Preface

In 2018, starting with data for 2017 or rather 2016–2017, the Czech Statistical Office (CZSO) changed the methodology for processing of life tables. The change concerns primarily the way real input data are processed; it lies in an innovation of the function for smoothing of real mortality rates and in an innovation of the function for modelling of mortality at oldest old ages. Besides that, the way of calculation changed as for the average number of person-years lived in the interval of the first and the last year of life by those dying in the interval; the way how mortality rates are converted to quotients changed, too.

Smoothing of real mortality rates is a common part of life tables processing. However, the choice of a suitable smoothing method is not unequivocal and can change in time, for example on the basis of statistical methods development. Therefore, life tables (and resulting life expectancies) processed by the CZSO, Eurostat, WHO etc. are not completely identical. Instead of the previously used (exponential) function of Gompertz-Makeham the life tables of the CZSO newly introduce the function of Kannisto for modelling of mortality at oldest old ages, which belongs to logistic functions. The logistic model is in compliance with studies confirming deceleration in mortality increase at oldest old ages and is used in the international Human Mortality Database.

For comparison, life tables for the Czech Republic, cohesion regions, and regions for 2017 or rather the period of 2016–2017 processed by the previous methodology used by the CZSO up to 2017 are attached.