

# General considerations on the population ageing

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**Abstract**: This article presents one of the most important issues of the current context, the ageing of the population, with major consequences on the financial stability of the nation. This restructure of the population (that change the shape of the population pyramid), as a result, on the one hand, of the reducing in the fertility rate, on the other hand, increasing in life expectancy and last but not least, due to migration, unbalance national budgets, generating negative effects in economic, financial and social terms.

Keywords: population ageing; fiscal policy; labour force

JEL Classification: E62; Q56; J22

### 1. Introduction

In the present context, demographic trend is pressing the decision making factors to find solutions to labour market integration of the elderly, given the fact that all the statistics show that the percentage of inactive old people in relation to the employee is constantly expanding. In Romania, the employment rate for the 55-64 years category, compared with the employment rate for the 25-64 years category is highlighted in the following way:

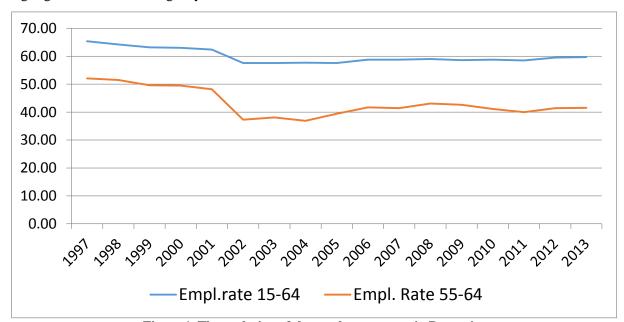


Figure 1. The evolution of the employment rate in Romania

Source: Eurostat

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In this respect, outlining a model for determining the link between skills and ageing will lead to important conclusions for taking an optimal public decision that would enable a restructuring continue of the competencies to requests for qualifications from the labor market on the one hand, and on the other hand, that could generate an extension of professional activity of older people.

We could say that in the absence of appropriate fiscal adjustment, additional reforms of pension and health care or structural measures to improve growth potential, future tax burden will increase significantly.

According to many studies, future changes on the level and structure of the population will have a direct impact on pension, health care, education and long-term care systems, not just in Romania and other countries. Demographic changes require structural adjustments discretionary public budget indicators. In turn, changing these fiscal indicators will have an impact on age-related indicators, such as poverty risk rates, severe material deprivation and social exclusion.

## 2. Demographic and Fiscal Indicator Analysis

Demographic indicators taking into account in our analysis mainly refers to the proportion of people aged 65 and over in total population, life expectancy at birth and life expectancy at 65 and over, at the rate of dependency for old (number of people aged 65 and over compared to the number of active persons) at fertility rate, etc.

Table 1. The evolution of age related indicators (Romania 1995-2013)

	1995	2000	2005	2010	2013	2030*	2050*
Prop. Of the population aged 65 +	11.8	13.2	15.1	16.1	16.3	20.2	31.1
Life expectancy at birth	69.46	71.16	71.88	73.46	74.69	75.3	79.8
Dependency ratio-old	17.6	19.3	21.8	23.4	23.9	32.9	58.9
Dependency rate of the system	0.84	1.32	1.31	1.38	1.21	:	F

Source: Eurostat

In the above figure we can see the evolution of the Romanian population structure:

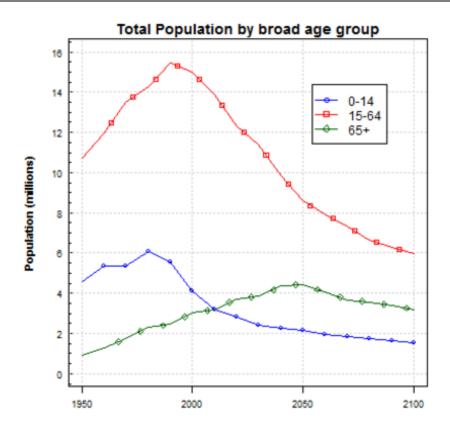


Figure 2. The structure of the Romanian population

Source: http://esa.un.org/unpd/wpp/Graphs/DemographicProfiles/

According to the table above, there is an increasing trend for Romania indicator of percentage of the population aged 65 and over in total population during 1995-2013 from 11.8 to 20.3, but, what is more important, this indicator will double the value in 2050, according to the estimates of the specialists, issue that will require an appropriate response by policy makers. Also, the indicator on the dependency ratio will undergo the same evolution, reaching to triple the amount until 2050.

Table 2. The evolution of fiscal indicators in Romania, 1995-2013

	1995	2000	2005	2010	2013
Public spending	34.1	38.4	33.4	39.6	35.1
Age related spending	12.9	15.1	13.8	18.5	16.5
Public revenue	32.1	33.9	32.4	33.3	32.7
Public deficit	-2.0	-4.7	-1.2	-6.6	-2.2
Public debt	6.6	22.4	15.7	29.9	37.9

Sourse: Eurostat

Closely correlated with the evolution of ageing indicators, fiscal indicators image for Romania in 1995-2013 period is however a more balanced one, just the level of the public debt knowing an ample increasing, but not to worry, from 6.6% to 37.9% of gross domestic product.

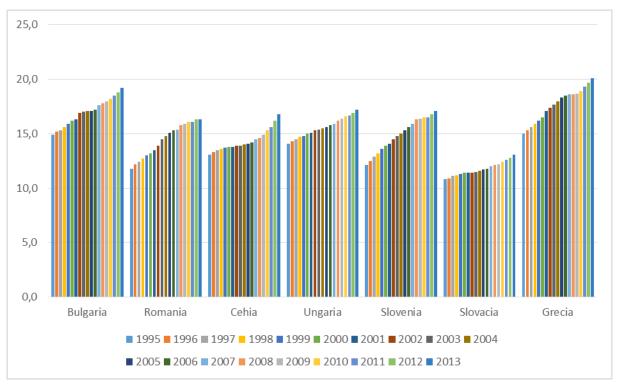


Figure 3. The evolution of the percentage of population aged 65 years and more for some countries from  ${\bf E}{\bf U}$ 

Source: Eurostat and Word Bank

According to the figure above, in the period 1995-2013, it appears that, in terms of the indicator that refers to the percentage of population aged 65 years and more, we can see an increasing trend for all countries considered, the highest values of this percentage is found in countries such as Greece and Bulgaria, while the lowest levels are present for Slovakia.

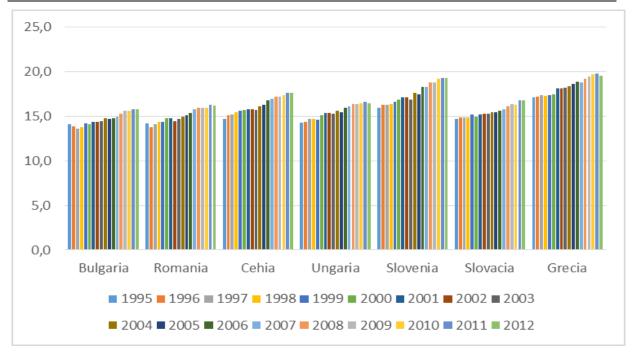


Figure 4. Life expectancy at age 65

Source: Eurostat and Word Bank

In terms of life expectancy at age 65, we can see an increasing trend for all seven countries analyzed in the period 1995-2012, distinguished higher levels in Greece and Slovenia.

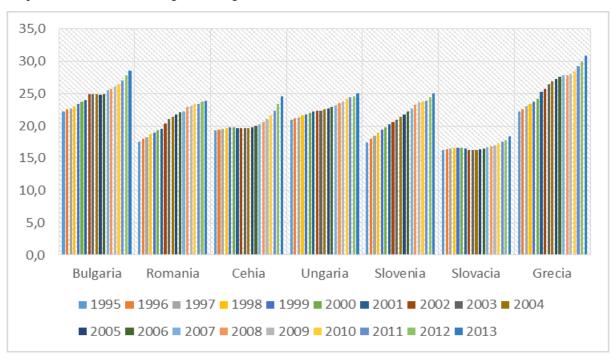


Figure 5. Dependency ratio for old-age (per 100 persons aged 15-64)

Source: Eurostat

The table above shows worrying levels of dependency rate for Greece, which exceeded 30% in 2013, and if corroborate data to the previous ones, in which Greece submitted the highest levels, we can see that, from the countries surveyed, the need of Greece for wider reforms to successfully manage the population aging problem, especially given the current sensitive financial situation. When public debt already exceeded the limits considered to be sustainable.

Romanian case: the table below includes estimates of the United Nations on Romanian population trends in next period. According to these estimates, we can see a clear downward trend in the total population (with 18% from 2013 until 2050).

**Table 3. Romanian population, (thousands)** 

Age	1980	2013	2015	2030*	2050*
Total	22,400	21,699	19,511	17,639	15,207
0-14	6,196	3,272	3,028	2,406	2,172
15-59	13,222	13,865	11,720	9,976	7,503
60-64	641	1,282	1,385	1,423	1,085
65-69	930	943	1,071	918	1,008
70-74	694	818	743	1,064	1,132
75-79	433	752	758	922	977
80-84	206	467	492	552	773
85-89	63	224	237	240	323
90-94	14	67	68	113	178
95-99	1	7	8	23	49
100+	0	1	1	3	6

Sursa: UN, Profile of Ageing 2015

http://esa.un.org/unpd/popdev/Profilesofageing2015/index.html

In addition to that, the percentage of the population aged 65 years and over will increase in the same period from 10.5% to 29.2% in total population, according to the table below and this will lead to additional pressure on public finances.

Table 4. Population at older ages (%)

	Age	1980	2013	2030*	2050*
Total	60+	13.3	21.0	29.8	36.4
	65+	10.5	15.1	21.7	29.2
	80+	1.3	3.5	5.3	8.7

Source: UN, Profile of Ageing 2015

#### 3. Conclusions

This leads to an increased need to engage old people in the labour market. Also, some studies show that in least developed countries the population aged 65 years and over who are active in the labor market is 31%, while in more developed countries are involved in labor market only around 8% (United Nations, 2013).

## 4. References

Beetsma, R.; Oksanen, H. (2008). Pensions under ageing populations and the EU growth and stability. *CESifo Economic Studies*, pp. 54 (4), 563–592.

EC. (2012). The 2012 Ageing Report, Economic and budgetary projections for the 27 EU Member States (2010-2060).

Fehr, H.; Jokisch, S. & Kotlikoff, L. (2013). The world's interconnected demographic/fiscal transition. *The Journal of the Economics of Ageing*, 1-2, pp. 35–49.

Jukka, L.; Tarmo, V. & Juha, M.A. (2014). Demographic forecasts and fiscal policy rules. *International Journal of Forecasting*, 30, pp. 1098–1109.

UN, Profile of Ageing 2015http://esa.un.org/unpd/popdev/Profilesofageing2015/index.html.