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Hearing on
Focus on the Farm Economy: Food Prices and the Consumer**

Chairwoman Walorski and members of the Subcommittee, I appreciate this opportunity to present information on trends in retail food prices, the share of the average U.S. consumer budget spent on food, and the farm share of money spent by consumers on food. My remarks are based on the most recent data available from USDA's Economic Research Service (ERS) and other Federal Statistical Agencies.

The mission of ERS is to inform and enhance public and private decision-making on a broad range of economic and policy issues related to agriculture, food, the environment, and rural development. ERS is a trusted resource for objective information, data, and unique economic and social science analysis on these topics.

This afternoon I would like to discuss ERS data on retail food prices, consumer spending, and how food spending and prices can be linked to the food supply chain. These sets of data impact programs and policies affecting individual citizens who plan their diets and food budgets based on what foods are available, their associated prices, and other factors.

Measuring Retail Food Price Change

The dynamics of retail food markets are driven by changing trends in both what and how companies produce food and what consumers prefer to eat. A major factor in the food market during the past 30 years has been the rise in food away from home's share of total food spending. This increase means consumers are eating more outside of the home and paying for added services and convenience when buying food. Changes in diets and preferences also impact what foods are

available and consumed as do changes in where food is produced around the world. In order to understand food price dynamics, ERS uses Consumer Price Index (CPI) data from the Department of Labor's Bureau of Labor Statistics (BLS). BLS publishes food price changes through the monthly collection of prices from a representative group of food-stores and foodservice establishments.

The CPI compares prices in a base year to prices in the current year. For products purchased by consumers, the All-Items CPI is used to represent average increases or decreases in prices paid for retail goods and services. The All-Items CPI is composed of a number of sub-indexes, including the Food CPI.

There are separate food indexes reported for food-at-home, which consists of food sold in retail outlets, and food-away-from-home, which consists of meals, entrees, and other prepared foods sold in eating and drinking establishments, and non-commercial (institutional) foodservice outlets. To obtain the Food CPI, the separate indices of the at-home and away-from-home segments are combined, using their respective expenditure shares. Expenditure shares are determined based on average American consumer purchasing behavior from the Bureau of Labor Statistics' Consumer Expenditure survey and updated on an annual basis.

Looking back at last year, supermarket (food-at-home) prices rose 1.2 percent overall in 2015, but food price inflation varied across food categories. The loss of laying hens due to Highly Pathogenic Avian Influenza (HPAI) led to a spike in egg prices, while drought in the Southwest and California contributed to higher prices for fruits and vegetables and dairy products.

ERS currently predicts 2016 food-at-home (supermarket) prices to rise 1.0 to 2.0 percent—a rate of inflation that would fall below the 20-year historical average of 2.5 percent. These forecasts are based on an assumption of normal weather conditions; however, severe weather or other unforeseen events such as unexpected surges in commodity prices could potentially drive up food prices beyond the current forecasts. The ongoing drought in California is likely to have an impact on the State's agricultural production, but because of the prevalence of irrigation systems there, the impact on specific commodities will vary. Long-term moisture deficits across most of the State remain at near-record levels. Because California is a major producer of fruits, vegetables, tree

nuts, and dairy, the drought has potential implications for U.S. supplies and prices of affected products this year and beyond. Conversely, increases in the strength of the U.S. dollar, already up substantially from a year ago, make the sale of domestic food products overseas more difficult. This would increase the supply of foods on the domestic market, potentially placing downward pressure on domestic retail food prices.

ERS updates its food price forecasts monthly and revises estimates if the conditions such as the feed grain crop outlook or weather-related crop conditions on which they are based change significantly.

In order to gain insight into factors that influence consumer price changes, it is useful to track producer prices within the food supply chain. BLS' Producer Price Index (PPI), measures prices received by processors, suppliers, and wholesalers, in the food industry and more broadly in the economy. Both farm and processed products are included in the PPI. Similar to the CPI, the indexes are reported monthly and annually. The PPI more closely represents the price change in food products *purchased* by food stores and restaurants. For many food commodities, the PPI is more volatile as compared to consumer prices.

Food service operators purchase both products with a high farm value component, such as milk or apple juice, as well as more highly processed foods having lower commodity/farm value shares, such as cereal or pizza. Suppliers to the food-away-from-home segment offer both traditional foods requiring additional preparation, as well as highly processed, value-added foods such as heat-and-serve entrees.

In general, retail food prices are much less volatile than farm-level prices and tend to rise by a fraction of the change in farm prices. The magnitude of response depends on both the retailing costs beyond the raw food ingredients and the nature of competition in retail food markets.

Several key factors influence how a cost increase affects the prices of food under conditions of competition. For a given increase in an input's cost, the larger will be an increase in the food product's price when:

- The share of the input in the total cost of producing food products is larger.
- The input has fewer good substitutes in the food production process—that is, few other inputs or processes could be used to produce the food product.
- Consumers have few good substitutes for the food product, in which case consumers do not decrease purchases substantially when the price is higher.
- Prices are expected to remain high for a long period of time.

Retail prices for fresh fruits, vegetables, and eggs have a relatively high farm value share compared to other commodities. Changes in farm-level prices of these products have a larger and earlier impact on retail prices as a result. There are also seasonality factors contributing to volatility of produce (fresh fruits and vegetables) prices. Produce supply and price variation are also influenced by extremes of weather and growing conditions, such as droughts, floods, freezes, and pests. Because most produce commodities are highly perishable, supply and prices are highly sensitive to adverse growing conditions.

How Changes in Input Costs Affect Retail Food Prices

When food manufacturers and retailers face increased costs, they can respond by:

1. absorbing the higher costs by keeping prices steady and accepting a lower profit level,
 2. passing on at least some of the higher costs by raising the price of products,
- or
3. adjusting the production process and employing fewer units of the higher cost input by substituting one or more other inputs.

If input costs decrease, companies have the opposite options—higher profits, lower output prices, or expanded input use. Of the three options, the last two can directly affect food prices either by raising or lowering the price of food products or by food production adjustments that influence the amount of food available and thus prices.

Economic research has shown that retail prices are typically more responsive to input cost increases than to decreases. This pattern is evident in the U.S. CPI, as retail food prices have, on average, increased by 2 to 3 percent per year, while commodity prices have been more volatile.

Despite the fact that rising input costs are almost certain to result in increasing retail food prices, there are a number of reasons to expect that this impact will often be small relative to the changes in input costs. For example, the 2012 severe drought in the Midwest resulted in sharp increases in the farm prices of corn, soybeans, and a number of other commodities important to the food supply chain. However, this resulted in only a modest increases in overall retail food prices – in 2012, food prices rose 2.6 percent (consistent with the historical average).

Historically, dramatic changes in input costs typically result in small changes in the CPI for food and for grocery prices in general. For example, in 2011, the average weighted price of corn, wheat, and soybeans in the U.S.—important U.S. agricultural inputs into the U.S. food supply—increased by nearly 40 percent over 2010 levels. In contrast, food-at-home prices rose 4.8 percent between 2010 and 2011. Very much in line with this disparity, commodity prices, in general, are about 10 times more volatile than retail food prices over time.

One of the most important reasons for the relative stability of retail food prices is that a number of industries contribute to food on the shelves of supermarkets, and the cost components from each industry serve to mitigate much of the volatility seen in commodity prices and wholesale food prices. ERS's Food Dollar Series details the cost components of the retail food dollar by industry and allows us to better understand the factors behind changes in the costs of food.

Food Dollar

ERS uses data from the Department of Commerce's Bureau of Economic Analysis to calculate its Food Dollar series. This Series measures annual expenditures by U.S. consumers on domestically produced food. It provides an overview of the distribution of shares of the average dollar spent on food for each underlying industry or factor, including estimates of the farm share of the average dollar spent by consumers on food. Data are presented in three primary series—the *marketing bill* series, the *industry group* series, and the *primary factor* series—that shed light on different aspects of the food supply chain. The three series show different ways to split up the same food dollar and I will discuss each in turn.

The farm share of the food dollar is the share received by farmers from sales of basic food commodities. The most recent version of this data spans from 1993-2014 and the farm share has

ranged from slightly above 15 percent to as much as 18 percent during the past 20 years. Our latest estimates, using 2014 data, show the farm share to be 17.2 percent of every dollar spent in the U.S. on domestically produced food.

Within the data, we are able to calculate a farm share for both at home--and away—from--home foods, with the food-at-home farm share currently at 26.2 percent and having ranged from the low to mid 20s for the past 20 years. The food-away-from-home farm share is 5.8 percent as of 2014 and has ranged from 5 to 10 percent during the past 20 years. These estimates imply that a variety of other costs also comprise the food prices consumers pay and variation in those costs and changes over time may influence the prices for consumer food products.

The second food dollar series, the **industry group dollar**, breaks down the cost of food into 12 major industry groups involved in the food production and supply system. Whereas the marketing bill series measures proceeds from sales, the industry group series measures value added (or costs contributions) across 12 industry groups. For example, farmers received 17.2 cents per food dollar in sales proceeds (farm share), but after paying their suppliers such as seed, fertilizer, energy inputs, financial services, and agribusiness such as veterinarians and equipment suppliers, the farm value added in 2014 amounted to 10.4 cents.

For a typical dollar spent in 2014 by U.S. consumers on domestically produced food, including both grocery store and eating out purchases, 32.7 cents went to pay for services provided by foodservice establishments, 15.3 cents to food processors, and 12.9 cents to food retailers. At 5.1 cents, energy costs per food dollar are up 16 percent since 2009, but still below the 6.8 cents that energy costs contributed in 2008.

Finally, the **primary factors dollar** identifies the distribution of the food dollar in terms of U.S. worker salaries, rents to food-industry property owners, output taxes and imports.

For calendar year 2014, the primary factor series shows that 48.7 cents of every food dollar expenditure goes to the salary and benefits of domestic workers, 36.6 cents is dispensed as property income, and the remainder is split between output taxes (primarily State and local sales taxes) and imported commodities embedded in U.S. produced foods, such as imported petroleum products.

Food Spending as a Share of Income and Overall Consumer Spending

Food expenditures by families and individuals as a share of disposable personal income are reported annually by ERS. The annual disposable personal income data are reported by the Department of Commerce's Bureau of Economic Analysis and used in the ERS analysis.

ERS' data on share of income spent on food has been tracked for over 85 years as the share of income spent on food has fallen steadily from around 25 percent to its current 9.7 percent level. Looking at trends for the past 50+ years, between 1960 and 2002, the average share of disposable personal income spent on total food by Americans fell from 17.5 to 9.6 percent. This downward trend was driven by increasing income for U.S. consumers during most of those 42 years allowing for increased purchases of non-food items.

Since 2002, the share of disposable income spent on food has stabilized and ranged between 9.6 and 10 percent each year. As of 2014 (the most recent data available), the 9.7 percent of disposable income spent on food includes roughly 5.4 percent spent on food at home and 4.3 percent spent on food away from home. The food-at-home share of disposable income has fallen from over 20 percent to its current 5.4 percent, while the share of income spent on food away from home rose from just over 3 percent to its current 4.3 percent.

Looking at similar data by income group, ERS analysis shows that households spend more money on food at higher income levels, although food represents a smaller portion of income as households allocate additional funds to other goods. In 2014, for example, U.S. households in the middle income quintile spent an average of \$5,992 on food, representing 13.4 percent of income, while the lowest income households spent \$3,667 on food, representing 34.1 percent of income.

Along similar lines, consumers in the U.S. and many developed countries spend a relatively small share of their budget on food, usually less than 15 percent, while consumers in many other countries spend 15 to 30 percent on food. Consumers in developing countries with lower average incomes and fewer non-food consumables available may spend 40 to 50 percent of their budget on food. These differences are driven by overall economic conditions, average household income, food market dynamics, and overall food availability in each country.

To conclude, our data show that retail food prices in the U.S. are relatively stable, consumers are therefore able to spend a relatively small share of income on food and devote larger amounts of their budget to other goods and services.

Madam Chairwoman, this concludes my statement. I will be happy to answer any questions that the Subcommittee may have.