

## Course level II

# Advanced topics in seasonal adjustment

### Duration

2 – 6 December 2019 (5 days)

### Deadline for application

11 October 2019

### Venue

Frankfurt

### Objective

The course is designed to allow participants to discuss sophisticated topics which are related to the X-11 filter-based and ARIMA model-based approaches to seasonal adjustment and are treated rather cursorily or not at all in the companion level I course "Seasonal adjustment of economic data". The course also concerns working with the seasonal adjustment software package JDemetra+ and seeks to encourage discussions and an exchange of experiences between the participants.

### Content

The course covers advanced topics which, sooner or later, become relevant for virtually all practitioners in the field of seasonal adjustment. Prime examples are the proper treatment of outliers and calendar effects, the question of whether composite series should be seasonally adjusted according to the direct or indirect approach as well as regular and/or automated processing of seasonal adjustment in official statistics. Using examples provided by the participants and lecturers, in-depth analyses and case studies are conducted as group work with JDemetra+. This open-source software package has been co-developed by the National Bank of Belgium (main developer) and the Bundesbank, is recommended for use in official statistics by Eurostat and the European Central Bank, and complies with the European Statistical System Guidelines on Seasonal Adjustment. In this regard, participants are expected to give short presentations of their findings, including discussions with the group and the lecturers.

### Target group

The course is aimed at economists and statisticians who are interested in studying advanced topics in seasonal adjustment and in an efficient application of JDemetra+. Prior knowledge and/or experience of time series analysis in general and seasonal adjustment in particular is/are highly recommended.