EUROPEAN COMMISSION
EUROSTAT

Directorate C – Macro-economic statistics
C.2 – National accounts production

SEASONAL ADJUSTMENT OF EU AND EURO AREA AGGREGATES

1. SET OF SEASONALLY ADJUSTED DATA

Eurostat publishes seasonally adjusted data, corrected for calendar effects, for the key indicators for the euro area and the European Union. In addition, a set of time series, including the components of the key indicators, are published in seasonally adjusted terms for the euro area and, in the case of household and non-financial corporation sectors, for the European Union.

2. METHODOLOGY

The methodology adopted in sector accounts follows the ESS guidelines on Seasonal Adjustment endorsed by the European Statistical System in 2015. The method chosen to correct the series for seasonal and calendar effects is TramoSeats. Further information about seasonal adjustment can be found in this manual.

Euro area and EU series indirect adjustment

The seasonally adjusted key indicators are obtained indirectly by taking into account the component series of the European aggregates. These component series are first seasonally adjusted and then aggregated to obtain indirect seasonally adjusted key indicators of the European aggregates.

Pre-treatment

The main objective of the series pre-treatment is to ensure a reliable estimation of the seasonal component by detecting and correcting the series for outliers or components that could hamper the estimation of the seasonality.

Decomposition model

An automatic decomposition scheme selection is used with information criteria after a graphical inspection of the series. Special investigations are done for non-positive series. A manual selection is used for more problematic series.

Outliers' detection and correction

TramoSeats method detects three kinds of outliers:

- additive outliers (AO): a single point jump in the data;
- transitory change (TC): a temporary change in a single point jump followed by a smooth return to the original path

- level shift (LS): a permanent change in the level of the series.

Each detected outlier is assessed according to its economic rationale.

Calendar adjustment

A specific euro area and EU calendar has been compiled for quarterly sector accounts. Given the economic reasoning, only one regressor was used to test the presence of a working day effect.

A working day correction has been implemented in the final model provided:

- it was statistically significant
- it had an economic rationale

The presence of an Easter effect has been tested and assessed according to its economic rationale.

Revision policy

The models are revised once a year, usually in the October production round. ARIMA and regression coefficients are updated each quarterly release (partial current adjustment-Last outliers).

Parameters and statistical tests

The file below provides the metadata for the production of 2022Q2 seasonally adjusted time series: Parameters 2022Q2.