Population ageing - a demographic trend with various consequences

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Abstract. Population ageing is a global phenomenon with long-term consequences on the economic development. Population is ageing as a result of two trends: people are living longer than they used to and are healthier and secondly the fertility rate has constantly decreased not only in the developed countries but also in developing ones. The ageing of the world’s population is a matter of concern for everyone; the consequences are detectable on every aspect of life- for individual and for societies. The paper is examining the possible approaches to population ageing and aims to emphasize the economic behavior determinants that affect people’s behavior during their life cycle.

Keywords: population ageing, life expectancy, dependency ratio, financial literacy.

JEL Codes: J11, J14, J26, E24.

1. Introduction

Population ageing is becoming a global problem because of the linkages across nations. The phenomenon is more pronounced in higher-income countries and is progressing quickly in some developing countries, notably China. In order to reveal why population is ageing so rapidly, several causes can be identified:

a) People are living longer: Life expectancy in the EU continues to increase rapidly (the share of over 65 years old in society is rising fast)

b) The fertility rate is decreasing and slowing population growth.

c) Many of the additional years that people are living are healthy ones.

Nevertheless, this demographic trend has important consequences and it requires a coherent approach at national and international level. The paper is examining the possible approaches to population ageing and aims to emphasize the economic behavior determinants that affect people’s behavior during their life cycle.

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2. Defining the issue

Studying the past and current statistics referring to the population ageing, one can be easily conclude that population ageing is a demographic trend that started to manifest a few decades ago and it becomes a real problem of today’s society.

Looking at the population statistics in Romania (see Fig.1), it can be seen that the life expectancy has constantly increased in the past years, which means that the shape of the Romanian population pyramid (Fig.2) begins to look like those pyramids of the countries which are facing the social and economic problems of ageing.

![Figure 1 Life expectancy in Romania, 2004-2009](Source: 2009 Annual Yearbook, National Institute for Statistics, www.insse.ro[3])

Young groups of population start to shrink, especially 0-15 years old (*birth rate constantly decreases* - Fig.3), and older generations (over 55, and 65 years old) share is expending constantly (Fig.3 is showing that starting with 1996 Romania is experiencing a negative natural increase of the population). The active groups of population are less numerous than the population groups that are near to the retirement age and of those already retired. That is generating a significant pressure on the pension system and even on the taxation system; the dependency ratio clearly indicates that active population of Romania is supporting a higher number of retired ones.
Extending the analysis at the demographic current trend of population ageing at EU level, and also looking at the European projections for the next decades, the situation is even horse.
Just looking to the following graphs, the shape of the pyramid dramatically changed in less than 40 years.

Fig.4 EU27 population in 2010 and the projection for EU27 in 2050
(Source: EUROSTAT)

The 15-64 age group will decrease from 67% to 57% and at the same time the elderly (65+) will increase from 17 % to 29% and that means an overall dependency rate increasing from 26% to 50%, (even 55% in some countries such as Portugal, Italy, Bulgaria, Spain, Greece, Germany) which will clearly generate a tremendous pressure on public finance, elderly care expenditure will be difficult to cover and in general a sharp decreasing of the living standards of the elderly can be foreseen.

Some past studies are showing how the “colors” of ageing are changing. Looking at the population evolution, the studies are illustrating the fact that the significant changes occurred constantly in the average of the average age, from 1960 to 2060 (Fig.5). The intense yellow represents the average of 31.5 years old in certain countries and in the future the color will obviously cover a large part of the EU, and the average becomes 41.5 years old (for the same intense yellow)
The statistical records are telling us that we are facing a real problem - population ageing, and that means that it is obviously necessary to look on the long-run implications of population ageing in term of policies. The findings of the literature review can be summarized as follows:

- The effects of population ageing (people are living longer, old years are healthy years, the elderly are more active now than in the past) can be seen as an ability of the population to work longer, to choose voluntarily a later retirement which means a realistic policy on the pension system reformation but it also means to allow older generations to have an individual choice when and under which conditions to retire.
- A change in people’s mentality about work and leisure is highly desired mainly because today the retirement years are seen by the majority of people as leisure time – Romania case is clear – see Fig.6
- Visible changes in economic behavior during the working years are needed – save more spend less
- Financial literacy is needed, we should be able to raise awareness among current young and adult working generations - basically to adopt a proactive approach of the population ageing.
3. **Four basic approaches of population ageing**

Introducing this topic is just scratching the “surface of the iceberg”, I may say, but it should raise debates and maybe further collaborative research work in order to develop comparative studies at EU 27 level.

Facing a problem means always to have a problem solving approach, looking at the best ways to get the problem solved is not simple, several alternatives can be explored and the scholars (Lee, R. et al. 2012) that have been studying population ageing suggest the following four approaches:

1. *Workers save more and consume less in order to prepare better for their retirement.*

   Statistic records show that people are not very keen to save more, they are willing to enjoy their prosperity years consuming more. Thus, educating active population to save more for the retirement years can be an option but the consumption trends are contradicting us.

2. *Workers pay higher taxes (and consume less) in order to finance benefits for older people.*

   It can be difficult to develop this approach mainly from social reasons, social turbulences can occur—people do not easily accept increases in taxes. More feasible is to analyze carefully the current social benefits

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Fig. 6 Gross saving as GDP percentage – Romania case

*(source: www.insse.ro – database[2])*
system and to rethink the new coordinates of a structural reform in the system, this is the Romania case but it can be also the EU case.

In today’s consumption society, producers/sellers are encouraging consumption through intensive marketing campaigns so in this context a lesson to learn is needed …how to educate people to voluntarily reduce their consumption? Is it possible?

3. **Benefits (and thus consumption) for older people are reduced so as to bring them in line with current tax and saving rates.**

Reducing benefits when the state’s financial viability is in “danger” becomes a very common decision today; the need for structural reforms in the social protection national systems is obvious.

4. **People work longer and retire later, raising their earnings and national outputs.** The old ages are healthy ones for the majority of today’s elderly people. Being active means to work longer and the living standards are maintained at the same level for elderly too, financial independency becomes a reality and general welfare of the society increases.

Policy-makers should address all four options depending on the country level of population ageing. It is time to act; any delay can generate difficulties in the future decision-making process.

There are various assumptions about retirement age, healthcare costs increase, public support for older persons, the effects of increased national savings on investment returns. No matter what paths will be chosen a coherent and global approach should be set up in the near future.

4. **People’s economic behavior during their life cycle**

Economic behavior is changing continuously, individuals adopt economic decisions during their entire life cycle, and these decisions are influenced significantly by a wide range of factors.

Just for demonstration reasons some behavior determinants can be addressed as follows:

- Factors affecting income security in old age (aggregate demand, savings and investments) -
- Society’s burden in transfer flows through all public and private channels
- The capability for governments to maintain the current levels of publicly funded support for old people.

Also, the research should be oriented to investigate trends of the private pension provisions. What levels of personal savings would be necessary in order to sustain a certain level of living standards in the retirement ages?
Clearly, our options are few: consume less, work more or both! But, are we prepared to accept it? For example higher saving rates for the working population will generate the reduction of their current consumption. More or less, in the past decades the age patterns of consumption have changed, researchers are still developing methods to forecast consumption behavior. Age patterns of consumption have been changed, particularly if we include health care. In 1960 consumption at the age of 60 was lower than at the younger adult ages. In 2007, records show that the age-consumption profile has been transformed radically. The elderly consume substantially more than younger people. The combination of declining labor earnings at older ages with sharply increasing consumption means that population ageing has become more costly, both for individuals and for society as a whole.

Raising payroll taxes, as another alternative to population ageing, would reduce consumption and it will make possible to pay more benefits for current and future elderly populations.

It is time to act! Any delay will be a heavy “legacy liability” that will be passed on to future generations.

Basically the fundamental issue that society faces is how to allocate the increased costs of population ageing across these resources. But each option has different implications of social and economic nature.

Social effects such as: impacts on families, transformation of the household structure, redesigning the transportation or built environment are current issues that policy-makers are trying to address.

Another important issue that should be considered is how population ageing might affect total holdings of wealth, the composition of assets such as: houses, consumer durables, or corporate capital. Basically the economic theory suggests that many households accumulate savings for precautionary reasons and for retirement. Romania is following the same pattern in terms of saving reasons, but as an overall effect, the savings are declining as a percentage of total GDP (Fig.6).

Analyses on ageing are often focused on tangible and financial wealth, sometimes the impact of human capital is rarely considered. Human capital refers to the useful skills of the population acquired through formal and informal education, training, on-the-job experience. Relevant recent studies indicate that human capital is just important as tangible capital as a driver of economic growth. Investing in education – is a real option (higher education is associated with longer life) for better health…education improves also the financial literacy and that means people will be able to see savings as
There is little research on the impact of ageing on investment in human capital. The most human capital was accumulated in the early stages of the life cycle. Today are talking about “smart growth” based on the lifelong learning concept.

5. The policy-makers and the legacy they pass on to future generations

The economic prospects in the coming years are not optimistic, but we realize that the only sources of economic growth are: productivity, innovation, creativity. The knowledge-based society aims to generate and distribute the new scientific, technological knowledge and that will ensure the gains in efficiency.

The need for action should be seen as today’s decision and not a later one. The economic crisis in EU 27 is telling policy-makers that urgent decisions are more than welcome. There are some directions that policymakers should take into consideration:

- **Fiscal policy** – many state budgets are imbalanced or the equilibrium between revenue and spending is rather fragile

- **The productivity will increase due to higher inputs**: increases in the quantity and quality of private & public capital, improved education, training and skill of the labor force.

Current global trends are witness that having a younger population will help drive innovation, based on the fact that young people are more creative. The older groups of population are seen not creative anymore and that is affecting the quality of the labor force. An aged labor force is considered less productive, still no deep research has been undertaken in this direction so far in Romania, nor in EU.

Mainly the description of the consequences of population ageing is based on forecasts, but any forecast is subject to uncertainty and uncertainty means that action should be accelerated rather than delayed. Adaptive mechanisms to deal with population ageing are needed.
6. Conclusion

It has become clear that there are many topics for which more knowledge would help the decision-making process. Further research in the following 4 main areas:

- Demographic and health measurement and projections;
- Evaluate the capacity to work longer;
- Changes in consumption and savings through better communication...to achieve this desired social behavior;
- Modeling the efforts of decision-makers, and building reliable data on structural changes in revenue and spending.
7. References


