



What's Driving Food Price Inflation?

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The views expressed are those of the author and do not necessarily reflect the opinions of the Federal Reserve Bank of Kansas City or the Federal Reserve System.

Food Quiz

1. In 2006, what was the average annual per capita food bill for U.S. residents?

- A) \$4,551
- B) \$3,661
- C) \$2,700

According to USDA, U.S. residents spent B) \$3,661 per person in 2006 on food.

For a household of 4, that would be \$14,644.



Photos courtesy of USDA

Food Quiz

2. In 2006, what was the average annual per capita restaurant bill (food consumed away from home) for U.S. residents?

A) \$2,532

B) \$1,767

C) \$1,365

According to USDA, US residents spent B) \$1,767 per person in 2006 to eat out.

For a household of 4, that would be \$7,068.



Photos courtesy of USDA

Food Quiz

3. What percent of U.S. disposable income was spent on food in 2006?

- A) 15.2%
- B) 12.3%
- C) 9.9%

***According to USDA, U.S. residents spent
C) 9.9% of their disposable income in
2006 on food.***

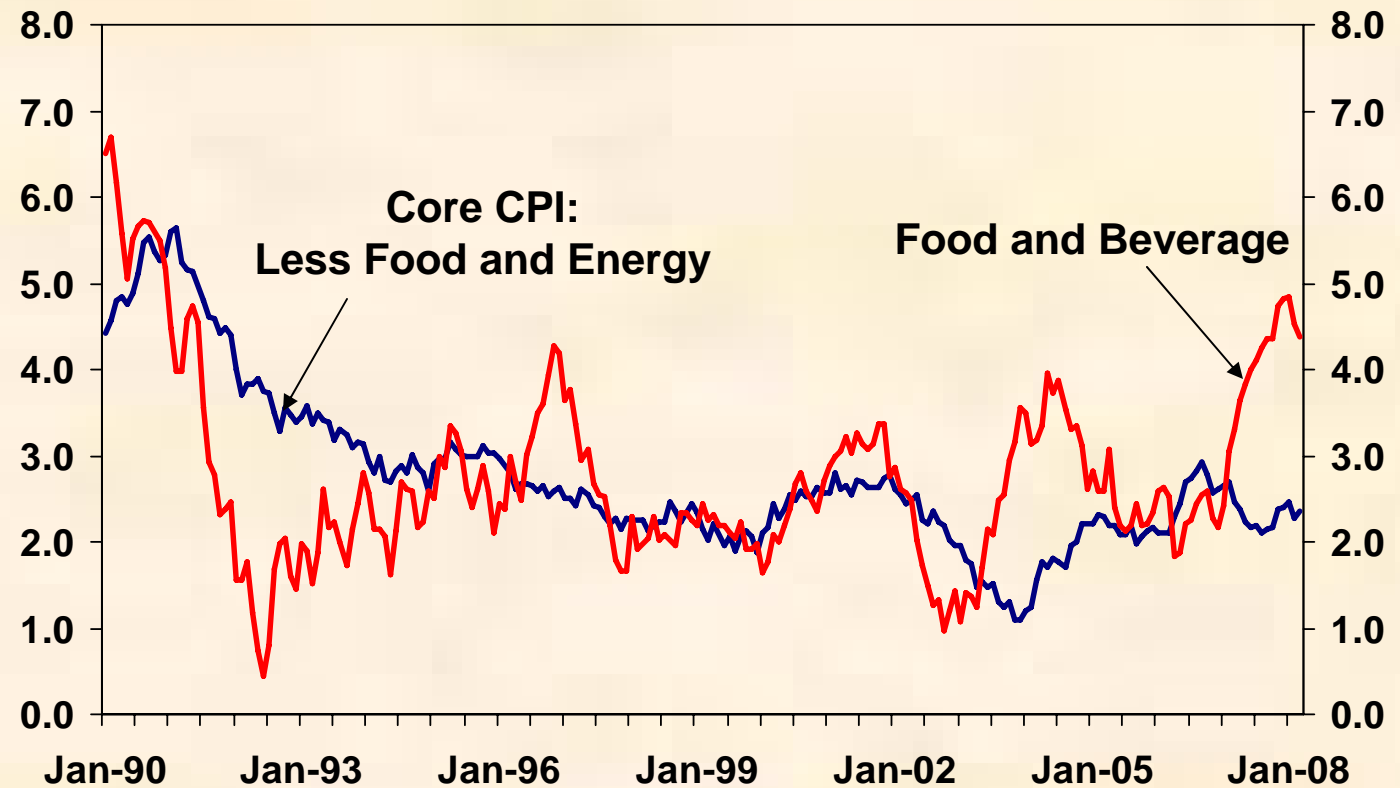


Photos courtesy of USDA

Food Prices Have Surged.

Consumer Price Inflation

Annual percent change



Source: Bureau of Labor Statistics



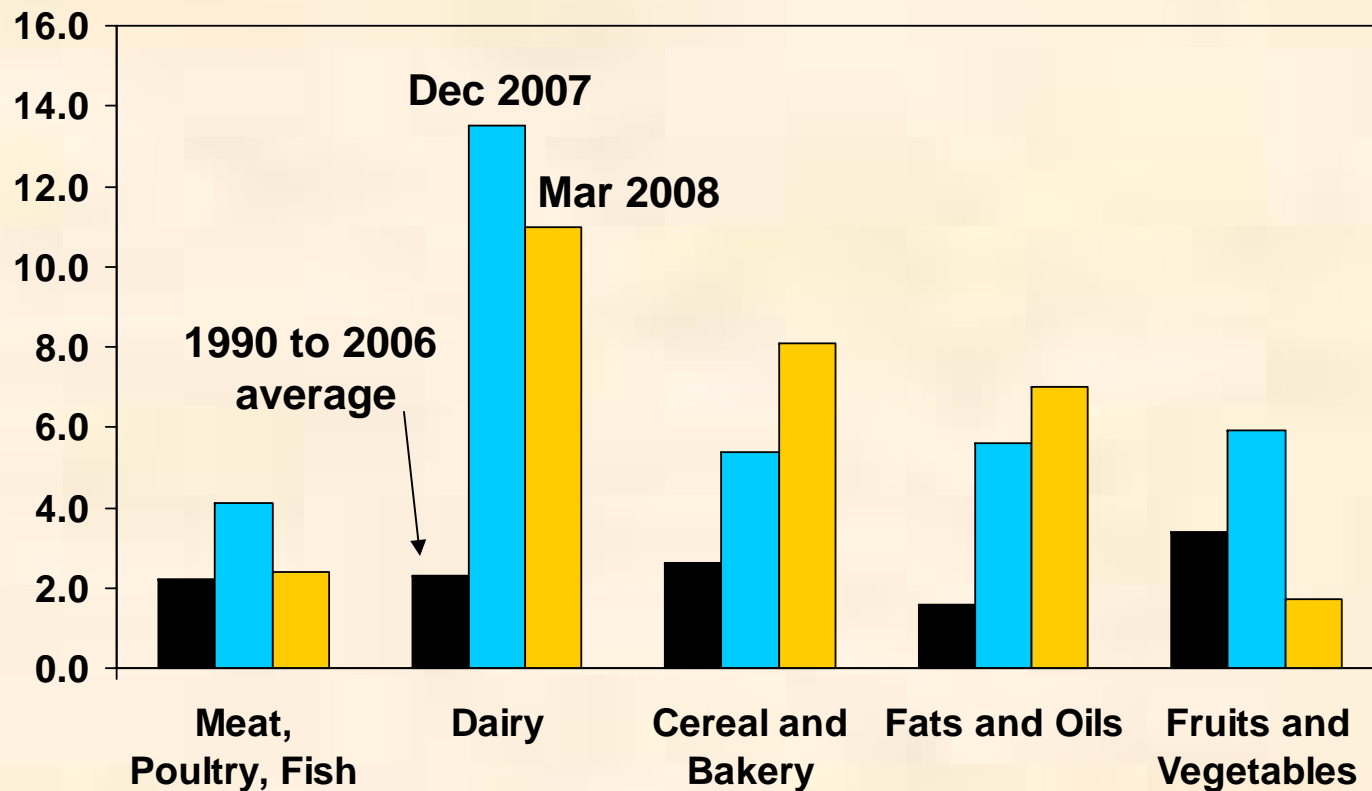
Photos courtesy of USDA



Gains have been widespread.

Consumer Price Inflation

Annual percent change



Source: Bureau of Labor Statistics

Photos courtesy of USDA

Food Quiz

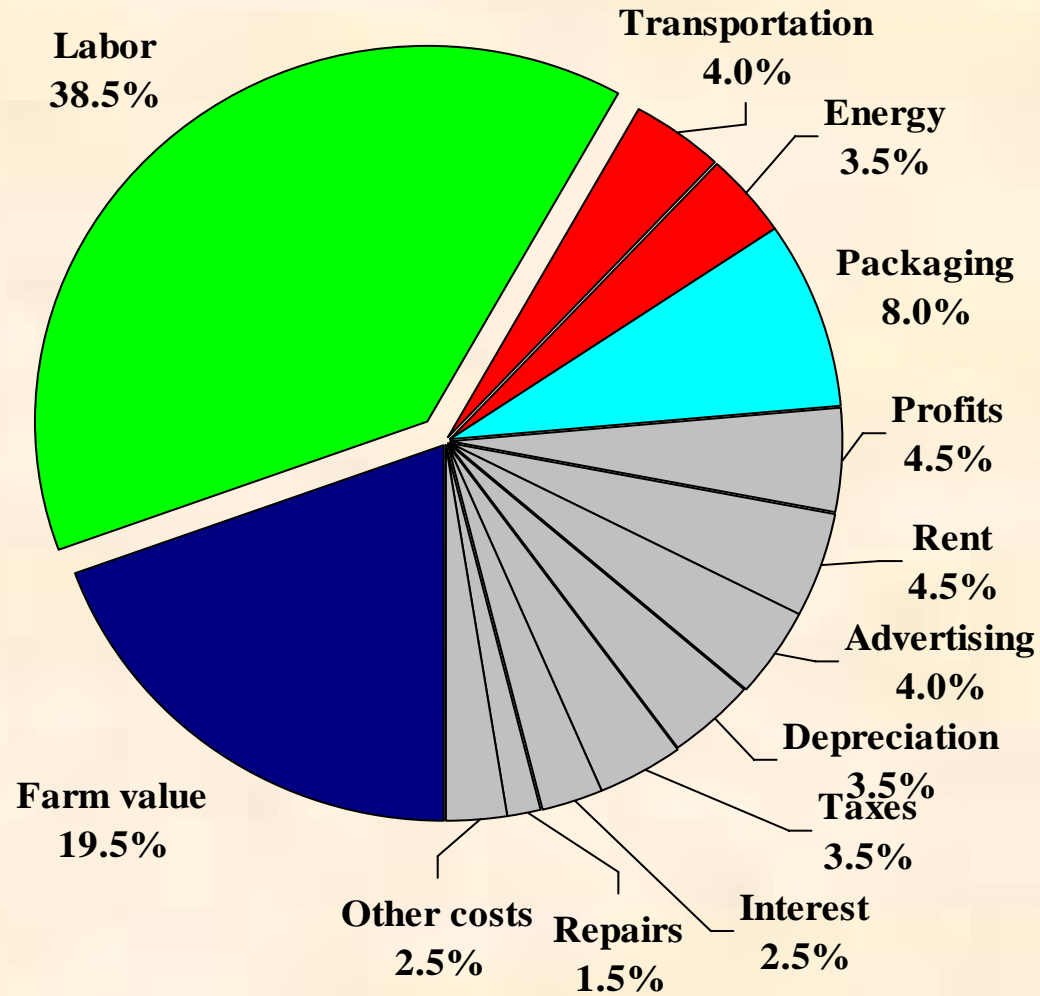
4. What is the largest cost component of retail food prices in the U.S.?
- A) Agricultural commodities
 - B) Energy and Transportation
 - C) Labor costs
 - D) Packaging and materials

***According to USDA, in 2005
C) Labor was the largest component
of retail food prices (38.5%)***



Photos courtesy of USDA

Price Components of US Retail Foods (2005)



Source: USDA



Photos courtesy of USDA



Energy and Farm Commodity Prices Have Surged.

WTI Crude Oil Prices



Farm Commodity Prices



Source: Department of Energy and USDA



Labor, Food, and Energy Impacts

Impact on CPI (food marketing bill * price increase)

- **A 2.1% increase in labor costs would lead to a 0.83 percent increase in retail food prices.**
- **A 75% increase in energy and transportation would lead to a 6 percent increase in retail food prices.**
- **An 11% increase in farm commodity prices would lead to a 2.1 percent increase in retail food prices.**

Food Quiz

5. How many days supply of grain will the world have in storage before harvest time?
- A) 99 days
 - B) 76 days
 - C) 54 days

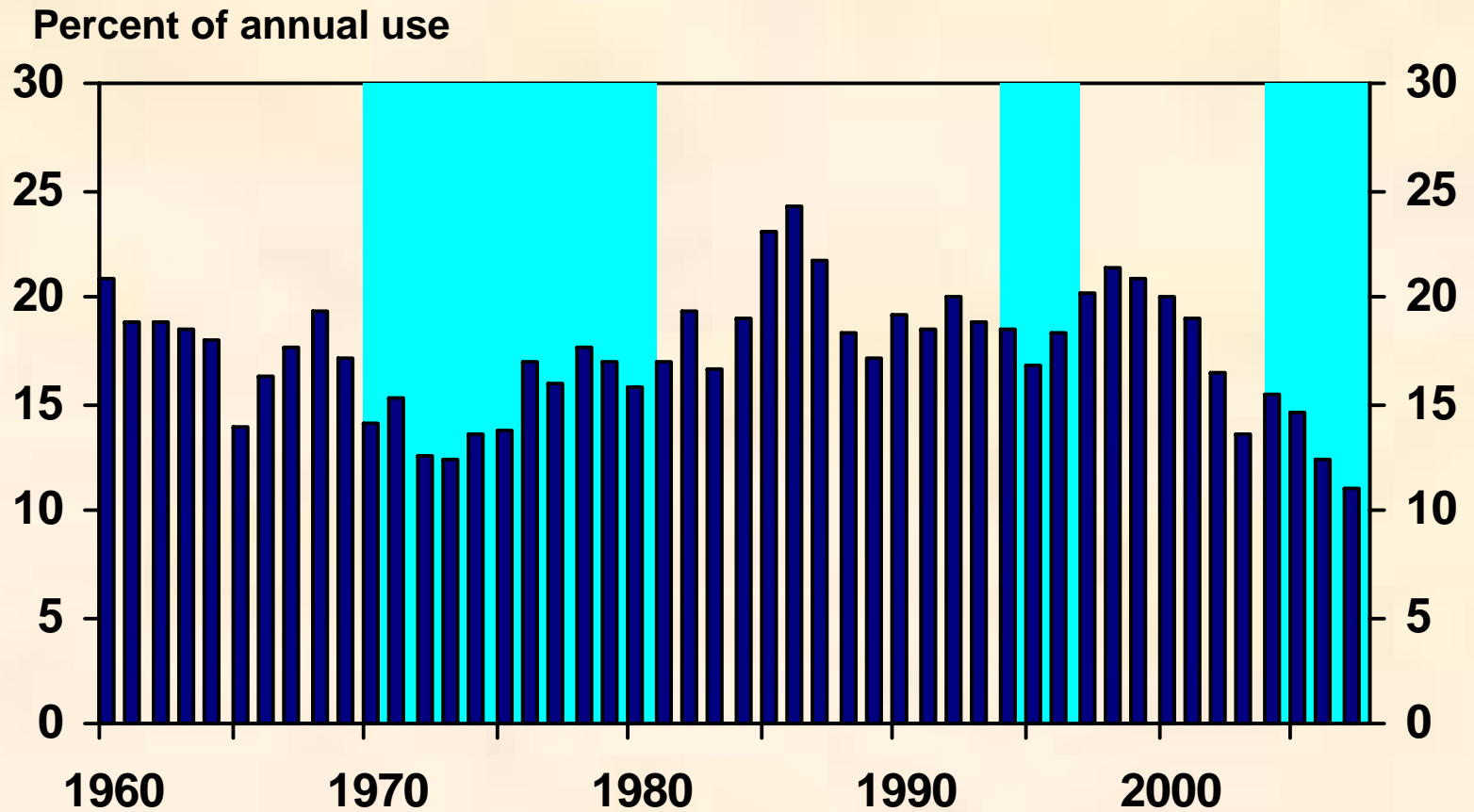
According to USDA, C) 54 days supply of grain will be on hand at harvest time.



Photos courtesy of USDA



World Grain Inventories have fallen to record lows.



Source: USDA

Food Quiz

6. What percent of the 2007 U.S. corn crop was used in ethanol production?
- A) 35%
 - B) 24%
 - C) 12%

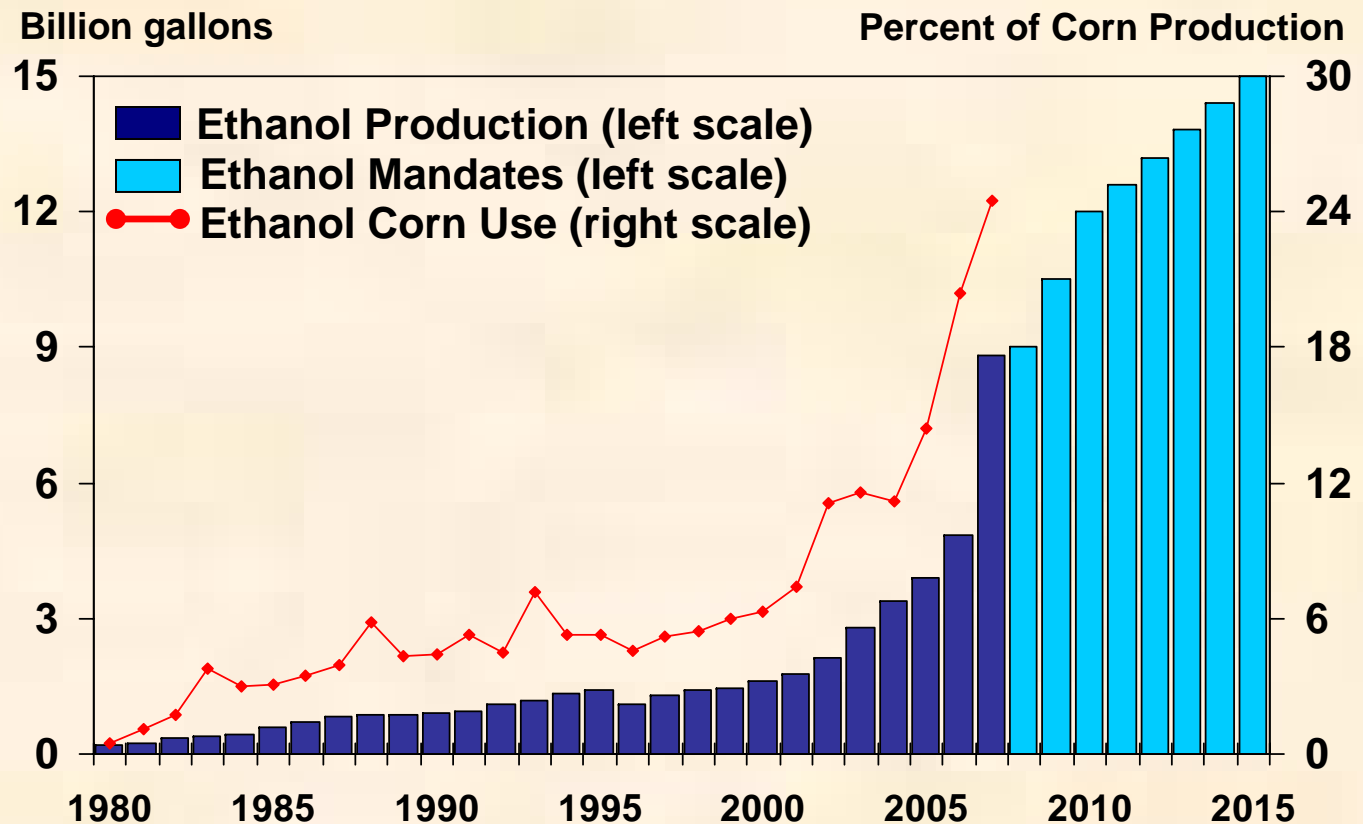
According to USDA, B) 24% of the U.S. corn crop was used in ethanol production in 2007.



Photos courtesy of USDA

Ethanol production will continue to increase.

U.S. Ethanol Production, Mandates, and Corn Use



Source: USDA and Renewable Fuels Association

Food Quiz

7. What percent of the 2007 U.S. grain production is exported?

- A) 56%
- B) 45%
- C) 34%
- D) 23%

According to USDA, D) 23% of the 2007 U.S. grain production was exported.



Photos courtesy of USDA

Food Quiz

8. How many people in China, India, and Indonesia were living on less than \$2 per day in 2000?
- A) 1.58 billion
 - B) 1.26 billion
 - C) 600 million

According to the IMF, A) 1.58 billion people were living on less than \$2 a day in China, India, and Indonesia in 2000.



Photos courtesy of USDA

Food Quiz

9. How many more calories per day do U.S. residents consume compared to China?
- A) 33%
 - B) 28%
 - C) 23%

According to USDA, U.S. residents consume B) 28% more calories per day than China.



Photos courtesy of USDA

Food Quiz

10. Chinese protein consumption rose from 182 calories per day in 1982 to _____ calories per day in 2002?

- A) 1047
- B) 873
- C) 618
- D) 358

According to USDA, Chinese protein consumption rose C) 618 calories.

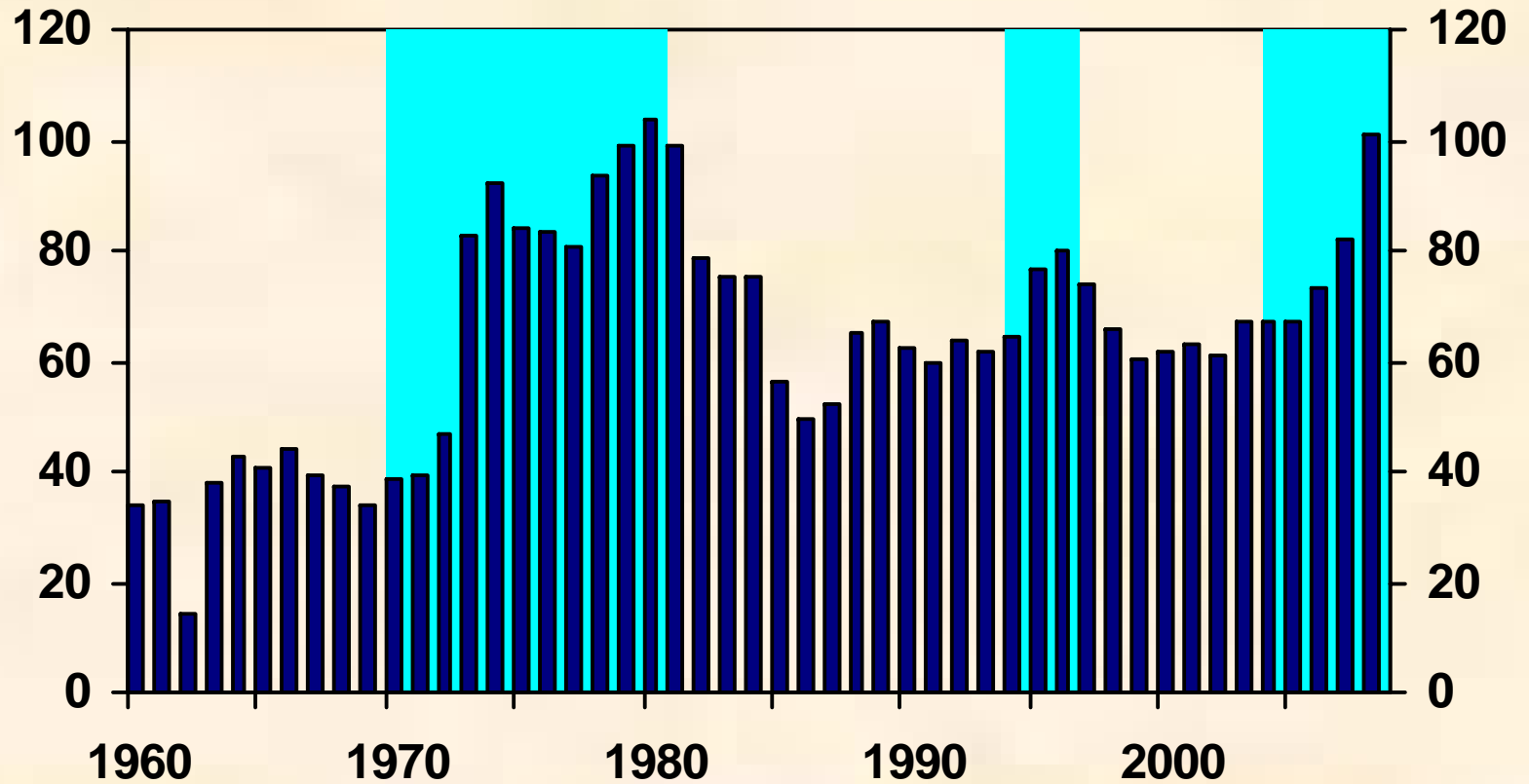


Photos courtesy of USDA



U.S. Real Agricultural Exports have Surged. . .

Billion dollars (2007=100)

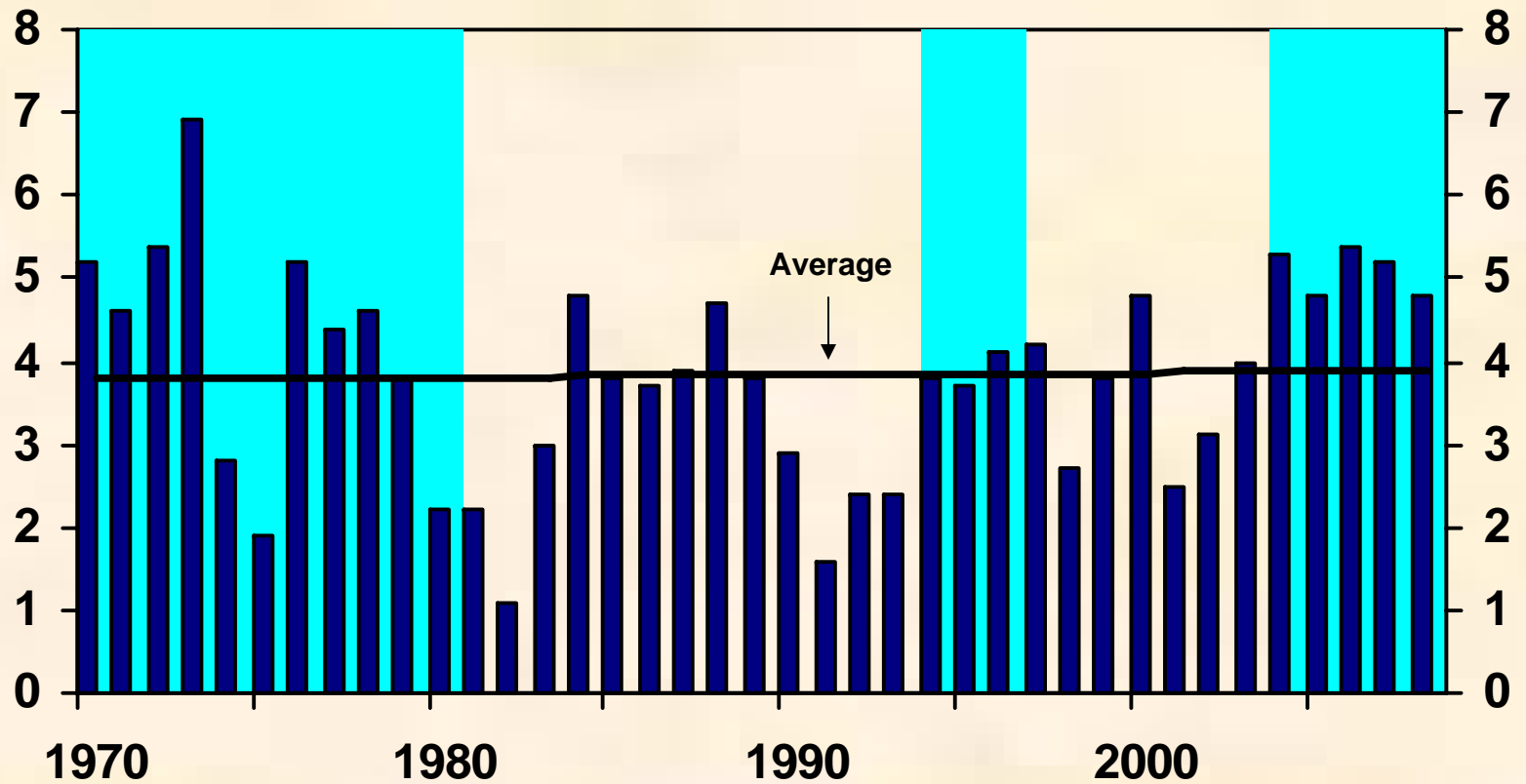


Source: USDA

Photos courtesy of USDA

World GDP Growth is Robust

Percent change

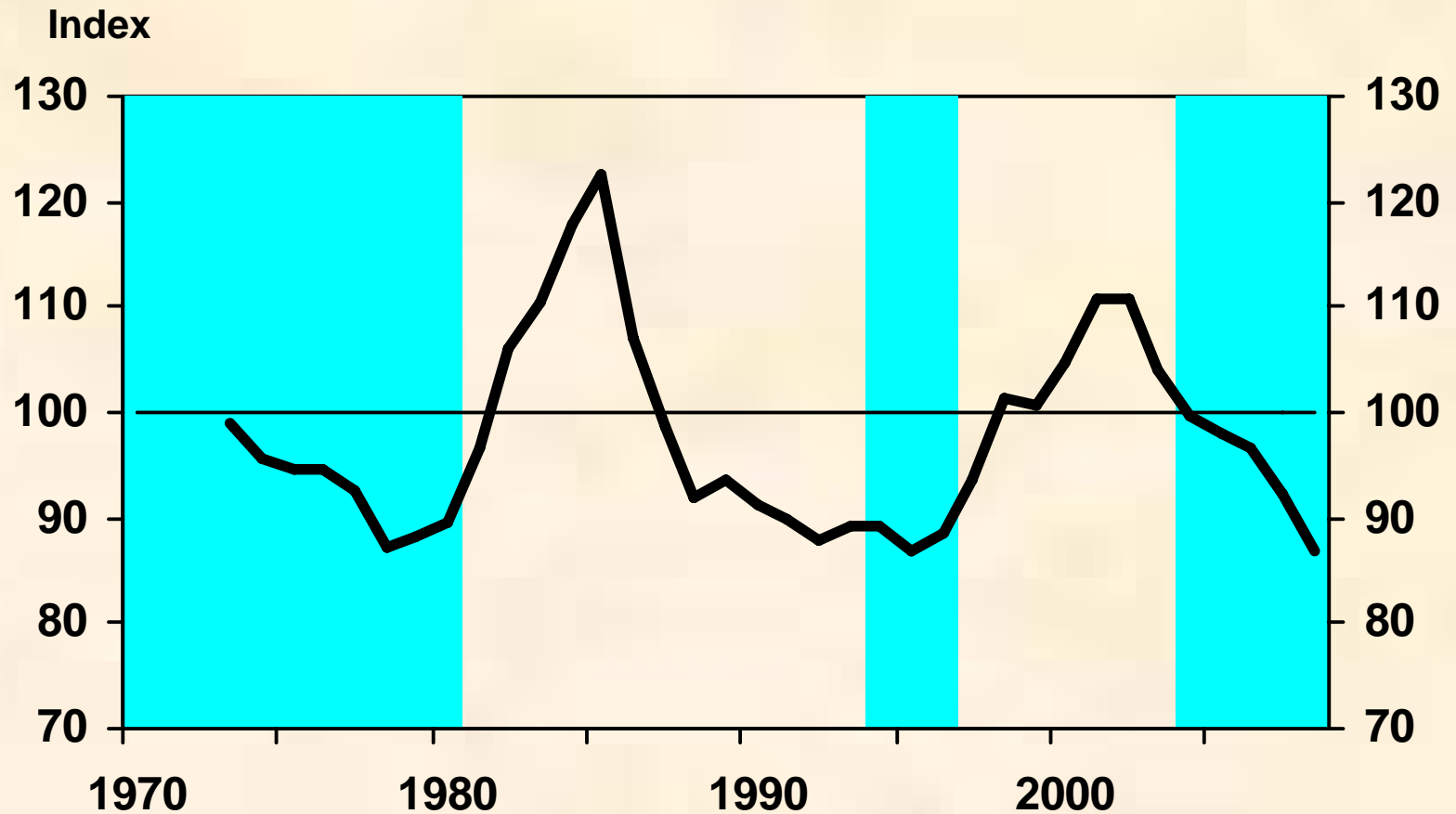


Source: International Monetary Fund



Photos courtesy of USDA

As the Value of the U.S. Dollar Has Fallen.



Source: Federal Reserve Board of Governors



Bonus Question

B. In 2007, there were roughly 2 million farms in the U.S. How many farms were in the U.S. in 1935?

- A) 6.8 million
- B) 5.7 million
- C) 4.3 million

According to USDA, A) there were 6.8 million farms in the U.S.

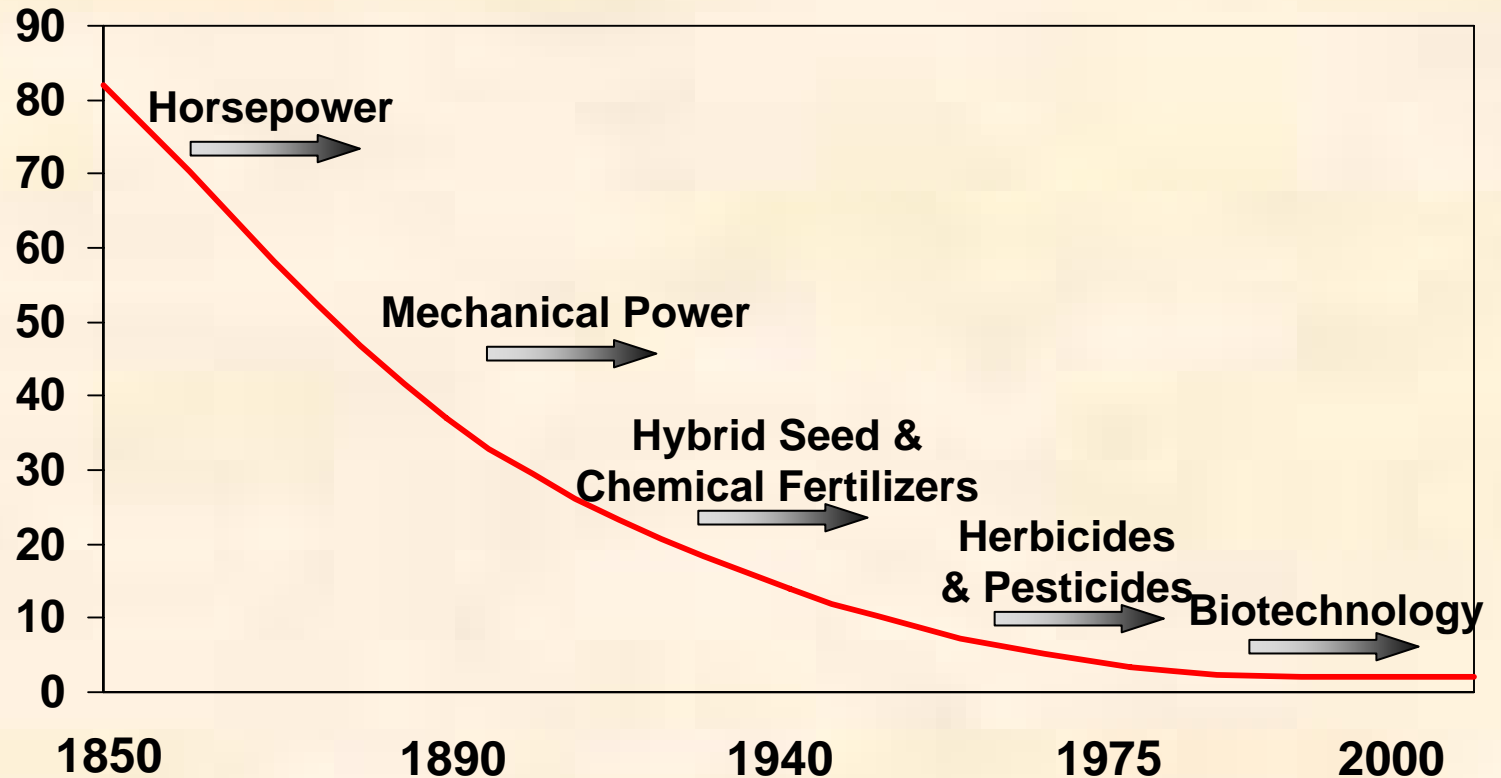


Photos courtesy of USDA

Technology Boosts Efficiency in U.S. Agriculture.

Labor Needed for U.S. Corn Production

Hours to produce 100 bushels of corn

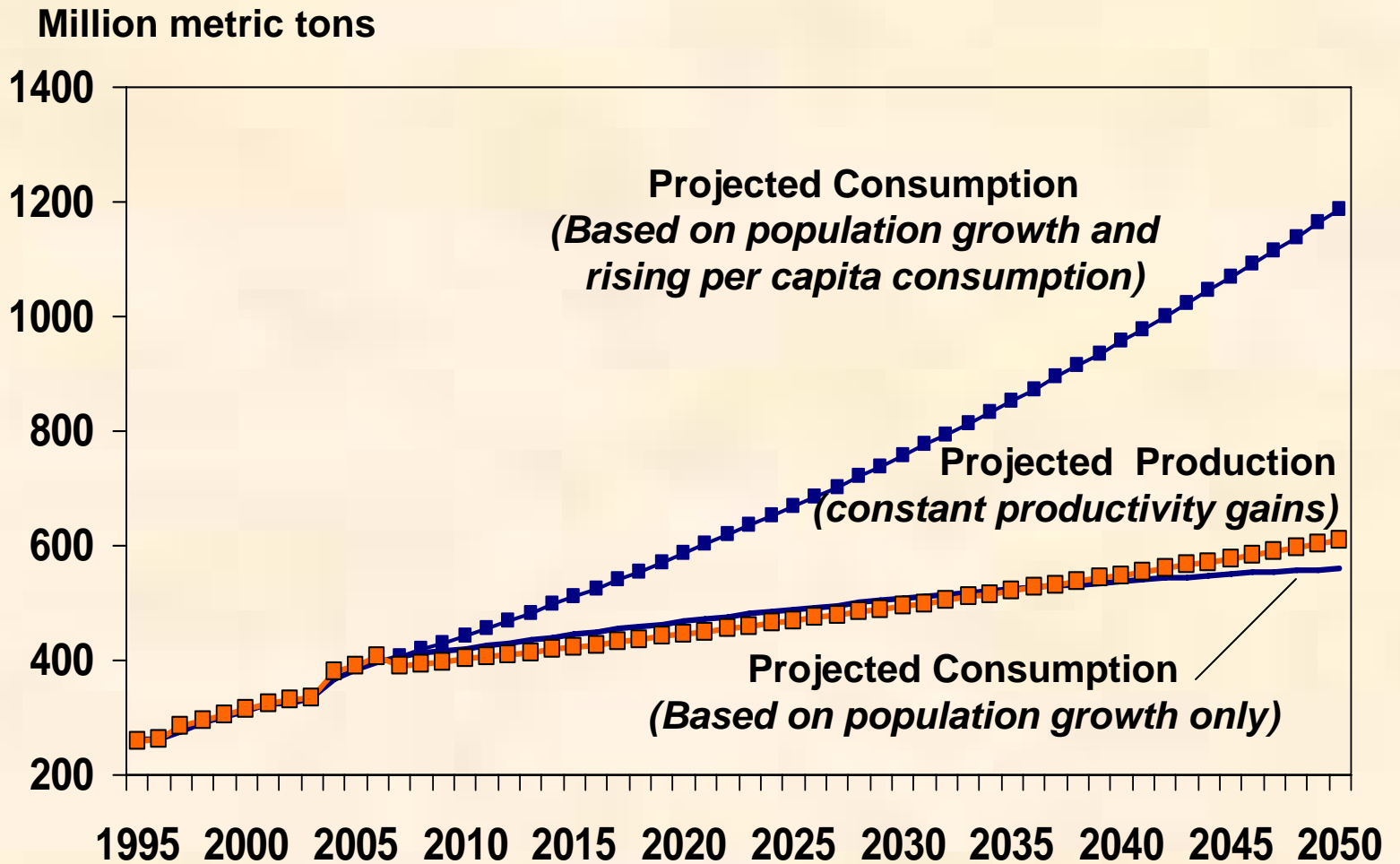


Source: USDA





World Oilseed Consumption and Production

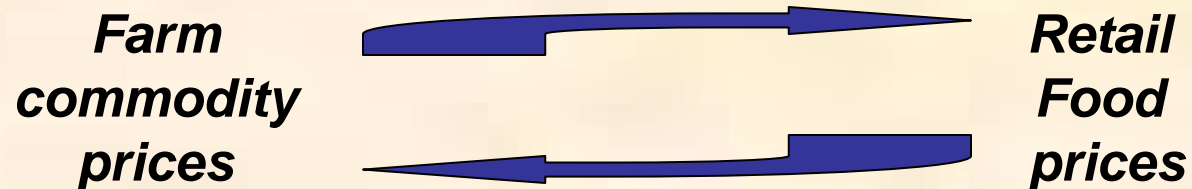


Calculations based on USDA data



A Dilemma in Farm Commodity and Retail Food Prices

Do higher farm commodity prices cause higher retail food prices?



Do higher retail food prices cause higher farm commodity prices?

Conclusion

- Food prices are surging.
- Rising farm commodities are not the only driver of retail food costs.
- Record farm commodities prices:
 - Ethanol is not the only reason.
 - Global food demand is rising.
 - Lean supplies also boost prices

***The hidden question:
Is food inflation cost-push or demand-pull?***



Photos courtesy of USDA