The Implications of Demographic Pressure on the Occupancy Rate on the Labor Market and of the Pension System

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ABSTRACT

Social welfare for the elderly is increasingly a challenge to European countries, a situation that is mainly due to demographic changes of recent years and the many difficulties encountered by the current pension systems. The EU's population faces an intense aging process, due to considerable progress of the society and resulted in a substantially reduced mortality and a higher life expectancy. Romania also faces a similar situation, especially as the first wave of the so-called "baby boom" generation is already close to retirement. This makes the "dependency rate", which expresses the ratio between the working populations, young and elderly people follow the growth trend of the recent years, especially since the birth rate declines increasingly more.

Introduction

Demographic aging is, in the current context, a real challenge for the labor market, for the health system and quality of life after the retirement age. European Union average age is currently 39.8 years, but according to Eurostat estimates, by 2060 this rate will reach 47.2 years. In this perspective, for the share of population aged over 65 is expected an increase by about 2 mil. people / year. The economic and social consequences of the slow, but continuous aging process of the population are also felt in Romania and they are the main concern of financiers for the next period, raising many questions on the labor market and the pension system. Promoting the concept according to which "aging" is not the same as "being dependent on others" takes on a special connotation, thus "active aging" is not only a reality, but also a necessity of the present times. Analysis of the current labor market highlights the need of reforming it by identifying some measures and courses of action to be taken towards the near future.
The current context of the change in the population structure by age groups

In the developed countries of the world, fertility rates around 2.10 % of live births / woman is considered to be the replacement rate, i.e. the level at which the population would remain stationary on long term. In recent decades, the average fertility rate of the EU countries was far below the replacement rate, being in 2011 about 1.57 % and the highest rates were recorded in Ireland (2.05 %), France (2.01 %), UK (1.96%), Sweden (1.90 %) and the lowest in Hungary (1.23 %). On the other hand, the infant mortality rate has been declining in recent decades as a result of improved access to healthcare and living standards, increasing immunization against diseases, etc. being in the EU of about 3.9 deaths / thousand newborns alive in 2011, the highest values being recorded in Romania and Bulgaria, about 11.3 deaths / thousand newborns alive. Also, life expectancy at birth in the past 50 years has increased by about 10 years, being 74.0 years for men (2011) in Eastern Europe, including Romania and 80.0 years in countries such as Italy, UK, Spain, Germany and France, the highest male life expectancy being found in the Comunidad Ford de Navarra, i.e. 81.1 years. In women, life expectancy was about 80.0 years in 2011, the lowest value being recorded in the Eastern European countries such as Bulgaria, Hungary and Romania. The highest value was recorded in the Comunidad de Madrid and was 86.7 years. The smallest differences by gender were recorded in the Netherlands, Cyprus and Sweden. So, the age pyramid will undergo significant changes in the increase of aged population.

Figure 1: EU population pyramid for 2011-2060 (% of total population)

Another critical demographic issue is the significant increase of the demographic aging rate, due to increase in the life expectancy, combined with low fertility rates and retiring of the
"baby-boom" generation. According to demographic forecasts of the European Commission, the age structure of the population will bear significant changes. Thus, the population aged over 65, who, in 2013 had a share of 18% of the total population will increase by about 59.1% between 2013-2060, when the share of this age group tend to reach 28% of the total population. The largest increase will be among people aged over 80, whose share in the total population was 5% in 2013 and will reach 12% in 2060, representing an increase of 159.7%. Instead, active and young population will witness a decrease by 11.6% and 0.8% during this period, while the share estimated in total of population will be 57%, as well as 12% by 2060, compared to the initial share of 66% and 16%.

**Figure 2:** Percentage change of the share in the total of population on major age groups, in the intervals. (2013-2020; 2020-2060; 2013-2060 (UE 28 )

<table>
<thead>
<tr>
<th>Groupe de vârstă</th>
<th>2013-2020</th>
<th>2020-2060</th>
<th>2013-2060</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>UE 28</td>
<td>RO</td>
<td>UE 28</td>
</tr>
<tr>
<td>0-14 ani</td>
<td>+0.8</td>
<td>-1.9</td>
<td>-1.7</td>
</tr>
<tr>
<td>15-64 ani</td>
<td>-2.1</td>
<td>-5.2</td>
<td>-9.7</td>
</tr>
<tr>
<td>65+</td>
<td>+13</td>
<td>+13.4</td>
<td>+40.8</td>
</tr>
<tr>
<td>80+</td>
<td>+16.6</td>
<td>+18.3</td>
<td>+104.5</td>
</tr>
</tbody>
</table>

Source: Commission services based on Eurostat EUROPOP 2013 data (own graphical representation)

**Figure 3:** EU population structure by age groups (% of total population) in the 2013; 2060 years

Source: Commission services based, Eurostat EUROPOP2013 (own graphical representation)

A similar situation can be also found in Romania, with significant decreases of the active population in total population, from 68 % in 2013 to 56% in 2060, while higher increases will be recorded for those aged + 65 (from 16 % in 2013 to 28% in 2060) and + 80 years (from 4 % in 2013 to 12% in 2060). If this trend will be followed, the share of population over 80 years will almost equalize the youth and the percentage difference is only 2%.

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Figure 4: Share of population on age groups (% of total population) in Romania (2013, 2060)

Source: Commission services based on Eurostat EUROPOP2013 data (own graphical representation)

Changing the dependency rate worldwide and the need to encourage participation of old workers in the labor market

In view of the 2050s, Europe will have a population with a level of aging among the highest in the world and the dependency rate, expressed as the ratio of population over 65 years and active population will experience a growth trend and will rank 46.6%, lower than in Japan (71.8%), but much higher compared with countries in Africa (9.5%), Oceania (24.7%), Asia (27%), Latin America (30.5%) and the US (35.5%). The expected level of this indicator will increase steadily, reaching by the year 2100 the level of 55.5% in Latin America and 52% in Europe compared to Africa (21.8%). Across the world, the estimated value of this indicator will grow from 8.4% in 1950 and 11% in 2000 to 24.7% in 2050 and 36.4% in 2100. Forecasts made places Europe over the estimated global media and as regards Romania, the growth will be outstanding between 2010 (19.7%) - in 2050 (48.8%), placing it over the expected average European levels (46.6%) and Eastern Europe (38.5%).

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According to estimates\(^3\), the elderly dependency rate in the European Union will double between 2010-2060, from 26% in 2010 to 52.5% during 2060's. The demographic changes become even more dramatic within certain countries, i.e. the former communist countries such as Poland, Latvia and Romania, along with Slovakia and Bulgaria, which will record levels of dependency rates of elderly between 60% and 70%, with the highest increases (between 20% and 30%) between 2030-2060. The lowest values will be recorded in countries such as Ireland (36.5%), UK (42.1%), Denmark (43.7%), Luxembourg (45.2%) and France (46.6), values below the European average estimated for 2060 (52.5%) and will be due mainly to decreases that are expected to be recorded between 2030-2060. These results are the effect of the high level of implementation of reforms in the pension system, beyond the level of economic and social development, which will also transpose into a standard of living, health and education higher to the other countries.

In Romania, the highest growths in the dependency rates will occur between 2030-2060 (30.3%), compared with 9% growth estimated for the period 2010-2030.

Figure 6: Estimated evolution of the dependency rate of the elderly (65+ / 15-64 years) at European level between 2010-2060 (%)

Source: Commission services based on Eurostat EUROPOP2010 data (own graphical representation)

In those circumstances, according to the table below, the dependency ratio will increase significantly in the future, from a value of 1 : 3.57 in 2010 to 1 : 1.57 (retirees / active people) ahead of 2060. The most favorable situation is found in Great Britain, where the dependency ratio will rise from 1 : 3.57 in 2010 to 1 : 2.12 in 2060, while in Romania, this ratio was 1 : 4.34 in 2010 and will reach the value of 1 : 1.42 in 2060. Thus, the economic dependency rate of the elderly highlights the combined effect of aging on the one hand and the evolution of the labor market, on the other hand.

Table 1: Predictions on the ratio between the number of retirees (+65 years old) and active population (20-64 years old)(%)

<table>
<thead>
<tr>
<th>Țară/an</th>
<th>2010</th>
<th>2020</th>
<th>2030</th>
<th>2040</th>
<th>2050</th>
<th>2060</th>
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<tbody>
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<td>65</td>
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<td>52</td>
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<td>38</td>
<td>45</td>
<td>56</td>
<td>61</td>
<td>62</td>
</tr>
<tr>
<td>Marea Britanie</td>
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<td>33</td>
<td>39</td>
<td>43</td>
<td>44</td>
<td>47</td>
</tr>
<tr>
<td>Suedia</td>
<td>31</td>
<td>37</td>
<td>42</td>
<td>45</td>
<td>46</td>
<td>51</td>
</tr>
<tr>
<td>Danemarca</td>
<td>28</td>
<td>35</td>
<td>41</td>
<td>47</td>
<td>46</td>
<td>48</td>
</tr>
<tr>
<td>România</td>
<td>23</td>
<td>28</td>
<td>33</td>
<td>45</td>
<td>59</td>
<td>70</td>
</tr>
<tr>
<td>UE15</td>
<td>28</td>
<td>34</td>
<td>42</td>
<td>50</td>
<td>55</td>
<td>58</td>
</tr>
</tbody>
</table>

Source: Commission Services (DG ECFIN), Eurostat (EUROPOP2010), EPC (AWG) 2012

At EU level, by 2060, it is estimated an increase in costs caused by aging of population of 4.75 % of GDP, of which the most significant increases will be registered in public pension expenses (2.5 %) and health services expenses (1.5 %). In such circumstances, it is essential to reach the objective of employment of 75 % among population aged between 20 and 64 years, according to the "Europe 2020 strategy" and going on the lines suggested by
the Employment Guidelines, on increasing of the participation on the labor market of young people, older workers, of low-skilled workers and migrants.

Providing some viable alternatives on the labor market to people aged over 50 years, is a priority for Romania, given that the share of inactive population in this age group has increased in recent years amid early retirement carried out under economic downturn. This can be also seen from the chart below, which highlights a slight decrease in the share of inactive population in the age category of 15-64 years between 2010-2015 and a stabilization around the value of 36 %, parallel with the share of inactive population in the age groups 50-64 years and + 65 years, whose value will increase significantly from 49.9 % to 50.3 %, as well as from 88.8 % to 91.6 %.

**Figure 7:** Inactive population in Romania, by age group, between 2005-2015, the first quarter (% of total population)

![Inactive population in Romania](chart)


Although with aging, health is getting worse, EU countries must propose promoting some measures and regulations that allow us to live longer, without being dependent on someone else. An endeavor in this respect is to change the perception according to which the elderly "represent a burden on society" and the highlights of potential and skills that these people have, and not the shortcomings or impediments. Thus, the European Union aims to promote participation in the social life of the elderly, encouraging the authorities to create a favorable framework, which highlight the role of the elderly in society by ensuring better conditions for their health, an autonomous way of life and an environment "adapted" to people with health problems and disabilities.

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Conclusions on the current trends in employment

Reviewing the forecasts of the employment rate, we find a positive growth trend, which however remains below the Economic Union objectives in most of the Member States, the EU estimated average being 68.9 %. The Netherlands will hold the largest share of the employed population, which will reach a level of 77.1 % in 2060, a consequence of the fact that it starts from a very good present situation of this indicator. Also, Denmark, Sweden and Austria will witness a significant increase in the employment rate, reaching values of 76.8 %, 76.5 % and 74.4 %, while in Romania it will decrease from 58.9 % in 2010 to 56.8% in 2060.

Figure 8: Employment rate (15-64 years) at the EU level for years 2010, 2060 (%)

Source: European Commission, Eurostat 2010-2012 Ageing Report (own representation)

In conclusion, the European labor market will be significantly influenced by the intense decrease in the working population, so neither the positive contribution of migration, nor increasing in the participation on the labor market of youth and elderly will be able to offset the effects of demography. As regards employment in the current demographic context, increasing in life expectancy and population aging degree, Europe must focus its efforts to improve the occupational prospects of elderly. In this way it will be able to achieve a balanced budget, especially in the pension system, the most affected by changes occurred in the labor market. Providing viable alternatives on the labor market to people aged over 50 years, is a priority for Romania, while the share of inactive population in this age group has increased in recent years amid early retirement carried out under economic downturn. Therefore, demographic change can be managed through a positive approach, focusing on the potential of elderly groups.

The aging of the world population has an impact that will be felt on the labor market by reducing labor supply and labor productivity. To this, out-of-date institutional systems
currently exist in Europe are added, most of welfare protection systems, in this case the pension system, operating primarily based on distribution (PAYG), this generating major imbalances between generations. Typical examples in this respect are the public pension systems in Germany, Netherlands, UK, France and Belgium. Meanwhile, the reverse system, the one based on capitalization, operates on the principle of investment of current contributions to finance future pension costs, based on capital invested plus related interests. An example of this is represented by the British and Dutch pension funds organized on professional criteria. Therefore, public pension systems in most European countries, in their current form operates after the Second World War, have now reached maturity and will not be sustainable for the medium and long term, according to estimates provided by OECD experts.

The main actions drawn from this context, refers to:

- the need to increase the support of the classic pension system through complementary schemes based on capitalization, which will limit the demographic impact on the value of the pension;
- improving the collection rate of contributions by implementing measures aimed at promoting an adequate financial discipline;
- increasing employment rate by extending working lives, as a result of integration and stimulation of disadvantaged age groups and creating new jobs by attracting private sector investment.

Consequently, further reform of pension systems, accountability of the masses with regard to financial planning during retirement, in conjunction with promoting active will represent a priority for ensuring the sustainability of the pension system, efficient exploitation of the potential of the labor market and ensuring a balanced budget, representing very important objectives for most governments of the European countries and more.

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