## Baseline Projections and Retail Food Price Forecasts

Conditions affecting food price forecasts are both long term and short term. USDA projects long-term food price changes once a year as part of USDA's 10-year Baseline Projections. The projections are a conditional scenario with no shocks and are based on specific assumptions regarding the macroeconomy, the weather, and international developments. These estimates reflect a composite of model results and judgmental analysis with normal weather patterns assumed, and include projections for 17 food categories, including food away from home. The food categories that are projected in the USDA Baseline include: All Food, Food Away from Home, Food at Home, Meats, Beef and Veal, Pork, Other Meats, Poultry, Fish and Seafood, Eggs, Dairy Products, Fruits and Vegetables, Sugar and Sweets, Cereals and Bakery Products, Nonalcoholic Beverages, and Other Foods. These categories are then aggregated to obtain a food-at-home projection. Finally the food-at-home and food-away-from-home forecasts are weighted to obtain an all-food CPI baseline projection. While interagency committees in USDA conduct the baseline projection analysis reflecting a composite of model results and judgmental analysis, ERS has the lead role in preparing the Departmental baseline report.

ERS also forecasts unofficial, internal-use, short-term quarterly food price changes each month. These short-run projections incorporate the most recent USDA baseline assumptions along with current information from several USDA analysts about current market conditions and expectations, weather patterns, commodity prices and supplies, and expected consumer demand for specific food categories.

Food accounts for 15 percent of the all-items CPI and is among the most volatile of the consumer price groups the Federal Government tracks. Retail food price changes are determined by general economic factors and the relative shares of farm and marketing costs. In recent years, food price increases have been small because of the low general inflation rate, the larger share of the food dollar going to away-from-home purchases of food, the continued decline in the farm-value share of the retail price for most food items, and the increasing economies of size in the farm sector.

Figure 1 shows the 1-year-ahead ERS forecasts for the percentage change in the all-food CPI since 1989.[1] In 1989 and 1990, the beginning of an inflationary period, USDA analysts had under-predicted the all-food index inflation change by nearly 2 percentage points each year. Prior to 1995, the methods used by ERS analysts to forecast some of the food categories are unknown and undocumented. However, during each of the next 5 years, the forecast errors were less than 1 percentage point and averaged 0.1 percentage point.

Figure 2 shows the range of public and private food price forecasts for 1996. The ERS forecast of 2.8 percent was the second lowest of the retail food price forecasts. Three agricultural consulting firms, John Schnittker, Sr., Morgan Stanley Dean Witter, and Wharton Econometric Forecasting Associates, had predicted a 3.9-4.0-percent increase. The actual percent change was 3.3 percent. The ERS forecast was off by less than 1 percent; in the previous 3 years the forecast errors had been less than 0.4 percent.

USDA's internal Mid-Session Review baseline projection of 2.3 percent in July of 1996 for the year 1997 was the lowest inflation projection again for the second straight year. (Note: This internal projection is not published; it was chosen for this report since this report evaluates USDA/ERS food price forecasting and methodology.) A baseline projection for food is different from an ERS food forecast because a baseline projection is a conditional longrun scenario about what would be expected to happen under a specific set of assumptions about external conditions. The baseline estimate was the lowest of all the other food price forecasters, except Wharton Economic Forecasting Associates, which predicted the same rate as the baseline.

The 1997 food price forecast that ERS made in November 1996 was for an increase of 2.8 percent over 1996 prices. In January 1997, ERS revised the 1997 food price forecast to 2.7 percent. The actual retail food price inflation rate change for 1997 was 2.6 percent. Figure 3 shows that forecasts ranged from 2.3 to 10 percent. Their range increased from 1.8 percentage points in 1996 to 7.7 percentage points in 1997.

[1] ERS compiled the forecasts, which were estimated by different private firms.