Monthly Retail Trade and Food Services Adjustment Factors for Seasonal and Other Variations of Monthly Estimates

We use the X-12 ARIMA program to derive the factors for adjusting data for seasonal variations and, in the case of sales, for trading-day and holiday differences.

Adjustment of estimates is an approximation based on current and past experiences. Therefore the adjustments could become less precise if current competitive pressures, changes in consumer buying patterns during holiday periods, and other elements introduce significant changes in seasonal, trading-day and holiday patterns.

Each month for sales and inventories, concurrent seasonal adjustment uses all available unadjusted estimates (including the latest preliminary and advance estimates) as input to the X-12 ARIMA program. Factors derived from concurrent seasonal adjustment for sales are applied to the unadjusted advance, (one month after the preliminary) preliminary, and final (one month before the preliminary) estimates and to the previous year estimates that correspond to the advance and preliminary months. For inventories, factors derived from concurrent seasonal adjustment are applied to the unadjusted preliminary (latest available estimate) and final (one month before the preliminary) estimates and to the prior year estimate that corresponds to the preliminary month.

The table Combined Seasonal, Trading-Day, and Holiday Adjustment Factors for Retail and Food Services Sales by Kinds of Business presents the combined seasonal, trading-day, and holiday adjustment factors that are used to adjust sales estimates. The table seasonal Adjustment Factors for Retail Inventories by Kinds of Business presents by kinds of business the seasonal adjustment factors that are used to adjust inventories estimates. For kinds of business whose last observation is an advance estimate, two months of projected factors are shown. For all other kinds of business, three months of projected factors are shown. Projected factors are estimates of the factors that will be used to derive adjusted estimates when unadjusted estimates become available.

More information about the X-12 ARIMA Program is available on the Census web site at http://www.census.gov/srd/www/x12a/.

Source: Retail Indicators Branch, U.S. Census Bureau
Last Revised: April 30, 2009