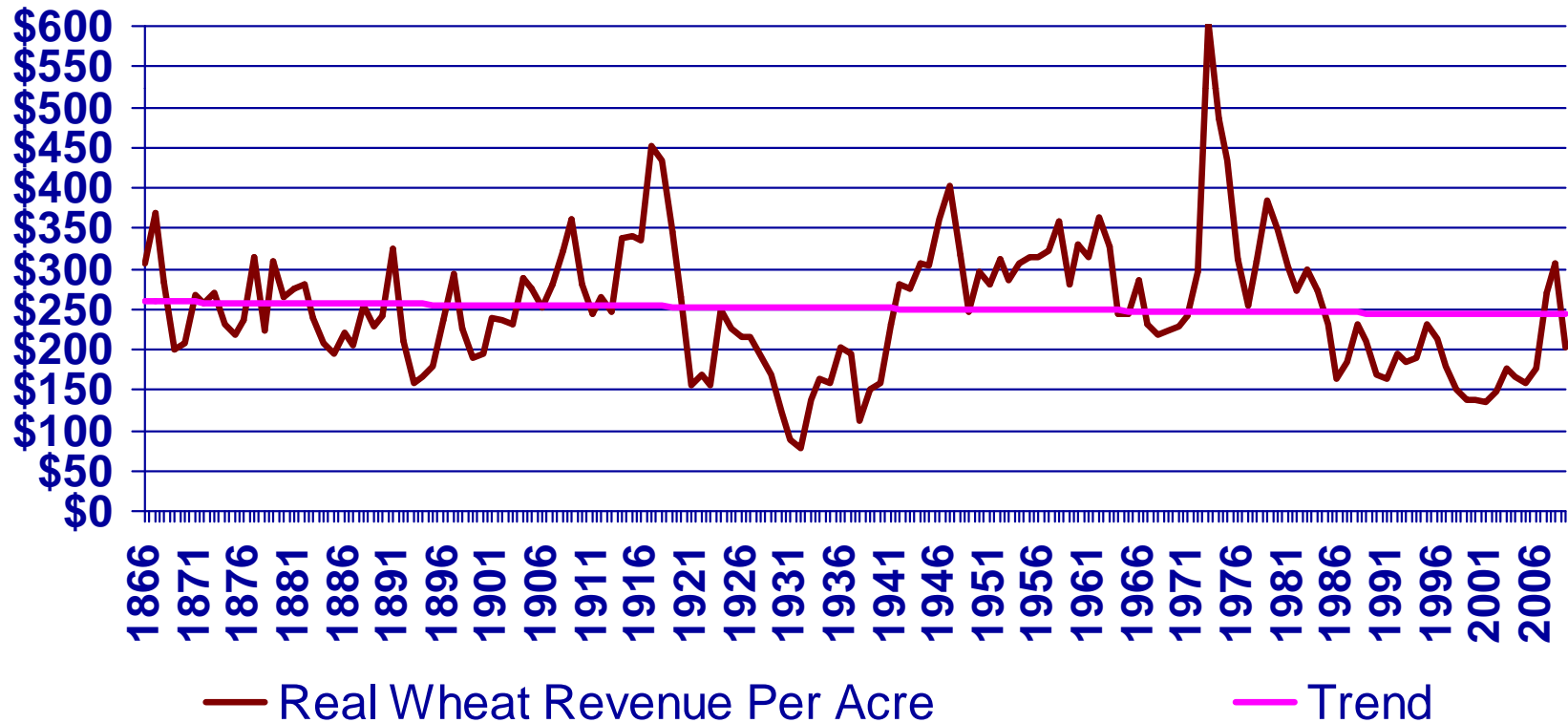
# Real Wheat Revenue Per Acre 1866-2009

\$/acre



# Real Wheat Revenue Per Acre 1866-2009

\$/acre



# Management Implications

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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

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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

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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**

# OUTLINE

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# Strategic Business Management

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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**

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- 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

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## 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**

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## **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

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## 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**

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## **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

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## WORST Strategy?

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



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

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## **Grab Your Shades!**



# Why The “Bright” Future?

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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?

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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

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