An Application of Program TSW to a Set of Macroeconomic Series

Agustín Maravall
Abstract

Program TSW is a Windows version of programs TRAMO and SEATS (Gómez and Maravall, 1996) developed at the Bank of Spain (Caporello and Maravall, 2004). The program and associated documentation can be freely downloaded from www.bde.es. The paper presents a “prototype” application to a set of 17 aggregate National Accounts series. Starting with a purely automatic procedure, the results are analyzed on the basis of the summary output provided by the program. Then, it is seen how problematic series can be identified and how the associated problems can be solved, until satisfactory model specifications for all series have been found. In the discussion, some relevant issues are illustrated, such as stability of the results, interpolation of missing observations, out-of-sample forecasts, non-normality, residual seasonality, deterministic seasonality, bias induced by the log transformation, approximation to non-admissible decompositions, short-term monitoring, cyclical analysis, error control, and direct versus indirect adjustment.