ABSTRACT

This paper builds on two previous papers by Ramsey, and Ramsey and Keenan. In the former paper, a model was developed for the production index of U.S. consumer goods, durable and non-durable, using monthly data. The model is a forced oscillator that models the annual variation in production. The parameters of the model are presumed to vary slowly over time. The specified model, up to slowly varying coefficients, seemed to fit the data well. Ramsey and Keenan (1993) examined the forecasting implications of the model.

The current paper applies the model discovered with U.S. data to similar data for Canada, Japan, U.K., Belgium, France, Germany, and Italy. We also examine the aggregate production index for consumer goods in the U.S. Thus, the model is applied to and the results checked against data that were not involved in the discovery of the model in the original paper. The adequacy of the model is evaluated and international comparisons are made.

The results go beyond merely confirming the applicability of the oscillator model. The similarity of the estimates for all of the data sets examined suggest that the model may be universally applicable for consumer goods production indexes, although France and Italy provide partial exceptions to this statement. Nevertheless, the simple model captures most of the seasonal oscillations for France and Italy; the lack of fit, both in terms of the degree and the pattern of the residuals is the same for both countries.