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# **Outlook for U.S. Retail Food Prices and Inflation in 2009**

#### Ephraim Leibtag, PhD

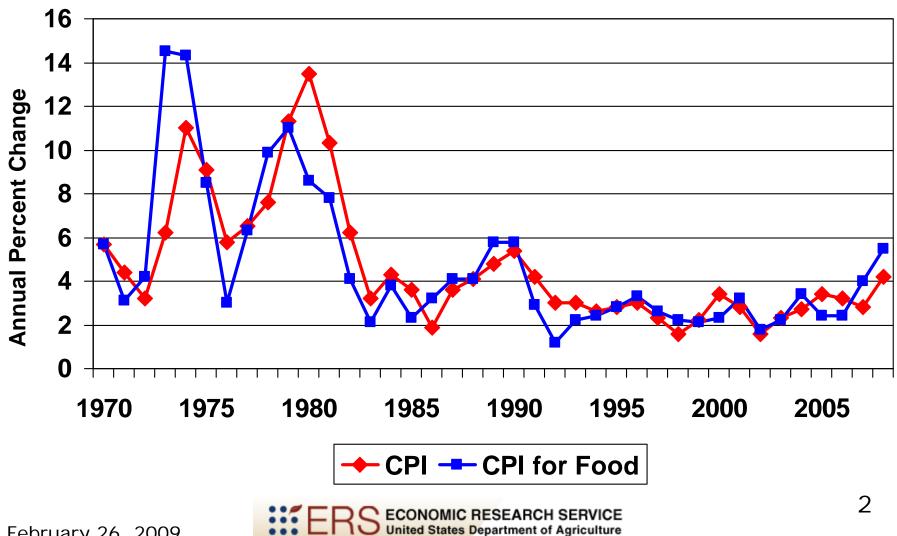
Food Markets Branch, Food Economics Division ERS-USDA

Presented at the 2009 Agricultural Outlook Forum Global Agriculture & Rural America in Transition

February 26, 2009

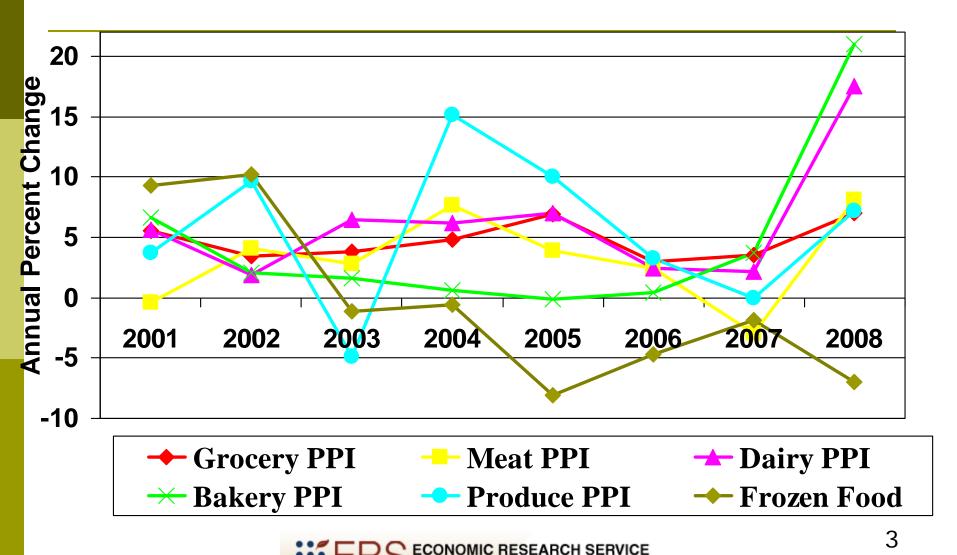


# CPI vs. CPI for Food 1970-2008



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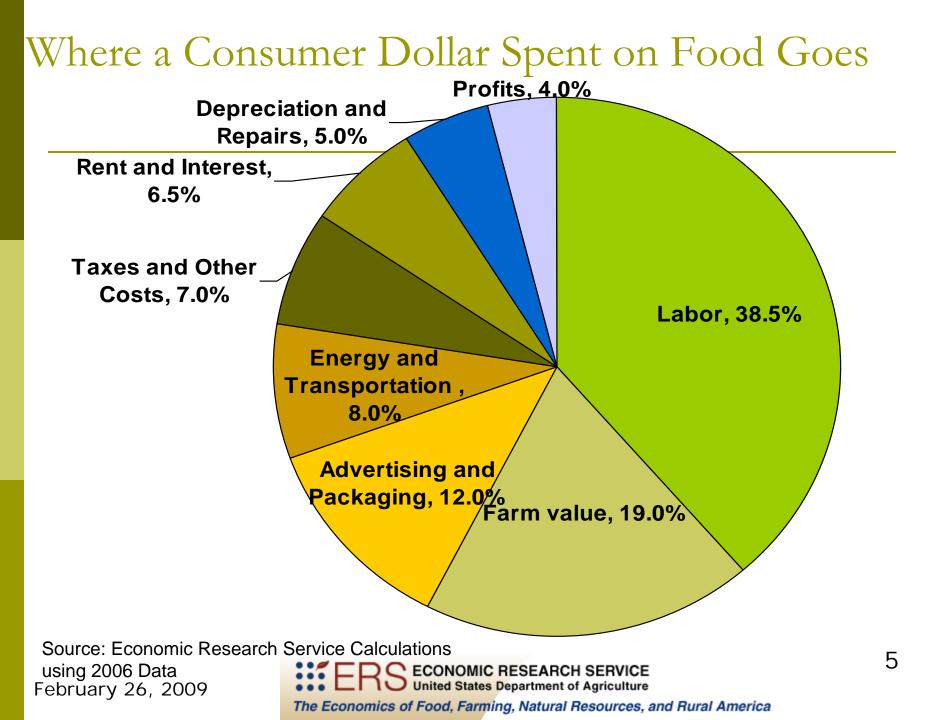
#### PPI for Retail Grocery Department Margins



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# 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

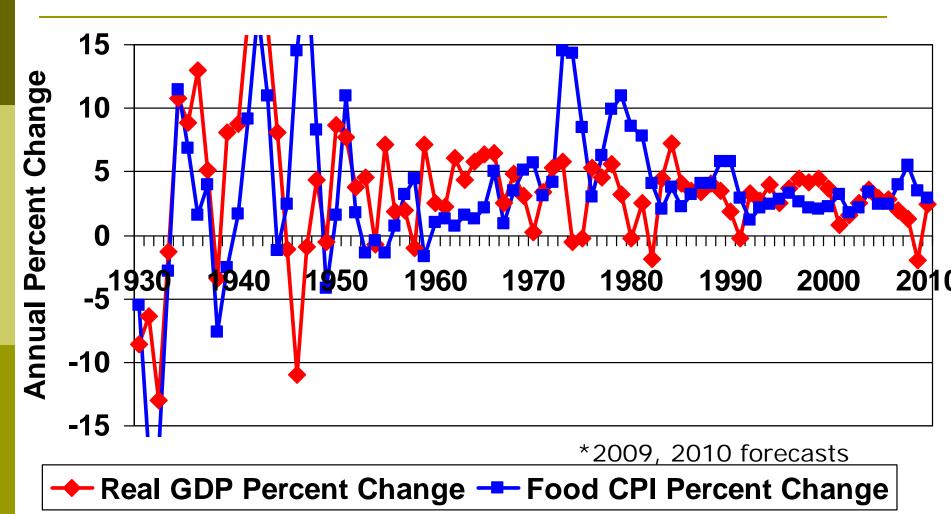


# Trends in Retail Food Markets

- Impact of the Recession
- 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
- Lowfat/Sugar Free/Natural/Organic /Fresh/NoTransFat/Local...

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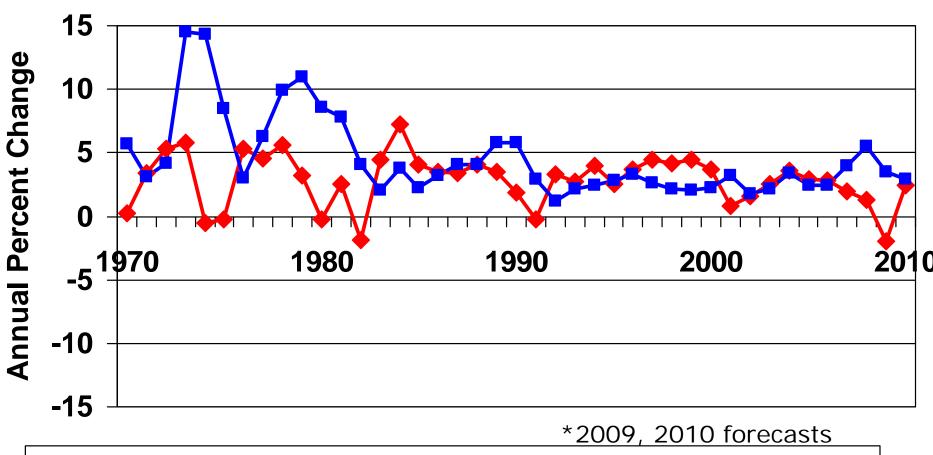
#### GDP Growth and Food Inflation, 1930-2010\*



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#### GDP Growth and Food Inflation, 1970-2010\*

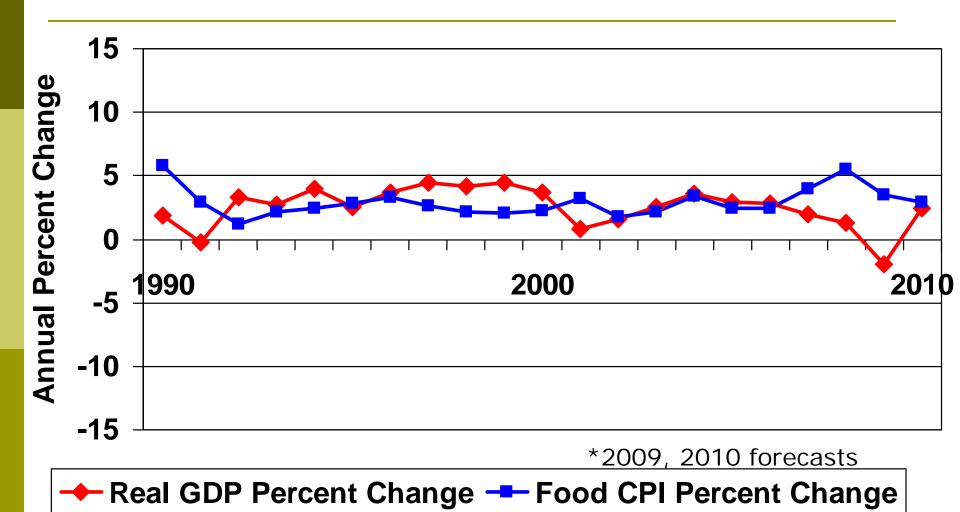


#### Real GDP Percent Change — Food CPI Percent Change

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#### GDP Growth and Food Inflation, 1990-2010\*



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## GDP Growth and Food Inflation Trends

#### Mean Growth Rate

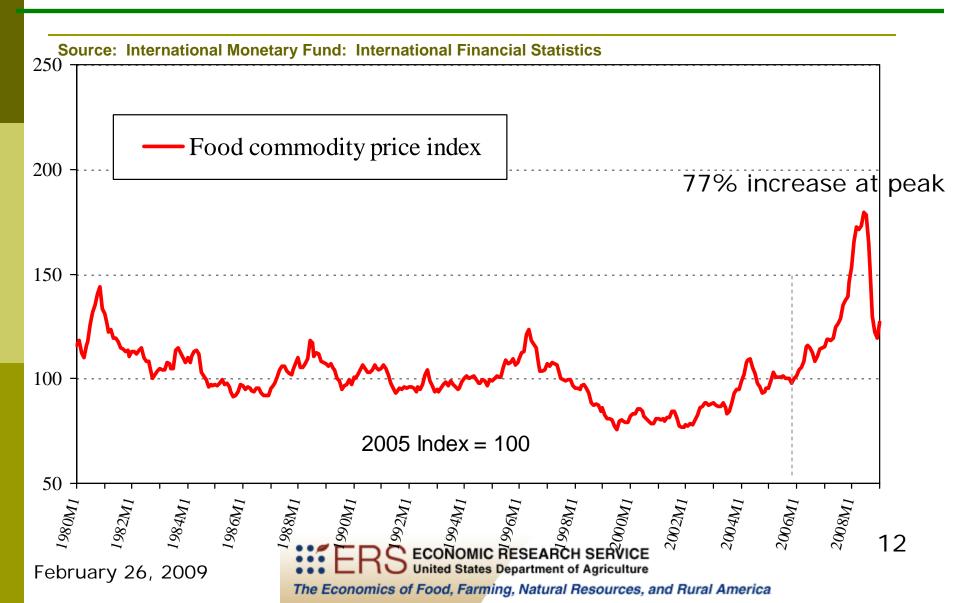
- 1930-2008: GDP 3.5, Food CPI 3.5
  - □ 1930-1949: GDP 3.7, Food CPI 2.6
  - **D** 1950-1969: GDP 4.3, Food CPI 2.0
  - □ 1970-1989: GDP 3.2, Food CPI 6.3
  - □ 1990-2008: GDP 2.8, Food CPI 2.9
- Same Year Correlation Patterns
  - 1930-2008: 0.37
    - **1930-1949**: 0.51
    - **1950-1969: 0.09**
    - **1970-1989: -0.21**
    - **1990-2008:** -0.39

## GDP Growth and Food Inflation Lags

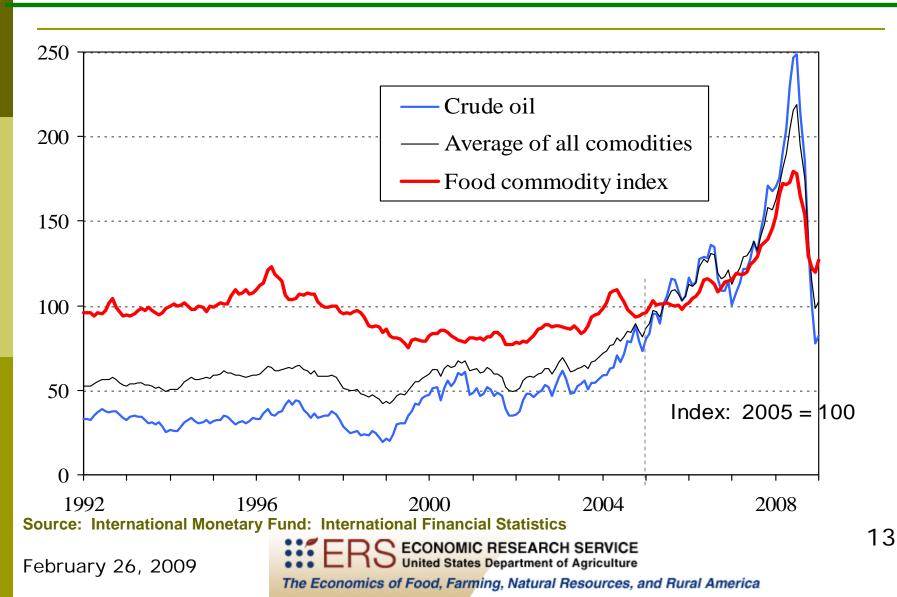
1-Year Lag Correlation Patterns

- **1930-2008: 0.26** 
  - **1930-1949: 0.27**
  - **1950-1969**: 0.41
  - **1970-1989:** 0.35
  - **1990-2007**: 0.08
- 2-year Lag Correlation Patterns
  - **1930-2008: 0.05** 
    - **1930-1949**: 0.04
    - **1950-1969**: 0.05
    - **1970-1989:** 0.36
    - **1990-2006**: 0.08

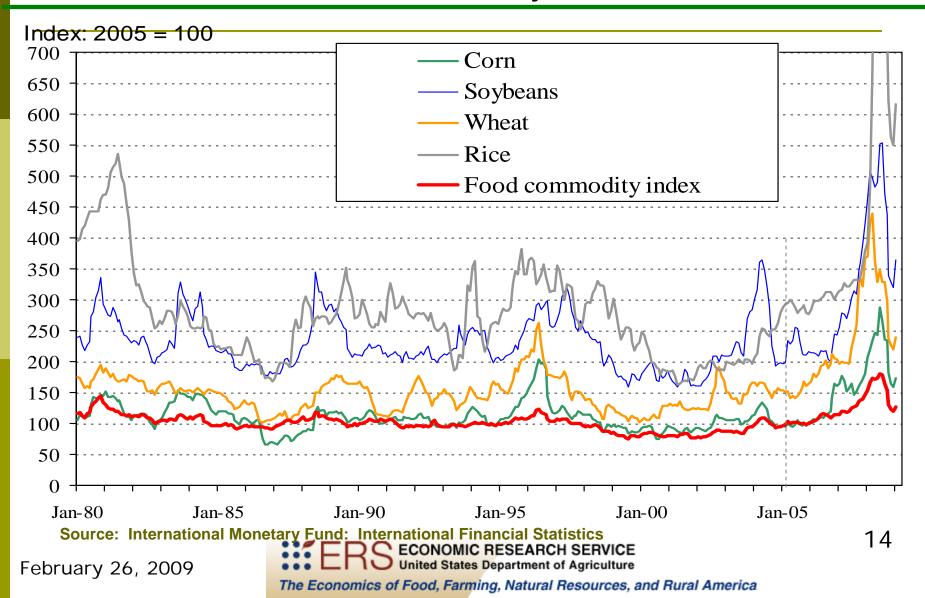
# Food commodity prices down 30% from the summer, but still up 25% since January 2006



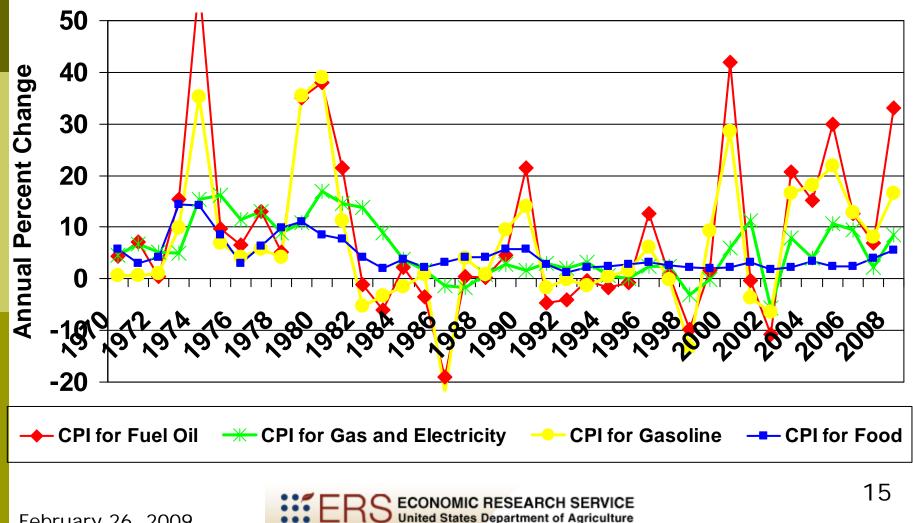
#### Prices of Many Commodities Rose Even More



#### Spikes in food commodity prices: Will this time be any different?

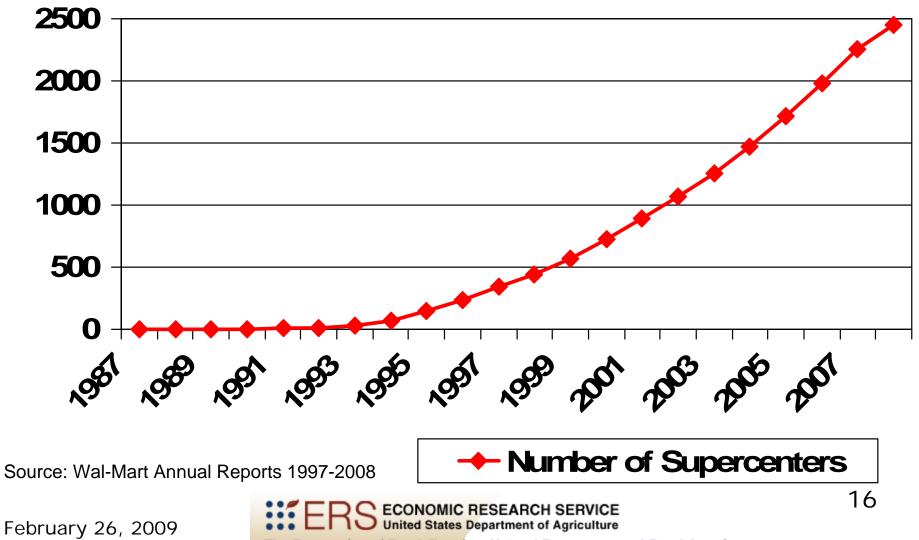


# Food vs. Energy, 1970-2008

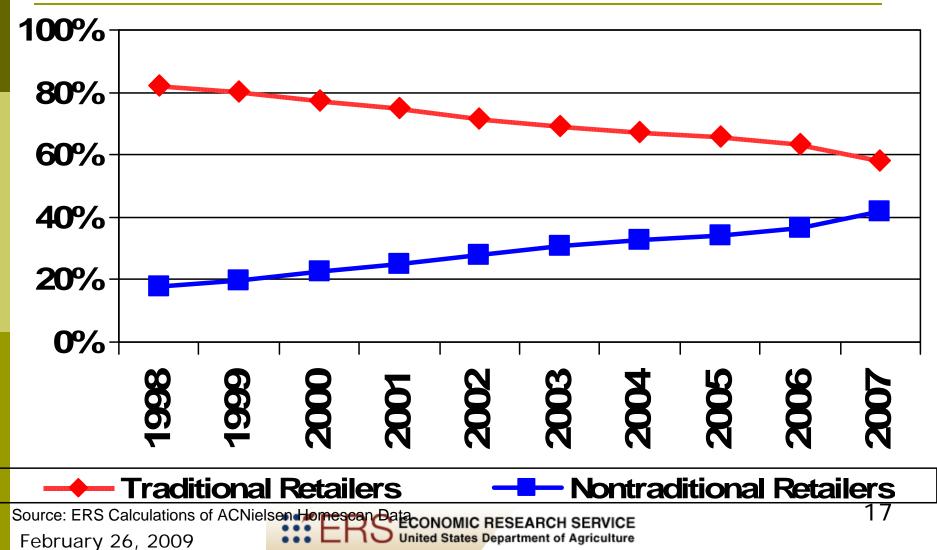


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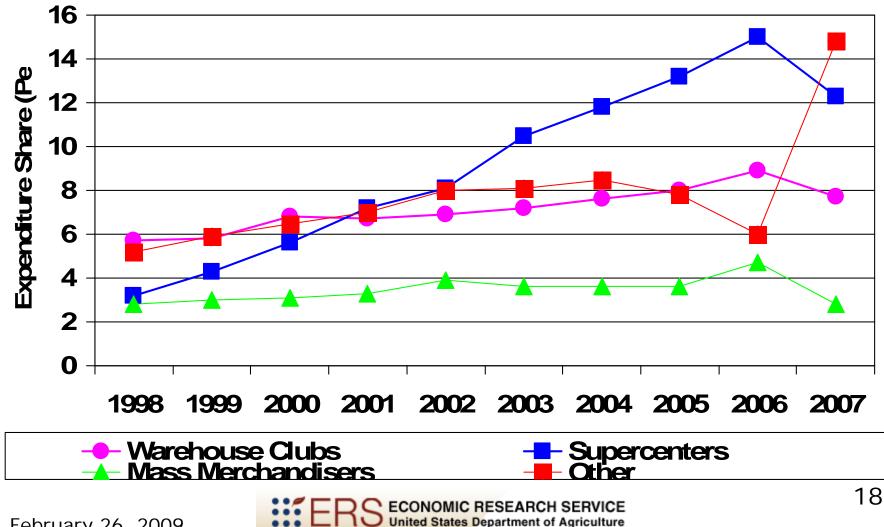
# Wal-Mart Supercenter Store Count



# Expenditure Shares for Nontraditional Food Stores Continue to Rise



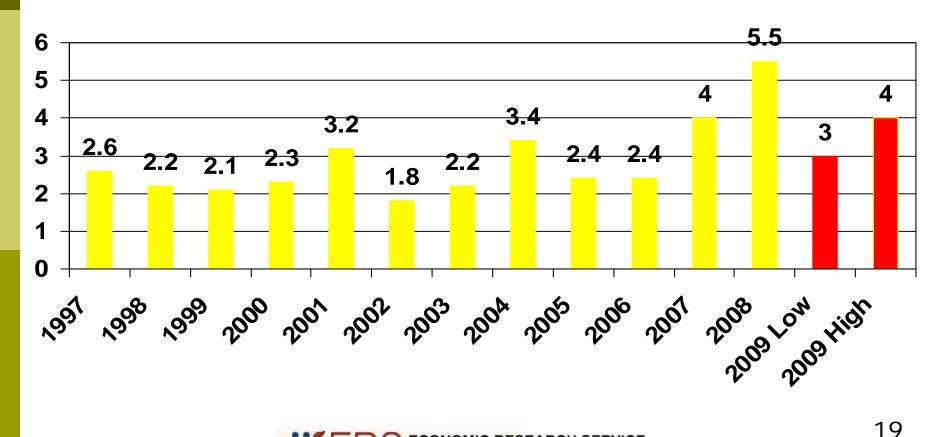
## Expenditure Shares for Nontraditional Formats 1998-2007



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# Food CPI Well Above Historical Average in 2008, Lower in 2009

#### **Annual Percent Change in CPI for Food**



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#### **2008**

- Higher commodity costs (corn, wheat, soybeans, etc.)
- Higher energy and transportation costs
- Increased U.S. exports due to weaker dollar/growing global demand
- **2009** 
  - Food commodity costs down from summer highs
  - Energy prices down
  - Domestic and global demand weakens

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#### Caveats

#### Food commodity volatility

- Commodities safe or...
- Nothing is safe

#### Food ~ Energy Connection

- Global demand for U.S. exports
- Duration and depth of recession
  Consumer demand for food

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# Percent Change in Food CPI (a)

Items	2006	2007	2008	Forecast 2009
All Food	2.4	4.0	5.5	3.0 to 4.0
Food Away from Home	3.1	3.6	4.4	3.5 to 4.5
Food at Home	1.7	4.2	6.4	2.5 to 3.5
Beef	0.8	4.4	4.5	1.5 to 2.5
Pork	-0.2	2.0	2.3	1.5 to 2.5
Other Meats	1.8	2.3	3.1	0.0 to 1.0
Poultry	-1.8	5.2	5.0	2.0 to 3.0

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# Percent Change in Food CPI (b)

Items	2006	2007	2008	Forecast 2009
All Food	2.3	4.0	5.5	3.0 to 4.0
Food at Home	1.7	4.2	6.4	2.5 to 3.5
Fish and Seafood	4.7	4.6	6.0	4.0 to 5.0
Dairy	-0.6	7.4	8.0	-4.0 to -3.0
Fats and Oils	0.2	2.9	13.8	3.0 to 4.0
Sugar + Sweets	3.8	3.1	5.5	3.0 to 4.0
Eggs	4.9	29.2	14.0	-5.0 to -4.0

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# Percent Change in Food CPI (c)

Items	2006	2007	Forecast	
			2008	2009
All Food	2.3	4.0	5.5	3.0 to 4.0
Food at Home	1.7	4.2	6.4	2.5 to 3.5
Fresh Fruits	6.0	4.5	4.8	4.0 to 5.0
Fresh Vegetables	4.6	3.2	5.6	3.5 to 4.5
Processed F + V	2.9	3.6	9.5	3.0 to 4.0
Cereals + Bakery	1.8	4.4	10.2	2.5 to 3.5
Nonalcoholic Bev.	2.0	4.1	4.3	3.0 to 4.0

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#### Contact Information

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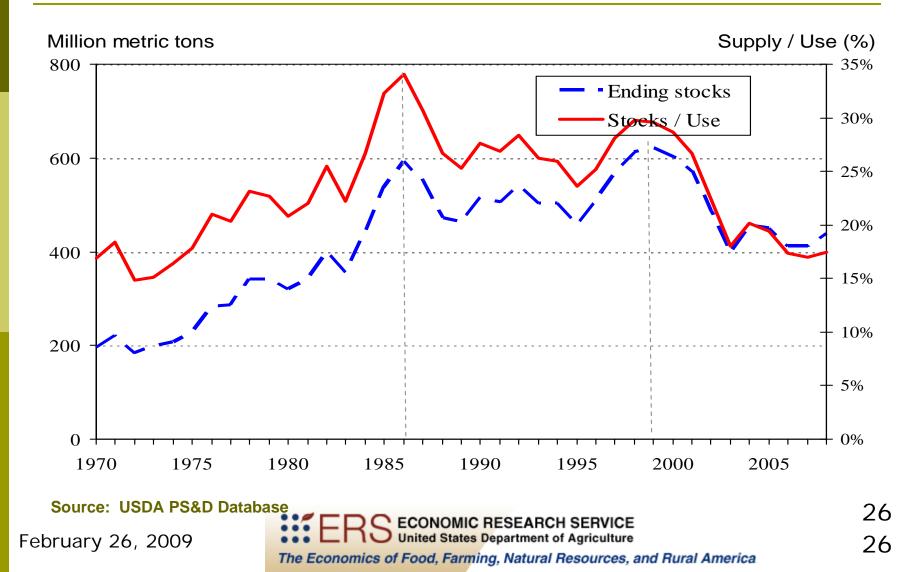
#### 202-694-5349

#### For more information, see

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

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### **Total world grain & oilseeds** Stocks and stocks-to-use ratio



## Nontraditional Expenditure Shares

	Warehouse Clubs	Supercenters	Mass Merchandisers	Other
1998	5.7%	3.2%	2.8%	5.2%
1999	5.8%	4.3%	3.0%	5.9%
2000	6.8%	5.6%	3.1%	6.5%
2001	6.7%	7.2%	3.3%	7.0%
2002	6.9%	8.1%	3.9%	8.0%
2003	7.2%	10.5%	3.6%	8.1%
2004	7.6%	11.8%	3.6%	8.5%
2005	8.0%	13.2%	3.6%	7.8%
2006	8.9%	15.0%	4.7%	6.0%

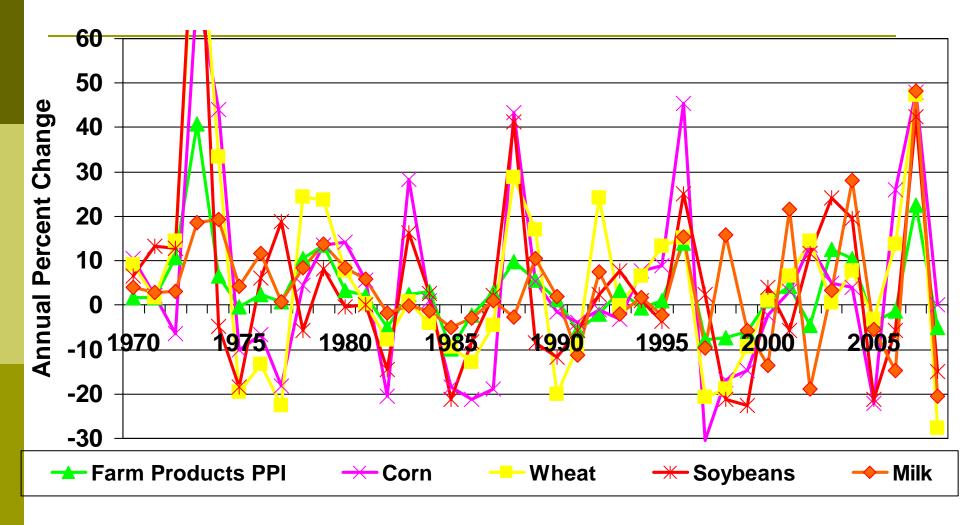
Source: ERS Calculations using Nielsen Homescan Data

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#### Volatile Farm Product PPI Components



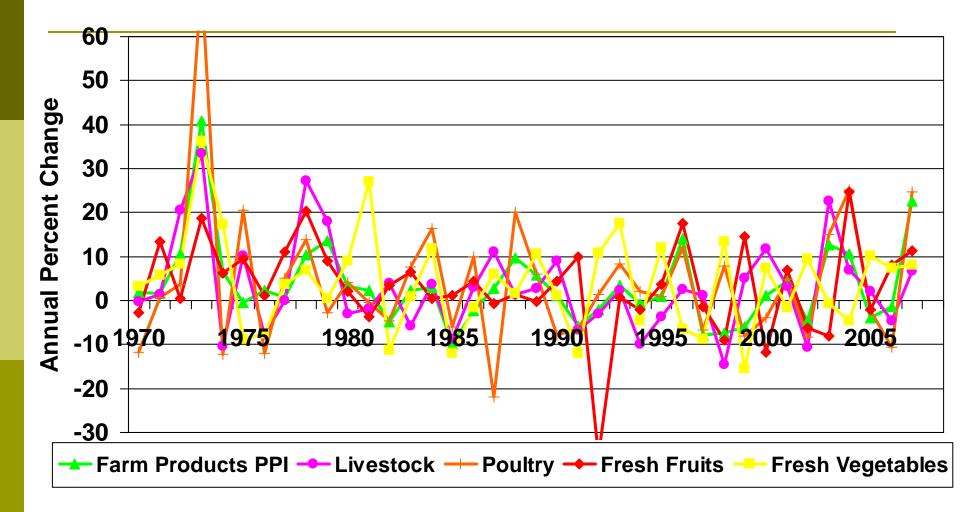
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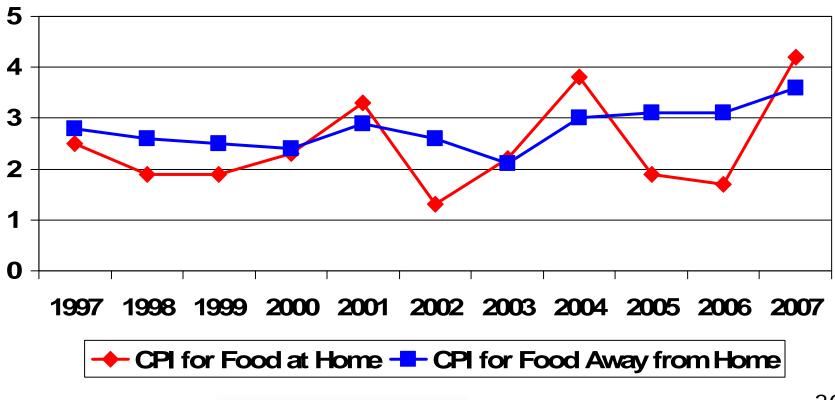
## Farm Product PPI Components (b)



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# Food at Home vs Food Away from Home, 1997-2007

**Annual Percent Change** 



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