

constrained, respectively. There is significant value in using the alternative models as a means to improve the forecasts. The current ERS forecasting methodology or information set is not improved by the alternative models for Dairy Products, Fruits and Vegetables, Fresh Vegetables, and Processed Fruits. This result is consistent with the earlier evidence.

In practice, the weights assigned to different forecasts should not be considered to be fixed over time. They should be periodically reestimated. The forecast evaluation literature finds that the relative importance of individual forecasts can vary over time.

Limitations of the Alternative Time Series Model Forecasts

Although the best alternative time series model was selected, it is not reliable in forecasting turning points. Time Series Model predictions are based solely on the past behavior of the variable estimated and that variable alone. Some of the movement can be difficult to explain and if the past movement was due to factors that are not explainable such as the weather, changes in consumer tastes, or simply seasonal cycles in consumer spending, the model may not be able to relate to other economic variables. After careful review of each food category from 1992 through 1997, the alternative time series model consistently overestimated

many of the food indexes, which indicated serial correlation in several food categories. Since 1992, changes in consumer tastes and preferences for certain foods plus the low general inflation index for the all items CPI, which ranged from 2.3 to 3.0 percent, may have contributed to the alternative time series model overestimation. Although the alternative time series model RMSE was generally lower than the ERS forecasts, the time series model did not capture some of the recent trend changes in several of the food CPI categories.

The time series model overestimated the actual index 5 out of 6 years for All Food, Fruits and Vegetables, and Other Foods; and 4 out of 6 years for Food Away from Home and Food at Home. In addition, the time series model overestimated the actual index 4 out of 6 years for Other Meats, Fish and Seafood, Dairy Products, Processed Fruits and Vegetables, Sugar and Sweets, Cereals and Bakery Products, and Nonalcoholic Beverages. Many of the food categories that were overestimated at least 4 out of 6 years are highly dependent on changes in the All Items inflation index, which has not increased at the rate that the time series model would have expected. When consumer tastes and preferences for selected foods changed and the All Items inflation index remained lower than expected, the time series model did not detect the changes from 1992 through 1997.