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POPULATION DEVELOPMENT IN THE CZECH REPUBLIC AND IN POLAND

1. Introduction

Geographic inequality is a typical global demographic feature nowadays. This inequality is affected by exogenic factors such as economic and social factors. Countries with highly developed economies are the countries which are highly demographically developed unlike the emerging economies (mostly countries of Sub-Saharan Africa). Comparing their life expectancy rate (that is a synthetic indicator of mortality rate at the same time), life style, health care and economy we can see some discrepancies. There are countries where the life expectancy rate is over 80, on the other hand, there are countries with a life expectancy under 40.

The population growth ceases to be the global population problem but is replaced by demographic ageing. There are 6,5 billion people living on the planet now. Within the 21st century the population is to grow to 10 billion. Such growth is alarming. However, maximum absolute and relative figures were reached in the second half of the 20th century; today figures have a decreasing tendencies. There are significant changes in demographic behaviour in developed and emerging economies. Most emerging economies will finish the process of a first demographic transition within the next 20-30 years. Bangladesh can be a good illustration of significant changes of a reproduction behaviour. Bangladesh is the 7th big-

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gest world population and within the last 15 years the total fertility rate there dropped from 5 children per woman to 3 children per woman. Or let us take Iran where the fertility rate dropped from 6 children per woman to nil.

The process of demographic ageing is now a growing pain of most demographically developed countries, i.e. most countries in Europe. Typical features of this process are fast pace of ageing accelerated by the shifts within the age structures. Relevant growth of old people will have a significant impact on economies and it will press on pension, social and health system.

2. The differentiation within Europe

Europe as a whole is one of the most demographically developed areas in the world. However, it is quite differentiated. There are some areas and sub-populations that are not demographically developed. There are two decisive factors: whether the population underwent a process of a first demographic transition and what the stage of demographic revolution the country is (e.g. Albania and a Roma population). Demographic differentiation of Europe is along the West-East central line at the beginning of the 21st century. There are discrepancies along this line in the major demographic indicators, mainly the life expectancy rate differentiates within European continent. Western countries have higher life expectancy rate when 7 of them belong to the top 10 states with a highest synthetic indicator of 80 plus rate (Iceland, Sweden, France, Italy, Norway, Spain and Switzerland). In Poland and in the Czech Republic the life expectancy rate is lower than in Western Europe by approx. 4-5 years. On the other hand, these countries together with Slovenia and Croatia have a higher life expectancy rate than countries of other Central European and Eastern countries.

3. Czech and Polish population

The second demographic transition towards the end of the 1990s and start of 1980s played a major role in a demographic reproduction in both countries. The birth rate plummeted as a consequence of the increasing age of mothers at first labour and at second labour. However, this drop is obvious not only from a transversal point of view, but also from the long-term analysis (see Fig. 1). According to latest figures for both countries from 2003 the transversal birth rate is almost identical for both countries (Poland 1.22, Czech Republic 1.18 children per woman in a reproduction age). Globally speaking, these rates are the lowest.

Mortality rate can be illustrated on the life expectancy at birth. International statistic books have published the data for international comparison and analysis since 1960. There we can see some interesting facts for a life expectancy in the Czech Republic and Poland. For a start, there was a deterioration of a mortality rate

in the 1970s and 1980s. There was an adverse mortality rate for men aged 35+ at the end of the 1980s. Let us illustrate a stagnation and an adverse trend for men mortality in both countries since the 1960s to the beginning of 1990s.

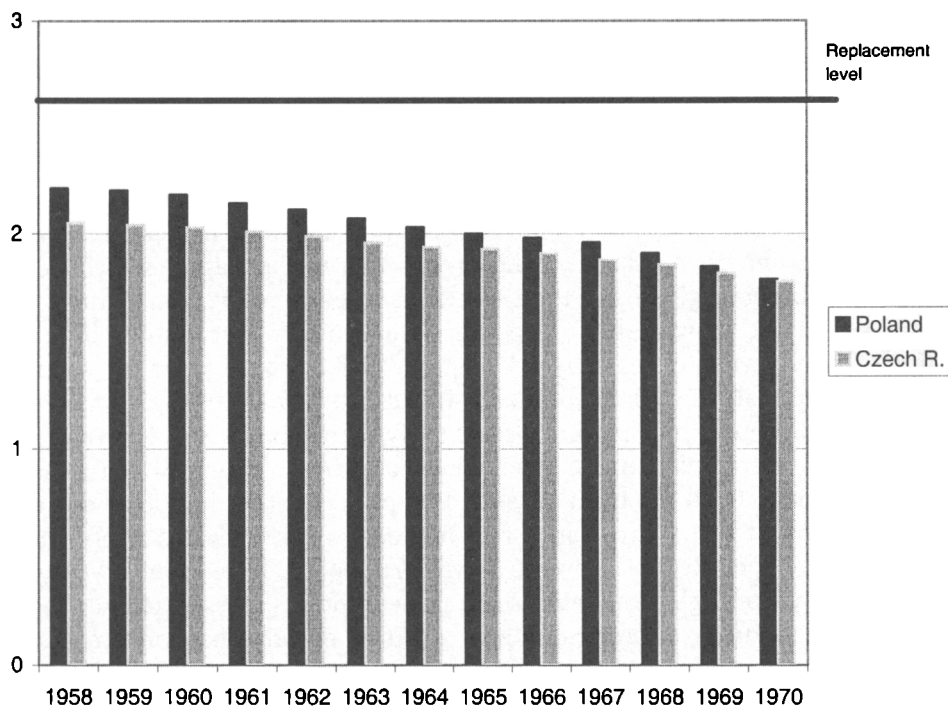


Fig. 1. Completed fertility of female birth cohorts born 1958-1970

Source: [1].

Czech Republic:

- in 1990, the life expectancy rate at birth for men was 67.6 years. This is the same figure as in 1964 (in 1960 and 1961 it was even higher by 0.2 years),
- in 1990 the life expectancy rate for men at the age of 45 was the lowest for the passed 30 years and at the beginning of 1960s it was higher by almost 1.5 years than in 1990,
- at the beginning the life expectancy rate for men at the age of 65 was the same as in the beginning of 1960s,
- the life expectancy rate at birth for women for the passed 30 years since 1960 to 1990 increased by mere 2 years, in the same period the life expectancy for women at the age of 15, 45 and 65 increased by approx. a year.

Poland:

- life expectancy at birth since the second half of the 1960 remained at the level 66-67 years,
- life expectancy at birth for men at the age of 45 in 1991 was lower by almost 2 years than in 1960, for men at the age of 65 for the same period the rate stagnated,
- life expectancy for women of the age 45 and 65 increased for the passed 30 years just by 1.5 years.

Where to trace the reasons for such adverse development? For a start, let us have a look at the figures for the mortality rate in other European countries. There is a clear difference between Western European countries and countries of the former socialistic area. Since the 1960s the life expectancy rate in Western European countries was increasing steadily whereas the rate in the former socialistic area stagnated until the beginning of the 1990s. After the fall of the Iron Curtain there was a significant growth of life expectancy rate mainly in countries of Central Europe. There was an increase by 4.5 years for men and by 3 years for women of life expectancy rate at birth in the Czech Republic in 1990-2003. In Poland there were identical figures for the same period (only for women it was 3.5 years). But still, the big differences between other Western European countries and these two countries remain. Unlike in other Western European countries in Poland and in the Czech Republic the life expectancy rate for men is lower by 4-5 years and for women in the Czech Republic lower by 3 years, in Poland for women lower by two years. Reasons for higher mortality seem to be various illnesses¹. More frequent illnesses and mortality discrepancies are caused by different economic and social conditions² and a different life style.

There is quite a challenging comparison of a mortality rate in Poland and in the Czech republic. The mortality charts from 2001 and 2004 were analysed here. In Poland these charts were published by Central Statistic Office, in the Czech Republic – by Czech Statistic Office. You can see the results of the comparison in Figs 2 and 3. Higher life expectancy of women can be explained by a favourable figures for specific mortality at older age. Problem and a challenge for Polish life expectancy rate is the infant mortality rate that was almost doubled as opposed to the infant mortality rate for the Czech Republic (despite the drop in the 1990s in Poland). Life expectancy for Polish women in 2004 (79.23) asserts that this particular rate can increase up to the highest European rate by decreasing an infant mortality rate. Comparing life expectancy of Polish and Czech men we can see a favourable differential mortality rate of Polish men in a post-productive age. Lower life expectancy rate in Poland (approx. by a year) is caused by a higher infant mortality rate.

¹ Major fatal diseases: blood circuit diseases, tumors and external causes (accidents, suicides). Blood circuit diseases and tumors make 80% of fatal diseases in the Czech Republic, in Poland 70%.

² Social conditions: education possibilities, eating habits, housing standard, accidents (work, car), sanitary.

By lowering the infant mortality of Polish boys the life expectancy might increase at least to a Czech standard.

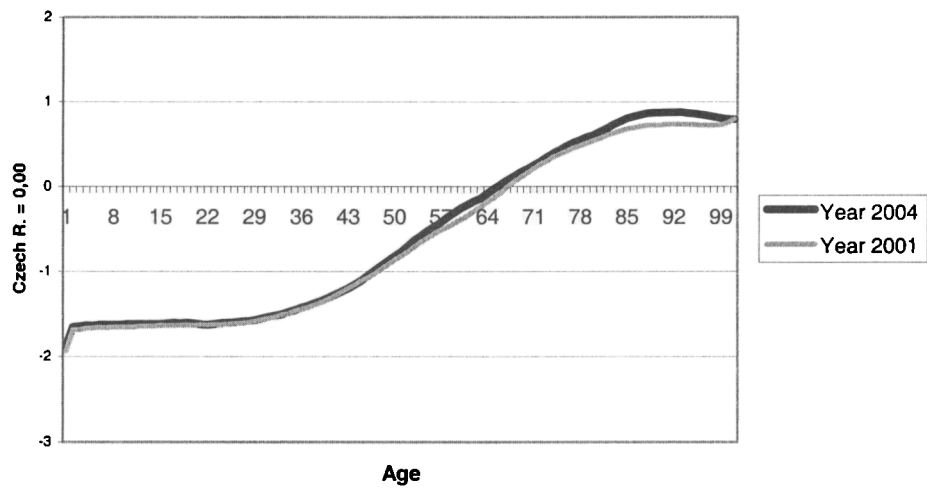


Fig. 2. Differences in male life expectancy between the Czech Republic and Poland
Source: [3; 5].

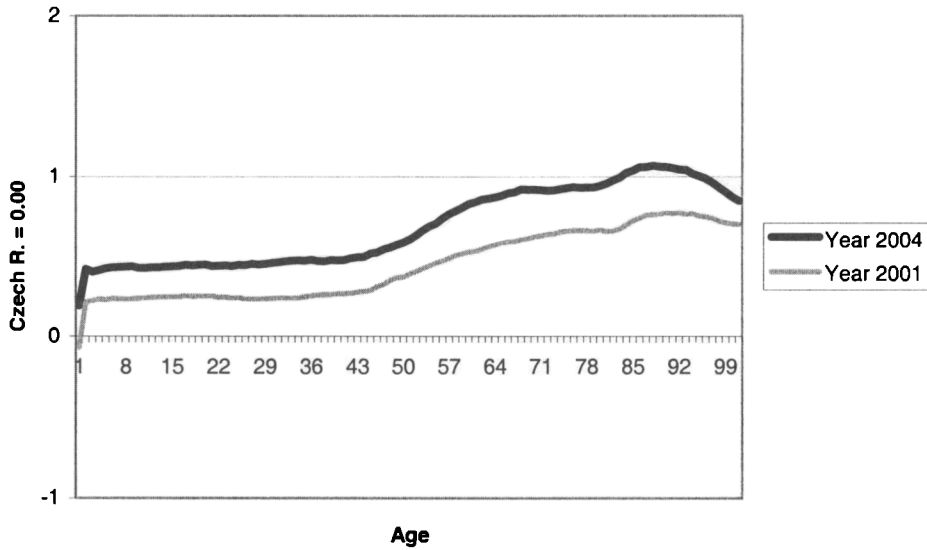


Fig. 3. Difference in female life expectancy between the Czech Republic and Poland
Source: [3; 5].

Further demographic feature influencing a natural reproduction is a nuptiality and divorce rate. In Figs 4 and 5 we can see a comparison of a crude nuptiality and divorce rate in the Czech Republic and Poland since 1990 up to 2004. The development of a crude nuptiality rate is similar in both countries. Before 1989 the nuptiality rate was increased by government interventions which supported married couples (loans for young marrieds, housing lists etc.). After the fall of the Iron Curtain the marital benefits were eliminated, which led to a drop in a crude divorce rate. Fig. 4 shows the nuptiality trend in both countries is identical and the crude nuptiality rate is identical as well as it has been at the range of 5-5.5 per mille in both countries since the second half of the 1990s³. Considering the cultural and religious traditions in Poland the doubled or trebled higher crude divorce rates in the Czech Republic come as no surprise. The divorce rate in both countries is one of the demographic trends that was not affected by significant shifts during the economic transformation. Any possible shifts are caused by legislative changes (see Fig. 5)⁴. Today Poland and the Czech Republic are countries with an average nuptiality rate as Great Britain, Ireland, Spain, Greece and Finland within the European area. From the European perspective Poland has a typical long-term lower divorce rate. On the other hand, in the Czech Republic this rate is among the highest in Europe. This is caused by a low religious determination and by quite a benevolent approach to a divorce as an easy solution to marital problems.

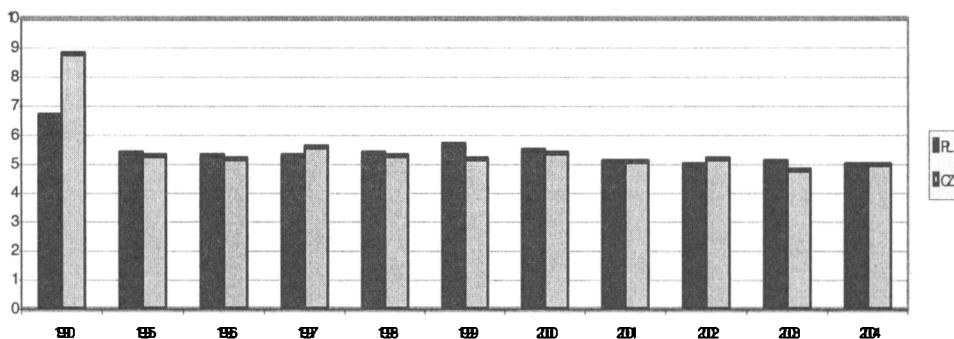


Fig. 4. Crude marriage rate: marriages per 1000 population

Source: [1].

³ Fig. 4: Crude nuptiality rate in the Czech Republic in 1990 is affected by the elimination of young marrieds loans. Short-time nuptiality increase was later compensated by a radical decrease in nuptiality rate.

⁴ Fig. 5: Temporary decrease in divorce rate in the Czech Republic in 1999 was caused by a new Family Act and by a temporary restraint of courts efficiency when dealing with divorce applications.

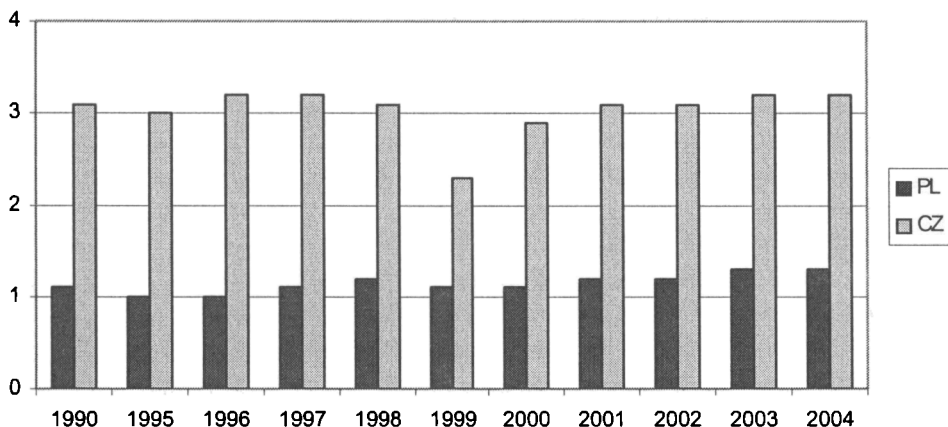


Fig. 5. Crude marriage rate: marriages per 1000 population

Source: [1].

4. Conclusions

After 1989 there were relevant shifts in population development in the Czech Republic and in Poland. The countries transformed their economy to a free market and Poland in particular faced serious economic problems as their hyperinflation was well over 200%. The reproduction behavior changed as a result of a new life style and new life challenges. This change is called a second demographic transition. Many demographers expected the reproduction behavior to change its character, however, a few expected the shifts to be so significant. Mainly the drop in fertility rate well below the level of mere reproduction was alarming. Today it is clear that a decrease in the size of children per a woman does not mean a temporary fluctuation but it is a problem of generation shifts. A relevant positive aspects in demographic development in both countries were an increase in life expectancy rate and decrease in mortality rate and infant mortality. A radical drop in an induced abortion rate is one of the relevant positive aspects of the population development in the Czech Republic in the 1990s. This was caused mainly by a responsible attitude of youth towards their sexual life and by an easier availability of a modern contraception. Any international comparison of abortion rates is difficult as especially the legal system in Poland is different in this respect and does not provide any database to carry out even the basic comparison. However, due to the development in other Central European countries we can assume that even in Poland there was at least some drop in illegal abortion tourism. On a whole we can say the character of reproduction behavior of Polish and Czech population is getting more and more alike despite the reli-

gious and cultural differences. These differences effect for instance a lower divorce rate and far lower share of illegitimate children in Poland.

Both countries show population losses due to decreasing natural fertility rates. In the Czech Republic since 1994, in Poland since 2002. Total population development is effected by mechanical shifts (migration) as well. Any comparison is difficult here due to different definitions of a migration, i.e. what is and what is not a migration. In the Czech Republic the definition of a *migrant* was changed in 2001. Thus the figures on migration can be only hardly compared since then.

Demographic ageing of the population is to be a typical feature of the further population development in the Czech Republic and in Poland. A higher share of old people in a population will go hand in hand with a higher life expectancy rate and far more people will live up to a high age. This major trend of the further population development is anticipated both by the Population Projections by 2030 by the Polish Central Statistic Office and by Population Projections by 2050 carried out in 2003 by the Czech Statistic Office. However, a further population development is to be open to any changes and is to be affected by any external factors of a demographic reproduction.

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ROZWÓJ POPULACJI W CZECHACH I POLSCE

Streszczenie

Autor analizuje aspekty rozwoju populacji w Polsce i Czechach po 1989 r. w kontekście europejskim i globalnym. Porównuje dwa kraje i wskazuje na główne trendy podobieństw demograficznych. Zjawisko demograficznego starzenia się jest typową cechą dalszego rozwoju populacji nie tylko w Polsce i Republice Czeskiej, lecz także w innych demograficznie rozwiniętych krajach.