CHALLENGES AND RISKS OF DEMOGRAPHIC AGING[*]

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Abstract:

Unprecedented demographic changes announced in the twentieth century and continues to rise in this century, are about to change profoundly the world. Extending life expectancy and falling birth rates are about to undertake major structural changes in all human societies - such as the historical phenomenon of inversion in the proportion of young people and older people. Aging her profound and lasting consequences for all countries is a phenomenon of great importance and also a challenge still inexperienced.

This phenomenon shows that: population ageing is unprecedented, without parallel in human history and the twenty-first century will witness even more rapid ageing than did the century just past; population ageing is pervasive, a global phenomenon affecting every man, woman and child but countries are at very different stages of the process, and the pace of change differs greatly; countries that started the process later will have less time to adjust; population ageing is enduring: we will not return to the young populations that our ancestors knew; population ageing has profound implications for many facets of human life.

Keyworld: Population ageing; demographic changes; life expectancy.

JEL clasification: J10, J11, J17, J18, J24, J26.

Countries with a favorable age structure-those with a large proportion of working-age adults and relatively few dependents-ares generally more peaceful and democratic, allowing governments to better meet the needs of their people. An adverse age structure is more challenging to governments, particularly when national resources are insufficient to improve economic and social welfare. Counties that progress along the demographic transition-changing from high death rates and birthrates to

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smaller families and longer lives-generally demonstrate more favorable age structures.

Population distribution refers to the ways in which the population of a given country is distributed into certain categories such as age, sex, occupation and geographical distribution.

This is the breakdown of the population of a country into age groups. Age distribution in economics is very important as it shows the usefulness of population and the supply of labor required in different sectors of the economy. The population of a country can be divided into the following three age groups. These are; 0-14 years, 15-59 years and 60 years and above (Table no. 1).

Table no. 1 *Age distribution of the world, European and Romanian populat*ion

World	1960	2000	2020	2050
< 14 age	36.84	30.04	25.11	20.19
15 - 59 age	55.0	60.0	61.3	58.1
> 60 age	8.14	10.01	13.61	21.68
EUROPE				
< 14 age	26.71	17.53	15.02	15.02
15 - 59 age	60.2	62.2	59.1	50.5
> 60 age	13.1	20.28	25.87	34.5
ROMANIA				
< 14 age	28.18	18.29	14.01	13.38
15 - 59 age	61.2	62.6	62.4	49.1
> 60 age	10.6	19.07	23.56	37.57

Source: ONU - World Population Prospects 2012,
http://esa.un.org/unpd/wpp/Documentation/pdf/WPP2012

From the above classification, the population within the age bracket 0-14 years includes the infants, children, pupils in nursery, primary, secondary and tertiary institutions. This age group is called dependent population because they are not economically productive as they cannot be employed in the labor market. They will need to depend on the other groups for their needs. If the population of this age group is very high, it has lots of economic implications such as putting more pressure on the working class, low savings, provision of schools and other children goods and services.

The age group 15-59 years is popularly referred to as the active population or working population or labor force. This is the economic age bracket that is involved in productive activities or employment. Because they are the working population and depend on themselves for substance, they are collectively called independent population. If the number of people

in this group is high, there will be higher supply of labor and higher standard of living.

The age group 60 years and above is the old age, just like the children (0-17 years), they do not involve themselves in productive activities hence they are also classified as dependent population. In summary, the age distribution of any given population can be grouped as follows: 0-17 years are children (dependent population) 18-60 years is adult (working population or labor force) 60 years and above: Old age (dependent populations).

Importance of Age distribution of Population

1. Determination of tax: With the knowledge of age distribution of the population, the expected tax can be determined based on the number of people in the working group of labor force.

2. Knowledge of dependent: The number of the dependents (0-17 years and 60 years and above) can be determined easily through age distribution in a population.

3. Size of labor force: With a good age distribution, the number of people working can easily be determined.

4. Determination of government budget: The age structure of a population will assist government to draw up its budget. If for example the population of the children (0-17 years) is very high, it means the government will need to vote a huge amount of money to provide goods and services required by this age group than for other groups.

5. Production pattern: the age distribution of the population will help the manufacturer to determine the pattern of production to meet the needs of a particular age group.

6. It determines the nature of market: The understanding of the age structure of a population will help to determine the nature of market, eg, a population with high number of children will create more market for children goods and services.

7. It determines the birth and death rates: the age structure of a population will determine the rate of birth and death, when the population of old people is higher than that of other groups, it means the death rate is going to be higher.

8. It determines the standard of living: The age structure of a given population will reveal the income per capital and standard of living. While high dependency population reduces income per capital and standard of living, high working population or labor force increases income per capital and standard of living.

Population age structures yield insights into many of the political, economic and security challenges that countries face, now and in the future. For example, when a large proportion of a country's population is passing

through one of life's dependent stages, such as childhood or old age, society's resources are likely to be stretched and put under greater stress.

PAI (Population Action International) has classified current and past national populations into one of four major age structure categories: *very young, youthful, transitional* and *mature*. These four profiles represent progressive steps along the path of the demographic transition-changing from high death and birthrates, large families and short life expectancy to lower death rates and birthrates, smaller families and longer life expectancy. In the future, if fertility rates continue to fall in countries with a mature structure, a fifth type may emerge before 2025: *aged* countries.

Very Young

In countries with a very young age structure, two-thirds or more of the population is typically comprised of young people under age 30, and only three to six percent of the population is above age 60. In 2005, there were 62 countries of this type, including nearly all of sub-Saharan Africa.

Youthful

Countries with a youthful age structure are beginning to experience progress along the demographic transition. Growth among their youngest age groups (from birth through 29 years) is declining. In 2005, 27 countries fit this category, including almost all in Central and South Asia, North Africa, and parts of the Middle East.

Transitional

Although older age groups still represent a very small share of the population in countries with a transitional structure, declining fertility rates result in a more equitable distribution among age groups younger than 40. In 2005, this category included 40 developing countries from various regions.

Mature

In countries with a mature age structure, the largest age group consists of working-age adults from 30 through 59 years old, comprising 40 to 55 percent of the population. In 2005, this category included 47 countries across Europe, the former Soviet republics, and East Asia.

Romania is included in this overview facing demographic changes that have medium and long term implications. Population decreased between 1992 and 2005, with a million people and continues to decline steadily. This trend is caused by low fertility (1.3 children per woman, instead of 2.1, which would ensure population replacement) and high external migration (about 2 million Romanian is legally abroad, and the number of emigrants illegally is unknown). At the same time, however, Romania has an average mortality rate and life expectancy increases, resulting in a significant aging population. If present, of the 21.6 million inhabitants, 10.5 million are adults, 5 million - young children and 6 million

are elderly, over 50 years the picture will look completely different demographic: retirees will represent more than half of the population, will decrease the number of adults and children, and significant narrowing pyramid base (Table no.2).

Table no. 2 *Population by age group (Romania and EU-25)(%)*

	1996	1997	2000	2003	2004	2005	2006	2007	2010	2011
UE (27)	18.1	17.9	17.3	16.6	16.4	16.2	16.0	15.8	15.6	15.6
Romania	20.5	20.0	18.8	17.0	16.4	15.9	15.5	15.4	15.1	15.0
UE (27)	13.8	13.6	13.2	12.9	12.9	12.8	12.7	12.6	11.9	11.7
Romania	15.9	15.9	15.7	15.6	15.6	15.5	15.2	14.9	13.4	12.8
UE (27)	36.7	36.8	36.7	36.6	36.6	36.5	36.4	36.3	35.6	35.4
Romania	34.9	35.2	35.9	36.5	36.8	36.9	37.0	37.0	37.5	38.0
UE (27)	16.5	16.6	17.2	17.7	17.8	18	18.1	18.3	19.4	19.5
Romania	16.4	16.3	16.3	16.7	16.8	17	17.4	17.8	19.1	19.1
UE (27)	11.4	11.6	12.3	12.4	12.5	12.6	12.6	12.6	12.7	12.9
Romania	10.2	10.5	11.6	12.1	12.2	12.3	12.3	12.2	11.7	11.7
UE (27)	3.5	3.5	3.3	3.8	3.9	4	4.1	4.3	4.8	4.9
Romania	2.1	2	1.8	2.1	2.2	2.4	2.5	2.7	3.2	3.3

Source: Eurostat,
http://epp.eurostat.ec.europa.eu/tgm/refreshTableAction.do?tab=table&plugin=1&
pcode=tps00010

Accelerating the aging process, since 2010, is of major importance for the modernization of social policies and social protection. The objective is to ensure social protection prosperity in a society whose population is aging. Maintaining a high level of social protection in these circumstances is a challenge for the authorities.

The need to adapt to an older population and redevelopment involves reviewing policies and strategies. At the same time, reforms will have to consider the transfer of resources to an increasing number of older people do not create major economic or social tensions. On the other hand, older people should not be allowed to fall into poverty. Under one form or another, transfers have always existed and will exist. Two underlying concepts will be considered: intergenerational solidarity, aimed at financing the long term and intergenerational equity that is gaining importance in current discussions. Policy makers responsible for social protection reform should take account of this size, ensuring a satisfactory balance between the

opportunities to finance long-term system of solidarity and equity between generations.

The measures that the EU meet evolving challenges of population aging are mainly confined in a general component of which:

- An aging population requires a comprehensive policy approach, covering aspects related to the economy, employment, social problems. Companies must ensure not only provide an appropriate framework for older people, but also economic and social sustainability in an aging world. Policies in this area should take into account the full complexity of interactions between demography and society.

Structure of occupation and age categories

Labor markets in European countries have begun to adapt to profound changes the age structure of known active population. However, aging is foreseen for the coming decades may have a magnitude of which has still not be envisaged at present. It is therefore uncertain to predict that companies will face new requirements, the increasing labor market. Policies must be rethought and adapted to new realities so as to be offered this category of employees to acquire new knowledge and to upgrade, make daily powers to be able to reuse them. Following clues that are currently available, older employees, having a level of training and are regularly training and information to be updated with new discoveries and technologies are well able to pay the tasks.

At present, older employees are confronted with attitudes and policies practiced by employers in respect of: remuneration, training and recruitment. Most times these policies aimed at older workers when it comes to staff layoffs. Older employees facing unemployment inside the impossibility of finding a new job, and if ultimately succeed, it must accept most of the times, a salary below the level that I had. Given the foregoing, it can be concluded that domestic policies and attitudes of employers and labor must adapt to new realities that are emerging increasingly stronger labor market. Central Government agencies (mainly governments) must contribute and be involved in promoting educational activities designed to lead to awareness of the aging of the population by all the factors present in the labor market.
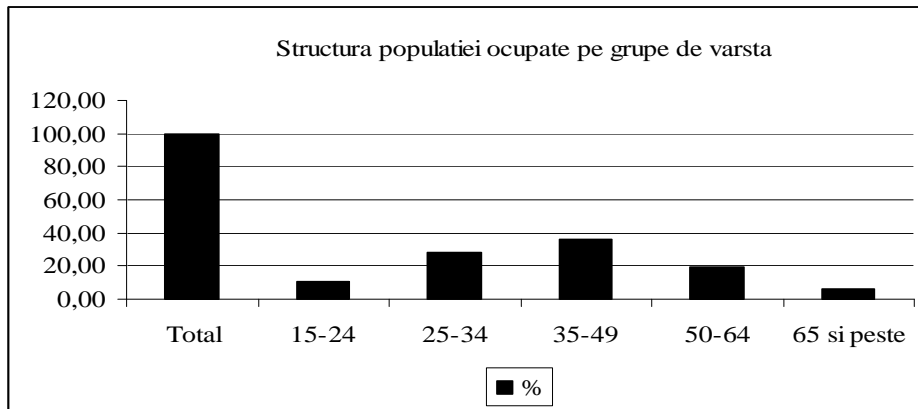
Occupational Structure:
1. Primary activities: includes agriculture, hunting, forestry and fishing
2. Secondary activities: includes manufacturing and power,
3. Tertiary activities: includes transport, communication and other services,
4. Quaternary activities: includes more intellectual occupation whose task is to think, research and development ideas.

An "attractive" low enough for young people seem to show health and education sectors and social assistance. Although the negative demographic trends make the number of students are becoming less and, consequently, the number of departments and teachers to continuously reduce the fact that a significant proportion of the teaching staff is older or threshold retirement, and young people are increasingly less willing to choose a career in education can lead to a serious shortage of teachers with an appropriate level of professionalism in all regions of the country (especially in rural areas), so the absolute level and specialization. A similar situation is recorded in the health and welfare and the implications on the quality and availability of those services in all areas of the country can be very serious because an aging population in general led to a significant increase in demand for these services.

For industry, developments were different in the case of mining and energy industry and the manufacturing industry. The first two branches, subject to a strict process of restructuring and liquidation of enterprises or the restructuring process is carried out, privatization, modernization and improvement in order to operate in market conditions in most regions recorded a subunit ratio of employment to young oldest. In addition to these factors, however, be taken into account the need to ensure adequate professional skills in sensitive and strategic sectors, which may explain in part the bigger share of the employed population in age groups with more professional experience.

Areas where the ratio of the employed population and the older woman is biased in favor of the first in all regions are in general service sectors (particularly trade, hotels and restaurants, real estate and other services). Although these sectors is clearly a trend of development and the availability of jobs is expected to increase the attractiveness of lower wages, increased job insecurity, seasonality may result in lower employment of young people, which combined with the aging of the labor existing work in these sectors makes a certain time horizon appear shortage of qualified personnel in a sector or another or a particular region.

Figure *1 Employment structure by age groups in 2011*

Structura populatiei ocupate pe grupe de varsta

120,00	
100,00	
80,00	
60,00	
40,00	
20,00	
0,00	

Total   15-24   25-34   35-49   50-64   65 si peste

■ %

Source: Romanian Statistical Yearbook 2012, National Institute of Statistics

Developments in the structure of employment by activity, however, are even more dramatic. Thus, regardless of the method, in agriculture, hunting and forestry, electricity, gas and water, education and health and social relationship between groups of population employed "young" and older is less in almost all regions and for almost all the analyzed period. Furthermore, agriculture is also encountered a rather large percentage (even if the slight decrease) of population employed in the age group over 65 years (Figure 1): 16.8% of total employment in 2011 in North-Eastern region, 13.3 % in South-Eastern region, 16.9% in the South region, 18.2% in the South-West (the worst situation in this case), 10.6% in Western region, 13.4% in North-West, 9.1% in the Central region and 8.4% in the Bucharest-Ilfov. Even if the trend of employment in agriculture is a clear decline, low growth and low productivity of the branch, very low level of income obtainable, fragmentation and low socio-economic development in rural areas will remain as attractive to industry be very low among young people, and the possible migration and emigration among agricultural workers and farmers are still high, leading to worsening problems facing rural and elderly population in its level.

Conclusions

For the industrialized world, aging is the same explanation: population developed societies tend to have increasingly fewer children. Women postpone pregnancy for the benefit of creating a career, or simply give up the idea of having children. The birth rate is becoming smaller as the generations of women are younger and at the same time, decreases inversely with the level of education.

Unfortunately for Europe, the solutions are limited: the acceptance of immigrants, increasing population (solution increasingly unlikely in conditions of genuine nationalist wave - France, Germany) or gradual loss of influence in the world. But even accepting immigrants is a solution that will lead, in time, all the demographic imbalance conditions, in order to compensate for very low birth rate, Europe should accept a million immigrants per year, which is considered be unacceptable to most Europeans.

However, demographic projections are difficult because it is difficult to predict whether the birth rate will remain constant or increase (which has happened in recent years in France and Romania). Indeed, a higher birth rate, combined with immigration, and can stop the aging European population decline. But for this, we need coherent social policies and more interest and concern of the governments concerned.

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