

## DEMOGRAPHIC CHALLENGES IN CENTRAL AND EASTERN EUROPE IN 21<sup>ST</sup> CENTURY

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***Abstract.** Due to the fact that the least favorable situation in terms of population is in the countries of Central and Eastern Europe, the article presents the demographic position of these countries, the challenges and risks associated with the demographic crisis, the existing policy guidelines for families and points to the long-term perspective to the next 60 years (graying society). The aim of this article is to present the scale of the demographic crisis but also describe the consequences associated with it, and the challenges faced by each country in the future in the relation to the aging population. The research methods used in this work is desk research, analysis and interpretation of available statistical data and descriptive method based on the available literature.*

***Keywords:** Demographics, East-Central Europe, family policy, graying society, migration.*

### **Introduction**

Contemporary demographic processes, which became an emanation of population explosion, resulted in the reversal, change the perspective towards the pursuit of sustainability of the population of each country with their to the material, financial and technological potential. In many countries, covering the majority of the current population of the Earth, it is a population policy focusing on efforts to control the growth of population, mainly using „family planning” or birth control. At the end of 2012, the population of the European Union (EU) has exceeded 500 millions. EU demographic picture becomes clear: population growth in countries is driven mainly by immigrants, while in the countries we are dealing with an aging population. The article focuses on the threats and challenges of demography as the worst situation in these countries in the field of statistics on demographic indicators in Central and Eastern Europe.

### **The demographic situation in Central-East Europe**

Region of Central and Eastern Europe is facing major challenges to which, by demographic forecasts of various think-tanks, will have to deal with in the next 30-year period. These regions are included in the so-called ‘graying society’ which have to deal with an increasing number of older people. It is a consequence of demographic transition and is based on the type of transition societies characterized by very high mortality and fertility to low mortality type and fertility.

The fertility rate in the EU declined in the last decade. For simple generational renewal the amount of 2.1 children per woman is required. The sum

of the fertility rates of all EU countries fell from almost 2.6 in the first half of the '60s to 1.4 in the period from 1995 to 2007.

Relatively fertility rate in the EU member states increased in those countries that have introduced more friendly family policy to the society, for which include among others: the initiation of accessible and affordable childcare, more flexible forms of employment (France, the Nordic countries, the Netherlands) (Eurostat Yearbook , 2012) The lowest fertility rate occurs in the countries of Central and Eastern Europe (Czech Republic, Bulgaria, Greece, Romania, Lithuania, Hungary, Poland, Slovenia and Slovakia), and it is also closely related to the least developed policies for families in these countries (post-communist policy model family) (Saraceno, 2007).

**Table 1. The structure of the population by age (primary age ranges) – frequencies distribution**

	0-14			15-64			65 and more		
	1990	2010	2012	1990	2010	2012	1990	2010	2012
EU-27	19.5%	15.6%	15.6%	66.7%	67.0%	66.5%	13.7%	17.4%	17.9%
Belgium	18.1%	16.9%	17.0%	67.1%	65.9%	65.7%	14.8%	17.2%	17.3%
Bulgaria	20.5%	13.6%	13.4%	66.5%	68.9%	67.8%	13.0%	17.5%	18.8%
Czech Republic	21.7%	14.2%	14.7%	65.8%	70.6%	69.1%	12.5%	15.3%	16.2%
Denmark	17.1%	18.1%	17.7%	67.3%	65.6%	65.0%	15.6%	16.3%	17.3%
Germany	16.0%	13.5%	13.2%	69.2%	65.9%	66.1%	14.9%	20.7%	20.6%
Estonia	22.3%	15.1%	15.5%	66.1%	67.3%	66.8%	11.6%	17.1%	17.7%
Ireland	27.4%	21.3%	21.6%	61,3%	67.3%	66.5%	11.4%	11.3%	11.9%
Greece	19.5%	14.4%	14.7%	66,8%	66.7%	65.6%	13.7%	18.9%	19.7%
Spain	20.2%	14.9%	15.1%	66,3%	68.2%	67.5%	13.4%	16.8%	17.4%
France	20.1%	18.5%	18.6%	65.9%	64.8%	64.3%	13.9%	16.6%	17.1%
Italy	16.8%	14.1%	14.0%	68.5%	65.7%	65.2%	14.7%	20.2%	20.8%
Cyprus	26.0%	16.9%	16.5%	63.1%	70.1%	70.7%	10.8%	13.1%	12.8%
Latvia	21.4%	13.8%	14.3%	66.7%	68.9%	67.2%	11.8%	17.4%	18.6%
Lithuania	22.6%	15.0%	14.8%	66.6%	68.9%	67.1%	10.8%	16.1%	18.1%
Luxembourg	17.2%	17.7%	17.1%	69.4%	68.3%	68.9%	13.4%	14.0%	14.0%
Hungary	20.5%	14.7%	14.5%	66.2%	68.6%	68.6%	13.2%	16.6%	16.9%
Malta	23.6%	15.6%	14.8%	66.0%	69.6%	68.8%	10.4%	14.8%	16.4%
Netherlands	18.2%	17.6%	17.3%	69.0%	67.1%	66.5%	12.8%	15.3%	16.2%
Austria	17.5%	14.9%	14.6%	67.6%	67.5%	67.6%	14.9%	17.6%	17.8%
Poland	25.3%	15.2%	15.1%	64.8%	71.3%	71.1%	10.0%	13.5%	13.8%
Portugal	20.8%	15.2%	14.9%	66.0%	66.9%	66.0%	13.2%	17.9%	19.0%
Romania	23.7%	15.2%	15.2%	66.0%	69.9%	68.5%	10.3%	14.9%	16.3%
Slovenia	20.9%	14.0%	14.3%	68.5%	69.4%	68.99%	10.6%	16.5%	16.8%
Slovakia	25.5%	15.3%	15.4%	64.3%	72.4%	71.8%	10.3%	12.3%	12.8%
Finland	19.3%	16.6%	16.5%	67.4%	66.4%	65.4%	13.3%	17.0%	18.1%

Sweden	17.8%	16.6%	16.7%	64.4%	65.3%	64.5%	17.8%	18.1%	18.8%
United Kingdom	19.0%	17.5%	17.6%	65.3%	66.1%	65.6%	15.7%	16.5%	16.8%

Source: Eurostat, 2012, online data code: demo\_pjanind

Table 1 shows that the countries of Central and Eastern Europe are characterized by a higher proportion of people of working age with comparison to Western Europe. Looking at the changes in the population of Central and Eastern Europe for over two decades, we see an increase in the share of people aged 15-64. At the same time, in all populations of the region, there is some increase in the proportion of people of aged 65 and more, accompanied by a decrease in the proportion of the youngest citizens. The largest, more than 10% decline affected Poland and Romania, the lowest (5.8%) - Hungary. Currently, the share of pre-working age people in the countries of the region is between 13.6% (Bulgaria) and 15.3% (Slovakia).

On the one hand, the main reason of this was a continuous decline in fertility and on the other hand decreased tendency to marry. Intensity of marriages and births began to decline in Poland already in '80s, but in the '90s these trends have decisive accelerated. Changes taking place accompanied by changes in patterns of fertility and marriage manifested in delaying the decision about getting married, slow growing proportion of people living in marriages and a relatively rapid increase in the percentage of births out of wedlock.

The reduction of fertility to very low levels (total fertility rate = 1.24) ranks countries in Central and Eastern Europe among others in the EU with the lowest fertility rate. This was accompanied by delaying the decision to give birth to a child. In particular, there has been a strong decline in fertility among women aged 20-24, to a lesser extent - in the group aged 25-29. As a result, the average age of women at birth of first child has increased from 26.3 to 28 years (Duvander, Lappegard & Andersson, 2010, pp. 45-47)

During the transformation of reproduction appropriate to second transition occurred (Durasiewicz, 2011, pp. 9-26):

- decline of fertility and fertility patterns change as a result of deferring decisions of the birth of a child later in life and percentage increase of births out of wedlock;
- changes in pattern formation and disintegration of families resulting from a decline in the propensity to enter into formal relationships, delaying marriage, cohabitation growth rate, growth rate of divorce;
- pattern changes of leaving the family home by adult children (early leaving the family home, but for other reasons than entering into marriage).

As a result, we should expect that the proportion of elderly in the population of Central and Eastern Europe will grow at a rate much faster than it

will be done in the EU15 countries, which have higher fertility rates, and in addition the negative demographic trends decelerate by the influx of immigrants.

Present generation of working-age people that entering into retirement age, will not be replaced by a sufficient number of young people. While it can expect a decrease premature mortality of men and extend life of those who in the future will enter the category of the elderly (65 and over). As a result, the proportion of elderly in the population of Central and Eastern Europe will increase.

An increasing life expectancy is one of the many factors that contribute to the aging of the European population. Index increases in life expectancy for men and women in Central and Eastern Europe. All facts and statistics suggest that this situation will be maintained. The average life expectancy for men in 2003 was 74.6 and for women 80.8. The lowest rate for men in life expectancy was 75.3, and was registered in Lithuania. As for the women, the lowest rate was registered in Romania - 75.7.

**Table2. The fertility rate, the average age of women giving birth to their first child and life expectancy in 2009-2012 - in the countries of Central-East Europe**

	Fertility RateTFR				The average age of women giving birth to the first child				The average life expectancy			
	2009	2010	2011	2012	2009	2010	2011	2012	2009	2010	2011	2012
Bulgaria	1.57	1.49	1.51	1.50	26.6	27.0	27.1	27.1	73.4	73.5	73.9	74.4
Czech Republic	1.49	1.49	1.42	1.45	29.4	29.6	29.7	29.8	76.6	76.9	77.2	78.1
Estonia	1.62	1.63	1.51	1.56	29.1	29.3	29.5	29.6	74.5	75.2	75.7	76.7
Lithuania	1.55	1.55	1.56	1.60	28.6	29.0	28.9	29.0	72.5	72.8	73.1	74.1
Latvia	1.31	1.17	1.34	1.44	28.6	29.0	28.7	28.8	72.8	73.1	73.4	74.1
Hungary	1.32	1.25	1.23	1.34	29.1	29.3	29.4	29.4	73.8	74.1	74.5	75.3
Poland	1.40	1.38	1.30	1.30	28.6	28.8	28.9	28.9	75.3	75.8	76.2	76.9
Romania	1.57	1.54	1.46	1.53	26.9	27.1	27.0	27.2	73.3	73.5	74.3	74.5
Slovakia	1.44	1.43	1.45	1.34	28.5	28.6	28.9	28.7	73.7	75.0	75.5	76.3
Slovenia	1.53	1.57	1.56	1.58	29.6	30.1	30.1	30.1	78.5	79.0	79.4	80.3

Source: Eurostat data, 2012, online data code: demo\_frate & demo\_mlexpec

In recent decades, in all European countries the decision about marriage and starting a family put away to a later date. Also in Central and Eastern Europe the average age of women giving birth to their first child increases.

Disturbing in terms of demography is the fact that the decision on the birth of the first child moves to the age limit of 30.

Although there is no firm evidence that women, pushing the decisions of the birth of the first child for the later years, reduce the number of their offspring born (Kuronen (ed.), 2010), in the countries of Central and Eastern Europe such a negative scenario can be checked.

Another negative factor contributing to the weakening of the demographic situation is negative migration balance. Young people due to unfavorable economic and business emigrate from the country, on the other hand, there is no immigration of persons likely to offset the losses associated with the emigration of young people.

**Table 3. Immigration and emigration in 2009-2012 - in Central-East Europe**

	Immigration				Emigration			
	2009	2010	2011	2012	2009	2010	2011	2012
Bulgaria	no data	no data	no data	14.103	no data	no data	no data	16.615
Czech Republic	75.62	48.317	27.114	34.337	61.782	61.069	55.910	46.106
Estonia	3.884	2.810	3.709	2.639	4.658	5.294	6.214	6.321
Lithuania	6.487	5.213	15.685	19.843	38.500	83.157	53.863	41.100
Latvia	3.731	4.011	10.234	13.303	38.208	39.651	30.311	25.163
Hungary	27.894	25.519	28.018	33.702	10.483	13.365	15.100	22.880
Poland	189.166	155.131	157.059	217.546	229.320	218.126	265.798	275.603
Romania	135.844	149.885	147.685	167.266	246.626	197.985	195.551	170.186
Slovakia	15.643	13.770	4.829	5.419	4.753	4.447	1.863	2.003
Slovenia	30.296	15.416	14.083	15.022	18.788	15.937	12.024	14.378

Source: <http://ec.europa.eu/eurostat/web/population-demography-migration-projections/migration-and-citizenship-data/main-tables>, received on: 20.02.2015

The most unfavorable situation is in Romania, who has lost, as a result of emigration, almost 10% of the citizens. The scope and scale of international migration in Poland in the years 1950-2012 influence a number of social,

economic and political factors. Because of the motives and reasons for migration decisions and the circumstances under which they were made, they can be divided into voluntary and forced migration. The first was mainly an economic related to the desire to improve living conditions, the second type of migration was due to unfavorable political situation in Poland, as exemplified by the great wave of migration in the '80s. As for the decline in the population of Lithuania is also significant, due to economic migration.

Latvian Central Statistical Office shows that over the past twelve years the population of Latvia decreased as compared to 2000 up to 340 000 people (Iglicka, 2012). In other countries, the observed decrease in migration is slightly smaller but the reasons for leaving the country are similar to those in Romania, Poland, Lithuania and Latvia. Most migrants choosing to travel abroad to take up a job (labor migration).

Therefore, migration can to some extent replace the social security system, which is able to offer a citizen of the state through its policies and public services, protecting it against various social risks such as: the inability to work due to health reasons, job loss, or problems in entering the labor market, maternity, old age, death of a breadwinner. At the same time, host countries restrict access to the social assistance system, leading to the temporary nature of migration, adhere to certain elements of the sending country, in particular in the field of public services (Kureková, 2011).

### **Demographic challenges and threats**

The demographic situation in Central and Eastern Europe (of post-communist Europe) differs significantly from that in the rest of the continent. The main long-term trends on the continent are: population stabilization, compensation scarcity of births by immigration and population aging. Compared to other continents, these trends arouse concerns and put Europe in an unfavorable position. Central-East Europe is experiencing regression of population, declining birth rates is deeper and usually accompanied by a strong emigration, and the aging of the population has a greater dynamic range. Therefore, in CEE the most serious long-term, demographic challenges are focused.

There are four perspectives of demographic risk description in CEE (Okólski, 2012):

- Traditional (size of the population - regression) - mainly related to a negligible share of Central and Eastern population of Europe. Europe (excluding East): growth (stagnation!) from 440 million to 450 million, Eastern Europe: a decrease from 295 million to 220 million.
- Civilization (decadence) - health crisis (from the '60s to the early '90s and even at least to the beginning of the twenty-first century.). Narrowed reproduction of the population, the phenomenon of „lowest

low” fertility rate (TFR = 1.1, 1.4), continued strong emigration (In the years 1990 - 2012 the population losses were between 5 – 10 %).

- Structural (quality of the population - negative selection) - the effect of protracted 'traditional' social relations, depending imperial effects during the partitions, the effect of repression during the World War II and post-war, the consequences of 'socialist modernization', the effects of war (and latest) waves of migration.
- Functional (impaired balance between the fundamental groups of the population) - 'eternal' relationships: a group of -19 ('reproductive event') almost as large as 20-59 group, fulfilling the basic reproductive function (procreation, education of children, support their families) and marginal group sizes 60+ (negligible 'reproductive value').

Today, more and more alarming is the increase in the number of European countries, which have negative population growth, which means that there is no replacement of generations and reduces the number of citizens of the country. Social policies carried out by individual countries in Central and Eastern Europe have had three current challenges to which they belong (Frątczak, 2011, pp. 11 – 31.):

- demographic challenges - occurring in the European Union, although in a different scale and intensity (decrease in the propensity to marry, the development of new forms of family life, the decline of fertility rates constitutes one of the causes of aging);
- socio-economic challenges - the desire to strengthen the competitiveness of the EU economy and, therefore, the need for human capital development; the labor market situation which is characterized by unemployment, employment instability, the development of new forms of employment, the intensity of the processes of economic activity of women, the development of civil society, the pursuit of social cohesion through the elimination of poverty and social exclusion;
- axiological challenges - on the one hand, the development of values and attitudes characteristic of post-industrial society, on the other to maintain a high rank in the hierarchy of the family.

### **Post-socialist model policy for families**

National family policy is influenced by demographics, economic, social and cultural characteristic of the country. Unprecedented „demographic shrinkage” in the countries of Central-East Europe has increasingly impact on the economy and social life of countries. The shortage of taxpayers destabilizes public finances, increasing their chronic deficit. The lack of payers of superannuation has a bad impact on the social security system, which must be supported by grants from the budget and loans in banks.

An aging population makes the health system breaks under the pressure of the patients. The decreasing number of children results in closing of schools and universities. With the loss of young people also worksites disappear at the same time, the demand for various services is coming down but the demand for expensive medical treatment and care for the elderly is going up.

No young people in the labor market will soon begin to reflect also on the private sector, reducing its innovation, competitiveness and the ability to adapt to changing market conditions. National policies for families in the various countries involved in the solution of this situation.

The countries of Central and Eastern Europe are part of the post-socialist model of family policy (NMS10). It is characterized by the following factors (Głabicka & Durasiewicz, 2011, p.145):

- *Axiological and demographic conditions*

The family founded on marriage has a long and established tradition in this model. Is undoubtedly associated with the influence of the Catholic religion which considers the sacrament of marriage as indissoluble connection. Marriage and the family occupied and occupy a high position in the hierarchy of generations entering an adult life. However, there are changes in the pattern of marriage, consisting in stretching the decision over a long period of time and what is more it makes that family assume people who are socially very mature with greater financial autonomy. However, this trend has negative implications for the process of procreation, is in fact the most common implementation of the model family with fewer children.

The dominant provider of family policy is the state which acting in a direct way wanting to give families the best possible conditions for the development and meet the needs.

The purpose of this model of family policy is to increase the protection of families being in a difficult circumstances. The dominant instrument, which was used in this model, are cash benefits especially family allowances. They were primarily aimed at families in difficult circumstances. This model is based primarily on: protecting the poorest families, the selectivity of the award of benefits, privileges equality of men and women to the benefits, enhance the impact on the course of demographic processes.

- *Entities of the Family Policy*

The dominant player of family policy is the state, acting directly and separating individual tasks and funding for provincial and local government units.

- *Family Policy instruments*

Selective cash benefits (family allowance additives, temporary allowance, intentional allowance), depending on income. One-time contribution of labor. The system of pro-family tax relief is directed to large families. Difficult access to care and educational institutions - the lack of childcare, lack of places in nurseries and kindergartens, high fees for a place in the nursery and



kindergarten. Maintenance fund for single-parent families - as in the case of the US single-parent mother without an established paternity of the child is not entitled to any benefit.

To sum up, the post-communist model, also called post-socialist, transformation or Eastern Europe is an important characteristic for the group of ten countries of Central and Eastern Europe that joined the EU between the years of 2004 and 2007. It seems, however, in comparison with other models of social policy (Mediterranean, Scandinavian, Anglo-Saxon and continental) the most heterogeneous because its specificity is determined mainly by past - a legacy of the „real socialism” and similar political transformation processes that have left a significant mark on the current shape of the socio-economic development in these countries.

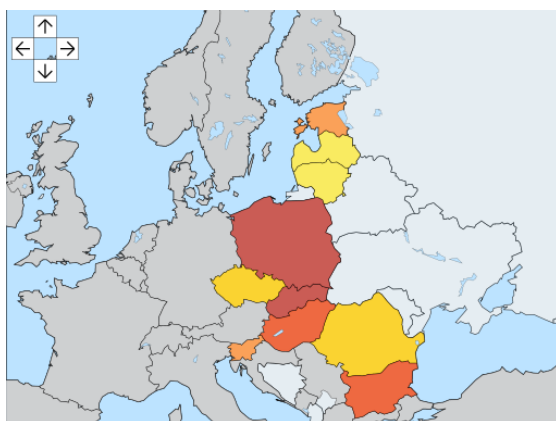
### Graying society – the perspective of 50 years

The society in Central and Eastern Europe are at risk in the future of intense process of aging in the future, which is a consequence of the very low fertility, premature mortality in middle-aged men and still lower than in the wealthier countries of the average life expectancy of over 65 years of age (Rychtaříková, 2008, pp. 102-107).

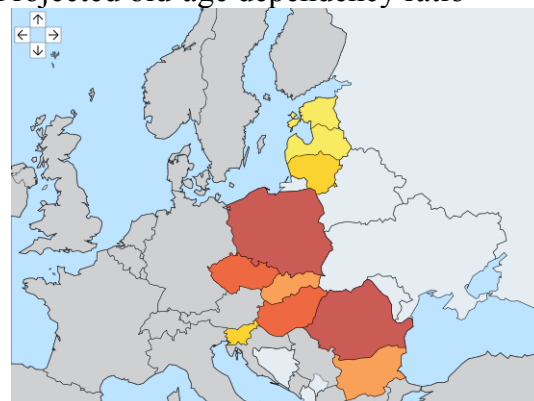
According to Eurostat population projections of EU countries will gradually increase until 2035 after which the number of residents will start to fall. The latest forecasts predict that in 2060 the EU's population will reach 505.7 million which will be accounted for only 1.7% of the increase in population compared to 2008.

**Map.1. Projected population and old-age dependency ratio to 2080**

Population



Projected old-age dependency ratio



34.03 to 40.24	1,029,443 to 1,351,057
40.24 to 49.58	1,351,057 to 2,006,508
49.58 to 50.83	2,006,508 to 4,925,270
50.83 to 53.37	4,925,270 to 10,998,397
53.37 to 68.71	10,998,397 to 29,582,117

Source: <http://ec.europa.eu/eurostat/web/population-demography-migration-projections/population-projections-/main-tables>, received on: 20.02.2015

According to Eurostat projections, by 2050 the population of Bulgaria, Latvia, Lithuania and Romania will be more than 20% lower than today. In Poland and Slovakia will be lower by about 18%, and in Hungary and the Czech Republic about 10%.

The consequences of the aging of Central and Eastern Europe will have a direct financial impact on the public finances of these countries in the form of increased costs of health care and care for the elderly. Therefore, it is essential to adapt the conditions for the growing number of elderly people in each country.

### **Conclusions**

1. Today's generation of working-age people entering retirement age will not be replaced by a sufficient number of young people.
2. Promoting active aging: especially among the older generation of 'baby-boom'. Generation should be able to realize their valuable skills and experience.
3. Diverse social security system is associated with a variety of effects on migration. The lack of appropriate national migration policies will lead to greater outflows of young people for a profit to Western Europe. The solution is the integration of immigrants and their descendants: this is crucial for Europe, because immigrants will constitute an increasing proportion of the labor force in Europe.
4. Adaptation of family policy objectives in each country to the conditions in an integrated Europe - family policy.
5. Increasing awareness of the possibility of combining paid work with having a family, promoting reproductive choices, and thus increases the fertility rate, which is a very important objective of the current population policy. The negative effect of not taking action on this issue will be hindered economic growth of the country, because too many people are not able to use acquired skills and education of the labor market. Particularly vulnerable are women on parental leave.

### **Recommendations**

To successfully create a desirable demographic indicators long-term national strategy of the country's demographic is needed. The example of perfect demographic policy is Australia, where are regularly prepared so called intergenerational reports. Australian grandparents have also 50 hours a week for caring their grandchildren. The opportunity to get involved grandparents in a situation where parents can not take care of children is creating by Czech Republic, Russia and Slovenia. A similar model intends to introduce by Germany which, in comparison with other countries of the world, quite late realizes the importance of making a breakthrough. As the topic of the public discussion it has been only since about ten years and it is concerned by politics few years ago. Only since the fall of 2011 there is an official

demographic strategy of the federal government. In 2012, the government convened the first Demographic Congress. In the same year an international platform was initiated discussion „Berlin Demographic Forum”. Bulgaria has also demographic strategies, which has set a comprehensive solution for the aging population. The Netherlands however has the flexibility of employment strategies factors including the reconciliation of work and family.

Therefore, the countries of Central and Eastern Europe that can meet the demographic challenges in the 21<sup>st</sup> century should have demographic strategies which would include the diagnosis of the situation and solutions to improve the situation of unfavorable demographics. Strategies must take into account all the public policies (family, education, employment, reward program, health care), and migration policies.

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