

Outlook for U.S. Retail Food Prices and Inflation, 2014

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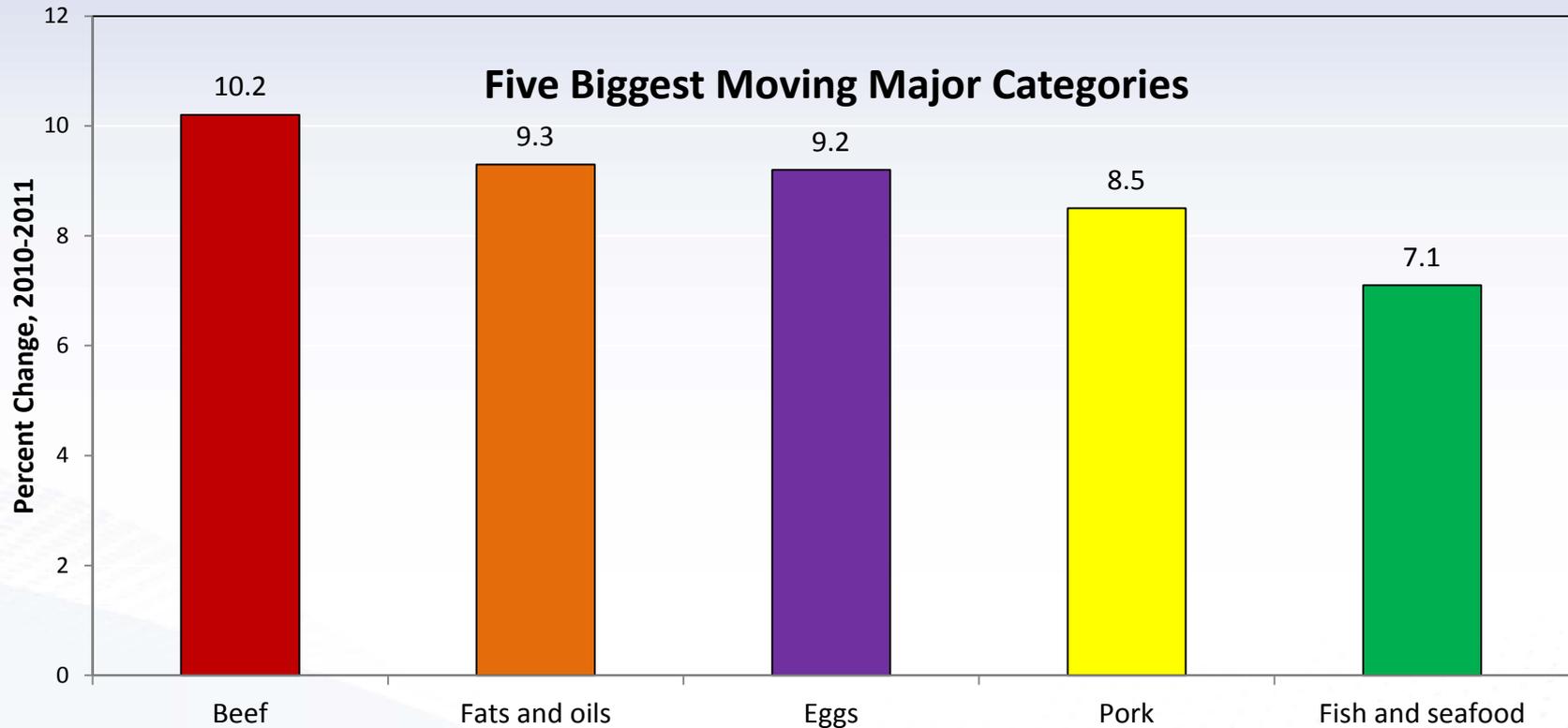
Food Markets Branch
Food Economics Division
ERS-USDA

*Presented at USDA's Agricultural Outlook Forum
February 20, 2014*



United States Department of Agriculture, Economic Research Service

Above-average Food Price Inflation in 2011



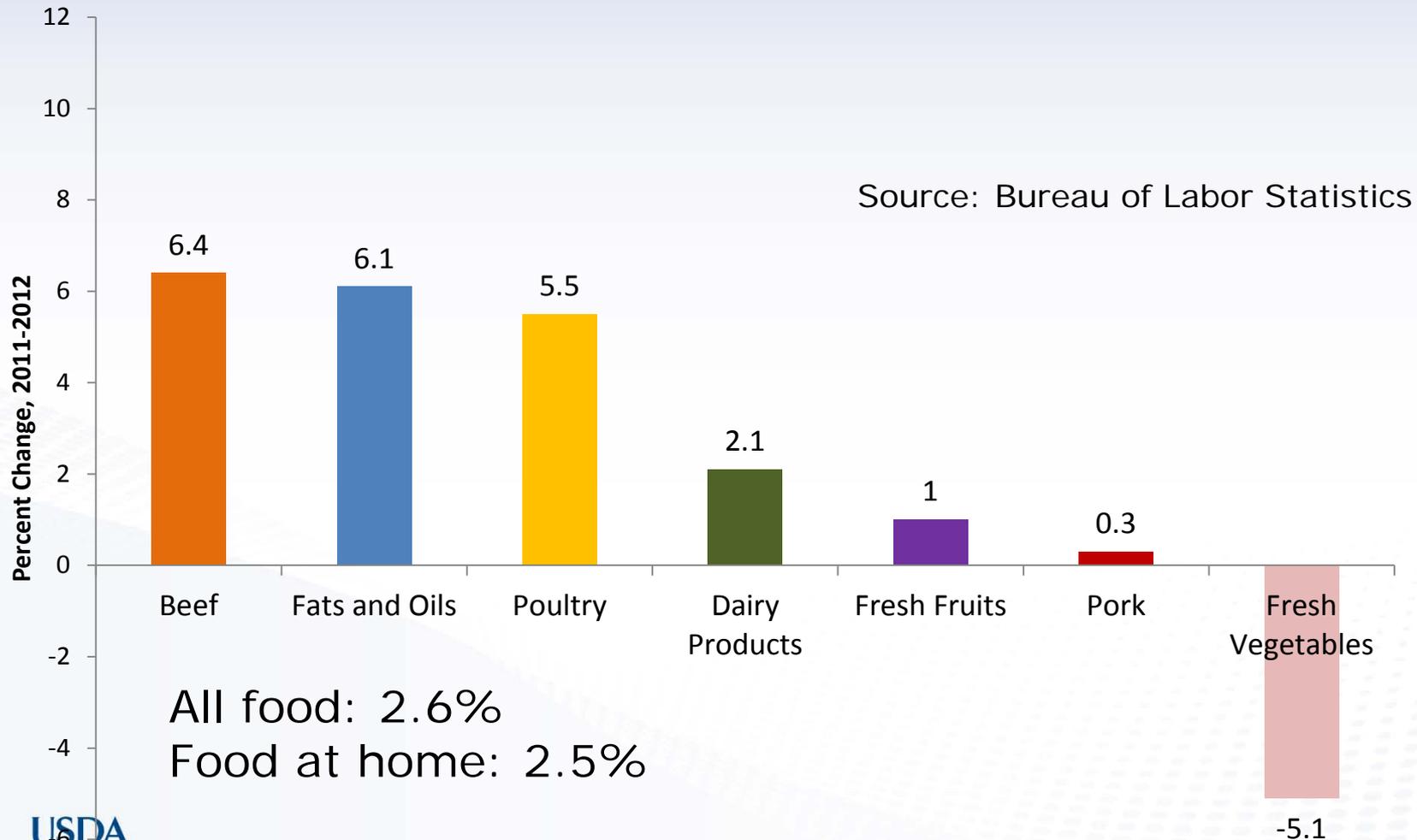
- All food: 3.7%
- Food-at-home: 4.8%

Source: Bureau of Labor Statistics



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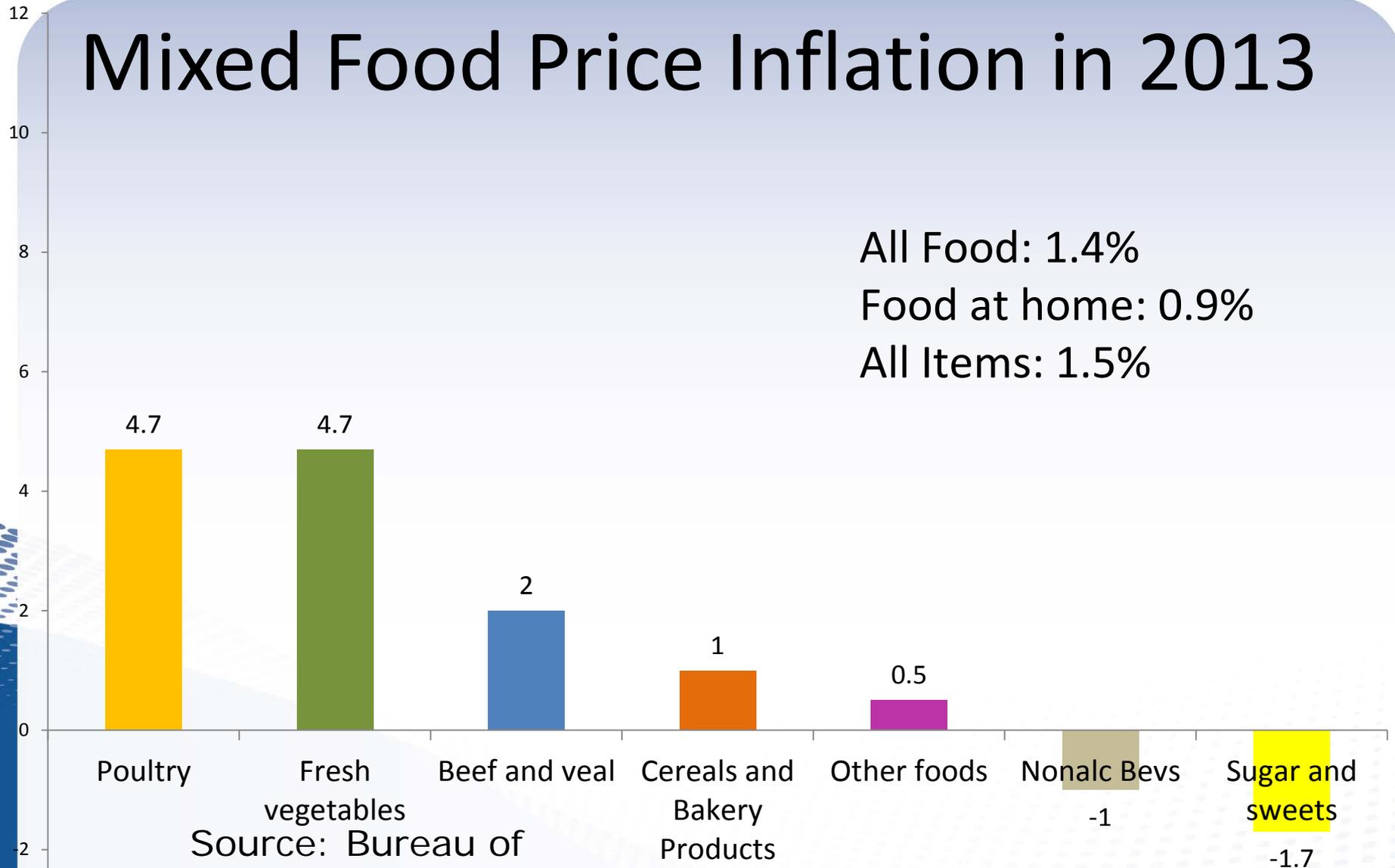
Weaker Inflation in 2012



What Happened to Food Prices in 2013?



Mixed Food Price Inflation in 2013

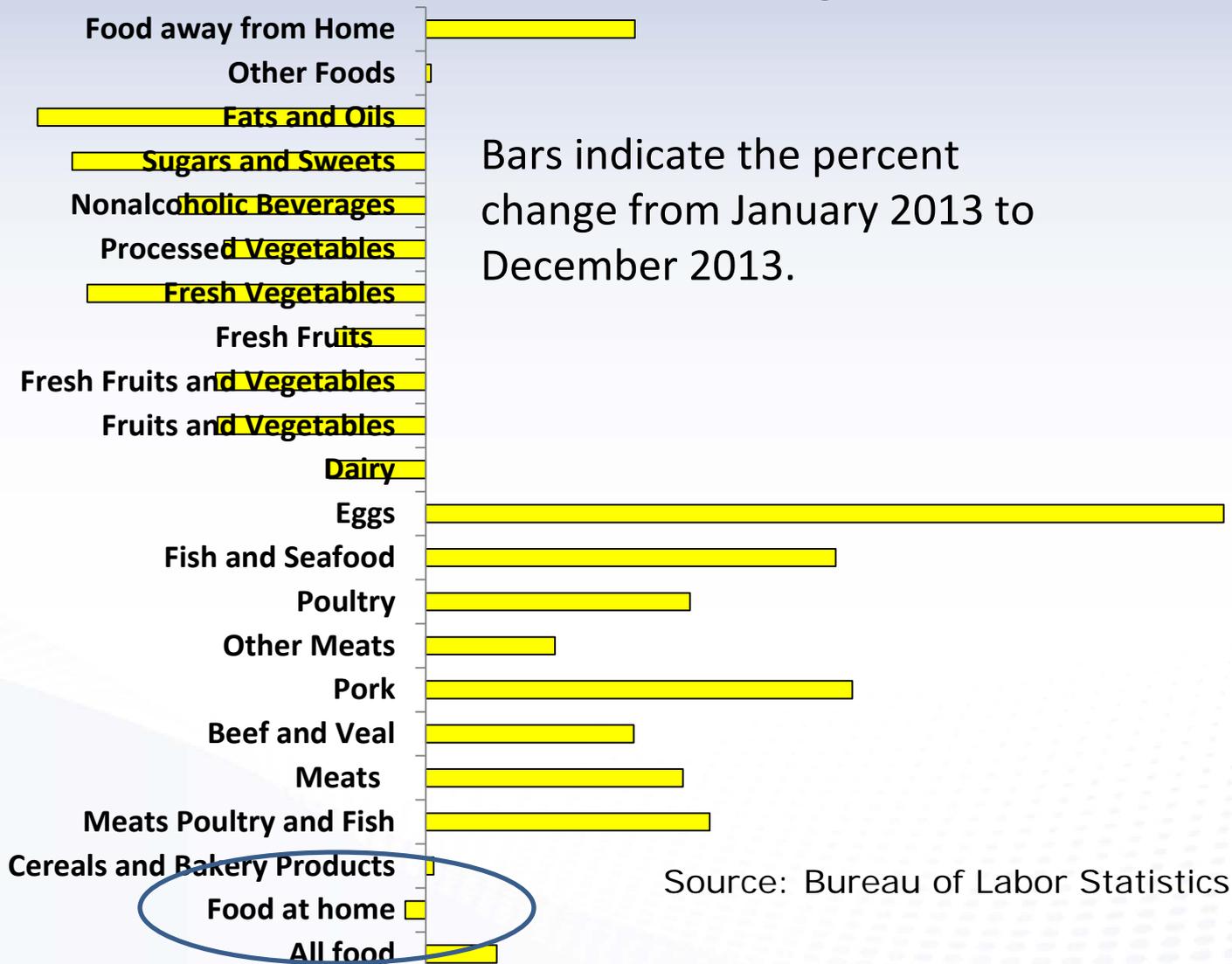


Source: Bureau of
Labor Statistics



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2013 in More Depth



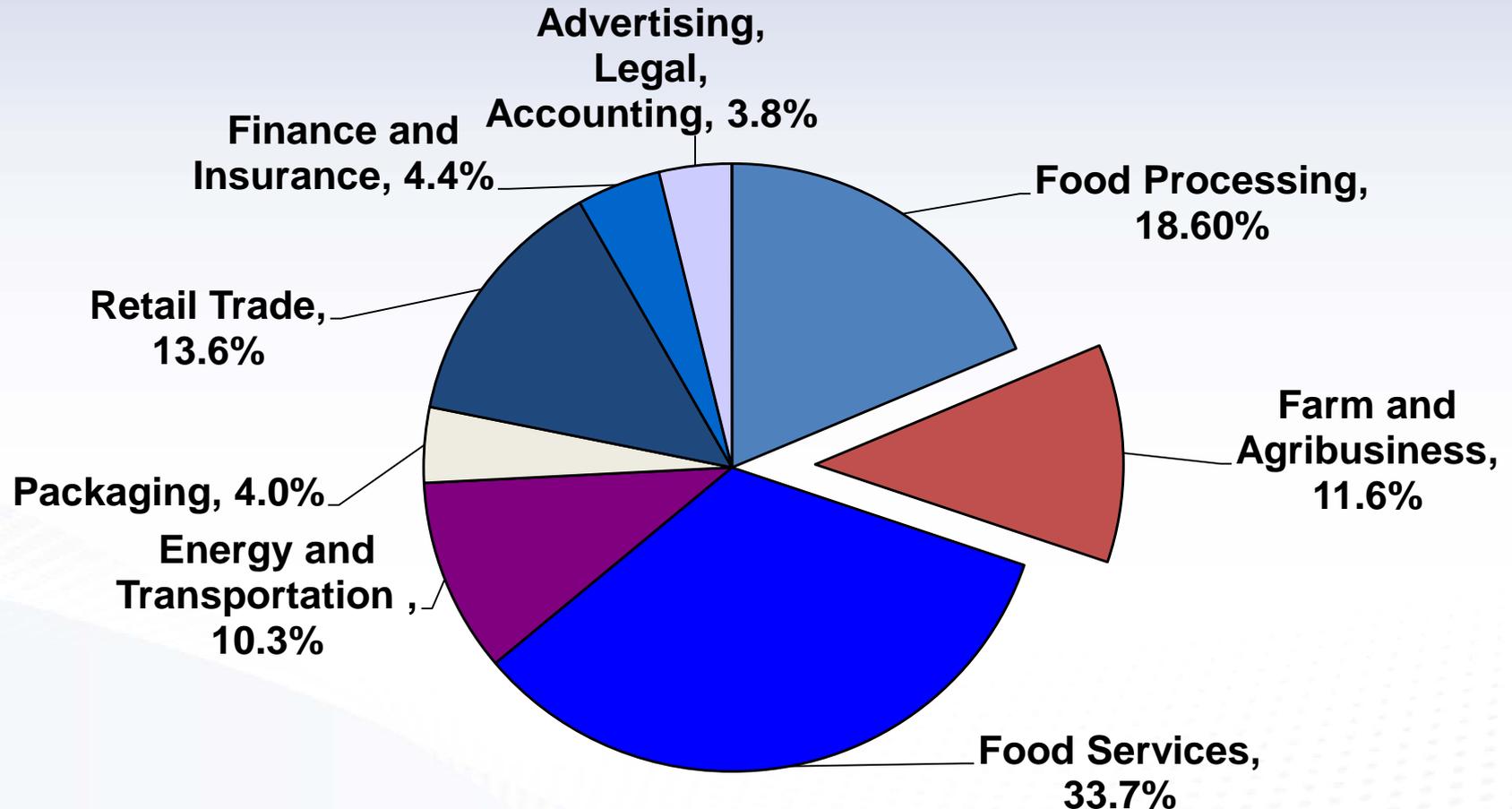
Source: Bureau of Labor Statistics



Why Was Food Price Inflation so Low
in 2013? Didn't We Have a
Drought/Fire/Flood/Freeze/Disease?



Where a Consumer Dollar Spent on Food Goes



Source: *A Revised and Expanded Food Dollar Series* (2011), ERR114, Economic Research Service,
www.ers.usda.gov/data/FoodDollar/



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- Despite the drought, most input costs were down
 - Intl Monetary Fund all-commodity index ended 2013 below where it *began* in 2012
 - All commodities, non-fuel commodities, industrial inputs, energy prices all down 2012-2013
 - Pound of coffee down from \$1.87 to \$1.41
 - U.S. imported sugar down from \$0.28 to \$0.21 per lb.
- Exports fell, 2012-2013, for corn, soybeans, oils, fruits, red meat
 - Growth in exports was a major factor in 2011-2012



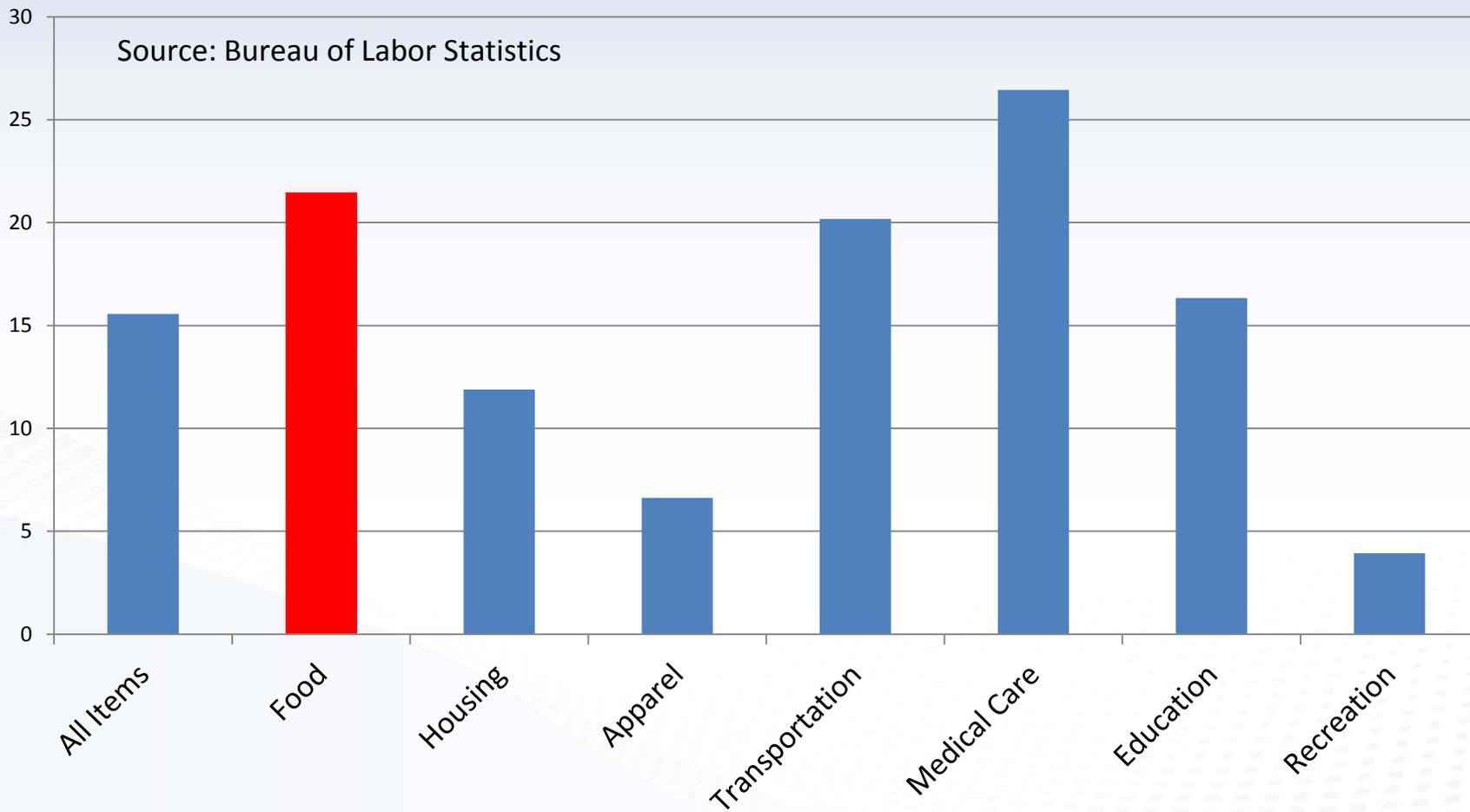
Has Food Become More Expensive?



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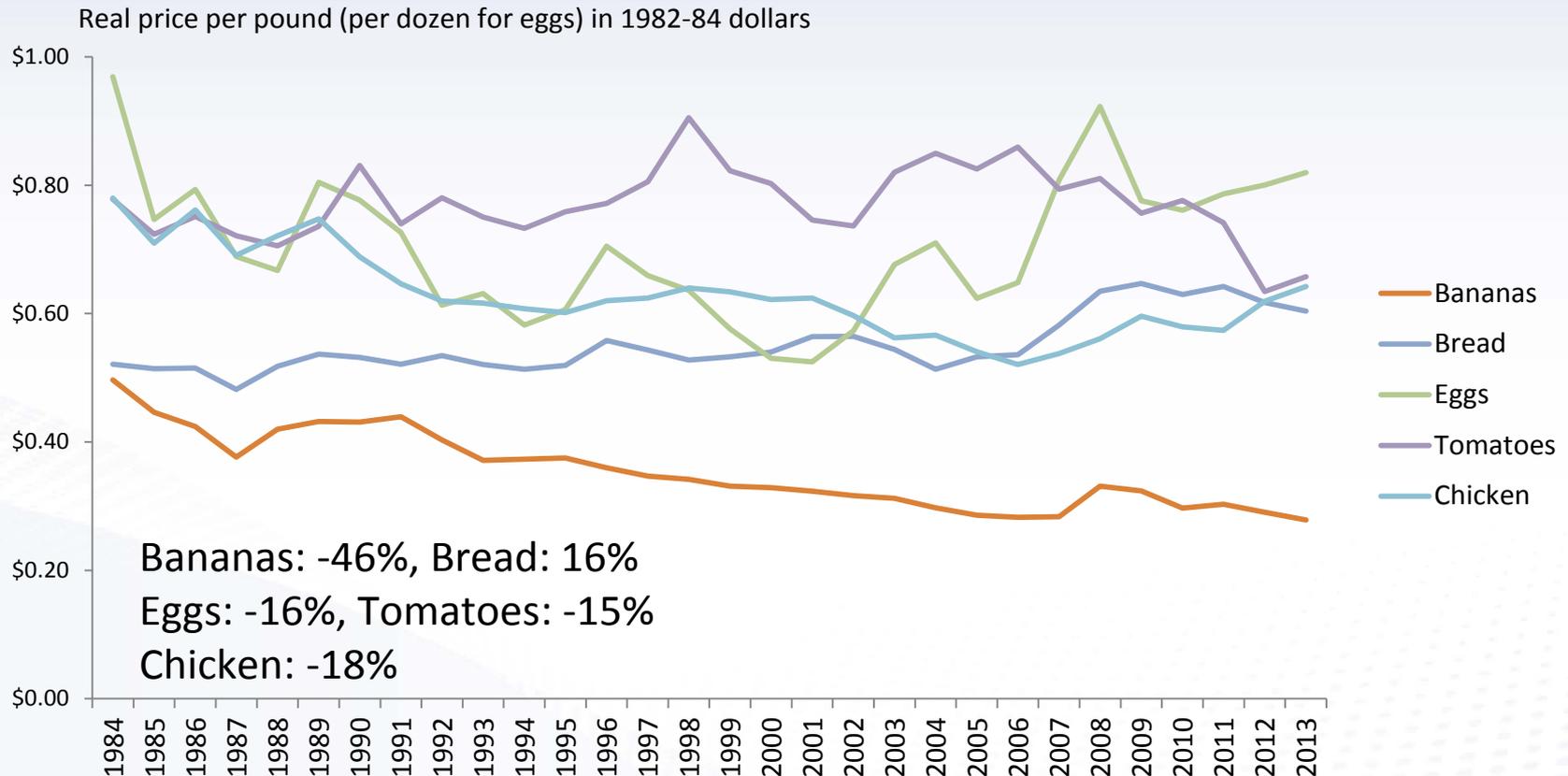
Food Price Inflation has Outpaced Economy-Wide Inflation in Recent Years

Percent Change in Major CPI Categories, 2006-2013



But Many Food Prices Have Decreased over the Long Term

Real (inflation-adjusted) prices for selected U.S. foods, 1984-2012



Source: USDA, Economic Research Service calculations using data from the U.S. Bureau of Labor Statistics.

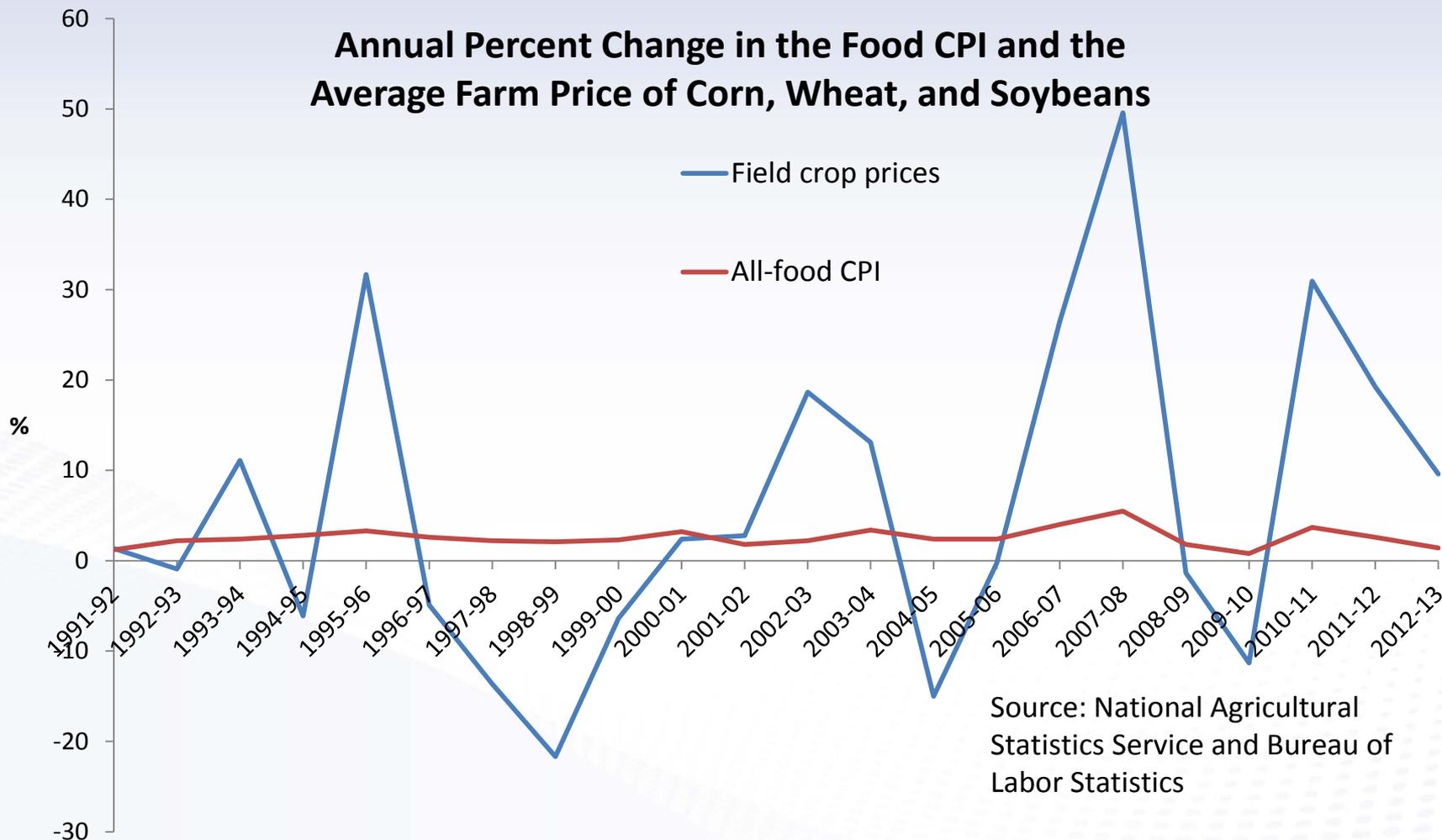


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What is the Relationship between Food Prices and Commodity Prices?



Commodity Prices are Far More Volatile than Retail Food Prices



Source: National Agricultural Statistics Service and Bureau of Labor Statistics



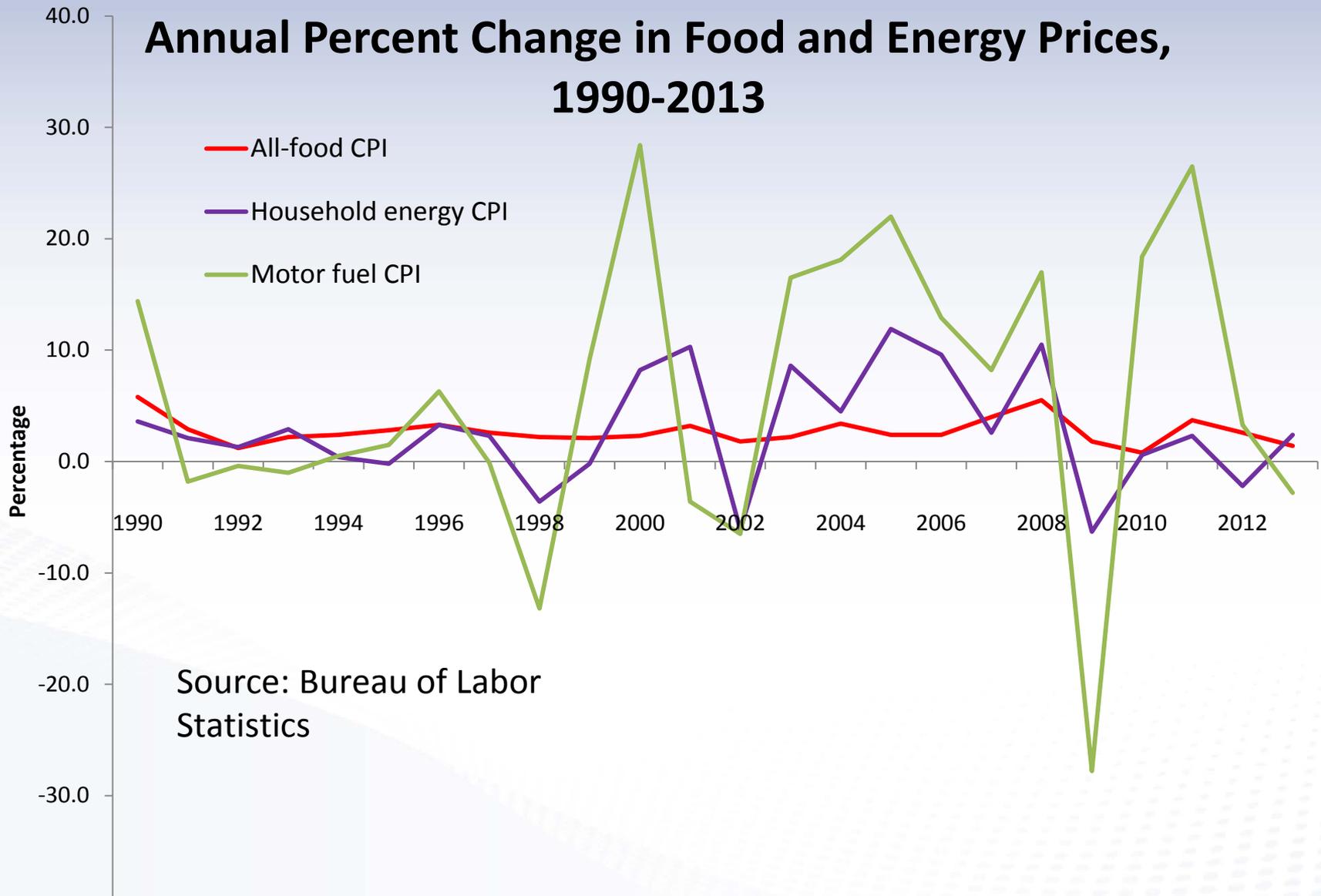
- As the Food Dollar Series shows, the commodity share of the food dollar is 10-11%
 - Higher for perishables, much lower for processed and shelf stable foods
- Price contracts, transportation, and processing mitigate and distribute commodity price impacts
- Forecast models incorporate key commodities
 - E.g. cattle for beef, wheat for bakery, soybeans for fats & oils



If Commodity Prices Don't Have a Major Impact, What About Energy Prices?



Annual Percent Change in Food and Energy Prices, 1990-2013



Source: Bureau of Labor
Statistics



Energy Prices and Food Prices

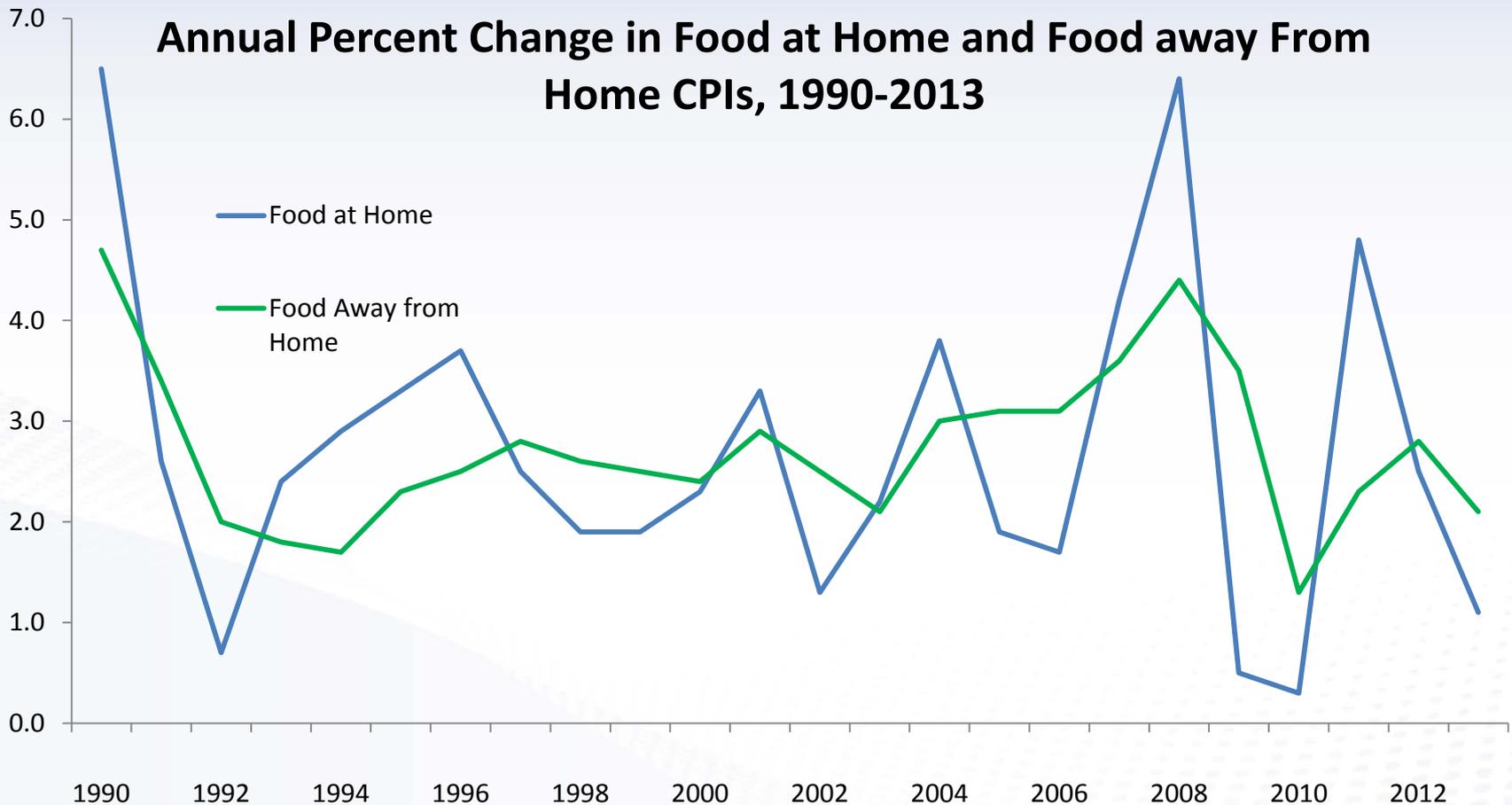
- The importance of energy prices depends on the food category
 - More important as processing and transportation costs increase in share
- Questions remain with respect to the role biofuels and the food-fuel connection
- Diesel and electricity prices are key inputs to ERS CPI forecast models



Why Have Restaurant Prices Increased So Much More/Less than Supermarket Prices?



Supermarket Prices Twice as Volatile as Restaurant Prices



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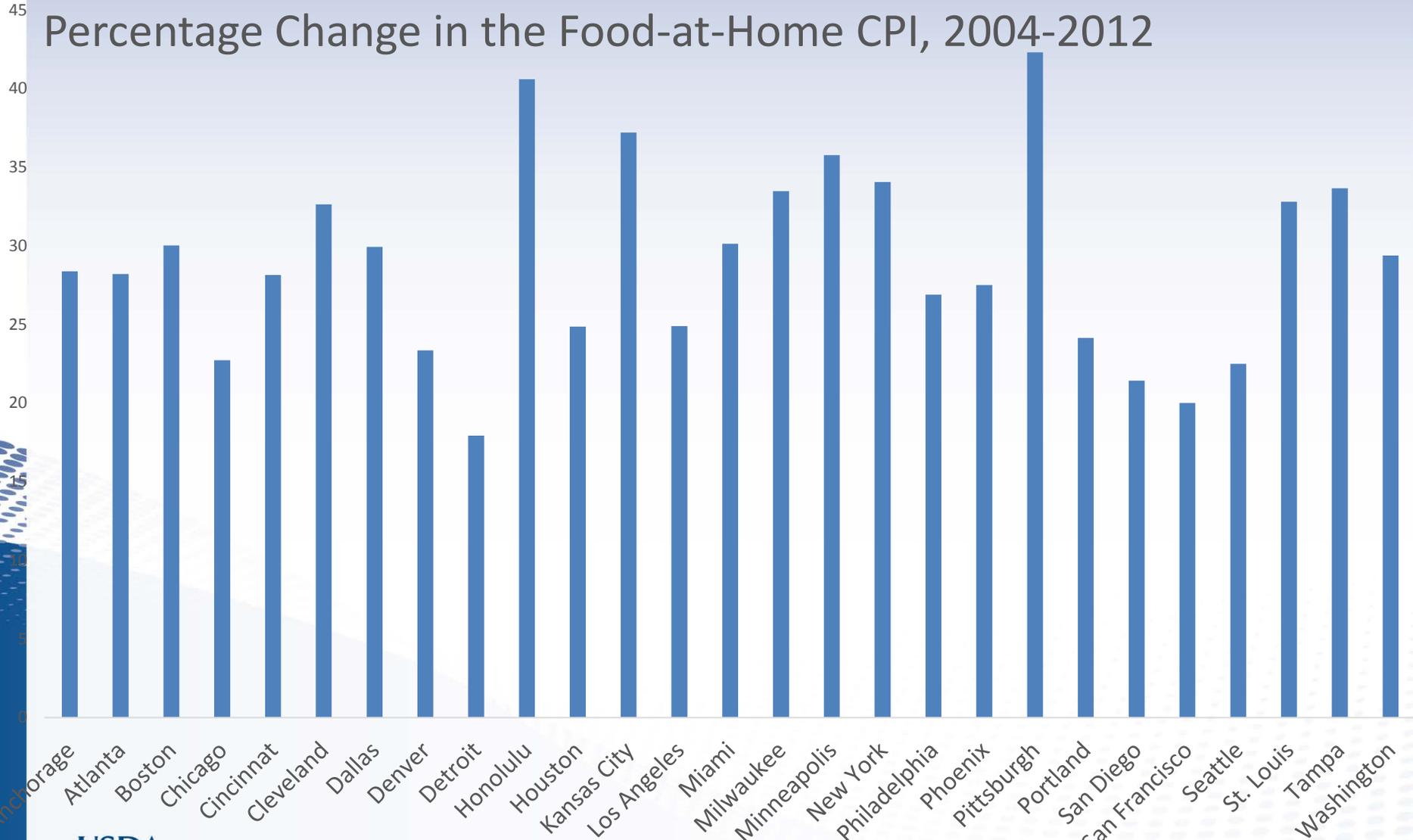
Source: Bureau of Labor Statistics

Food Prices in My City Have Gone Way Up in the Last Year. Why Do Your Numbers Show Such a Small Increase?



Food Price Inflation Varies Geographically

Percentage Change in the Food-at-Home CPI, 2004-2012



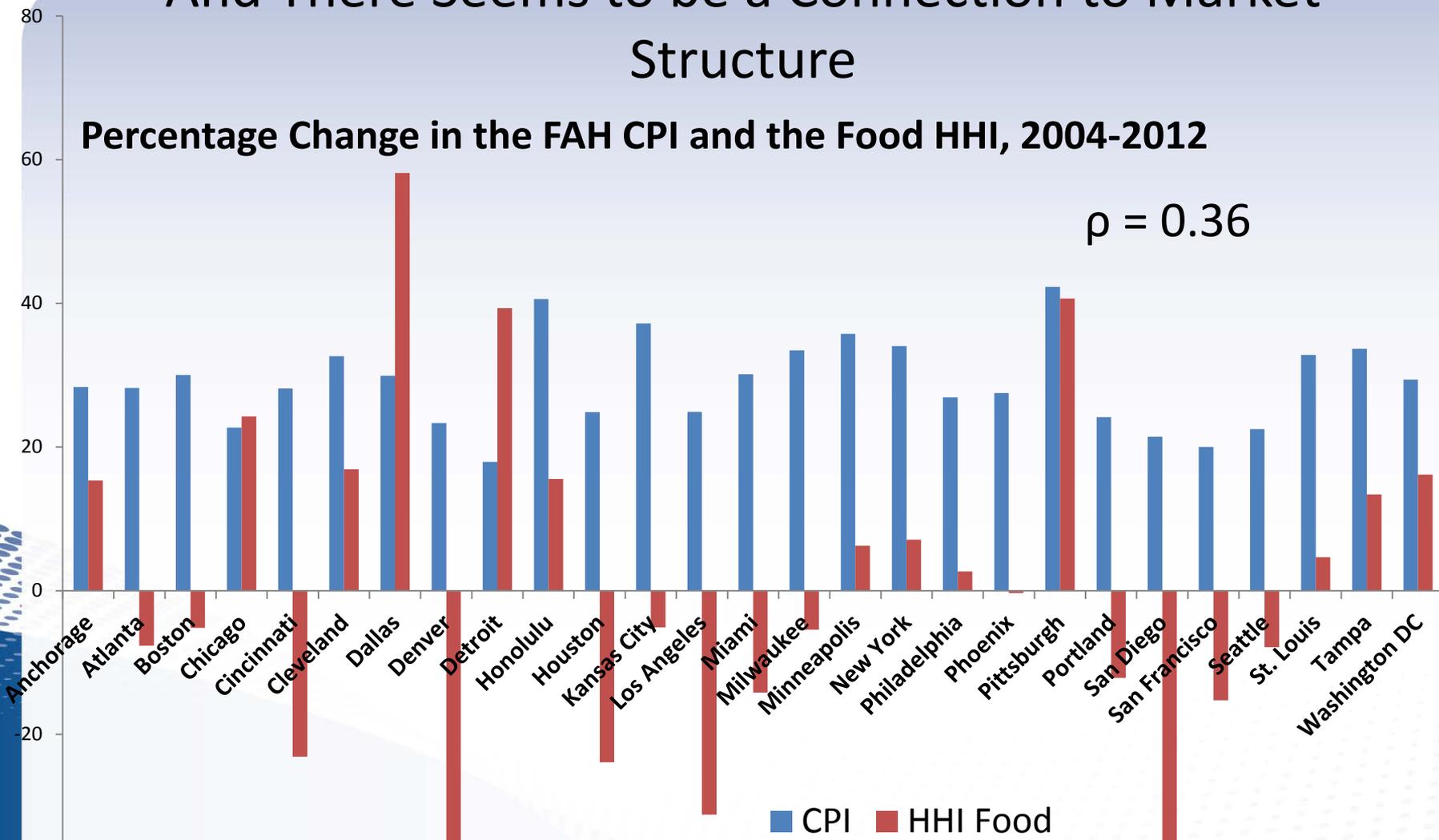
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Source: Bureau of Labor Statistics

And There Seems to be a Connection to Market Structure

Percentage Change in the FAH CPI and the Food HHI, 2004-2012

$\rho = 0.36$



Source: Bureau of Labor Statistics and Nielsen TDLinx Data



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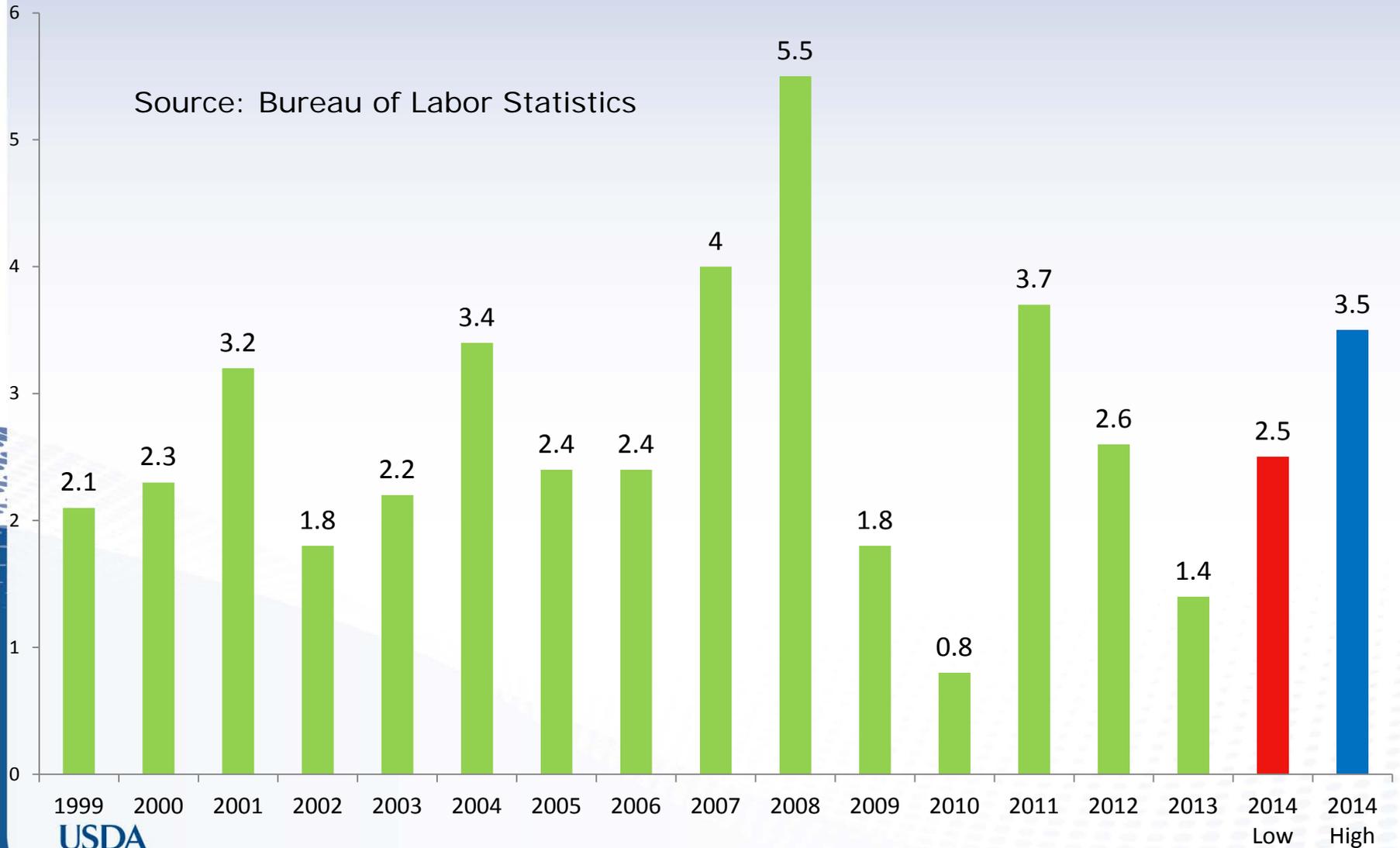
What Can We Expect in 2014?



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2014 Inflation Predicted to be Near Historical Average

Source: Bureau of Labor Statistics



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2014 Outlook in Depth

- Commodities
 - Projected output for grains and oilseeds strong
 - Possibly some contraction for fluid milk
 - Cattle numbers decline further before recovering
- Energy prices
 - EIA: flat or declining crude oil prices in 2014
- Weather
 - Polar vortex, CA drought, other unforeseeables



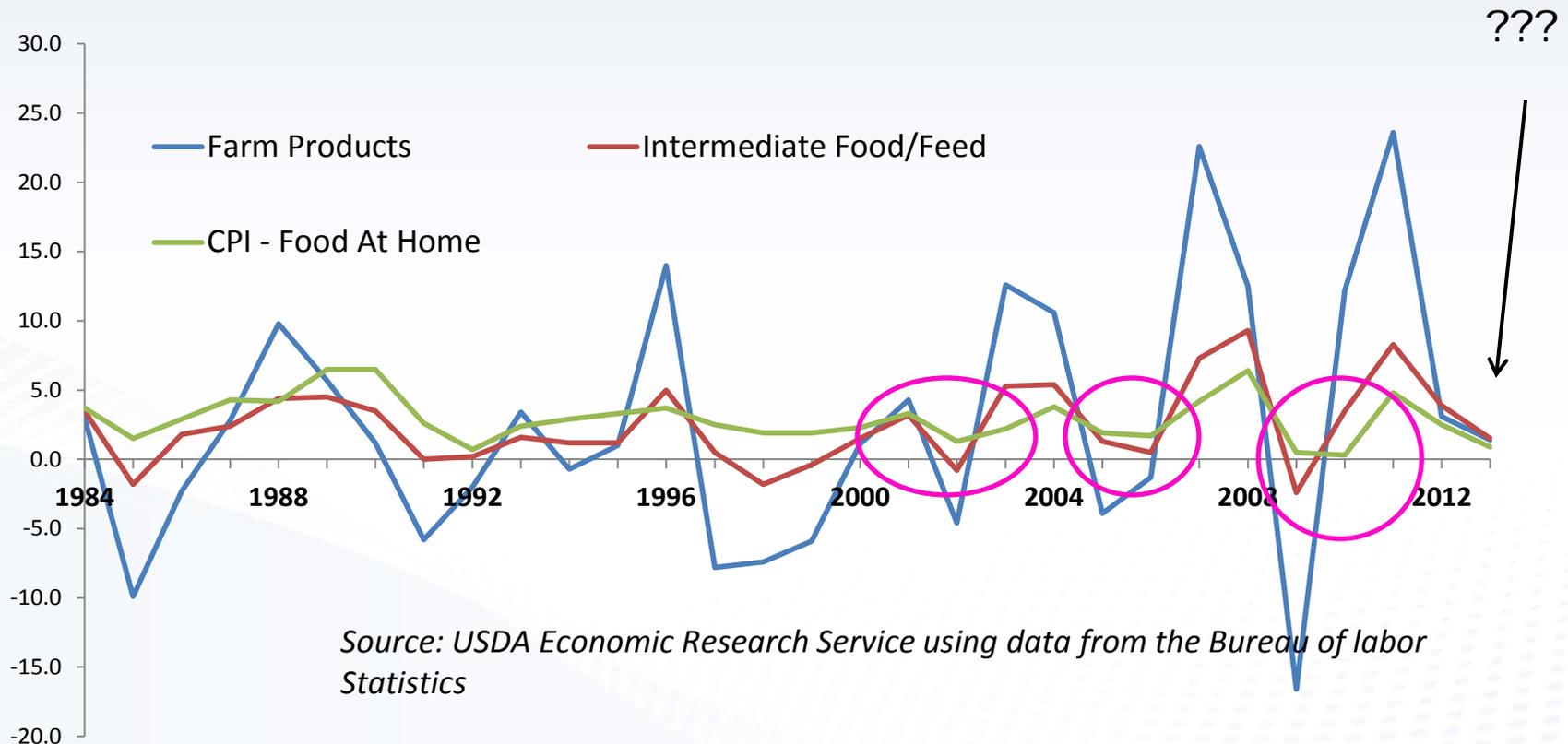
2014 Outlook In Depth

- Retailer pricing behavior
 - The PPI illustrates changes in farm and wholesale prices
 - Relative changes in PPI and CPI allows inference into retailer margins
 - Strongly cyclical



Will We See Another Big Drop in Farm/Retail Prices?

Annual Percent Changes in Food-at-Home CPI and Key Food PPIs



Source: USDA Economic Research Service using data from the Bureau of Labor Statistics



2014 PPI Forecasts

| Item | Month-to-Month | Year-over-Year | Annual 2012 | Annual 2013 | Forecast 2014 |
|---------------------------------|----------------|----------------|-------------|-------------|---------------|
| | Nov 2013 to | Dec 2012 to | | | |
| | Dec 2013 | Dec 2013 | | | |
| Percent Change | | | | | |
| Crude foodstuffs and feedstuffs | -0.5 | -6.2 | 4.2 | 1.9 | NA |
| Intermediate foods and feeds | 0.3 | -3.1 | 4.8 | 1.3 | NA |
| Finished consumer foods | -0.4 | 0.6 | 2.6 | 2.2 | NA |
| Farm level cattle | 0.0 | 6.0 | 8.6 | 1.4 | 5.0 to 6.0 |
| Wholesale beef | -0.3 | -1.7 | 10.0 | -0.4 | 1.5 to 2.5 |
| Wholesale pork | -2.7 | 4.1 | -4.1 | 3.6 | 5.5 to 6.5 |
| Wholesale poultry | -0.9 | -1.0 | 11.2 | 3.8 | 2.0 to 3.0 |
| Farm level eggs | 5.8 | 20.2 | 1.4 | 9.4 | 4.0 to 5.0 |
| Farm level milk | 2.3 | 4.3 | -8.1 | 7.6 | 0.0 to 1.0 |
| Wholesale dairy | 1.0 | 0.9 | -1.6 | 3.5 | -1.0 to 0.0 |
| Farm level soybeans | 0.5 | -9.9 | 13.2 | -1.8 | -8.0 to -7.0 |
| Wholesale fats and oils | -0.3 | -7.9 | -2.0 | -6.7 | -5.0 to -4.0 |
| Farm level fruits | 0.2 | -5.2 | 1.1 | 1.8 | 1.5 to 2.5 |
| Farm level vegetables | -13.4 | 22.5 | -19.8 | 26.4 | -4.0 to -3.0 |
| Farm level wheat | -0.4 | -16.1 | -2.6 | -3.0 | -8.0 to -7.0 |
| Wholesale wheat flour | -0.2 | -6.3 | 2.0 | 0.0 | -10.0 to -9.0 |



Expanding Retailer Margins?

- These effects would resonate most in the supermarket aisles
 - Where inflation has been so low
 - Other foods, snacks, sweets, breakfast cereals
- Watch the PPIs closely early in 2014



ERS and Retail Food Prices

- Forecasting is only a part of the job
- Food prices are a vital component to answering a myriad of economic questions
- If you have a question about or involving retail food prices, chances are there is an expert on the topic in the Food Economics Division (FED)



ERS Research on Retail Food Prices

- Kumcu and Okrent: “Methodology for the Food-Away-From-Home and Alcohol Prices Database,” forthcoming
 - New, forthcoming database of prices for full service, limited service, vending machines, and schools
 - Uses micro data from BLS CPI
 - In conjunction with QFAPHD will help describe food choices and dietary quality as a function of prices



ERS Research on Retail Food Prices

- Volpe (2013): “How Transportation Costs Affect Fruit and Vegetable Prices”
 - Produce prices are very sensitive to fuel prices
 - Impact depends on route traveled and method of transport
 - Commodities with higher import shares show weaker fuel price impacts



ERS Research on Retail Food Prices

- Carlson, Dong, & Lino: “Association between Total Diet Cost and Diet Quality is Limited,” forthcoming *Journal of Agricultural and Resource Economics*
 - Total food expenditures rise only slightly with dietary quality
 - Fruits and vegetables are inexpensive in serving terms
 - Many improvements to dietary quality do not necessitate increased food expenditures



Current Forecasts (a)

| Items | 2011 | 2012 | 2013 | Forecast 2014 |
|-------------|-------------|------------|------|------------------|
| All Food | 3.7 | 2.6 | 1.4 | 2.5 to 3.5 |
| FAFH | 2.3 | 2.8 | 2.1 | 2.5 to 3.5 |
| FAH | 4.8 | 2.5 | 0.9 | 2.5 to 3.5 |
| Beef | 10.2 | 6.4 | 2.0 | 3 to 4 |
| Pork | 8.5 | 0.3 | 0.9 | 2 to 3 |
| Other Meats | 6.4 | 1.7 | -0.1 | 2 to 3 |
| Poultry | 2.9 | 5.5 | 4.7 | 3 to 4 |

Current Forecasts (b)

| Items | 2011 | 2012 | 2013 | Forecast 2014 |
|-------------------|------------|------------|------|--------------------------|
| All Food | 3.7 | 2.6 | 1.4 | 2.5 to 3.5 |
| FAH | 4.8 | 2.8 | 2.1 | 2.5 to 3.5 |
| Fish | 7.1 | 2.4 | 0.9 | 2.5 to 3.5 |
| Dairy | 6.8 | 2.1 | 0.1 | 2.5 to 3.5 |
| Fats and Oils | 9.3 | 6.1 | -1.4 | 1.5 to 2.5 |
| Sugar + Sweets | 3.3 | 3.3 | -1.7 | 2 to 3 |
| Eggs | 9.2 | 3.2 | 3.3 | 2 to 3 |



Current Forecasts (c)

| Items | 2011 | 2012 | 2013 | Forecast 2014 |
|---------------------|------|-------------|------|------------------|
| Fresh Fruits | 3.3 | 1 | 2.0 | 2.5 to 3.5 |
| Fresh Vegetables | 5.6 | -5.1 | 4.7 | 2 to 3 |
| Processed F + V | 2.9 | 3.8 | 0.3 | 2.5 to 3.5 |
| Cereals + Bakery | 3.9 | 2.8 | 1.0 | 1.5 to 2.5 |
| Nonalc. Bev. | 3.2 | 1.1 | -1.0 | 2.5 to 3.5 |
| Other Foods | 2.3 | 3.5 | 0.5 | 2 to 3 |



Resources for Food Price Trends Research

- ERS CPI Forecasts
<http://www.ers.usda.gov/data-products/food-price-outlook.aspx>
- New ERS Reports
<http://www.ers.usda.gov/publications/err129/>
<http://www.ers.usda.gov/Publications/EIB75/>
<http://www.ers.usda.gov/Publications/ERR105/>
- BLS CPI, PPI, and Average Price Data
<http://data.bls.gov/PDQ/outside.jsp?survey=cu>
<http://data.bls.gov/PDQ/outside.jsp?survey=wp>
<http://data.bls.gov/PDQ/outside.jsp?survey=ap>
- AMS Fruit and Vegetable Report
<http://www.ams.usda.gov/mnreports/fvwretail.pdf>
- IMF World Commodity Prices
<http://www.imf.org/external/np/res/commod/index.asp>



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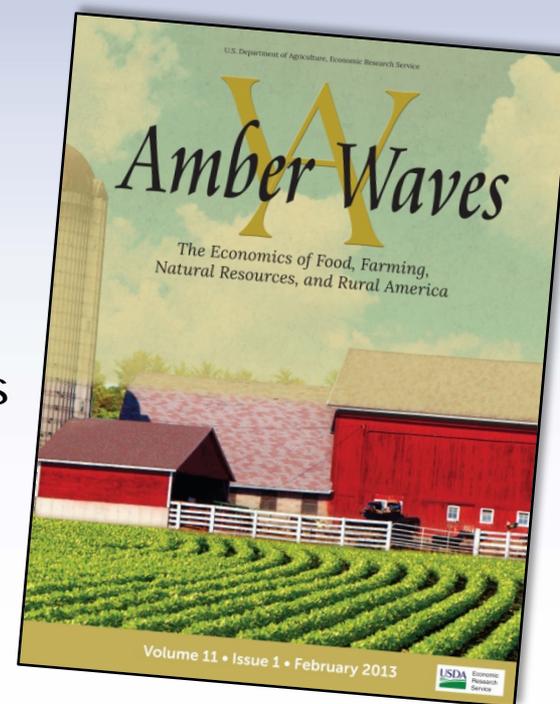
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For more information, see

<http://www.ers.usda.gov/data-products/food-price-outlook.aspx>

