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## THE EFFECT OF THE DEMOGRAPHIC EVOLUTION OF THE RURAL AND URBAN ENVIRONMENT IN ROMANIA

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**Abstract:**

*The problem of population as we are used to call it belongs to different areas of interest for scientists of different fields for quite some time. The never ending growth of population has turned global. Threats generated by the population's evolution for economic, social or eco systems can be analyzed in two distinct ways: overpopulation and demographic growth in developing countries and aging demographics in developed countries.*

*With a negative demographic evolution during the 20<sup>th</sup> century, Romania entered the 21<sup>st</sup> century with a more accentuated tendency of negative growth because of natural demographics phenomena and migration resulting in aging demographics. Migration and aging population tend to differ from region to region and even more from rural to urban environment.*

**Keywords:** *demographic evolution, internal migration, rural and urban environment*

“For the first time in history, in 2008 over half of the world population, more than 3.3 billion people are living in urban areas” (State Of World Population 2007 – Unleashing the Potential of Urban Growth, UNFPA – United Nations Population Fund).

### 1. Romanian demographic evolution during the past 20 years

Demographic evolution of Romania in the last 20 years answers 3 fundamental questions: how many children do we have? How much we live? And where do we want to live? Birthrate, death rate and migration have had different evolution rates compared to the pre-revolution era, generating a reduction in total population and aging demographics.

Romanian demographic evolution is coupled with European general tendencies, but unlike Romania, in the EU there is a slight overall growth of population, mainly due to migration, an increase in general life expectancy and a slight growth of fertility rate. Between 2007 and 2009, according to Eurostat statistics, Bulgaria, Estonia, Germany, Latvia, Lithuania, Poland, Romania and Hungary are estimated to register a negative growth in population.

**Table 1. EU countries with a negative population growth estimated for 2007 - 2009.**

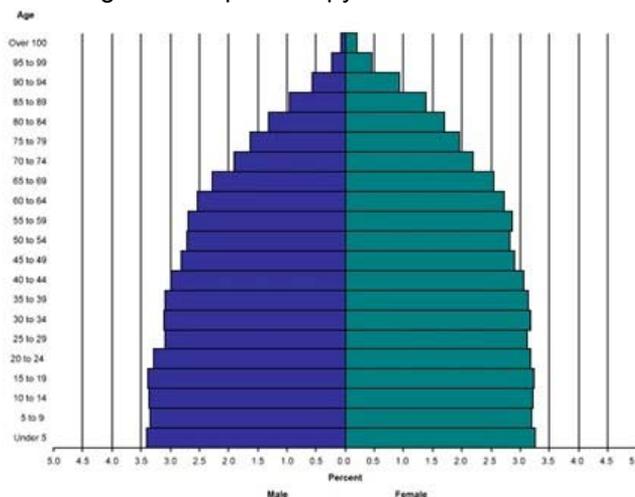
Country	2007	2008	Change 2007-2008		2009 (%)	Change 2008-2009	
			Number	(%)		Number	(%)
Bulgaria	7679290	7640238	-39052	-0,508	7602116	-38122	-0,498
Estonia	1342409	1340935	-1474	-0,109	1340341	-594	-0,044
Germany	82314906	82217837	-97069	-0,117	82062249	-155588	-0,189
Latvia	2281305	2270894	-10411	-0,456	2261132	-9762	-0,429
Lithuania	3384879	3366357	-18522	-0,547	3350385	-15972	-0,474
Poland	38125479	38115641	-9838	-0,025	38130302	14661	0,038
Romania	21565119	21528627	-36492	-0,169	21496664	-31963	-0,148
Hungary	10066158	10045401	-20757	-0,206	10029873	-15528	-0,154
EU27	495090294	497455033	2364739	0,477	499673325	2218292	0,445

*Source: own calculation based on Eurostat data*

Analyzing Romanian demographic evolution from an European point of view, we can see that Romania has one of the biggest drop of total population, being situated on 3<sup>rd</sup> place regarding the absolute drop in population between 2008 and 2009 (Germany - 1<sup>st</sup> place, Bulgaria - 2<sup>nd</sup> place) and on the 6<sup>th</sup> place on a percentage scale (Bulgaria - 1<sup>st</sup> place, Lithuania - 2<sup>nd</sup> place, Latvia - 3<sup>rd</sup> place). Between 2007 and 2009, eight of the 27 EU member countries register a negative increase in demographics, Germany being a surprisingly on this list.

Demographic aging phenomena can be analyzed with the help of Population Pyramid, a demographic instrument showing age structure of a countries' population at a certain moment. It is made up of two side by side graphics, representation containing age groups for women and men. Population pyramid should look like figure 1:

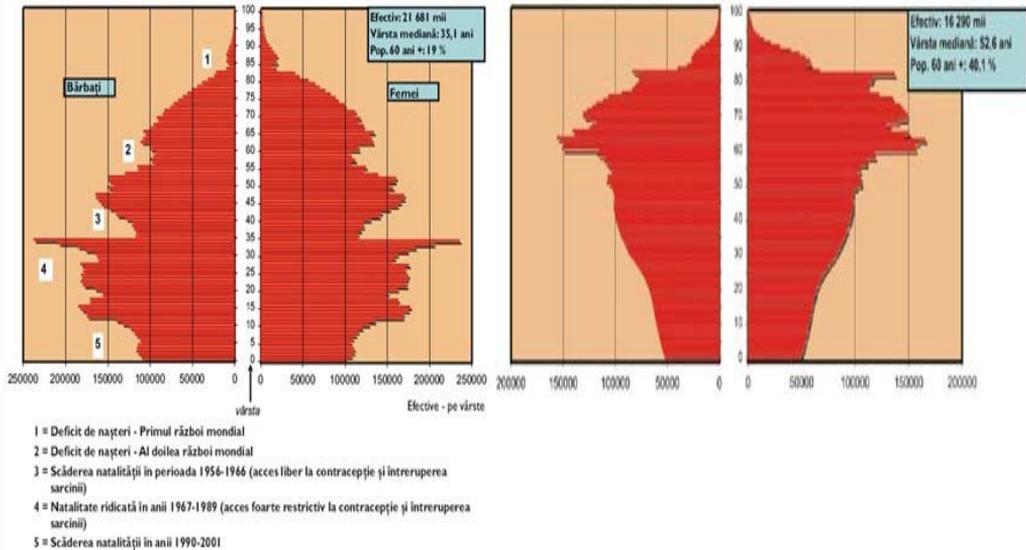
**Figure 1. Population pyramid – ideal case**



*Source: Romanian Population. Where to?, UNFPA*

Romanian reality shows otherwise, however, forecasts to the year 2050 are alarming: an unbalanced population pyramid, the share of population does not ensure sustainability of the economic system.

Figure 2. Romanian population pyramid: present and perspective



Source: Romanian Population. Where to?, UNFPA

Population decrease is the result of two demographic indexes: birth rate reduction and external migration with negative balance. We consider birth rate reduction phenomena with multiple explanations.

Firstly, it developed as a psychological social reaction: Romanian family has acquired all of a sudden the freedom to decide how many children they will have. Family size is no longer dependent on chance or the laws of nature are no longer controlled by political power (as it happened during the communist period) but is the result of a choice, a responsibility assumed.

We can distinguish two types of effects: short term and long term. We can also make a distinction between the population decrease caused by reduced birth rates and lower overall mortality increase. In addition to natural movement, we can notice and reduction caused by the negative balance of external migration. In addition, between demographic phenomena and socio - economic relationship there is no simple cause – effect relation, but a double one, the country's economic or demographic evolution having direct effects on population trends. Therefore, the correlation between the herd population reduction and economic development should be studied separately for each direction shown.

First and most important consequence of reducing the population of a country is a shrinking domestic market. This phenomenon has consequences especially visible in the long term. Thus, one can appreciate that reducing the population of Romania in recent years has begun to show its effects already. Declining birth rates has already

resulted in reducing the number of pupils in schools in rural areas resulting in abolition of classes or schools entirely, because of the small number of children. Social consequences mean on one hand that students should move long distances to access education, which often leads to premature abandonment of school, on the other hand, it generates unemployment by reducing domestic demand. The economy may enter into a vicious circle where population decrease generates unemployment and reduces the standard of living.

In addition to natural movement, reducing the herd population is determined by the negative balance of external migration. In this case, the reduction takes place in the sphere of the active population, by decreasing the supply of labor. At first sight we can appreciate that because of the current situation on the labor market, where demand is greater than supply, the effects are not negative. But this means a more than superficial approach. In general, those who emigrate are highly qualified. Society has invested a lot of time preparing them, and when they would have to collect the fruit, this is no longer possible. Development is above all an economic process and must obey the rules of functioning of the economy: when the investments do not bring any benefits, the development itself is jeopardized.

Both phenomena presented generate aging: birth reduction by decreasing the base of age pyramid, and migration by reducing the external dimensions of the scope of active age, especially in young active population area. In addition, a simple replacement of generations is not ensured in the current development trends of the population. The effects of lowering birth rates will be seen in more than 10 years on the labor market.

As said before, the cause - effect works in reverse order, for population - economy and development. Experts agree that one of the most important causes of reducing birth rates and external migration is economic development in recent years. Because of the drastic reduction of living standards, the average number of children per family declines, for reasons easy to understand: difficult economic situation, inability to secure housing, insecurity or lack of employment has resulted in reducing or delaying their marriages (meaning age at marriage has increased significantly in recent years). We have seen that the number of births and marriages are in a strong dependence. In addition, external migration is the main cause of the precarious economic state.

At 21.6 million people (July 1 2006), Romania has a large mass of adults (10.5 million), but many retirees (6 million) and fewer children (5 million people under 18 years). Narrow age pyramid base shows that few children are born (about 220,000 vs. 350,000, which would ensure adequate population replacement). Pyramid includes over 2 million Romanian who are legally abroad, and those who leave illegally and whose number is unknown. In the most pessimistic, forecasts for 2050 indicate a decrease and a dramatic aging of the population. Given that fertility is maintained at the present level, while the number of elderly continues to grow with increasing life expectancy, the population will reach 16 million. Number of active adults will be so

small that the dependency ratio (adult supporting vulnerable age groups: children and elderly) will be 1 to 9.

A young population provides a pre-enlarged reproduction of the total population and labor force. It is accepted the idea that young people have higher education and is more responsive to new, making it more suitable for achieving the development objectives of any state. An aging population means an aging labor force. It can not be challenged that added experience turns an elderly worker into a valuable asset, but current developments in the economy, require other qualities such as learning capacity, the ability to adapt to new, that young people have in a greater extent. The most important consequences of economic development will be given to an increased number of those who depend economically on the active labour force. Theory distinguishes three types of dependency:

- Type I - which represents the pressure of young people (0-14 years) from 100 people able to work (15 - 57 years for women, 15 - 62 years for men);
- Type II - which represent the pressure of elderly population (58 years and older for women, 63 years and older for men) from 100 people able to work
- Type III - which represents the pressure of young and elderly people from 100 people able to work.

Trends in the evolution of the population lead to reduced dependence on type I, due to decreasing number of children and to maintain relatively constant dependency on type II, overall recorded a reduction of total dependence. After 2005, when in the category of people of working age entered the thin generations born after 1990, the reporting base has fallen, which means an increased dependency on type III, by increasing both young and elderly population.

In addition to effects that are in the labor market, population aging is a process that affects virtually the whole economy. The structure of consumption in a country with an aging population will be completely different than in a younger population. Also, social assistance programs will be adapted to new requirements, will have to be found ways of financing them. Labor productivity at national level should be a favorable development to ensure a minimum standard of living for the dependant age groups.

In 2009 universities in Romania will have to manage the thin generations born after 1990. In these circumstances, the internal market restriction shock is likely to be managed this year by the system of higher education. And certainly this is one of the reasons for the involvement of universities in the study and analysis of demographic problems. A good example of this is to consider the "Lucian Blaga" University of Sibiu, which in 2007 organized in partnership with the Romanian Senate, Sibiu City Hall and the UN Fund for population the International Conference "Population of Romania - Where to?". The event had as main objectives:

- presentation and discussion of possible solutions to the issues of population and development of Romania;
- the results of the public consultation on the options identified in the Green Paper on Population in Romania response to demographic evolution;
- obtaining the commitment of the Commissions for Population and

Development belonging to the Government and Parliament for solving these problems;

- start a process of drafting a national strategy on population and development.

**2. Effects of regional demographic trends. Implications for regional policies from the perspective of urban - rural population distinction**

In Romania, the share of urban population has exceeded 50%. According to data provided by the Statistical Yearbook of Romania, the allocation of 2006 urban - rural regions in our country was as follows:

Table 2. Distribution of population by region and by areas in Romania – 2006

<b>Region</b>	<b>Total</b>	<b>Urban</b>	<b>Rural</b>	<b>Urban (%)</b>	<b>Rural (%)</b>
1 NE	3732583	1629250	2103333	43,6	56,4
2 SE	2837834	1573520	1264314	55,4	44,6
3 S	3312342	1379073	1933269	41,6	58,4
4 SV Oltenia	2293895	1092922	1200973	47,6	52,4
5 V	1927229	1223730	703499	63,5	36,5
6 NV	2730132	1449635	1280497	53,1	46,9
7 Centru	2530818	1513670	1017148	59,8	40,2
8 București	2219532	2052138	167394	92,5	7,5

*Source: Statistical Yearbook of Romania 2007*

The greatest degree of urbanization is recorded at the 2006 by Bucharest (92.5%), followed by region 5 V (63.5%) and the Center Region 7 (59.8%). The greater percentage compared to the average of urban population from region 7 Center does not exclude the demographic problem.

Differences in the distribution of the average population between regions is reflected in the contrast in acuity that occurs with the two fundamental problems of Romania's demographic trends: the aging population and its decrease. The causes of the phenomenon of aging are linked to a reduced number of population - as we saw in the previous paragraph, this reduction takes place in the young or adult age groups, not in the case the older ones - and on the other hand there are demographic phenomena as internal migration generates a relative aging of the population in some areas. The phenomenon occurs with greater acuity in rural areas compared to urban.

**Internal migration** is a process of population movement within the national territory and it manifests itself in general to a shift from rural to urban areas. Romania is faced with the negative consequences of this phenomenon for a long time. Even during periods in which this displacement was strictly necessary because of an increase of demand for labor in urban areas, rural effects were negative. Generally young people are leaving the village which means reducing the supply of labor in the

village and its aging; reducing the number of marriages and births, lead to an aging population with additional long-term effects. In terms of labor it becomes practically impossible to ensure the development of rural areas affected by this phenomenon. Recent years uncovered another specific way of aging population, this time with economic causes: loss of employment to a relative old age when retraining is difficult, and early retirement as a result of legislation in this area made a part of the elderly population of the city in this situation to retreat to rural areas. Therefore, positive flows in the rural population are generated by age groups over 45 - 50 years.

According to statistical data, Region 7 Center has the highest levels of urbanization in Romania. What would the consequences be? From a theoretical point of view, urbanization refers to the process of growth of population living in urban areas. In terms of history, the concept of urbanization has been linked to specialization, industrialization and economic development. It is currently generally accepted the idea that urbanization is a characteristic and fundamental structural change in employment from agricultural occupations to non-agricultural. In other words, we can consider urbanization as a territorial response to structural changes of the economy (Pitamber Sharma, *Urbanization and Development*, 1989): a specific division of labor, production of goods and services that rely on technology to exchange a variety of goods and services, a high level of spatial and economic interaction and a relatively high density of population are the basic features now associated with urbanization. These traits have made urbanization to be associated with development.

Theorists talk about two waves of urbanization. The first took place in North America and Europe for over two centuries, between 1750 - 1950. During this period the urban population increased from 10 to 52%, in absolute numbers from 15 to 423 million townspeople. Simultaneous with urbanization, Europe and North America have experienced the first period of demographic transition and the first wave of industrialization. The second wave of urbanization is taking place in less developed regions of the world, the progress of this process is 1950 - 2030, and the urban population in poor regions of the world will increase from 309 million in 1950 to 3.9 billion in 2030. During these 80 years the population will increase in urban areas from 18% to about 56%.

In these circumstances, we can say that there is a close relationship between the average distribution of the population and demographic trends. Some of the benefits of high population in urban areas are: increased number in employees and participants in social security systems, which reduces the dependency ratio, generally lower among the urban population, the higher the income, the higher employment and higher share of activities generating high added value. Among the most important negative consequences we mention strong reduction of the population, which according to forecasts for the period 2010 - 2015 will particularly manifest in those regions of Romania where the degree of urbanization is high.

Table 3. Forecasts on the evolution of the regional population of Romania

<b>Regiunea</b>	<b>2010</b>	<b>2015</b>	<b>2015/2010</b>
România	21345284	20916694	-2,00789
1 NE	3741391	3732876	-0,22759
2 SE	2807166	2749461	-2,05563
3 S	3266611	3188953	-2,37733
4 SV Oltenia	2261546	2200857	-2,68352
5 V	1878498	1794897	-4,45042
6 NV	2720627	2714071	-0,24097
7 Centru	2485849	2399526	-3,47258
8 București	2183596	2136053	-2,17728

*Source: own calculation based on Eurostat data*

Under these circumstances we can consider that the problem of population decrease is directly related to the degree of urbanization. Region 5 West and Region 7 Center, 2<sup>nd</sup> and 3<sup>rd</sup> place after Bucharest are regions where forecasts predict the significant reduction in the population from 2010 to 2013.

Demographic policies are generally national in nature, which can significantly reduce local and regional authorities to react effectively to changes in trend or effects. In addition, the demographic policy effects are on the long run, which makes it difficult to manage the labor market imbalances and other economic systems in the short term. Also it is possible and necessary to take action for the internal migration issue.

Starting from the Green Paper published by the Population National Commission on Population and Development, the main implications of structural changes in the population to be managed are:

- social area: the ratio of employed population contributing to the public budget, insurance funds and the people benefiting from these funds decreases continuously, there is great imbalance in the age group of population between urban and rural environments, the greater share of aged population registering in rural areas, the current system of pension characterized through a high rate of dependency can not properly sustain elderly population;
- health system: an aging population creates increasing pressures on health, since 2007 the number of contributors to the health began to decline, the aging population will lead to an increase in growing consumption of health services;
- education: decreasing population already affected the school system of primary education, secondary school and, since 2009 - 2010 will be affected by higher education institutions, important gaps in the quality of education on urban – rural.

Starting from developments and projections on population we can detach some conclusions:

- at European Union level, the total population records a slight upward trend, a phenomenon accompanied by an aging population;

- of the 27 EU Member States, 8 recorded a decrease in population; that trend is maintained in the period 2010 - 2015, among other countries - Romania;
- two major phenomena which mark demographic Romania during 1990 - 2050 are aging, and decreasing numbers;
- on an average level distribution, the urban population of Romania was in the year 2006 over 55%;
- the two demographic phenomena mentioned are different in intensity in urban and rural areas;
- at regional level, regions 5 and 7, with the highest degree of urbanization after Bucharest manifest the most significant trend in population reduction;
- aging population is unbalanced, and rural areas have the largest share of elderly population, in addition, the active population in rural areas is generally insured - more than half do not contribute to the health insurance or pension scheme, which will generate devastating effects in the long term;
- Current demographic policies have not generated the expected changes, nuanced approach is necessary, differentiated according to the tracked issues and target groups.

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