

**Prospects of the future
demographic development
in the Czech Republic
and possible consequences
of the population ageing
in the sphere of social policy**

Tomáš Fiala, Jitka Langhamrová

University of Economics, Prague

Faculty of Informatics and Statistics

Department of Demography

Demographic data of the Czech Republic presented

- In 1800-1899
data of the territory of Bohemia, Moravia and
the entire Czech Silesia
- Since 1900
data recalculated for the current territory of
the Czech Republic

Main indicators

- Live births
- Deaths
- Natural increase
(the difference between live births and deaths)
- Net migration (the difference between the number of immigrants and emigrants)
 - Registered by Statistical Office
 - Corrected according to the results of census
- Total increase
(the sum of natural increase and corrected net migration)

Two types of main indicators

- Absolute figures
- Rates (in ‰)
(number of events per 1000 inhabitants)

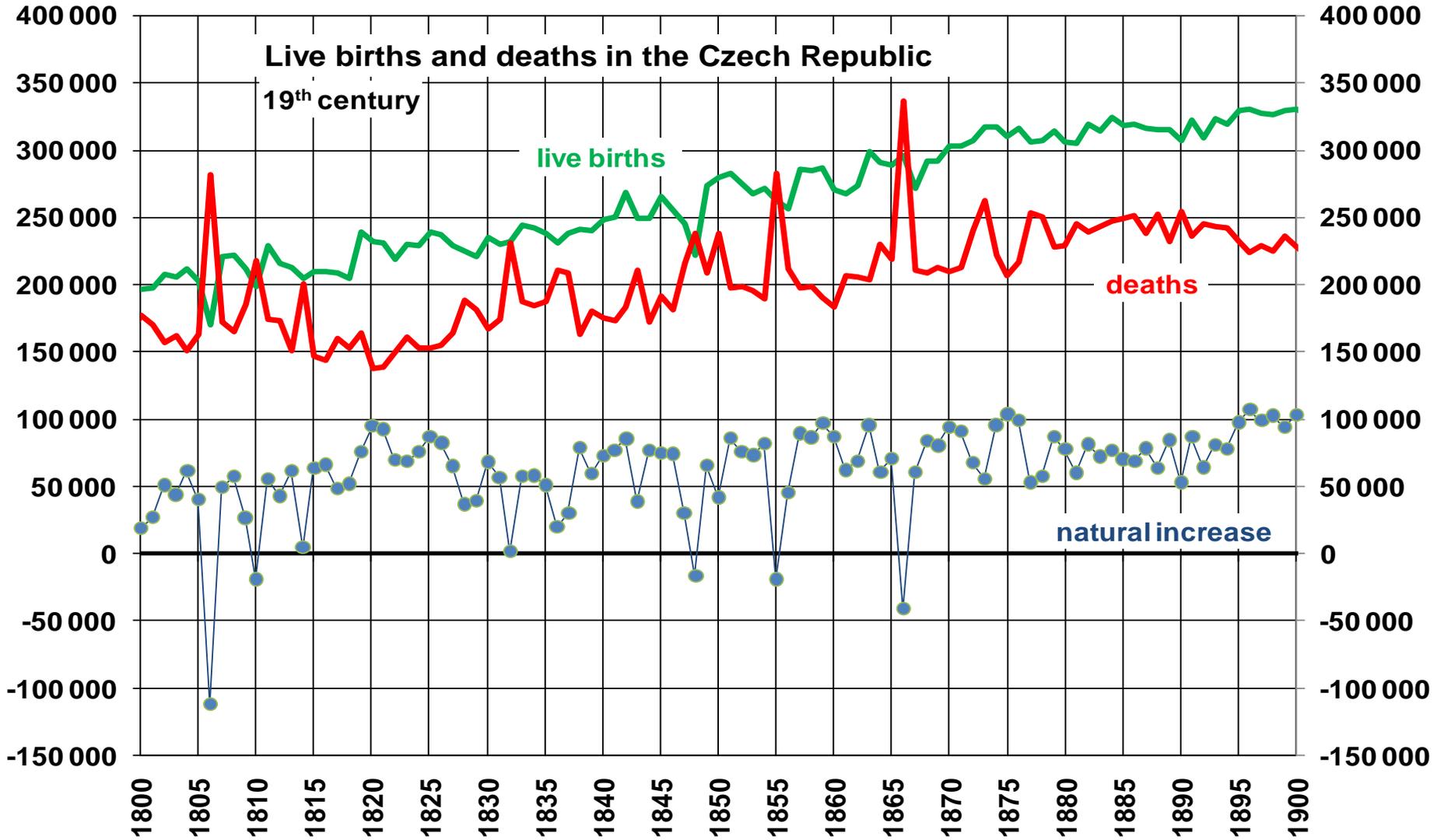
Live births and deaths in the Czech Republic

19th century

live births

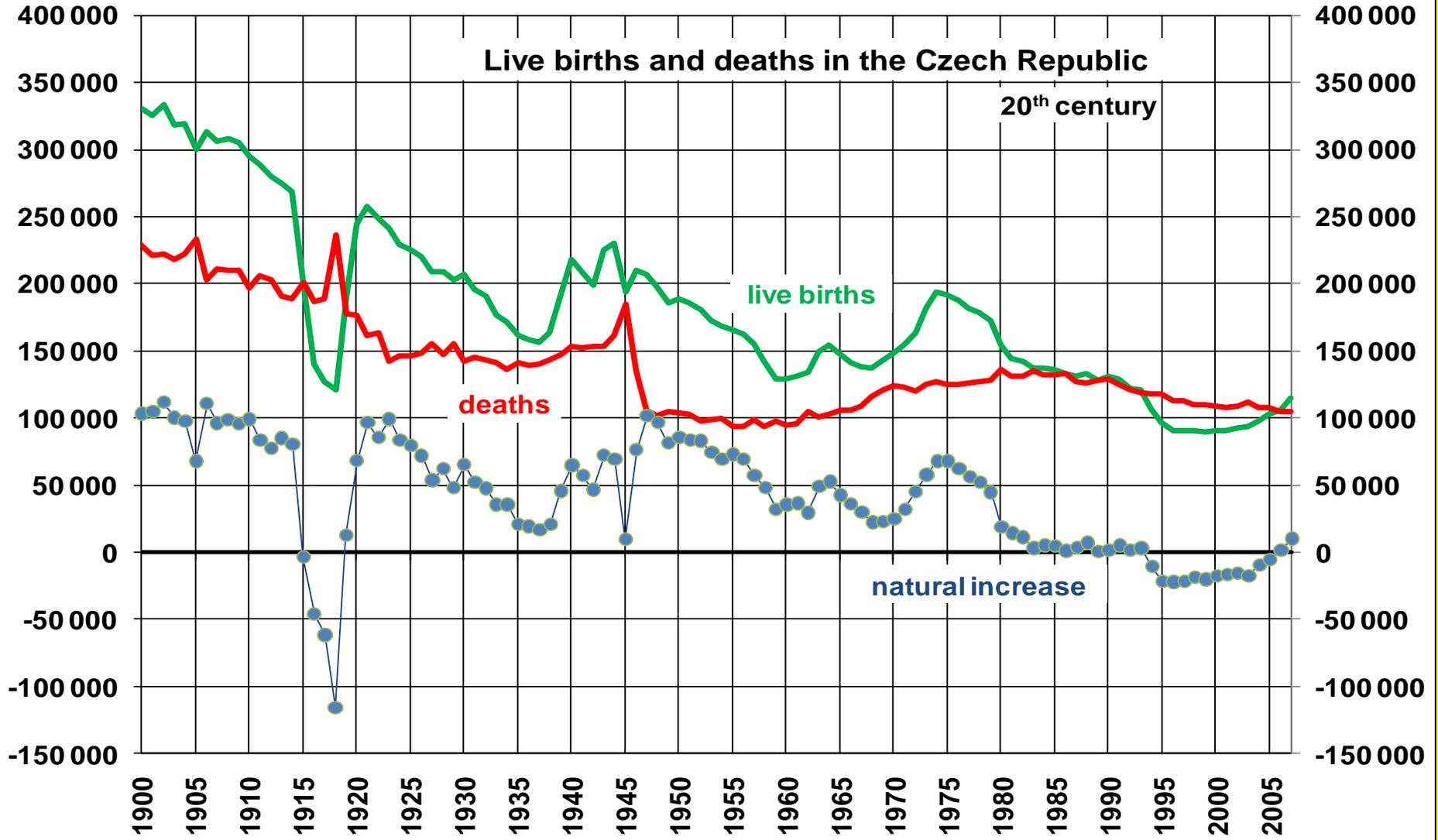
deaths

natural increase

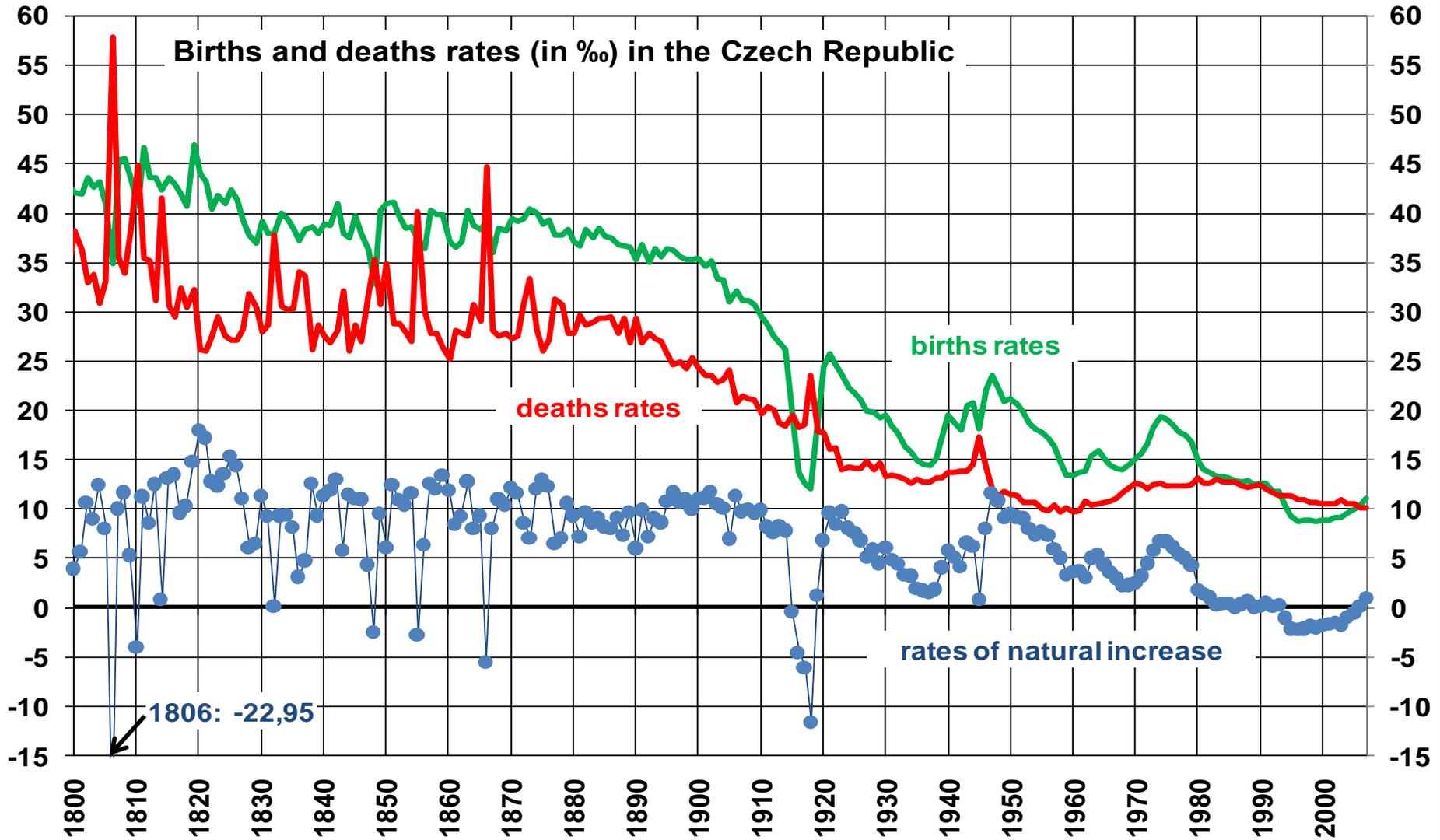


Live births and deaths in the Czech Republic

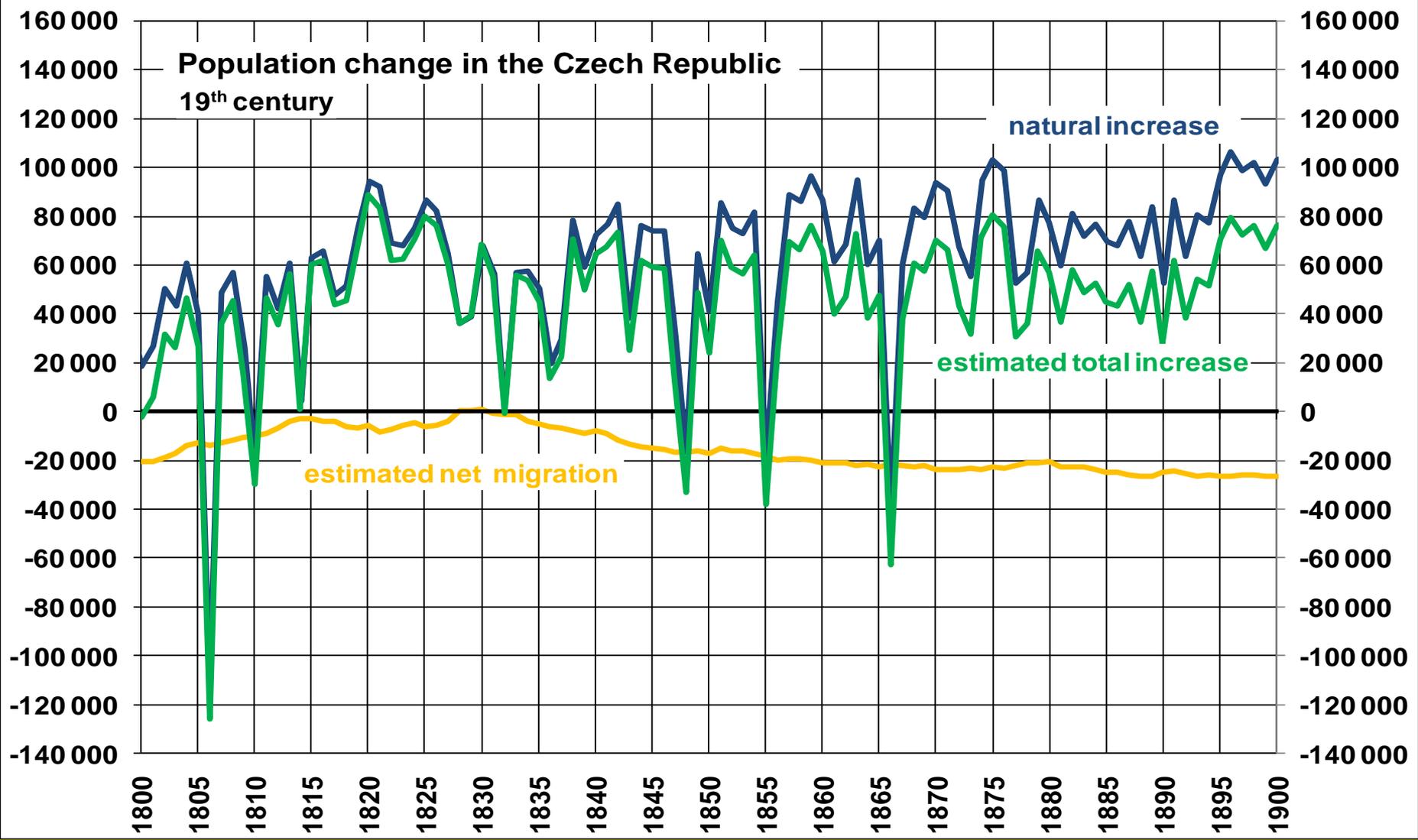
20th century

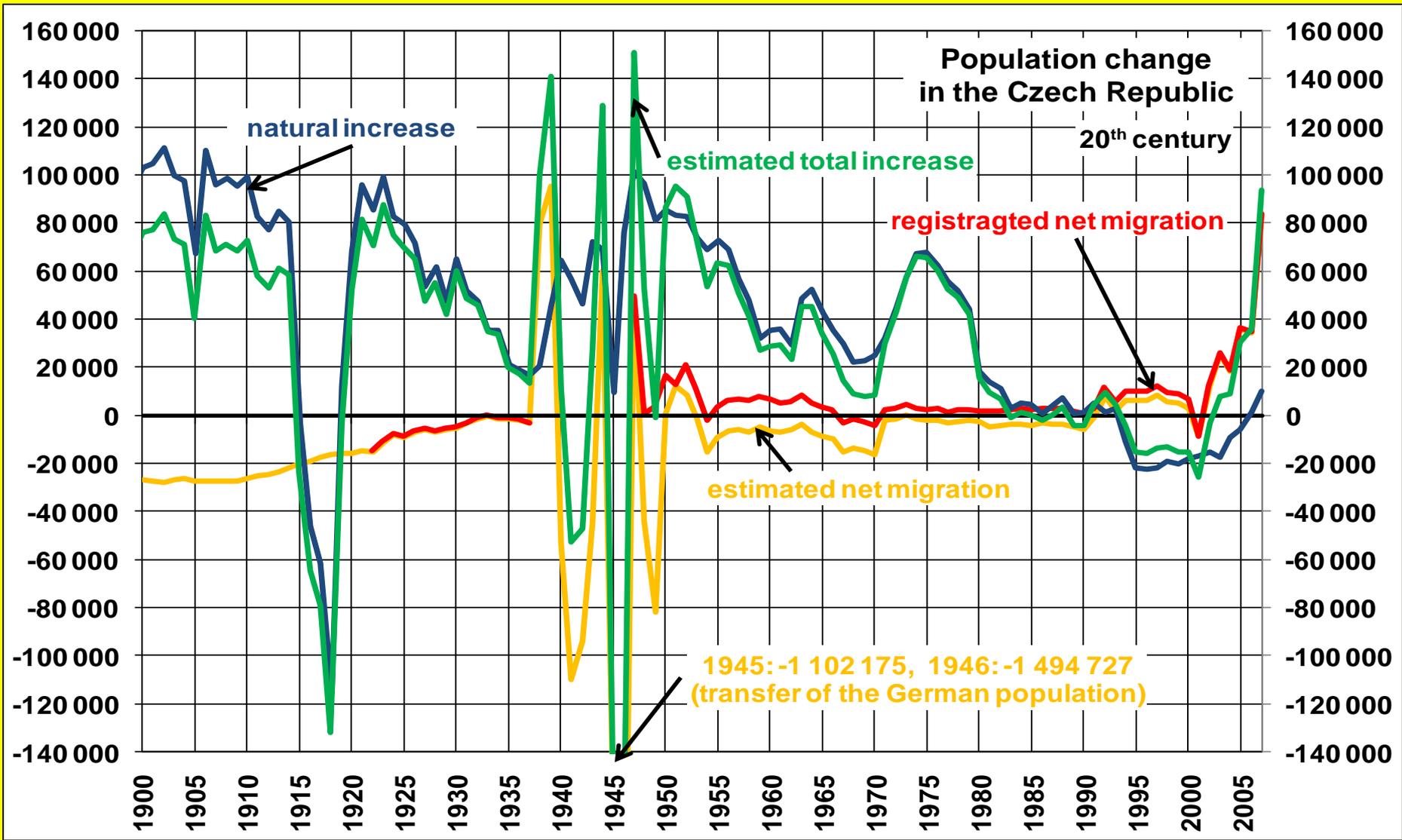


Births and deaths rates (in ‰) in the Czech Republic

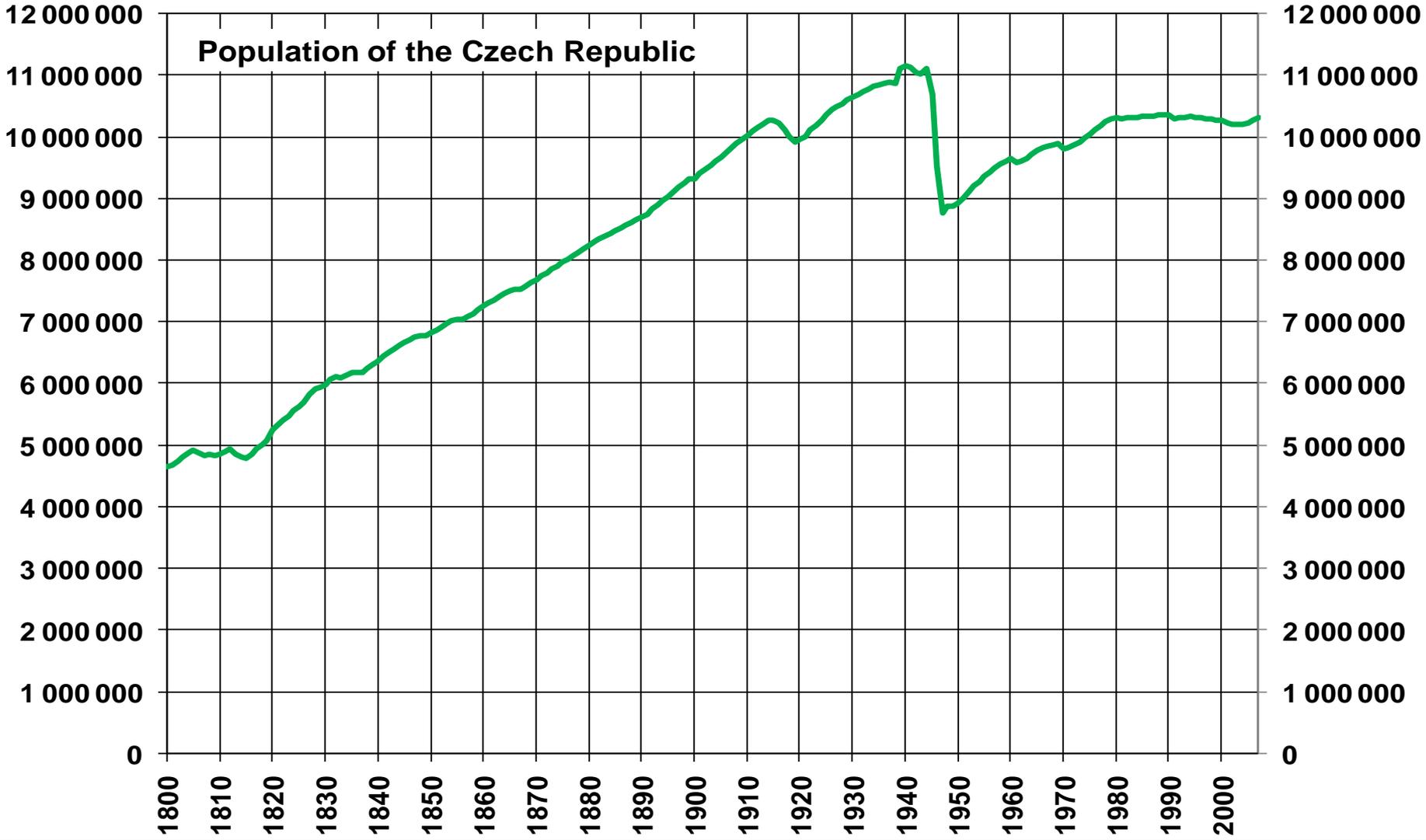


Population change in the Czech Republic 19th century





Population of the Czech Republic

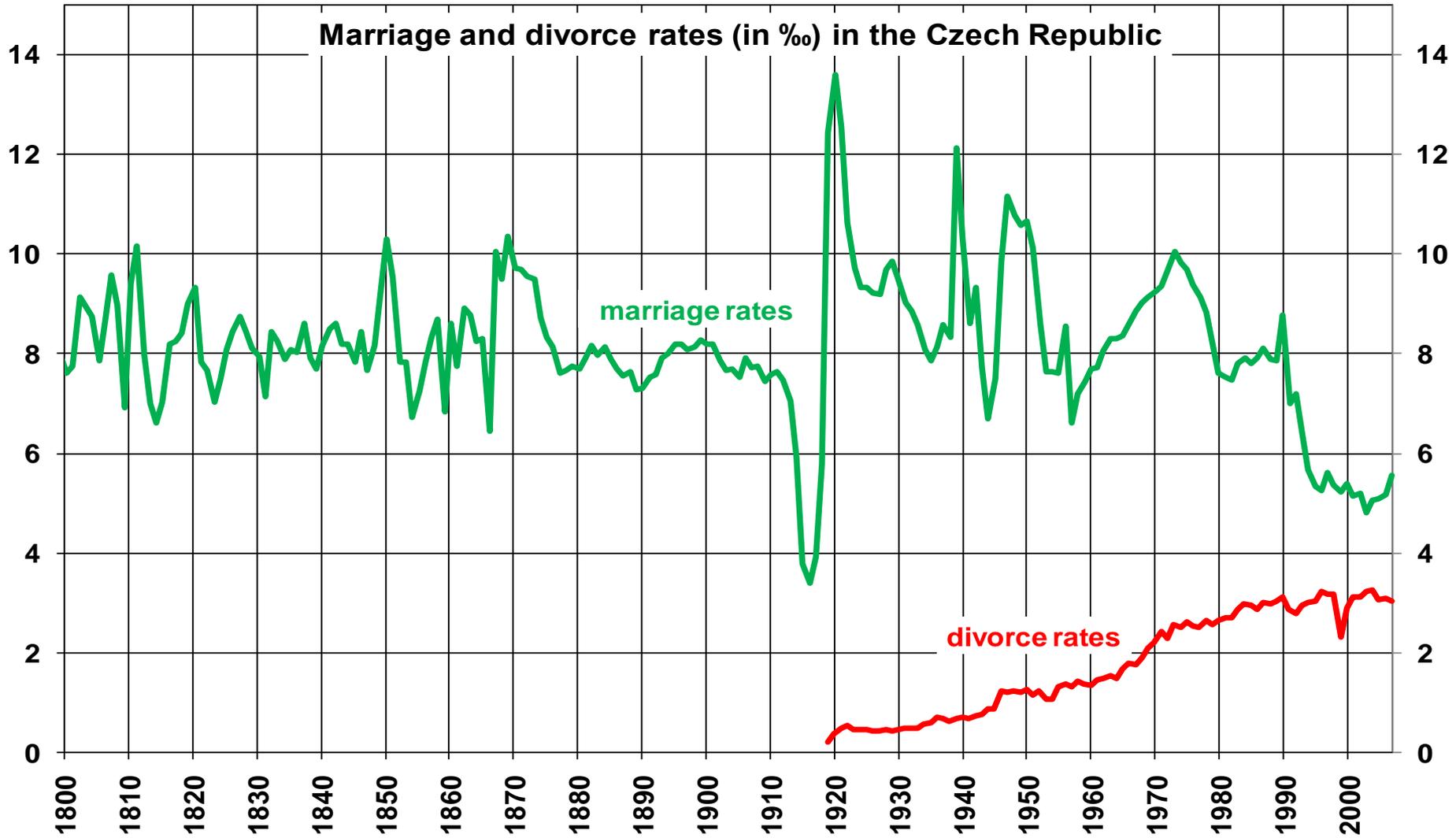


Marriages,

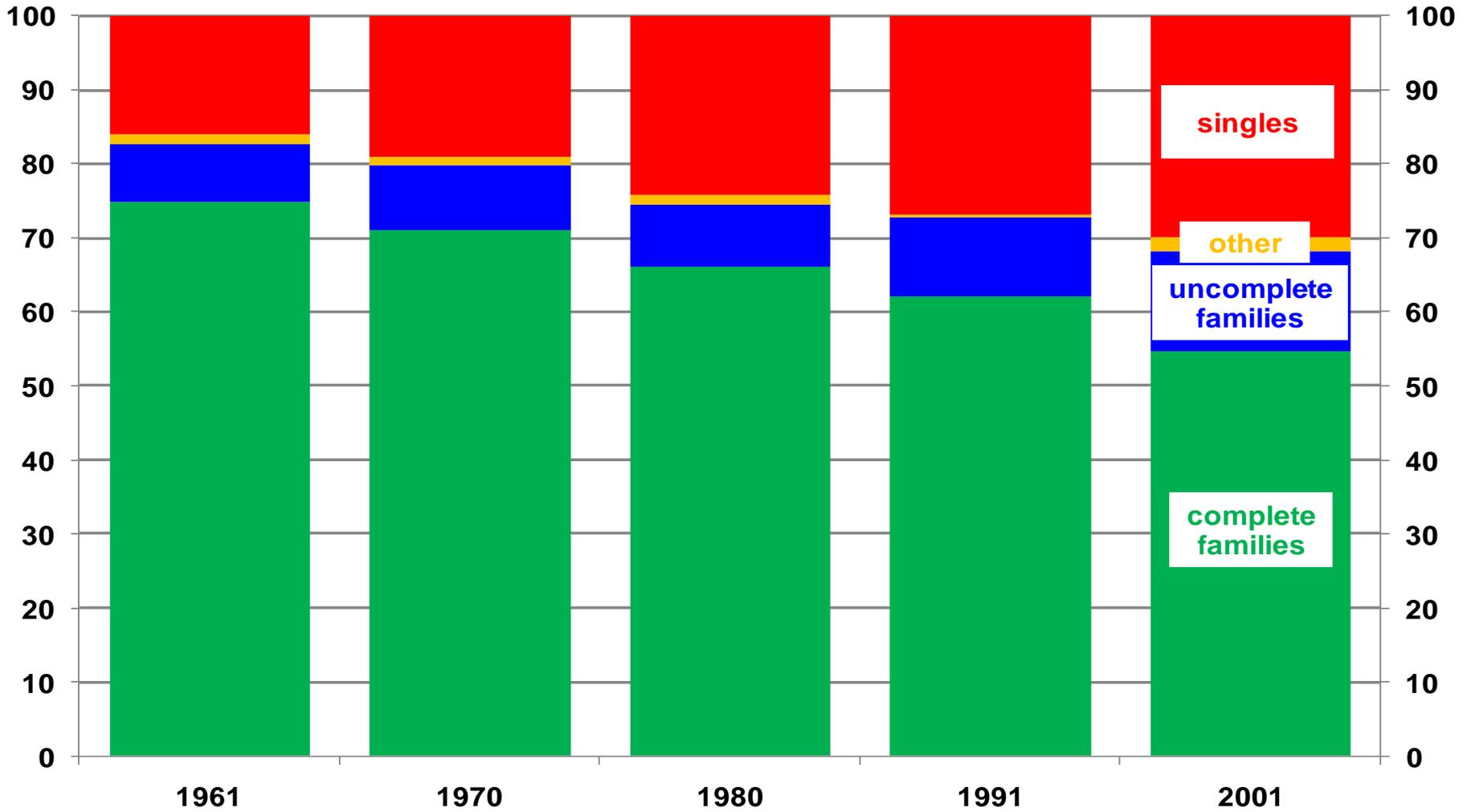
divorces,

households

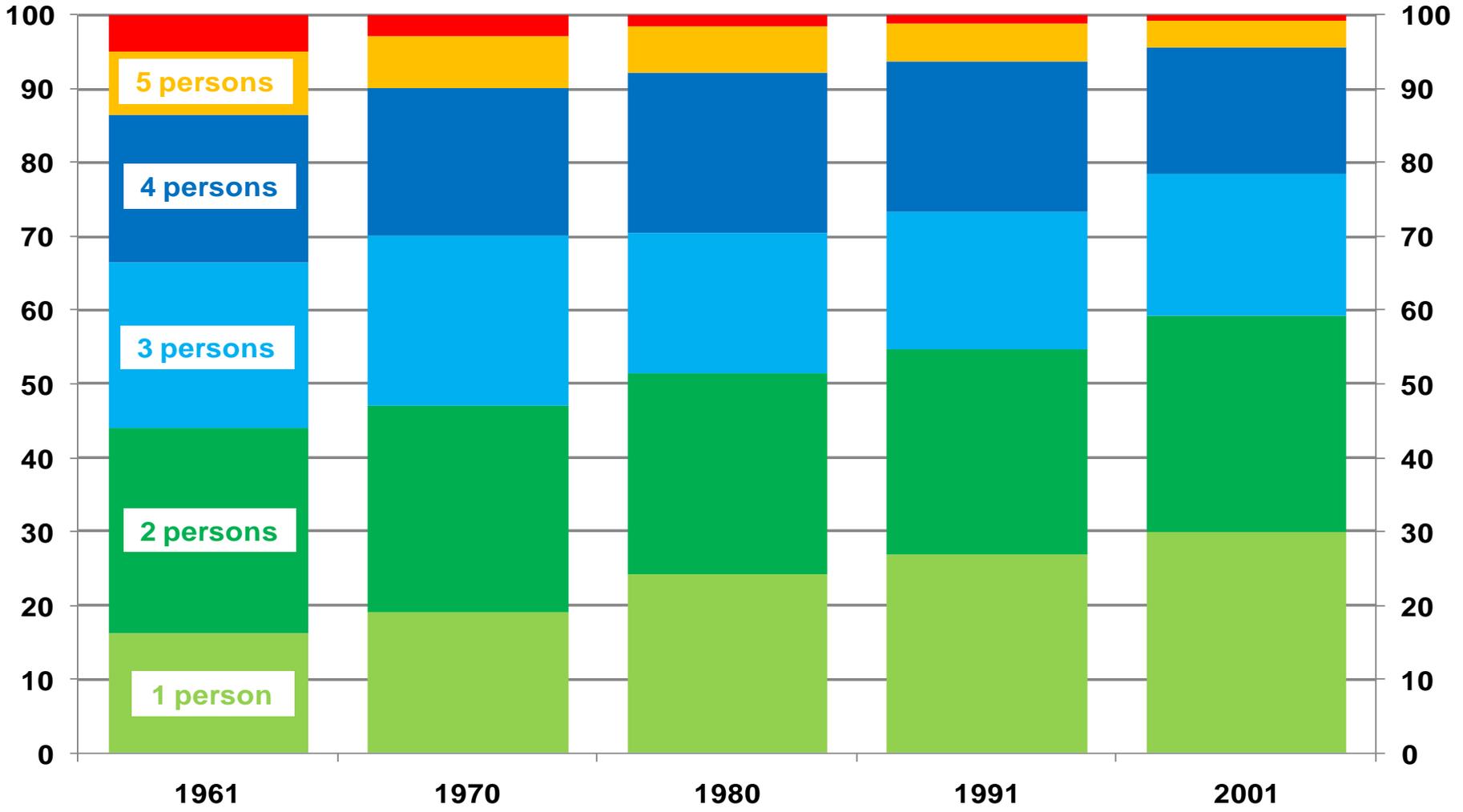
Marriage and divorce rates (in ‰) in the Czech Republic



Types of households in the Czech Republic (%)



Size of households in the Czech Republic (%)

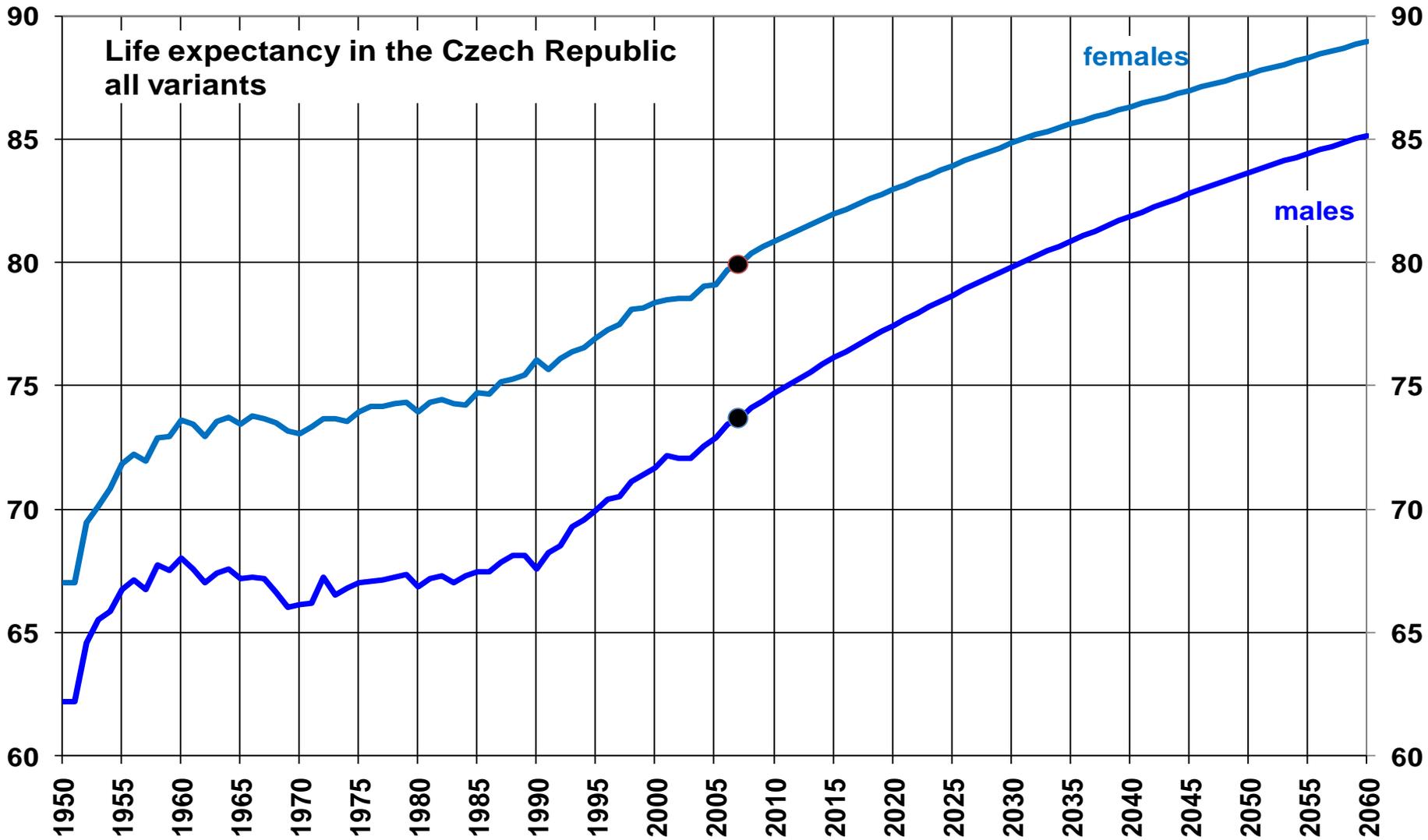


Population projection of the future development.

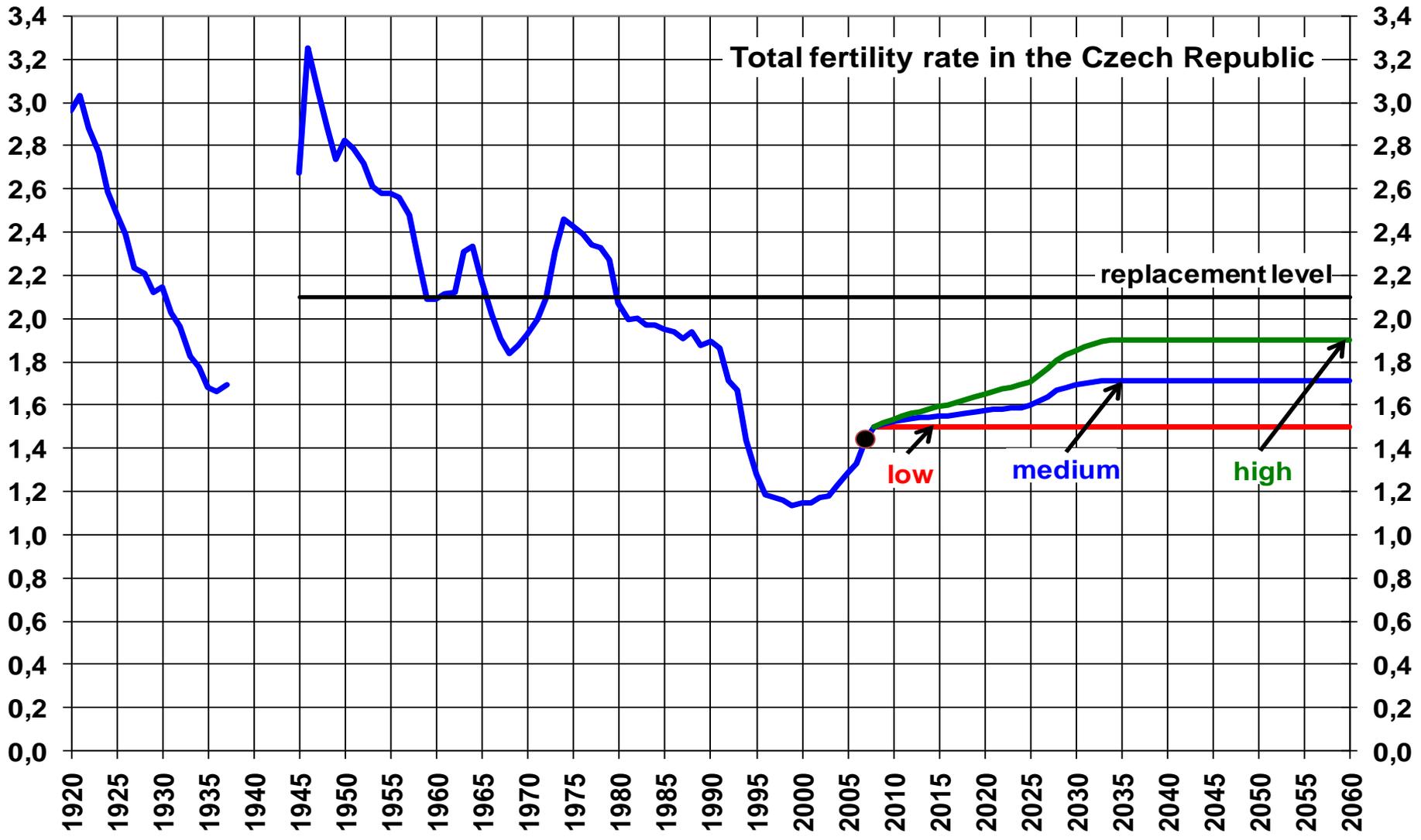
Assumptions:

- Mortality:
further increase of life expectancy
(average length of life)
- Fertility: three variants (low, medium, high)
increase of total fertility rate (number of children
per 1 woman) to 1.5/1.7/1.9
- Migration: three variants (low, medium, high)
annual net migration 30000/60000/90000

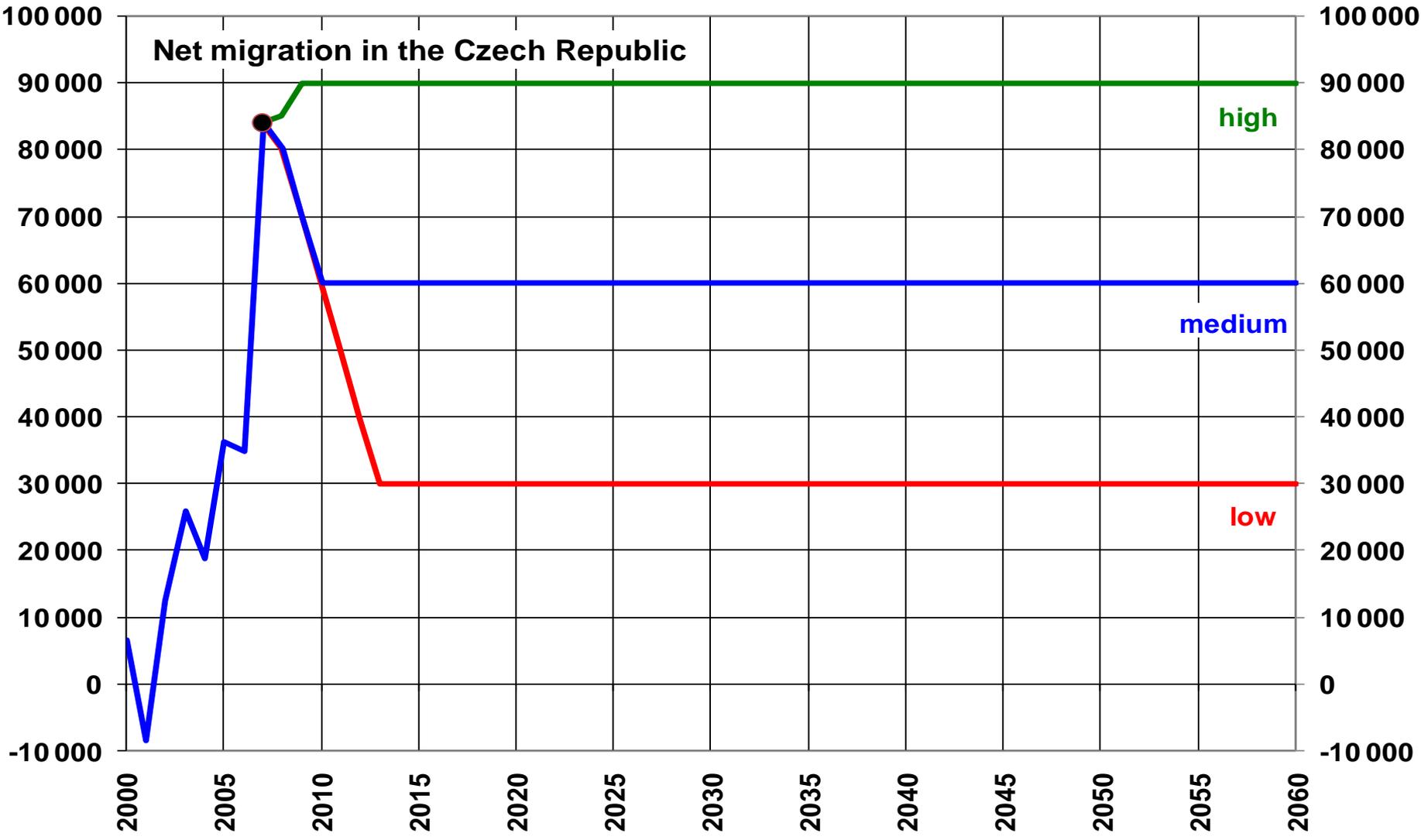
Life expectancy in the Czech Republic
all variants



Total fertility rate in the Czech Republic

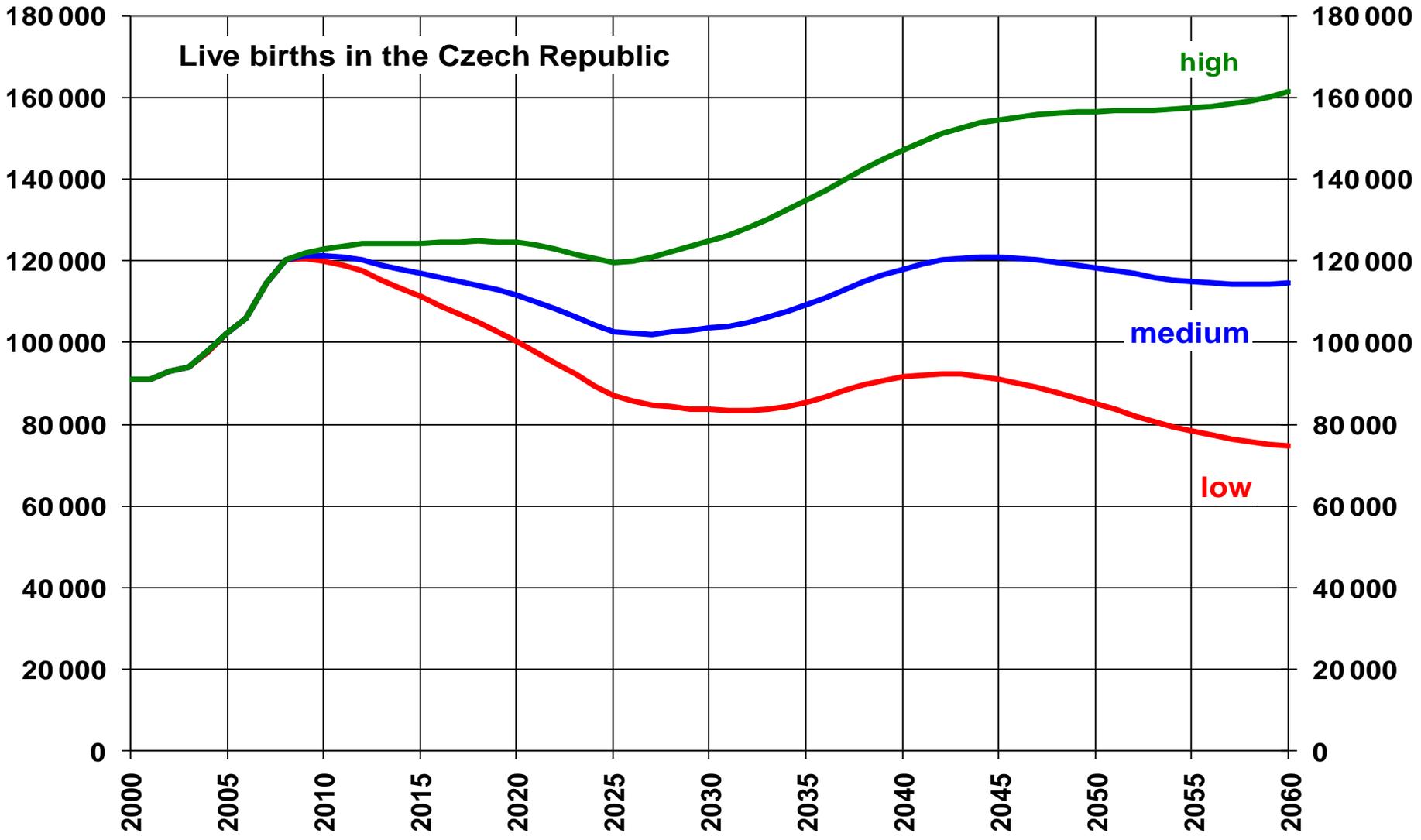


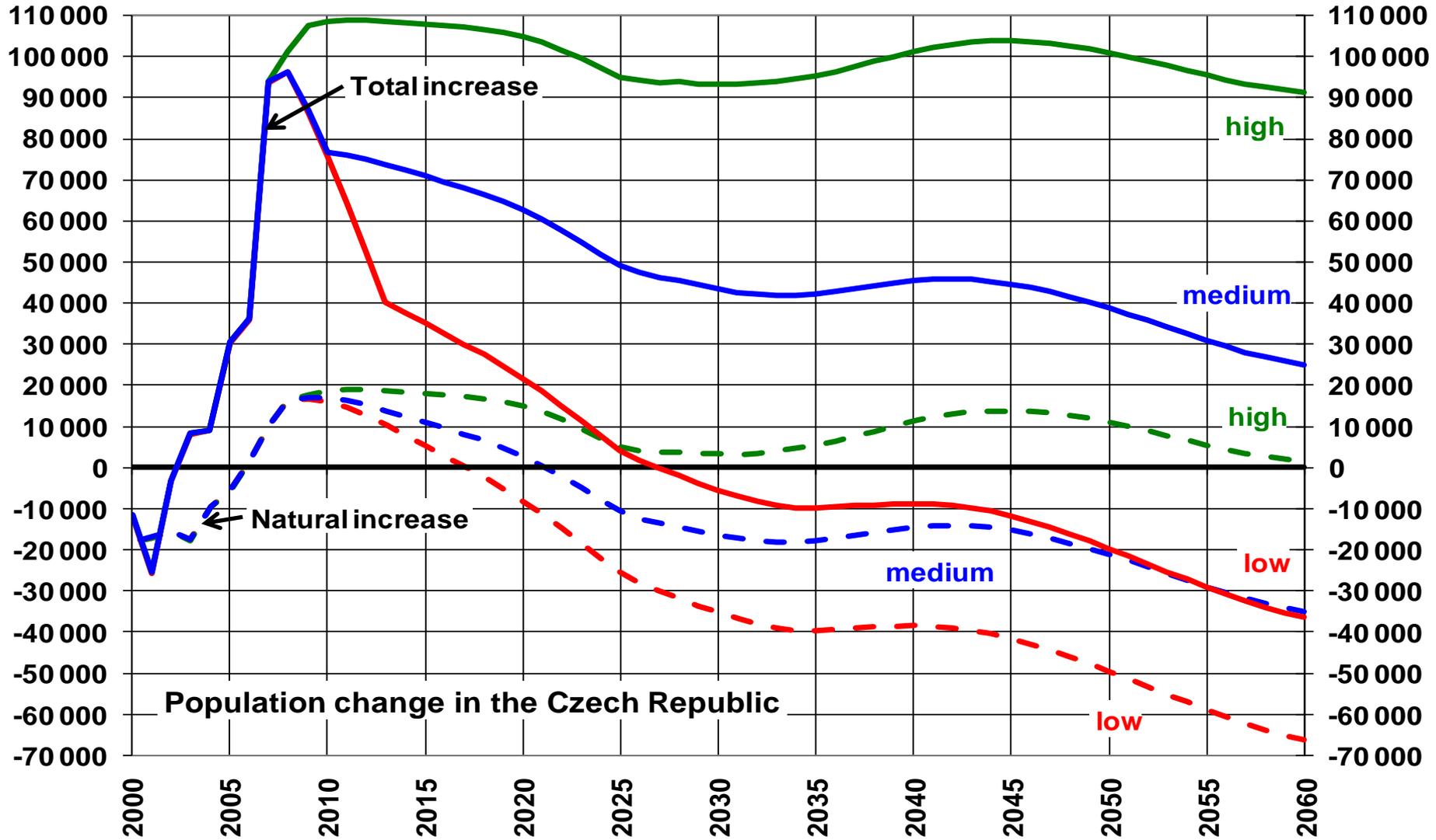
Net migration in the Czech Republic



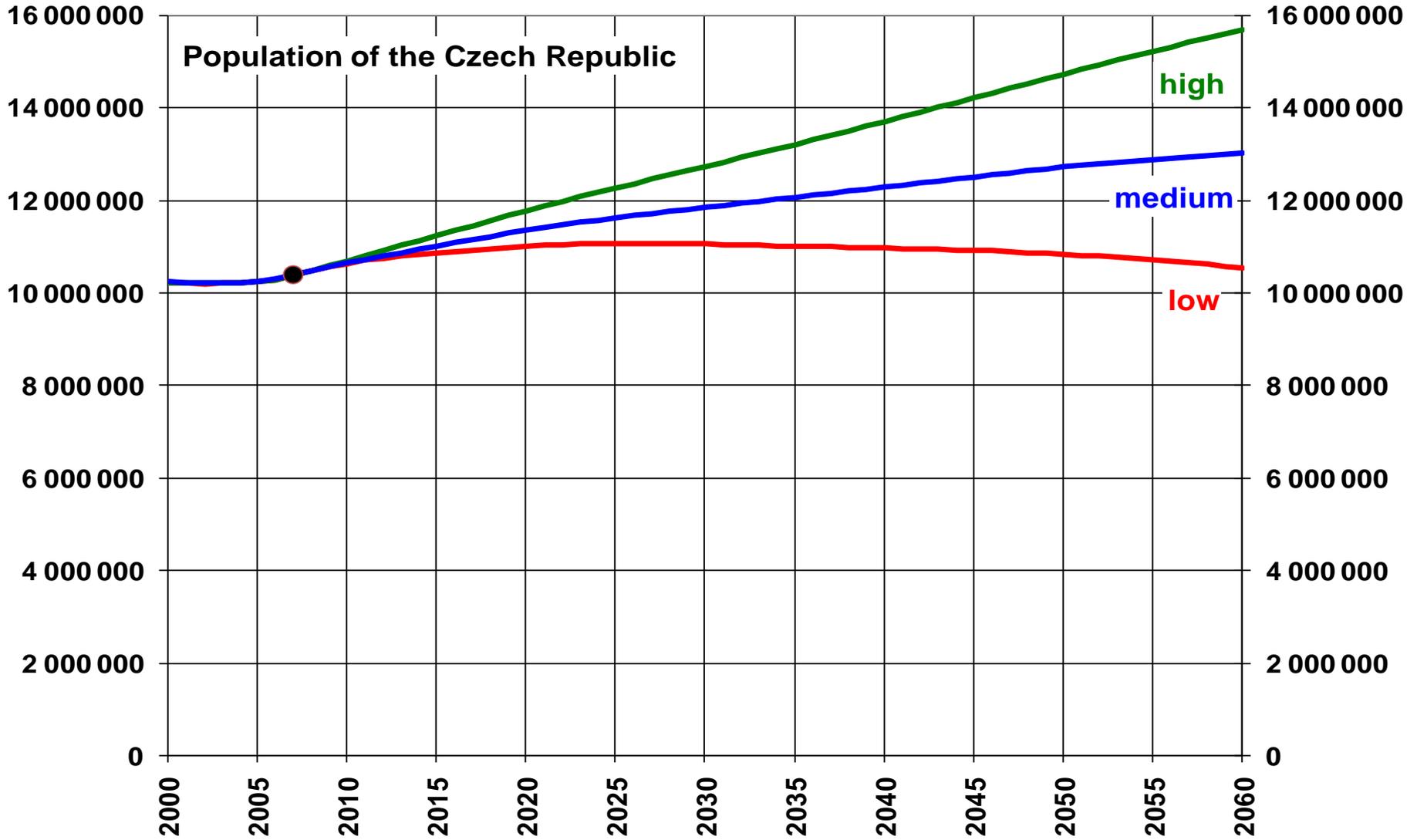
**Prospects
of the population development
until 2060**

Live births in the Czech Republic

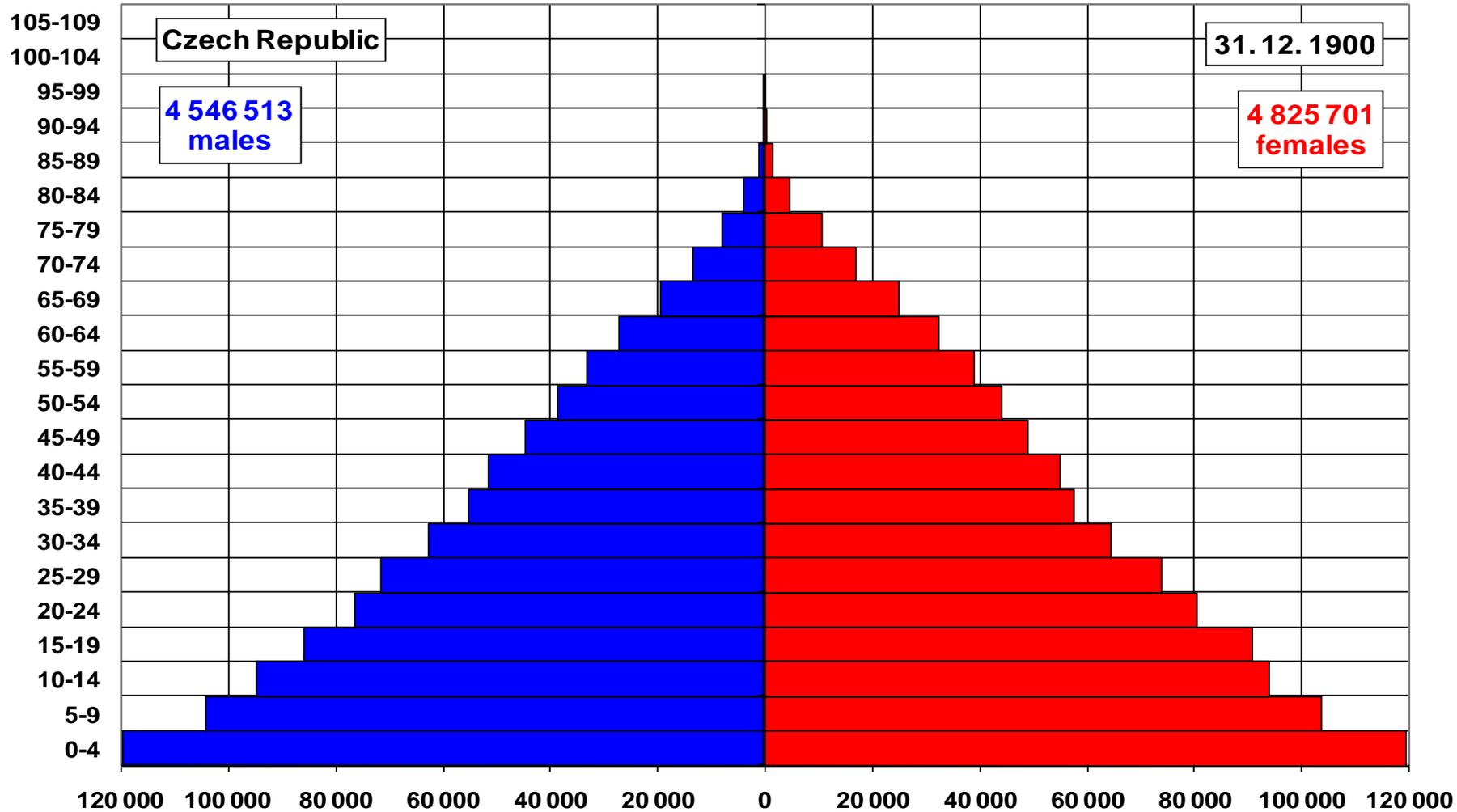


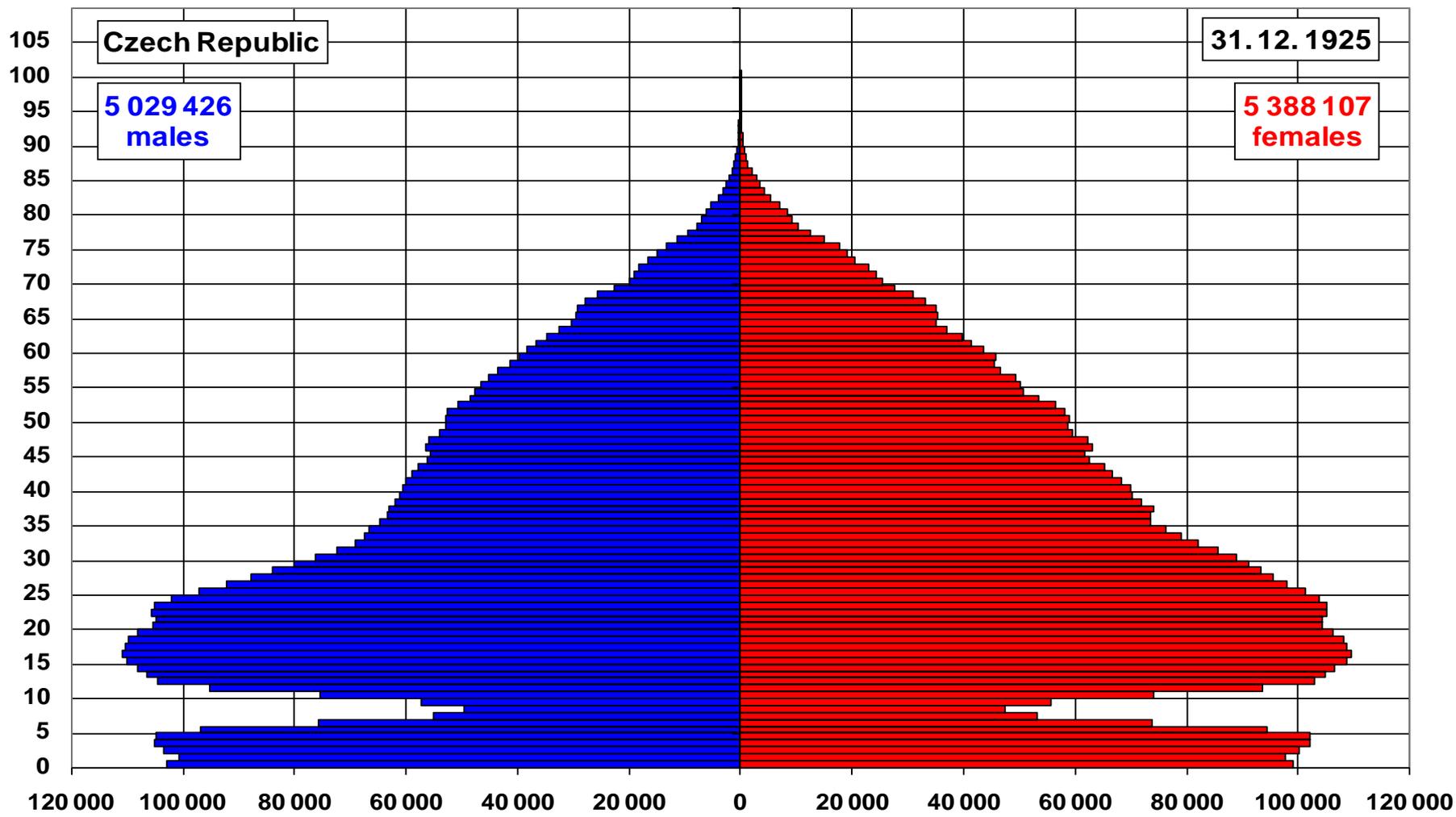


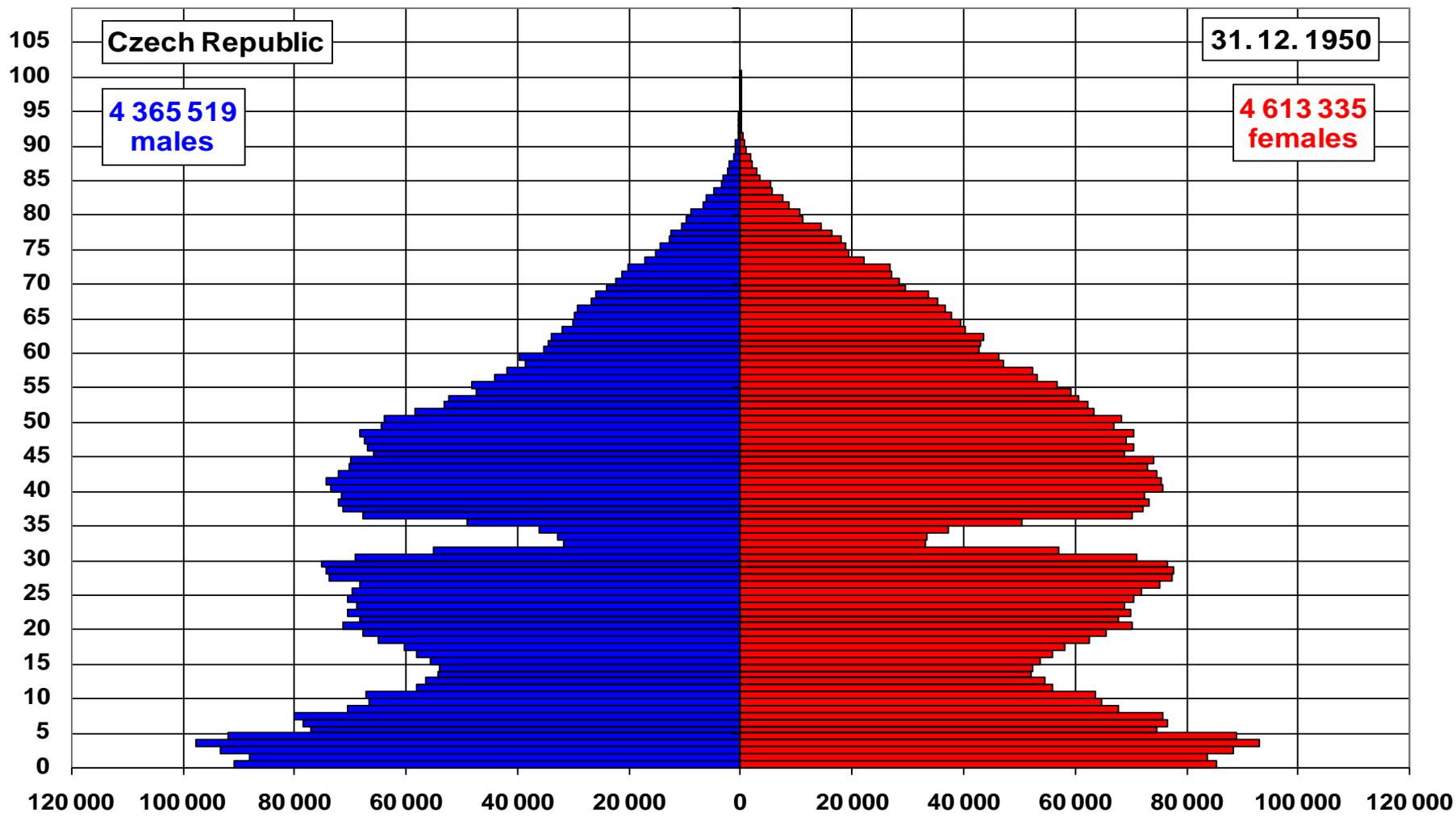
Population of the Czech Republic

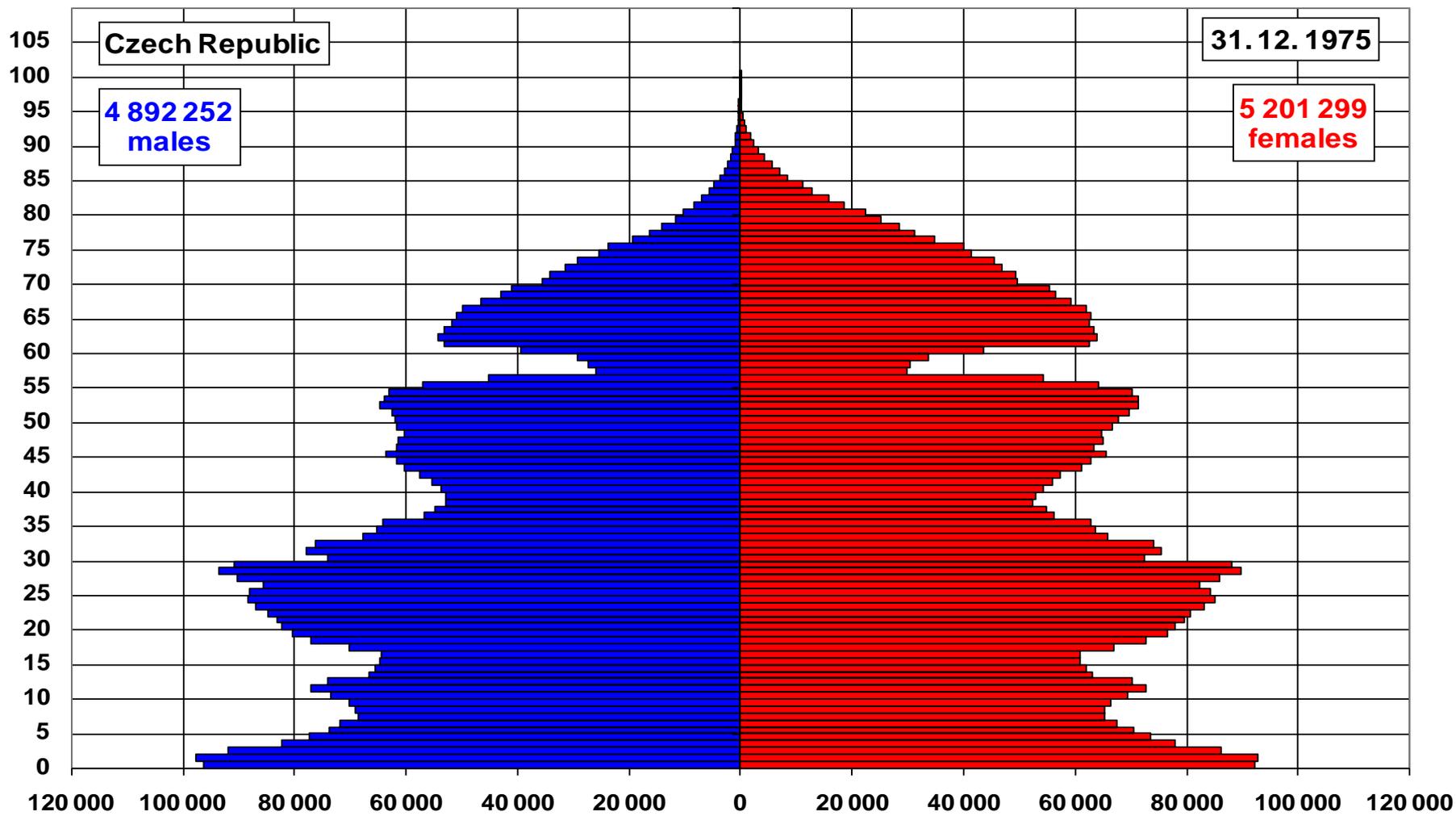


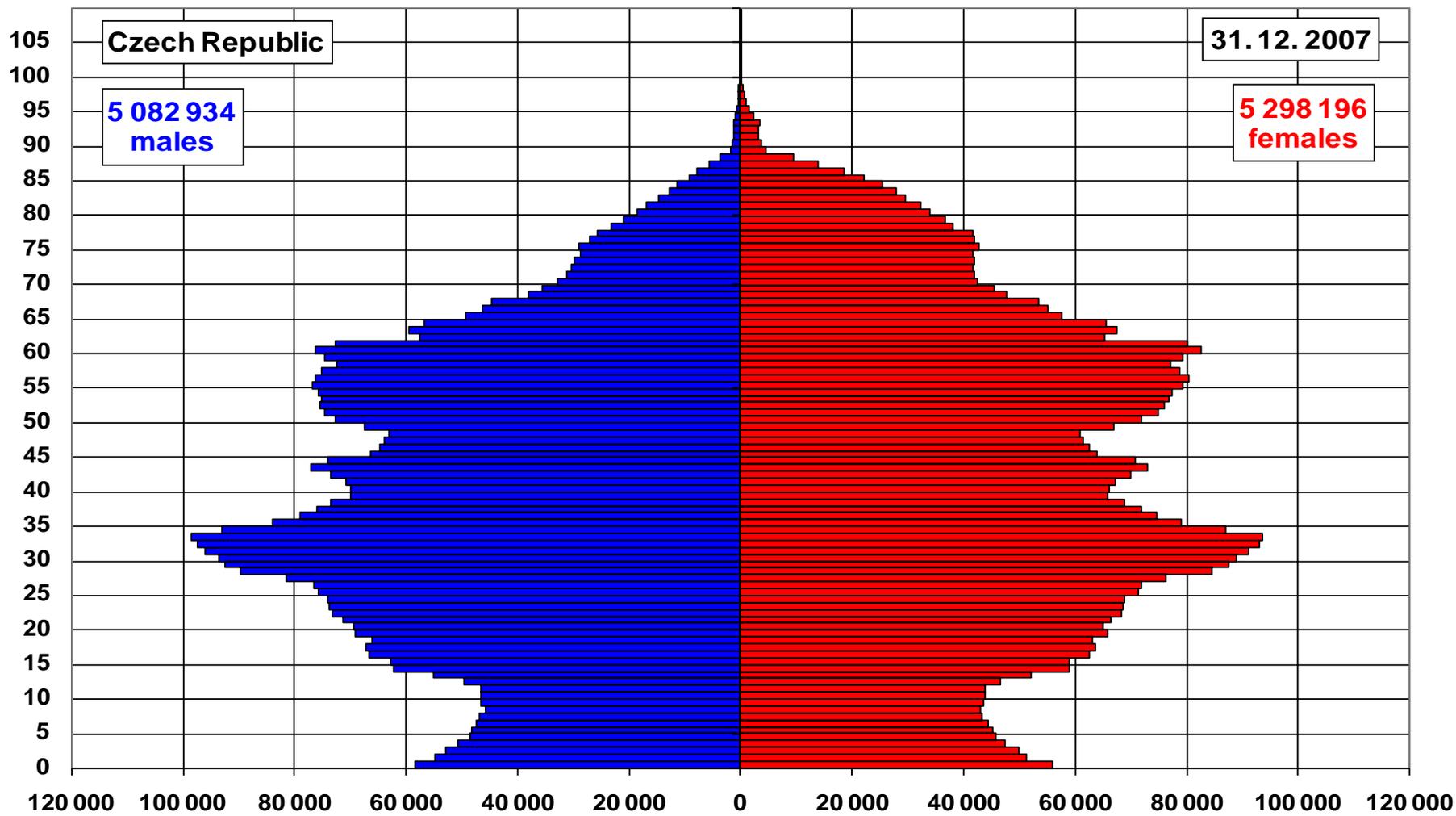
**Changes
of the demographic structure
(structure according to sex and age)**

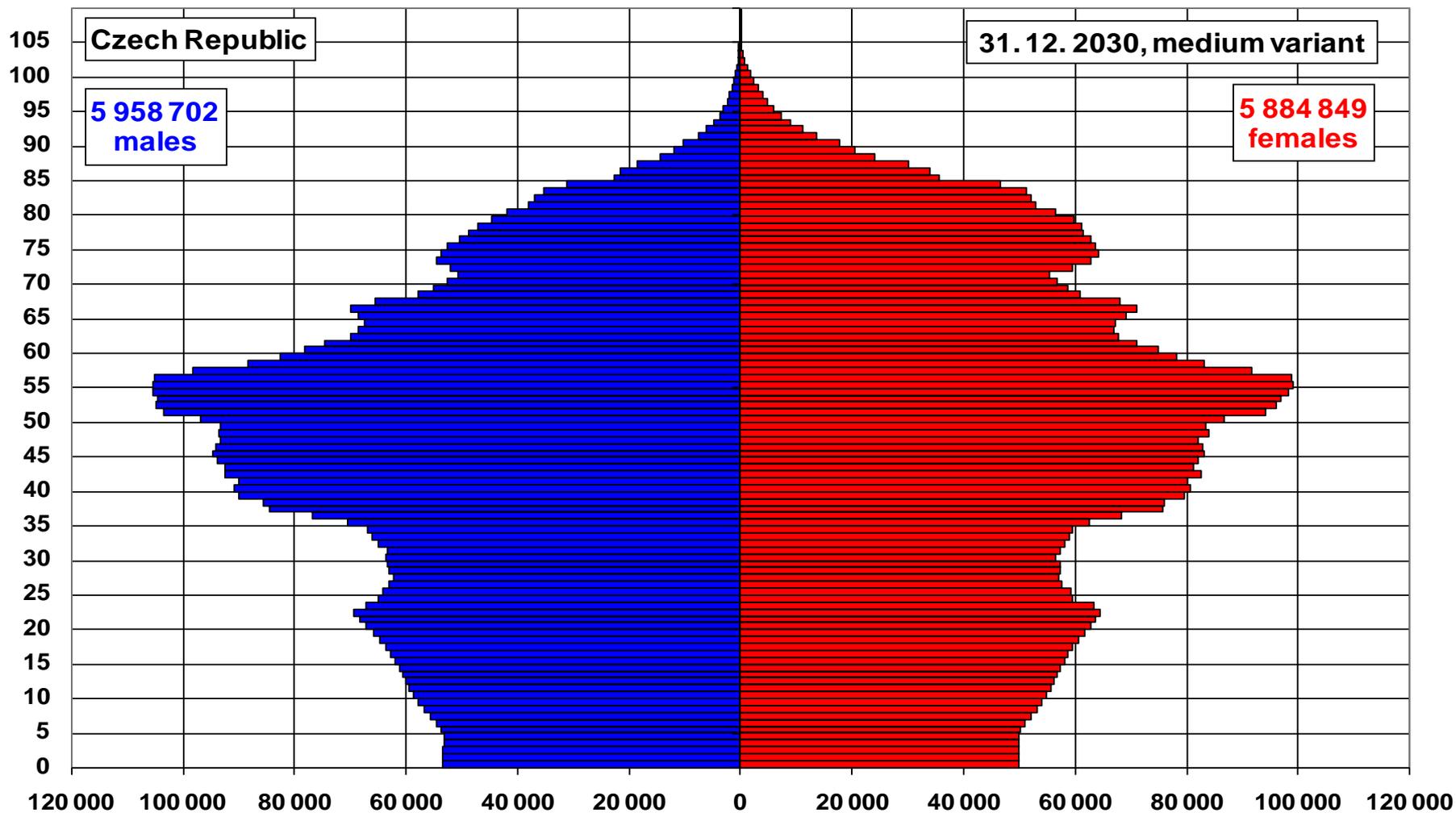


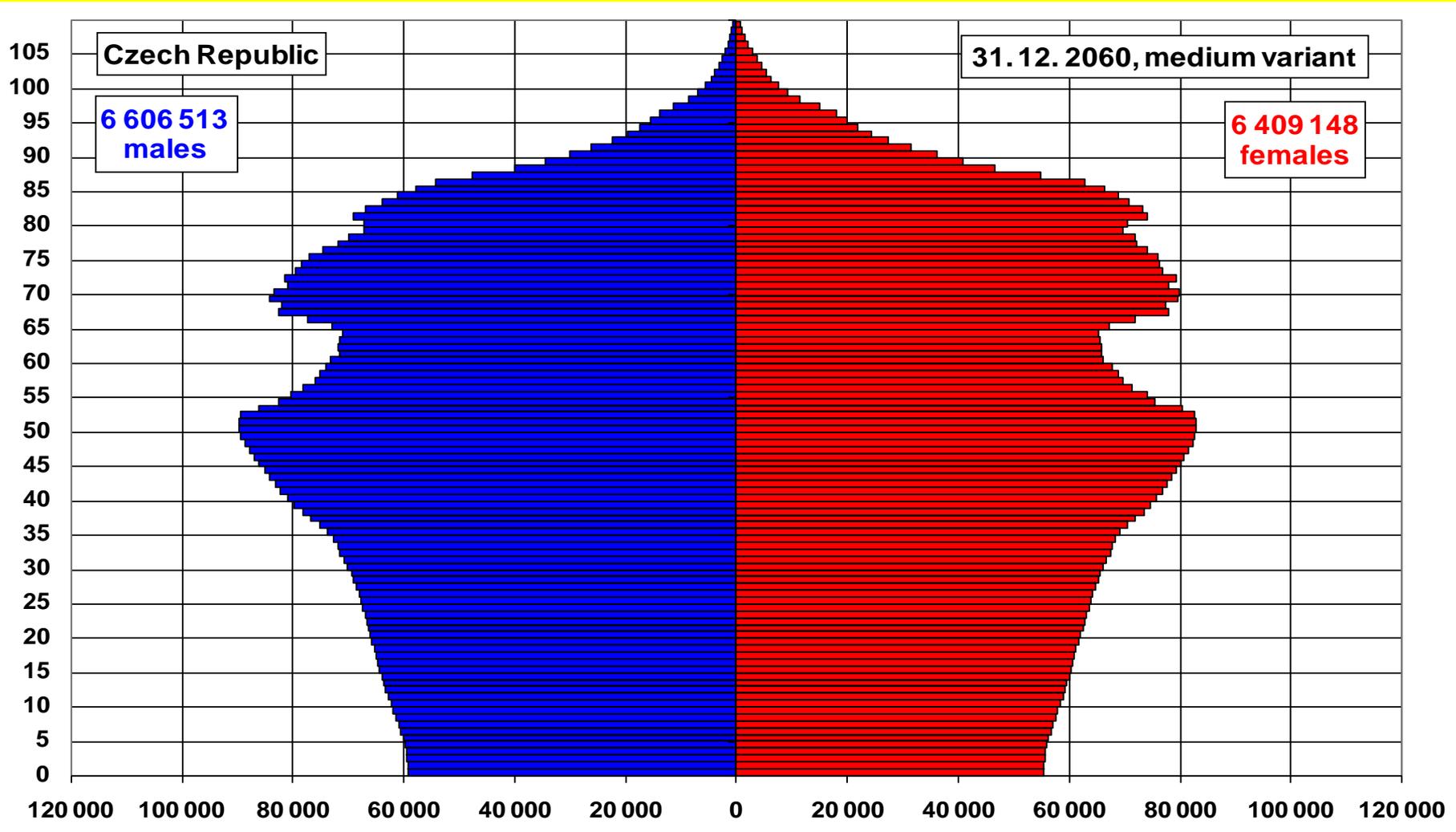






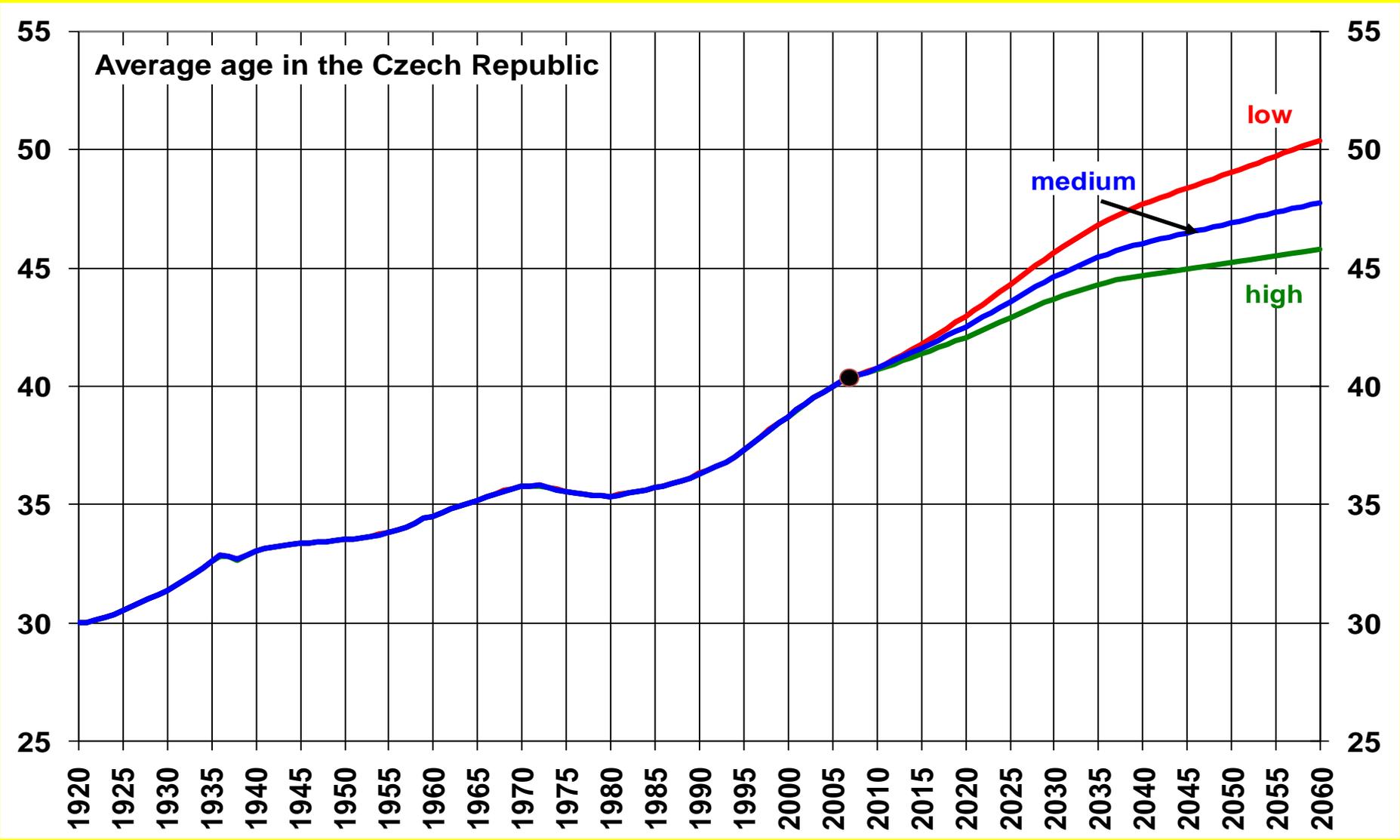




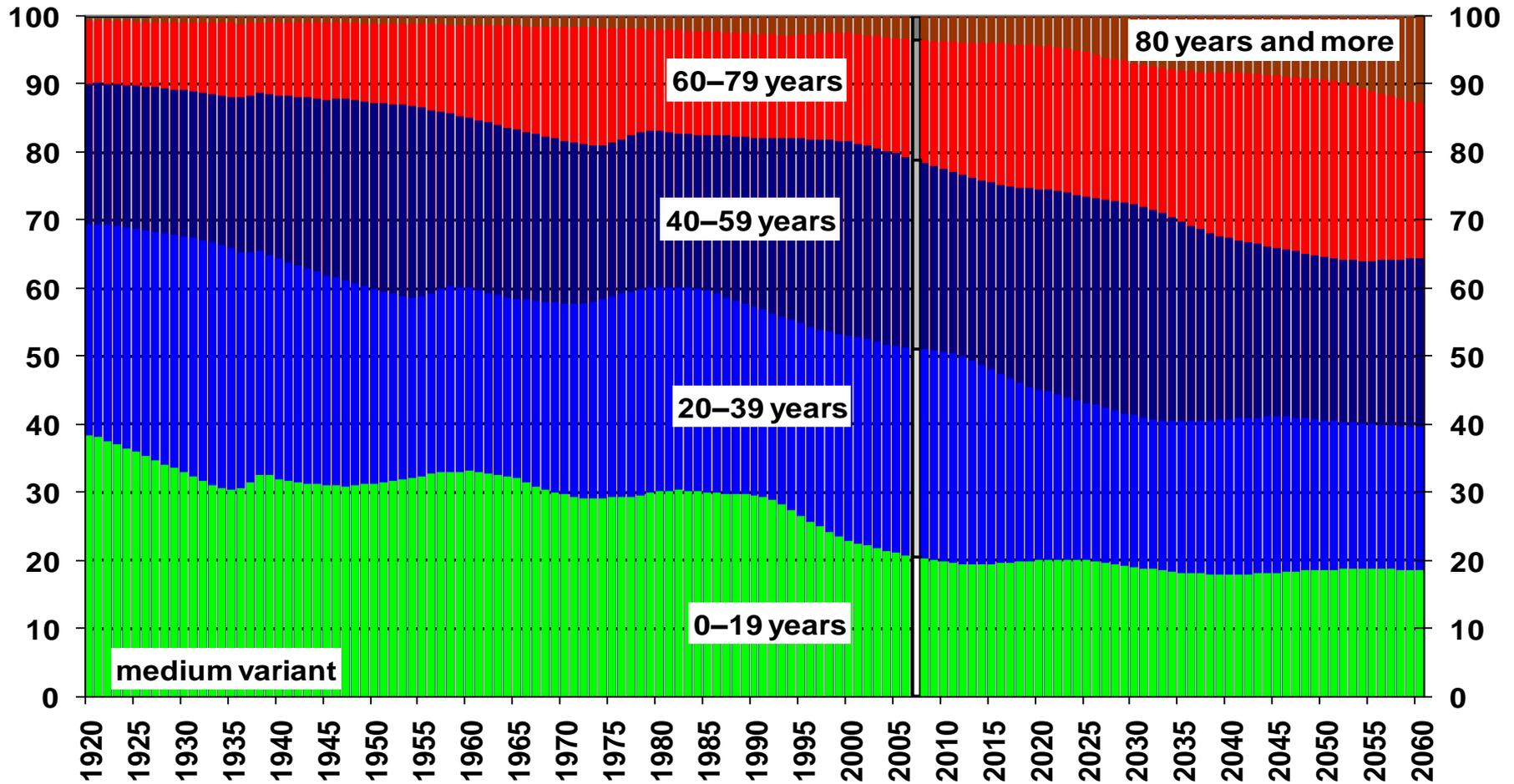


The ageing of the population

- Decrease of the proportion of children, increase of the proportion of seniors.
- Causes of the ageing:
 - Decreasing fertility in the past, relatively low value in the present time.
 - Permanent decrease of mortality, increasing life expectation.



Age structure of the population in the Czech Republic (%)



Migration cannot prevent the population ageing

Higher net migration:

- Slower population ageing
- Population increase
- Rapid increase of the proportion of foreigners

Economic consequences of the population ageing

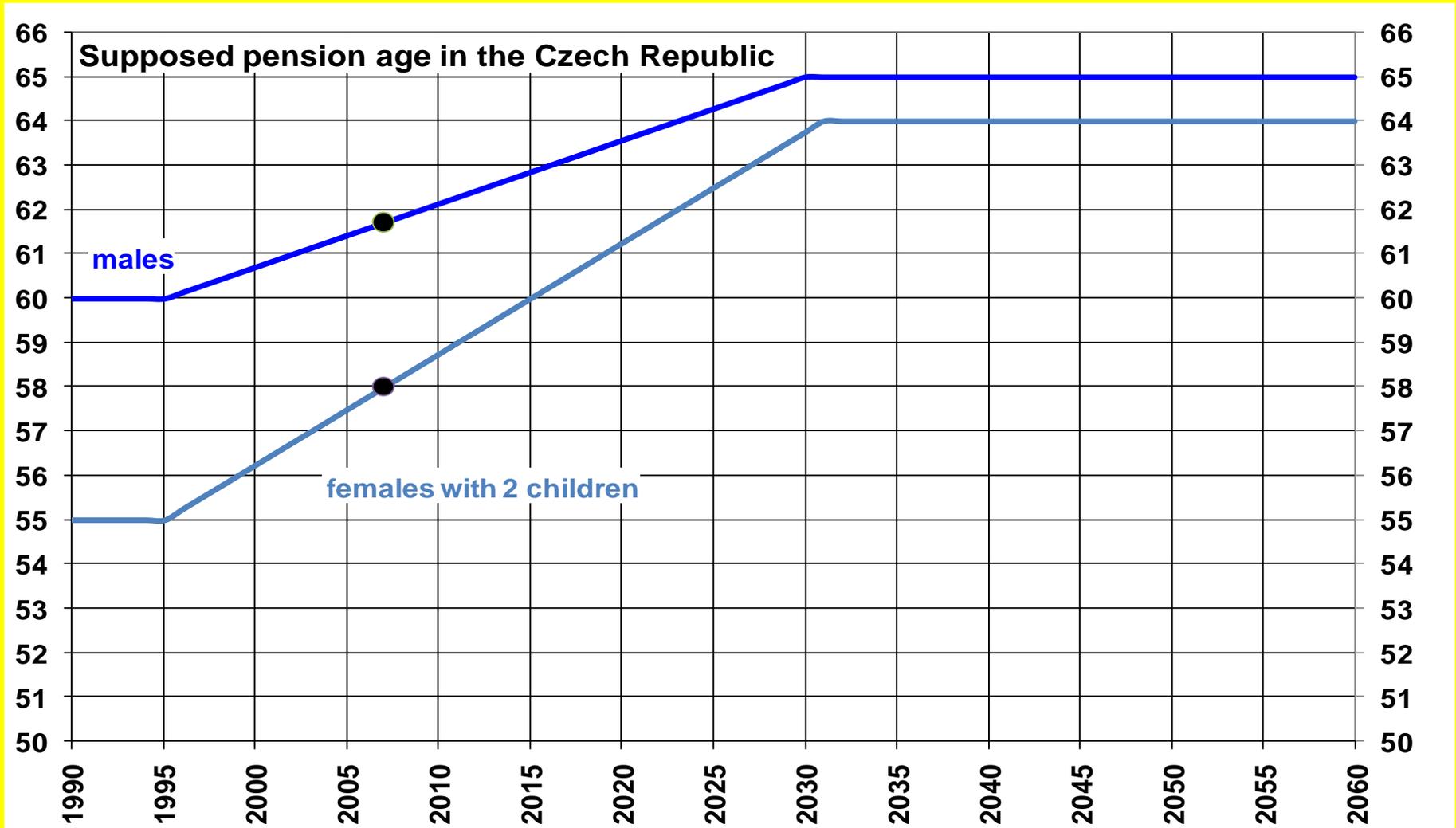
- Decrease of proportion of people in productive age
- Ageing of the population in productive age
- Increase of proportion of people in post-productive age
- Increase of the old-age dependency ratio
(the ratio of the number of people in post-productive age to the number of people in productive age)

Economic generations

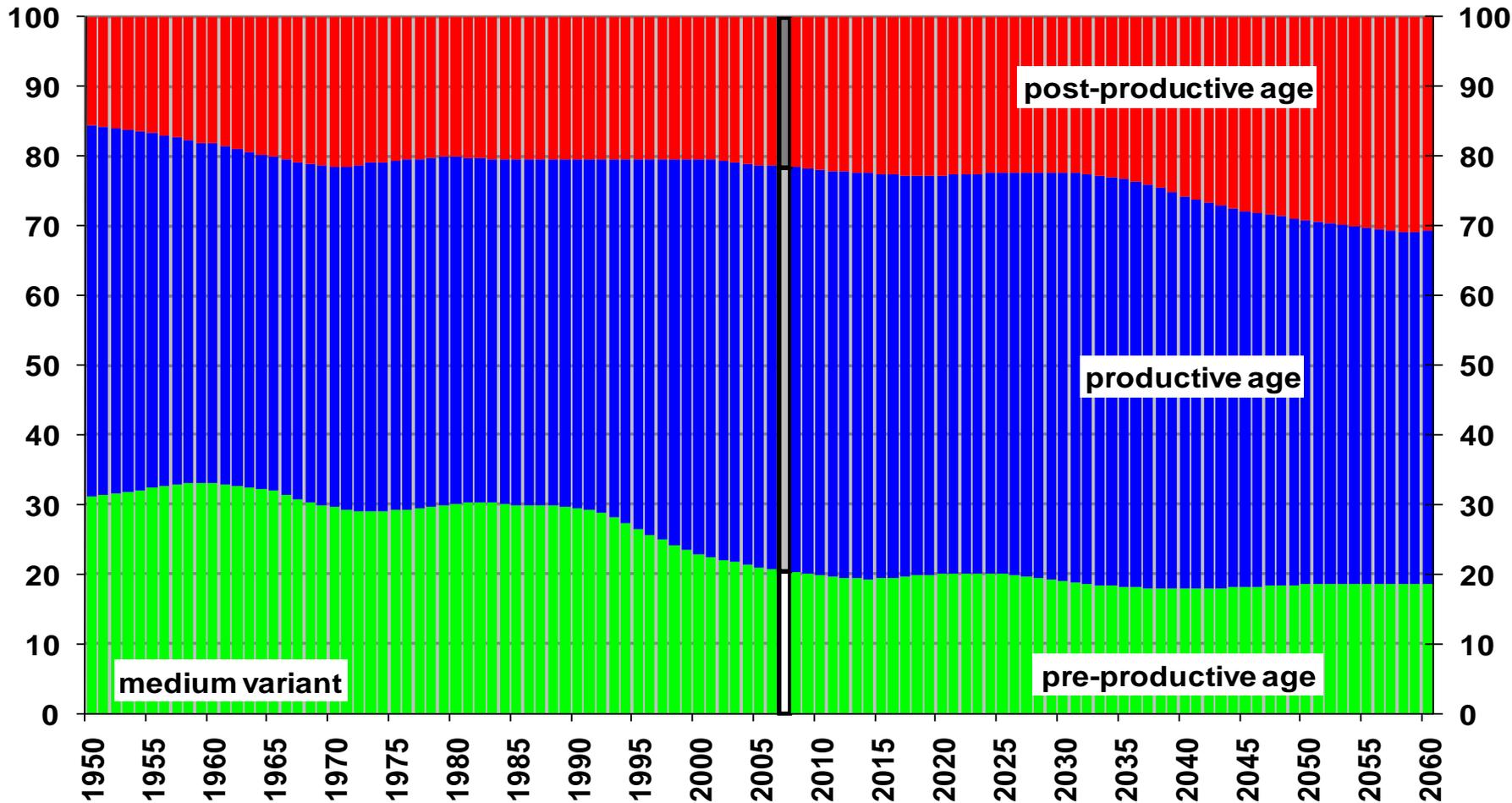
- Pre-productive age: 0–19 years
- Productive age: 20–(pens.age-1) years
- Post-productive age: pens.age and more years

Pens.age – supposed pension age

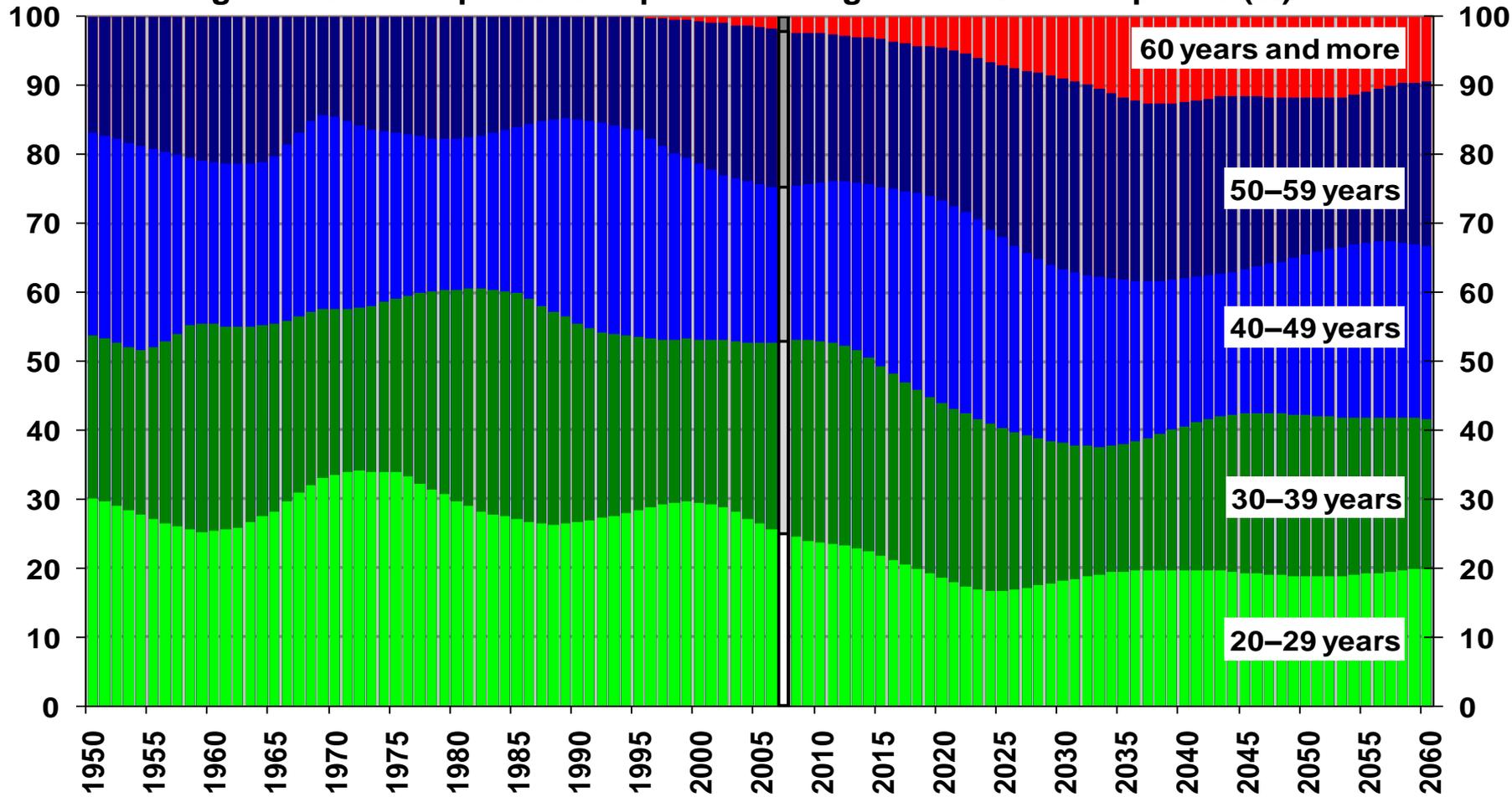
Proposed increase of pension age

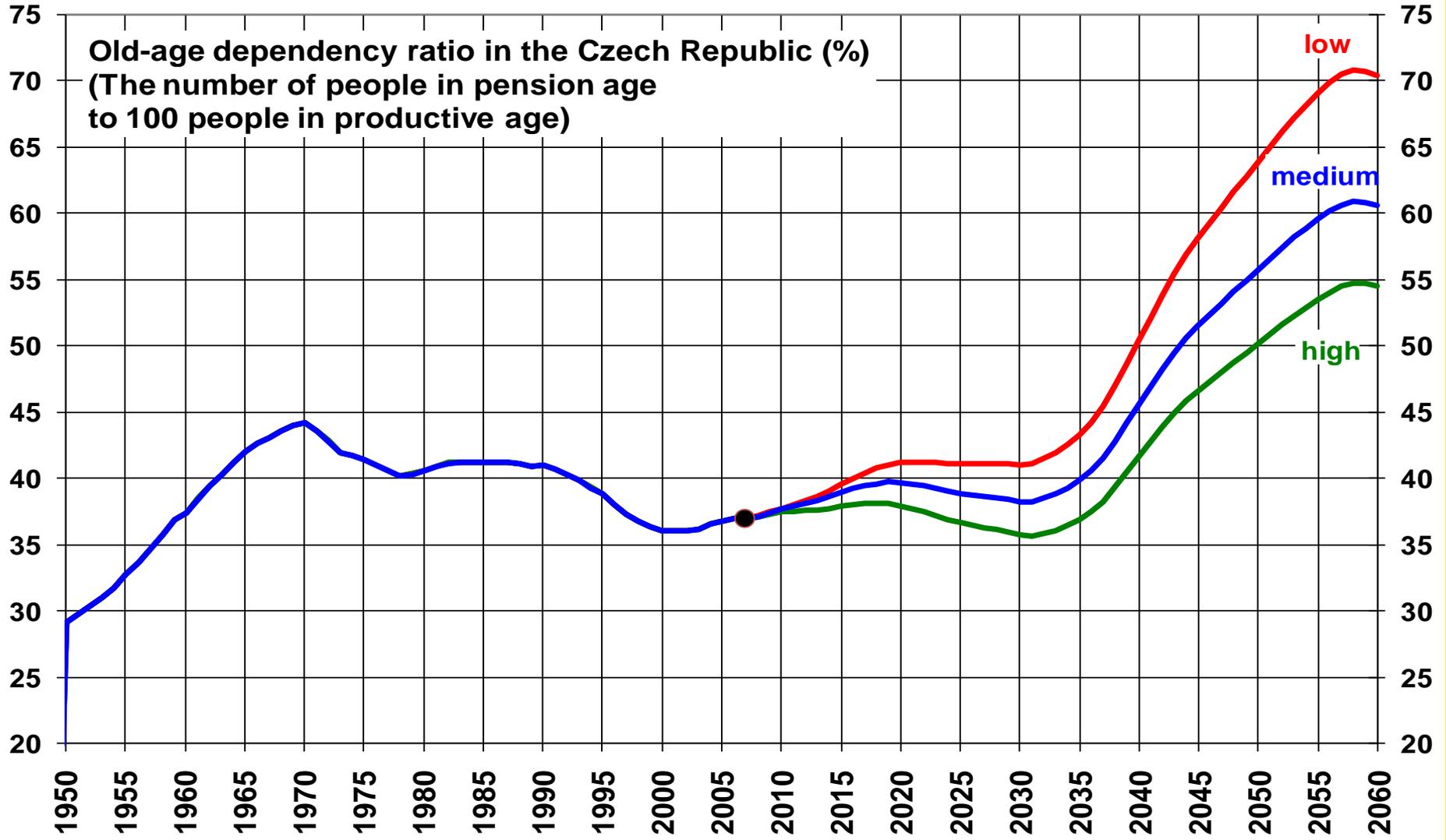


Economic generations in the Czech Republic (%)



Age structure of persons in productive age in the Czech republic (%)

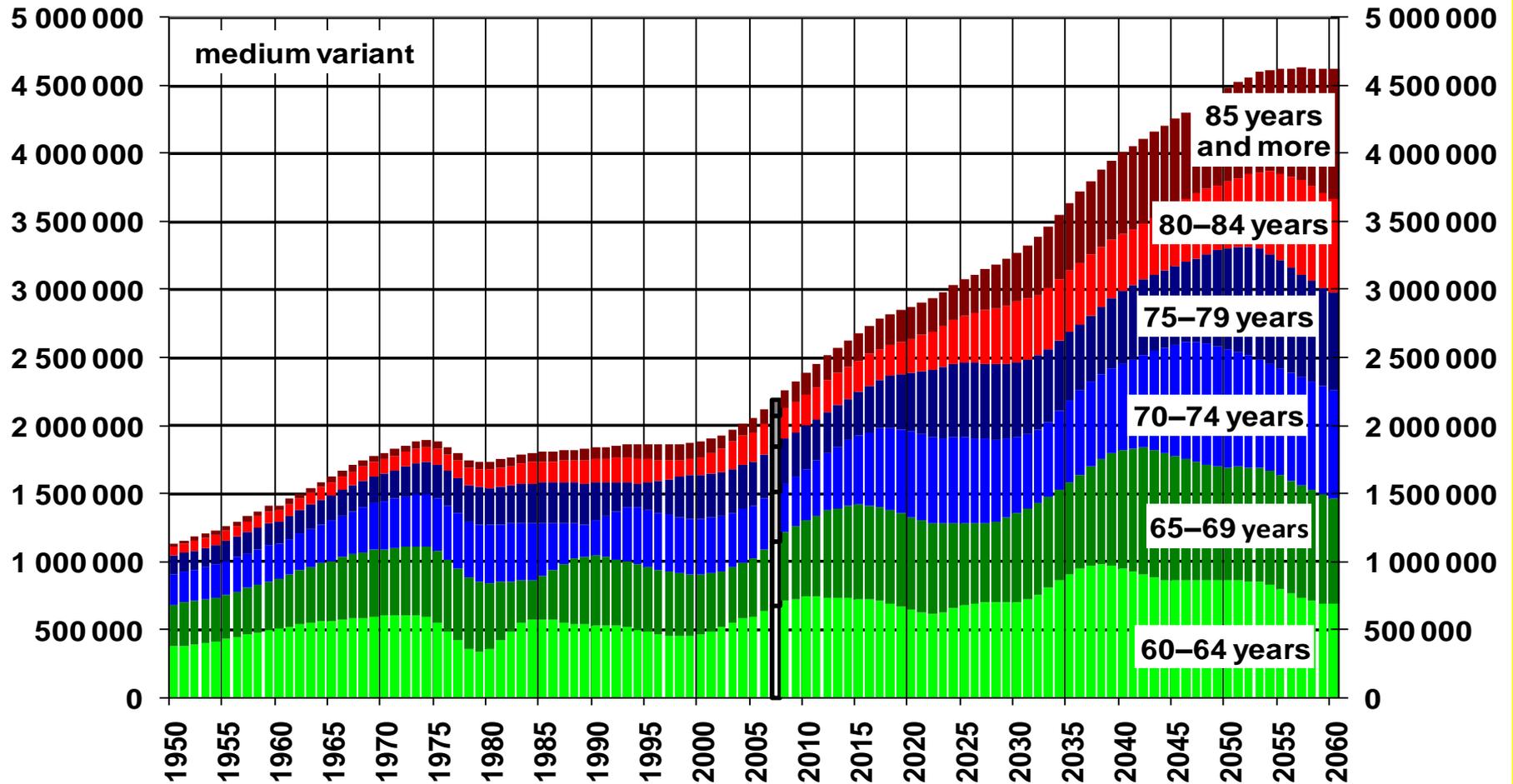




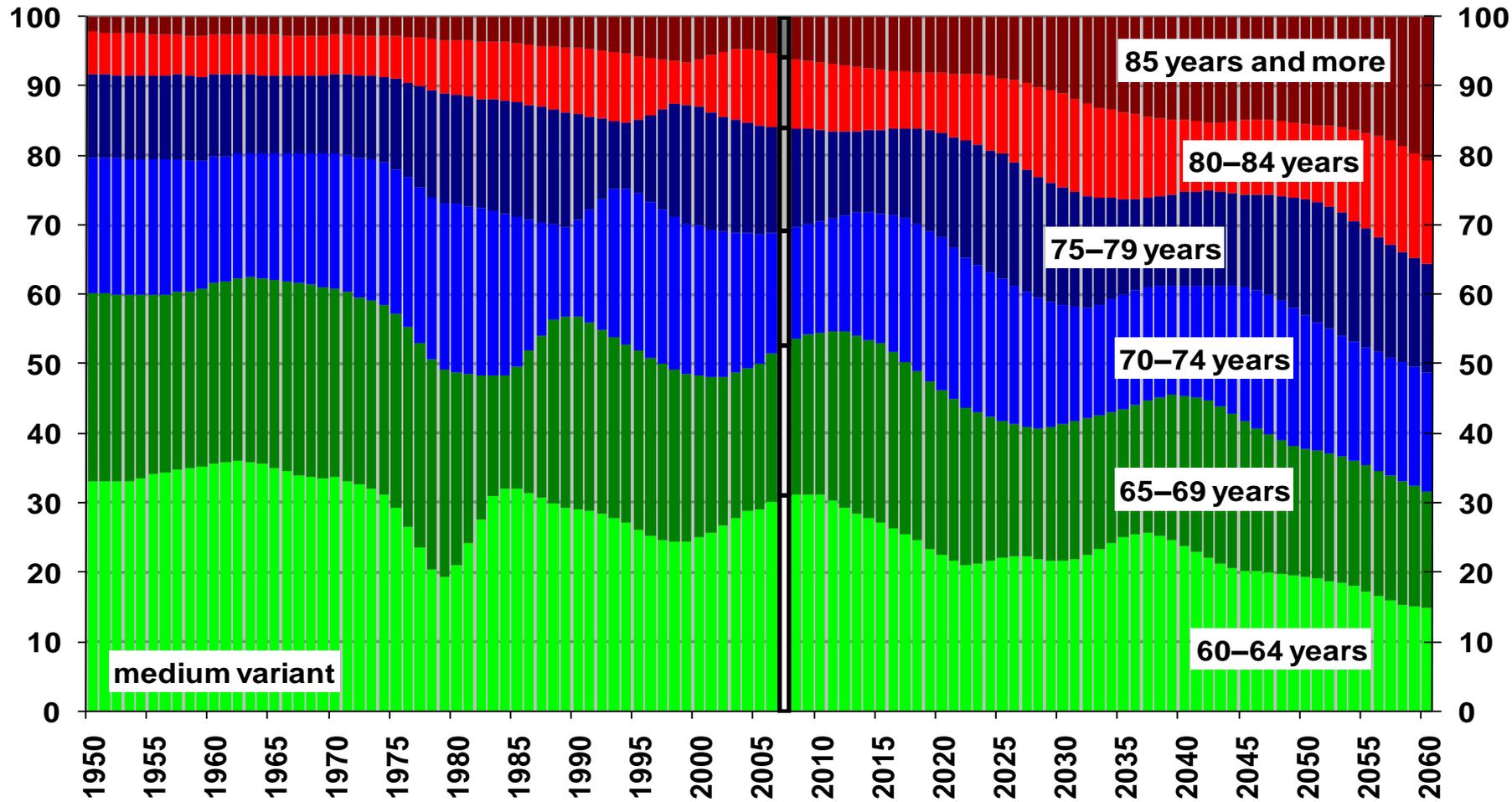
Population of seniors (people at the age 60 and more)

- Higher number of seniors
- Ageing of seniors
(increasing proportion of the oldest-old people)

Age composition of seniors in the Czech Republic



Age structure of seniors in the Czech Republic (%)



Main possible consequences

- Increasing burden of the system of pension security
- Problems in financing the system of health care
- Problems in assurance of the social care for the oldest-old people

References:

- KAČEROVÁ, Eva. International Migration and Mobility of the EU Citizens in the Visegrad Countries: Comparison and Bilateral Flows. Lisboa 22.08.2007 – 29.08.2007. In: *ISI 2007 [CD-ROM]*. Lisboa : International Statistical Institute, 2007, s. 1–3.
- KOSCHIN, Felix. Mortality in Oldest Old Ages and Old-age Security System. Poprad 29.08.2007 – 01.09.2007. In: *Amse 2007 [CD-ROM]*. Banská Bystrica : Občianske združenie Financ, 2007, s. 120–124. ISBN 978-80-969535-7-8.
- LANGHAMROVÁ, Jitka, FIALA, Tomáš. Použití metod demografické projekce pro odhad budoucího vývoje lidských zdrojů. Nitra 28.05.2008 – 30.05.2008. In: *MVD 2008 – Konkurenceschopnosť a ekonomický rast: Európské a národné perspektívy [CD-ROM]*. Nitra : SPU FEM, 2008, s. 1108–1113. ISBN 978-80-552-0061-3.
- LANGHAMROVÁ, J. and FIALA, T. Ageing of the population and its impact on the financing of health care in the Czech Republic. Lisboa 22.08.2007 – 29.08.2007. In: *ISI 2007 [CD-ROM]*. Lisboa, International Statistical Institute, 1–4, 2007.

*This article came into being
within the framework
of the long-term research project
2D06026,
"Reproduction of Human Capital",*

*financed by
the Ministry of Education, Youth and Sport
within the framework
of National Research Program II.*

Thank you for your attention

Tomáš Fiala, Jitka Langhamrová

Department of Demography

Faculty of Informatics and Statistics

University of Economics, Prague

nám. W. Churchilla 4

130 67 Praha 3

fiala@vse.cz

langhamj@vse.cz