

The Impact of Retail Store Format Price Variation on CACFP Food Costs

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Food Price Data Resources

p Store-based Data

n BLS

- p Consumer Price Index (CPI)
- p Average Price Data (AP)

n USDA-AMS

- p Fruit and Vegetable, Milk

n Proprietary data

- p Scantrack (Nielsen) , Infoscanner (IRI), C2ER (ACCRA)

p Consumer-based Data

- n Homescan (Nielsen), Consumer Network (IRI)

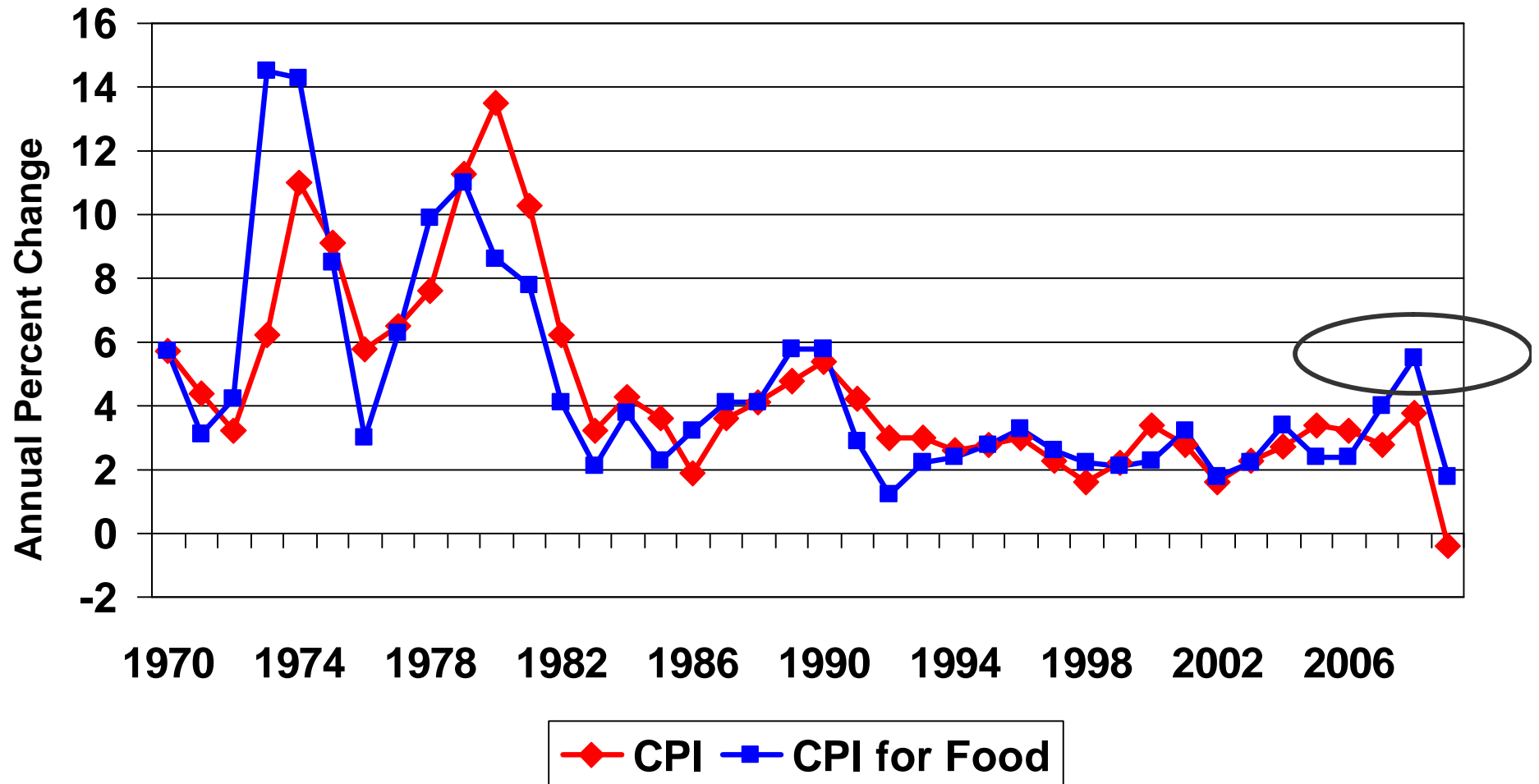
Nielsen Homescan Panel, 1998-2008

- p** 200,000+ unique household-by-year observations
- p** Scan food products purchased for food-at-home consumption:
 - n** Traditional supermarkets and grocery stores
 - n** Nontraditional retailers
 - n** Drug and convenience stores
- p** Price and quantity purchased recorded on a daily basis
- p** Market level data with 50 U.S. markets

Sources of Retail Price Changes

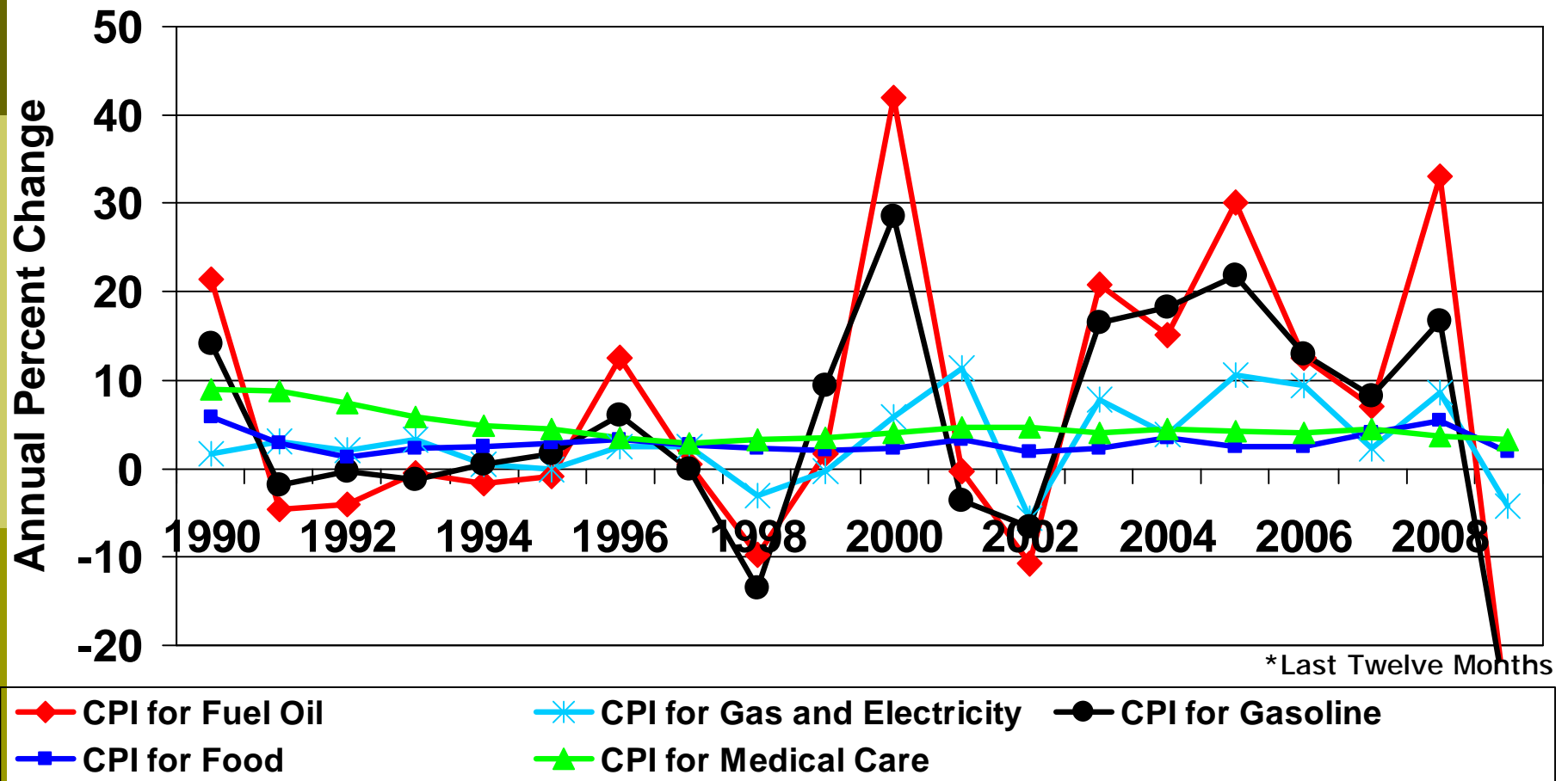
- ⌘ Changes in Costs
 - ⌘ Cost of Goods Sold
 - ⌘ Operating Costs
- ⌘ Changes in Retail Market Competition
 - ⌘ Number of retailers in a market
 - ⌘ Type of retailers
 - ⌘ Specialization
 - ⌘ Differentiation
- ⌘ Changes in Consumer Demand

CPI vs. CPI for Food 1970-2009



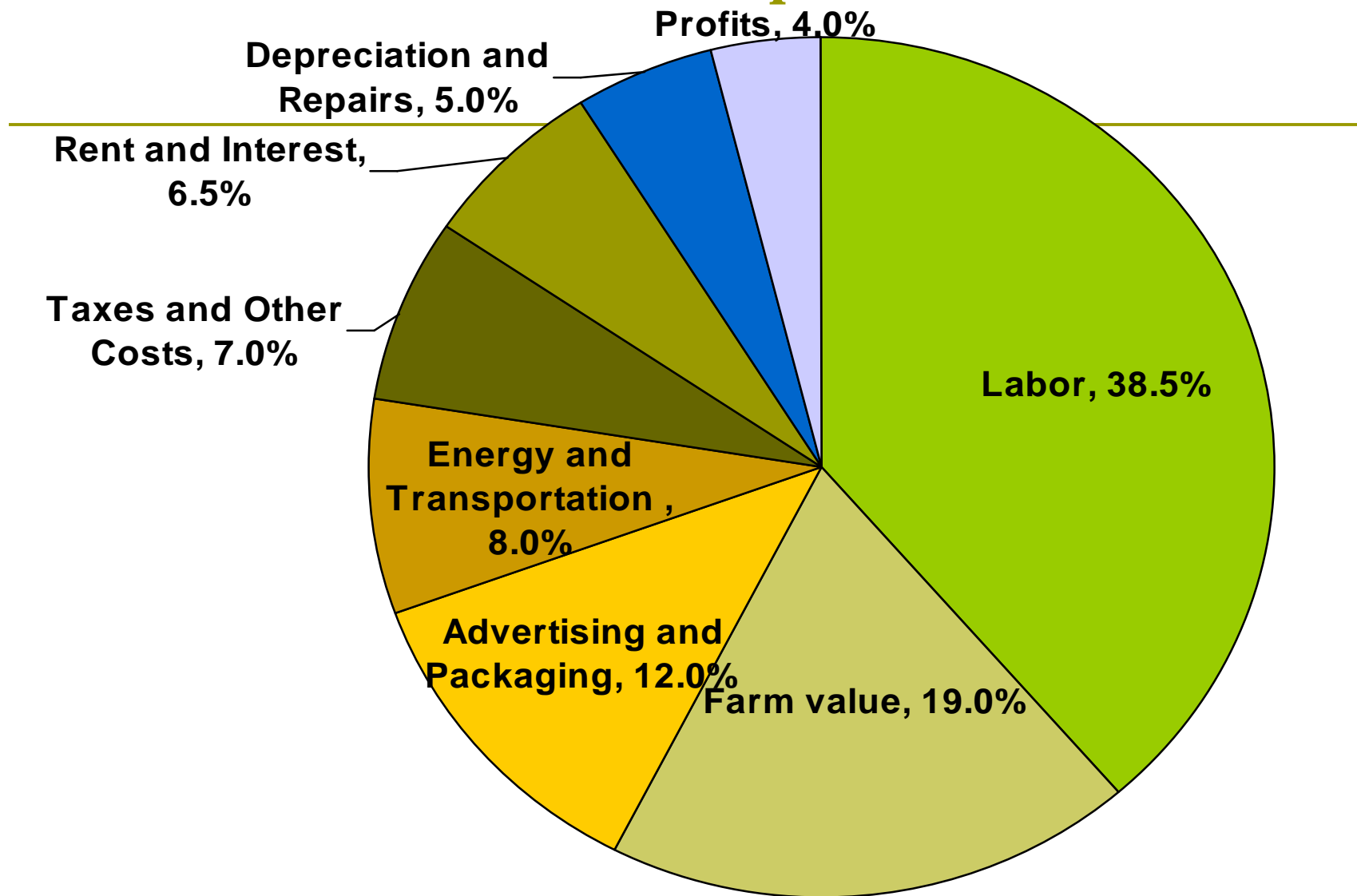
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Food vs. Energy, 1990-2009



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Where a Consumer Dollar Spent on Food Goes



Source: Economic Research Service Calculations
using 2006 Data
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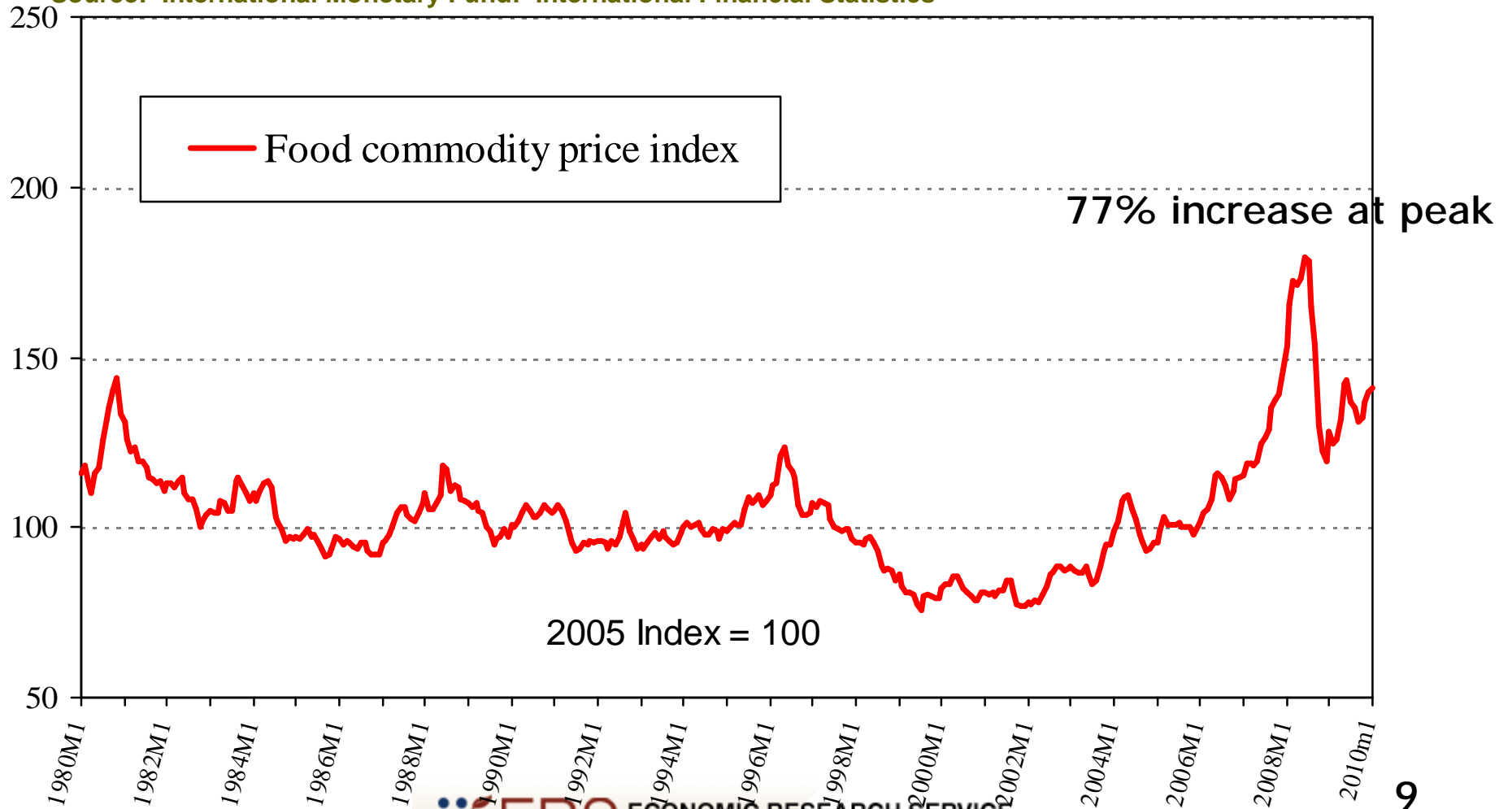
Trends in Retail Food Markets

- ⌘ Impact of the Recession and Recovery
- ⌘ Volatility in food commodity markets
- ⌘ Transportation and energy costs
- ⌘ Competition from a variety of formats
 - ⌘ Supercenter/Warehouse Club/Dollar/Limited Assortment/Upscale/Gourmet
- ⌘ Food Safety
- ⌘ Location and size of store
- ⌘ Local/Natural/Organic /Fresh/NoTransFat/...

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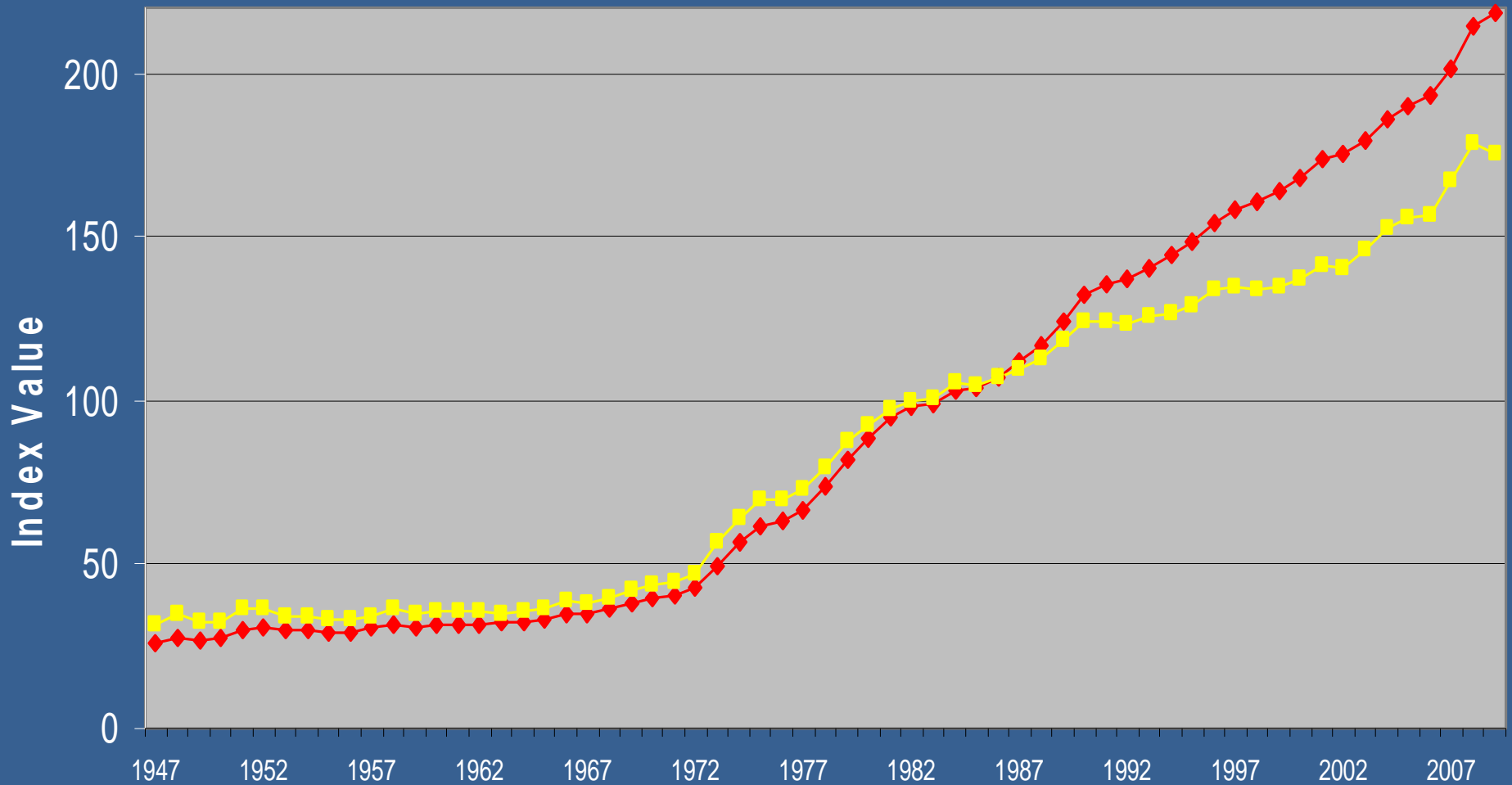
Food commodity prices down 22% from the 2008 peak, but still up 39% since January 2006

Source: International Monetary Fund: International Financial Statistics



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Divergence Provides Opportunity for New Formats



◆ CPI for Food at Home

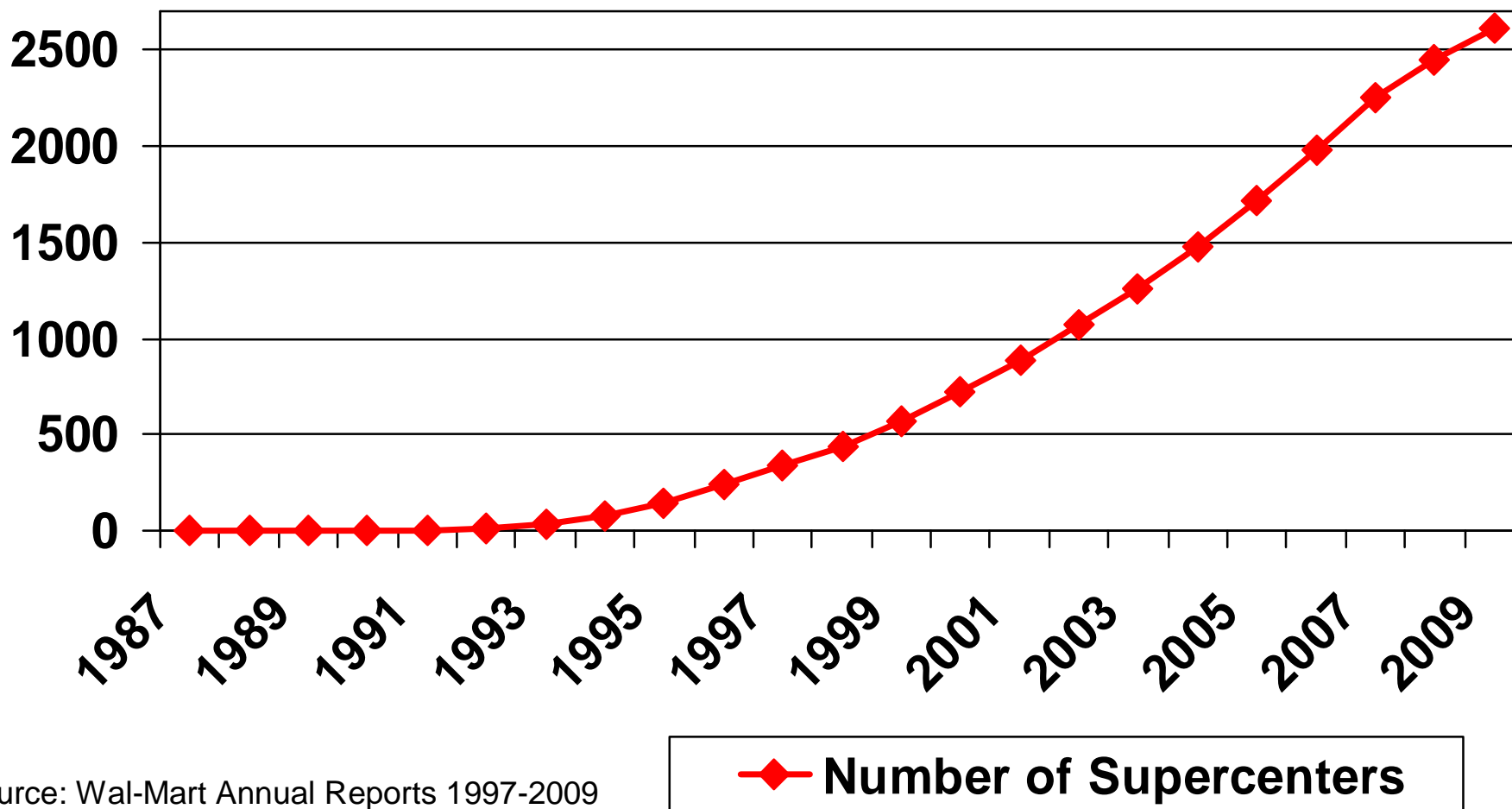
■ PPI for Finished Consumer Foods

Nontraditional Retailers Increase their Market Share



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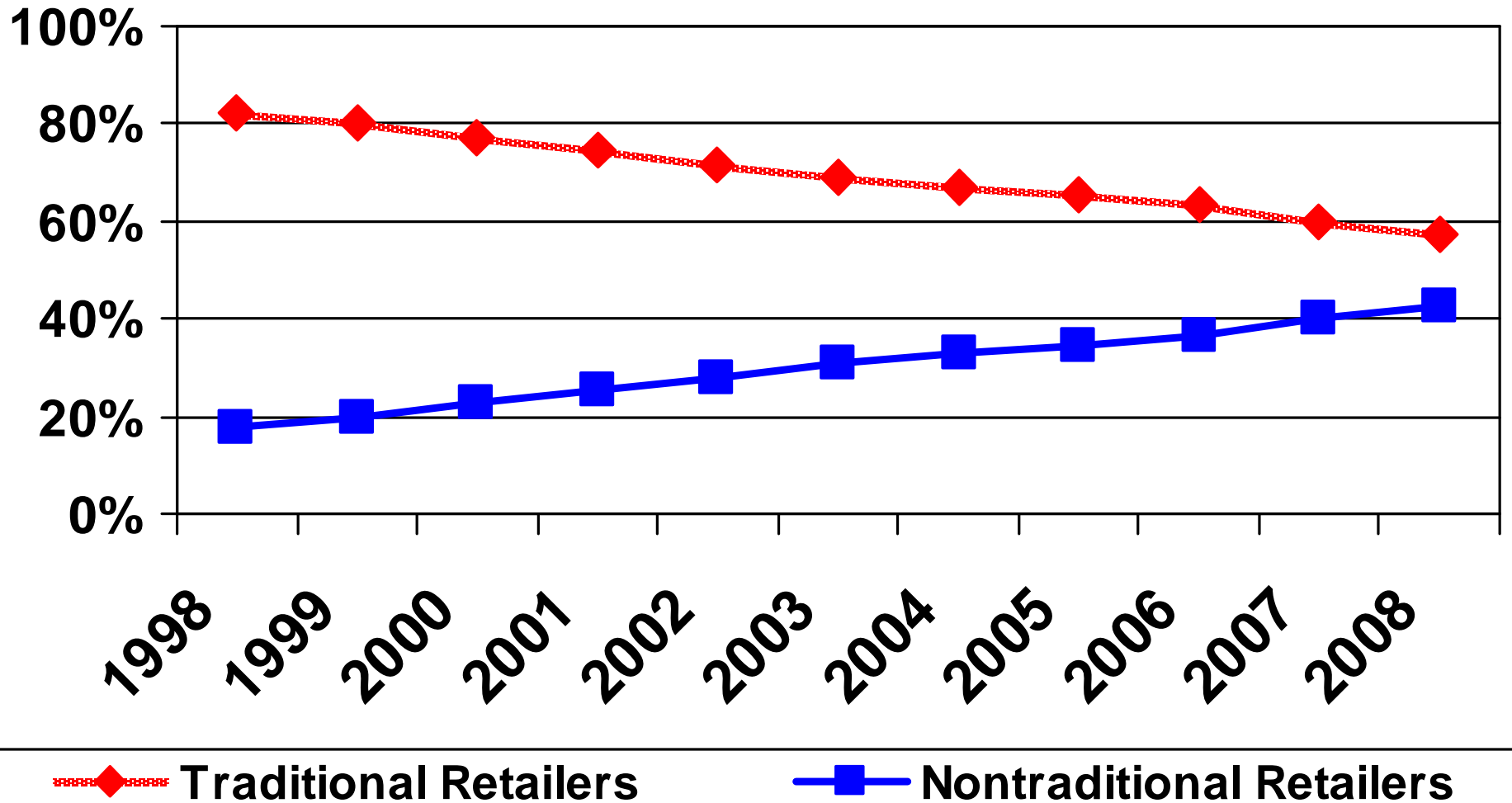
Wal-Mart Supercenter Store Count



Source: Wal-Mart Annual Reports 1997-2009

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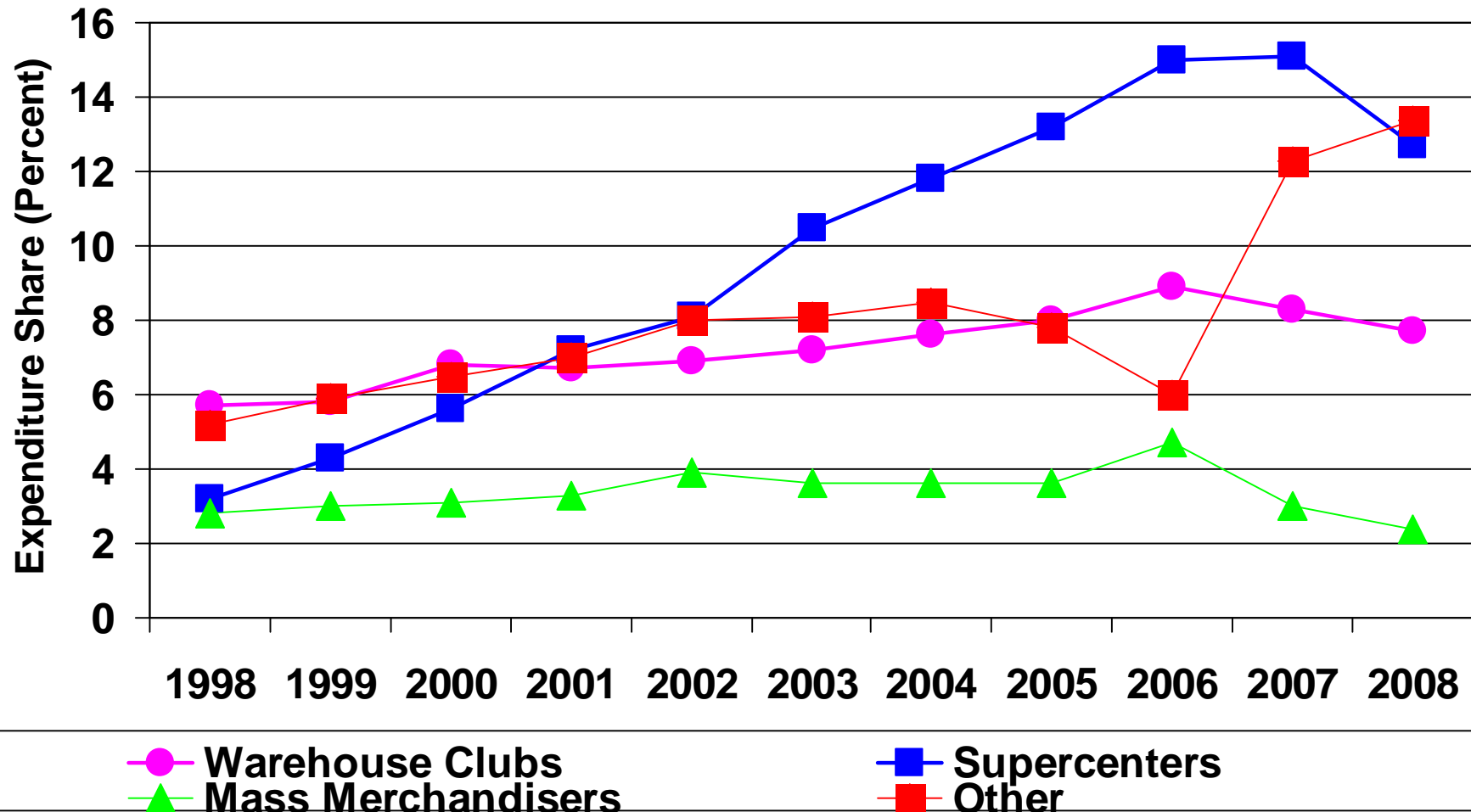
Expenditure Shares for Nontraditional Food Stores Continue to Rise



Source: ERS Calculations of ACNielsen Homescan Data

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Expenditure Shares for Nontraditional Formats 1998-2008



Research Findings

p National Prices:

- n 71% of UPC products in dairy, meat, fruit and vegetable, and grain categories show significantly lower prices in nontraditional stores from 2004 to 2006, ranging from 1.3 to 25.2 percent lower.
- n Other factors besides quality and package size play a role in price differences across store types.

p Market level prices:

- n Areas with high nontraditional retail concentration and growth have price discounts less often and by smaller amounts in nontraditional stores than do those areas with low nontraditional retail concentration and growth.

Average Price Calculation

- p Household-weighted average prices**
- p Compare similar products**
 - n UPC**
 - n Package size/Product description**
- p Price per unit**
 - n Expenditure/Quantity**
- p Projection Factors**
 - n Account for household demographics**

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SOY SAUCE
RICE
CANNED MEAT
TUNA

CANNED MICROWAVE
CANNED PASTA
RAMEN NOODLES
CANNED SOUP

Save *Even More!* Was \$238

Save *Even More!*

Was \$238

\$186

\$186

It's more than just a name... WE GUARANTEE IT.
value

We'll Match It!

2 for \$1



Regression Example: 6 oz. Branded Yogurt

- ⌘ Nontraditional stores have 7% lower prices
- ⌘ Drug/convenience stores have 17% higher prices
- ⌘ Larger HHs pay slightly lower prices
- ⌘ Higher income HHs pay slightly higher prices
- ⌘ Midwest and South have slightly lower prices

Dairy prices at nontraditional and drug/convenience stores as compared to grocery stores, 2004-2006

Dairy	Nontraditional	Drug and Convenience
LF Milk	4%	32%
Whole Milk	3%	6%
LF Cheese	8%	9%
RF Cheese	-5%	-3%
Yogurt	-12%	22%
Simple Average	-0.5%	13%

Produce prices at nontraditional and drug/convenience stores as compared to grocery stores, 2004-2006

Produce	Nontraditional	Drug and Convenience
Bananas	-8%	-2%
Canned Pineapple	-13%	3%
Orange Juice	-2%	3%
Broccoli	-2%	23%
Grape Tomatoes	-11%	-13%
Canned Tomatoes	-10%	0%
Simple Average	-8%	2%

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Meat prices at nontraditional and drug/convenience stores as compared to grocery stores, 2004-2006

Meats	Nontraditional	Drug and Convenience
Fresh Poultry	-7%	-14%
Turkey Breast	-6%	5%
Salami	-1%	20%
Canned Meat	-9%	-9%
Canned Poultry	-12%	-12%
Simple Average	-7%	-2%

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Grain prices at nontraditional and drug/convenience stores as compared to grocery stores, 2004-2006

Grains	Nontraditional	Drug and Convenience
WG Breakfast Cereal	-7%	-4%
WG Flour	-22%	-32%
WG Frozen	-16%	NA
RG Breakfast Cereal	-4%	-3%
RG Flour	-4%	0%
RG Frozen	-10%	0%
Simple Average	-10%	-8% *

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Recent and Forthcoming Literature

- Leibtag and Barker, "National and Market-Level Price Differences between Nontraditional and Traditional Food Retailers", forthcoming from ERS
- Harding and Lovenheim, "Living on a Budget: National Evidence on Price Search and Consumer Heterogeneity from Homescan Data," working paper/forthcoming
- Ver Ploeg, et al, "Access to Affordable and Nutritious Food: Measuring and Understanding Food Deserts and Their Consequences", ERS, June 2009.
- Griffith, et al. "Consumer Shopping Behavior: How Much Do Consumers Save?" and Broda, Leibtag, and Weinstein, "The Role of Prices in Measuring the Poor's Living Standards." *Journal of Economic Perspectives*, Spring 2009

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For more information, see

<http://www.ers.usda.gov/Briefing/CPIFoodAndExpenditures/>

End of Presentation

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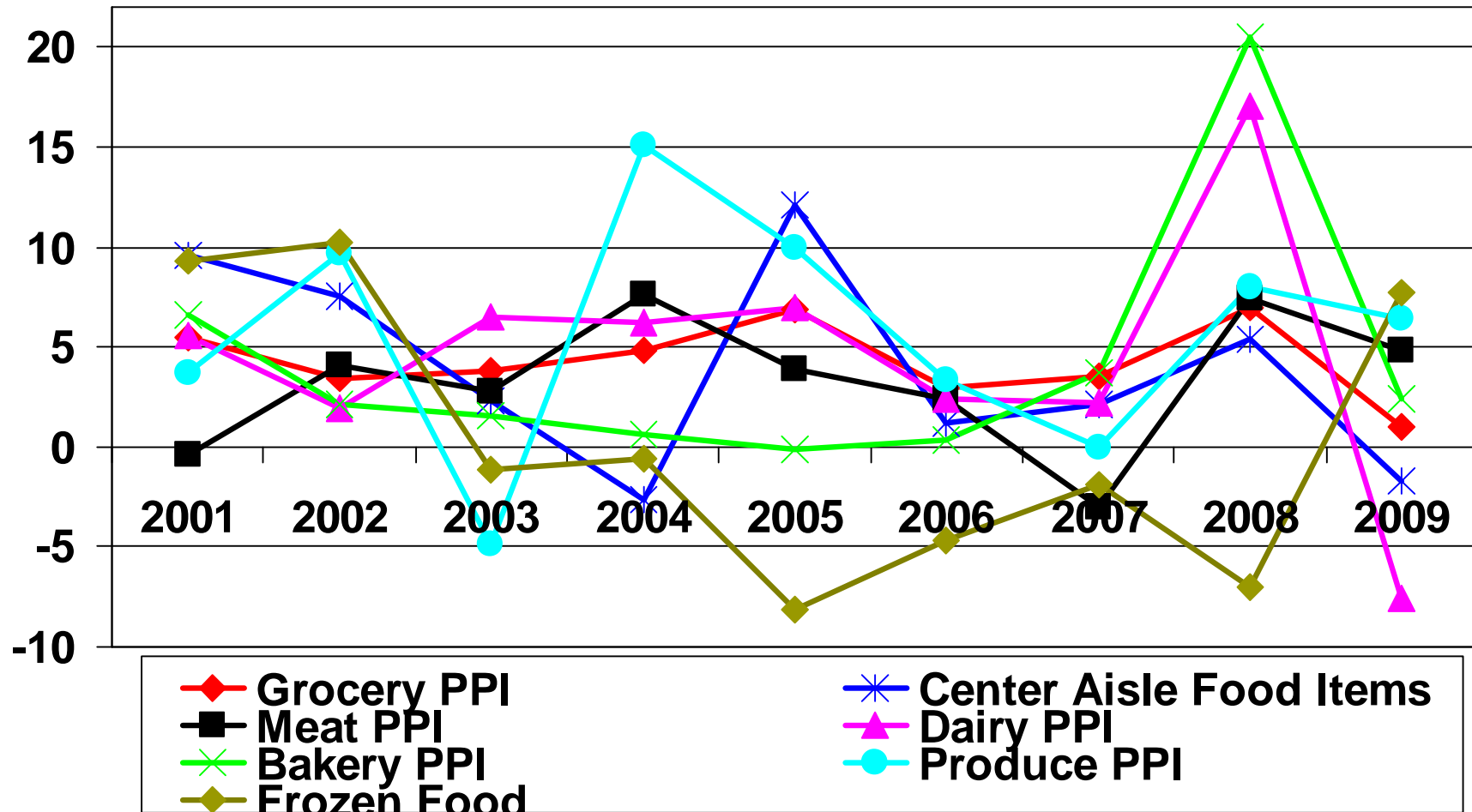
Motivation- an Egg Example



Sources: USDA, BLS

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PPI for Retail Grocery Department Margins

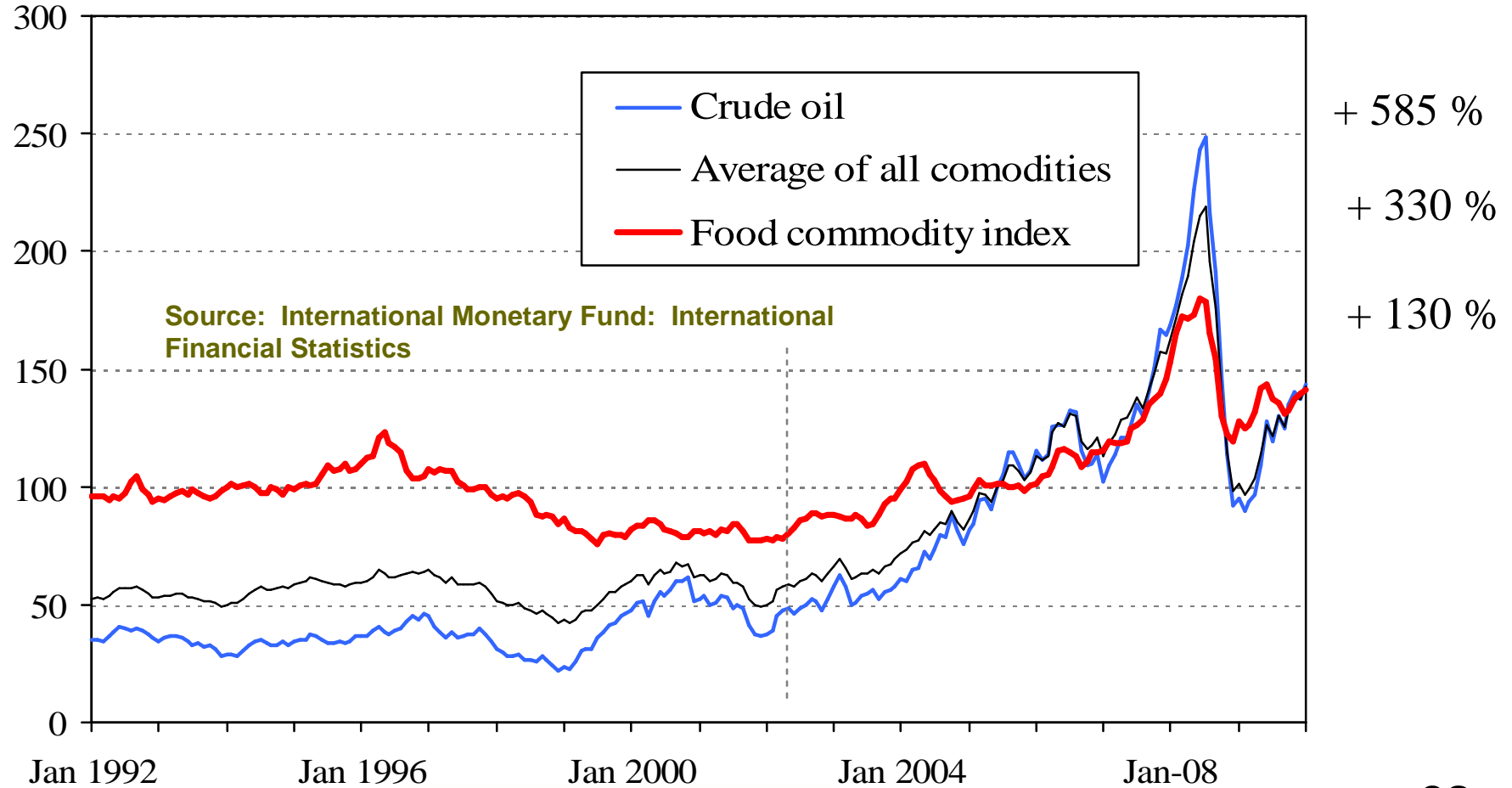


Milk Prices – 5.7% Lower

Milk Type	1998	1999	2000	2001	2002	2003
Skim Milk						
Grocery Stores	2.27	2.41	2.39	2.42	2.30	2.32
Drug and Convenience Stores	2.38	2.55	2.45	2.54	2.40	2.33
Nontraditional Retailers	1.99	2.29	2.27	2.20	2.17	2.07
Lowfat Milk						
Grocery Stores	2.34	2.51	2.45	2.54	2.38	2.41
Drug and Convenience Stores	2.35	2.49	2.58	2.54	2.45	2.36
Nontraditional Retailers	2.18	2.34	2.24	2.33	2.25	2.28
Whole Milk						
Grocery Stores	2.55	2.67	2.60	2.73	2.57	2.63
Drug and Convenience Stores	2.66	2.73	2.75	2.82	2.76	2.55
Nontraditional Retailers	2.45	2.58	2.59	2.71	2.52	2.53

Prices of Many Commodities Rose Even More

Index: 2005 = 100



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