



REPUBLIKA HRVATSKA
DRŽAVNI ZAVOD ZA STATISTIKU

PRESS RELEASE

CONCERNING THE INTRODUCTION OF A NEW METHOD OF SEASONAL ADJUSTMENT OF
TIME SERIES

The Croatian Bureau of Statistics, as a main producer, disseminator and coordinator of the official statistics system in the Republic of Croatia, and the Croatian National Bank (CNB), as a producer of official statistics pursuant to the Official Statistics Act, conducted so far a seasonal adjustment using different methods, which sometimes resulted in significant discrepancies of seasonal nature in some time series data on the Croatian economy. Having in mind that the joint aim of both institutions is the establishment of effective and single system of the seasonal adjustment of time series in which a uniform method would be applied, a mutual consent has been made and permanent co-operation defined and formalised through an inter-institutional agreement.

Seasonal oscillations and calendar effects, i.e. arrangement of working and non-working days by months, may obstruct the observation of short-term and long-term movements in time series and cause misunderstanding of economic phenomena for which data are collected and released as time series. The role of seasonal and working-day adjustment is to extract such seasonal oscillations and working-day effects from time series, thus ensuring their correct interpretation and a higher quality background for making decisions.

In line with recommendations of Eurostat and the European Central Bank ([JDemetra+ officially recommended as software for the seasonal adjustment of official statistics](#)) addressed to all members of the European Statistical System and the European System of Central Banks, the Croatian Bureau of Statistics will henceforward use the JDemetra+ v. 2.0.0. package, in seasonal adjustment, which is completely in line with methodological guidelines of Eurostat ([ESS guidelines on seasonal adjustment](#)). Since this package contains the following two kinds of specifications for seasonal adjustment: *Tramo-Seats*, in which the *Seats* method is applied, and *x13Arima*, in which the *x11* method is applied, and due to a great experience and knowledge of CNB experts, which are acknowledged at the European level as well, there is a mutual agreement that the Croatian Bureau of Statistics will henceforward apply the *x13 Arima* specification.

In addition to the introduction of the new package and application of the new method of estimation of seasonal random components, automated specifications included in the package will not be applied to the majority of time series, but models of seasonal adjustment will rather be defined individually, depending on specific characteristics of a single time series. Diagnostic indicators included in the new JDemetra+ package will be applied in the individual definition of models, which will provide for further improvements in the seasonal adjustment practice.

Along with the application of the new package for reference periods whose release is still to come, there will be changes in seasonally and working-day adjusted time series and associated change rates in the whole time series. Due to the conversion of the package (application of the JDemetra+ v. 2.0.0. package instead of the Demetra 2.2), the change of the seasonal adjustment model and application of official revision policy of seasonally adjusted data, there might be discrepancies in data in relation to already released ones. Release of the trend cycle component of individual time

series, which was earlier released in a monthly dynamics, will be harmonised with the application of the revision policy of seasonally adjusted values of these time series and available three times a year. Each group of time series will be added information on reference periods in which the conversion took place and which revision policy is associated to it.

We are grateful to colleagues in CNB for their past cooperation and hoping for a future joint partner approach aimed at satisfaction of our users, who will have access to data of a higher quality and at satisfaction of participants of a successful official statistics system in the Republic of Croatia.

Zagreb, 7 March 2016