

## ECONOMIC AND SOCIAL IMPLICATIONS OF DEMOGRAPHIC EVOLUTIONS IN ROMANIA AND EGYPT

Mariana BĂLAN, PhD

Institute for Economic Forecasting, Romanian Academy

[dr.mariana.balan@gmail.com](mailto:dr.mariana.balan@gmail.com)

### Abstract:

*The world population in general is faced with a slow but continuous process of demographic ageing. Under these conditions, an increase is recorded in the 'pressure' exercised by the elderly on the adult and potentially active population, implicitly on some important systems of the society (health, social assistance, social insurances budget), with implications on the economic and social policy.*

*The change in the age structure of the population as result of the particularities of demographic evolution, of Romania's population ageing and of population increase in Egypt has economic, social and many other outcomes, both at national and regional level. These consequences, as a rule, have a long term character, reaching higher shares or diminishing from one stage to another of the demographic evolution, depending on the type of age structure. The consequences of the changes in the age structure of the population display a wide range, including all age groups and leaving their fingerprint on the multiple social processes. The changes in the age structure of the population imply change in the general structure of social needs. The increase in the weight of elderly or of young individuals in the population structure triggers the need of increasing the number of health and social care institutions, including here the training of specialized personnel. Important changes related to the change in the population structure take place also in other spheres of human life: personal, family and professional life, in economy, politics and culture, etc.*

*The paper presents a brief analysis of the determinant factors of population ageing in Romania and of the demographic changes in Egypt, as well as the economic and social consequences of this phenomenon's expansion in the two countries.*

**Key-words:** demographic ageing, economic consequences, social effects

**JEL Classification:** E20, D60, J10, J12

### Introduction

In the 21<sup>st</sup> century, one of the most stringent issues of mankind is the one of population's demographic ageing with important implications on the socio-economic development in various regions of the world. Both in developed countries, and in developing countries the weight of elderly in the population structure increases at high rates, imposing the necessity of developing specific policies in the field.

The increase in the weight of the elderly in the population structure, the change, preservation and use of their functional capacities open new possibilities for this population group regarding aspects related to the economic, social, cultural and spiritual life.

The last 27 years were characterised by the continuing decrease of Romania's population. The rapid and significant decreases in the birth rate, the recrudescence of mortality, and the negative external migration have dramatically changed the demographic landscape in Romania.

The year 2015 is the 26<sup>th</sup> year of demographic decline, as Romania lost during this year 3.38 million inhabitants, meaning 14.6% from the population registered at the beginning of the nineties.

In Romania, the population's age structure has the characteristic fingerprint of a demographic ageing process due mainly to birth-rate decrease (by 8.8‰ in the year 2014), which triggered the absolute and relative diminishment of the young population (0-14 years of age). In parallel, the increased

life expectancy (72 years of age for men, and 78.91 years for women in the year 2014)<sup>1</sup> determined an increase in the numbers and weight of the elderly population (65 years of age and over).

For the first time in the last four decades, on 1 July 2006 the weight of the young population (with ages between 15-24 years) was equal to the weight of the elderly population (65 years of age and over) (14.5%).

Population ageing induces or even amplifies both the strictly demographic effects, and the ones of economic and social nature, from among which the following might be mentioned: deepening structural issues on the labour market, the financing of the public pensions' system, the increase in health expenditures and the issue of dependency, the continuing and increasing pressure on the state budget by the increased social assistance expenditures, and the impact on the savings' rate. An ageing population implies much higher costs regarding social expenditures.

In turn, Egypt is faced with a population boom in spite of the successes registered in diminishing the population growth rate, from 2.75% in the year 1986, to 1.92% in 2012, and to 1.6% in 2015. In this context, Egypt's population varied from 51.911 million inhabitants in 1990 to 86.132 million inhabitants in 2014.

This demographic explosion has as immediate effects: i) increase in the poverty rate (in the year 2015, 26.3% Egyptians lived under the poverty threshold); ii) increases in structural unemployment, mainly among young individuals (38.9%, in 2015); iii) increasing disparities between urban and rural areas.

In a country with habitable land and fresh water resources deficit, the population increase might have on medium- and long-term strong negative economic and social consequences.

However, it is known that population ageing implies also a string of difficulties related, first of all, to ensuring the financial stability of the pensions' insurance systems, to increased expenditures for health care, as well as to creating conditions for making good use of the potential of elderly.

The paper presents a brief analysis of economic and social implications of demographic ageing in Romania and of demographic changes in Egypt.

### **Economic and social implications of population's ageing in Romania**

Romania, together with Slovakia, Poland, Latvia and Slovenia will know the swiftest population ageing rate in the following decades.

The first wave of the 'baby boom' generation is close to retirement and in the following years the dependency index (the relation between the numbers of the potentially active population and the number of children and elderly) will increase. The change in the demographic behaviour of the couples regarding their reproduction, the increase of mortality, the decrease in the birth-rate, as well as external migration had as consequence a diminishment in Romania's population by 3.2 million inhabitants in the last 26 years.

The age structure of the population bears the characteristic fingerprint of the demographic ageing process, mainly because of the decrease of the birth-rate, which triggered the absolute and relative decrease of the young population (0-14 years). The weight of the age group segment from 0 to 14 years of age fell from 23.7% in 1990, to 15% in 2015. The increase in life expectancy led to the increase of the weight of elderly population (65 years of age and over) from 10.3% in 1990 to 17.19 in the year 2015.

Romania already faces the complex economic and social consequences of a population in a slow, but continuing demographic ageing process. To this phenomenon has contributed both the economic and social crisis, and the fact that for the last century the industrialisation, urbanisation and modernisation have changed radically the values. From the extended family that provided to its members stability and safety, the shift was made to the family in which the independence of the members took first place. Most affected by this are the elderly, who found before their place inside the family and now are faced with isolation, abandon and institutionalisation.

---

<sup>1</sup> TEMPO-online data-base, Romania's National Institute of Statistics, [www.insse.ro](http://www.insse.ro)

*A first economic consequence of ageing and of total population diminishment is the potential GDP decrease*, by reducing the contribution of the labour force and of the capital under the conditions of affecting thus domestic saving. Romania's potential GDP decreased to 2.1% in the year 2014<sup>2</sup>, from 5% in the year 2004, as result of the constricting private investments.

The change in the age structure of the population triggers also structural changes of the latter. The increase in the near future in the numbers of the age group 50 to 64 years brings to the front the pressing issue of active ageing. This age segment triggers issues related to employment policies and to the reform of the pensions' system, to the creation of opportunities for extending the length of economic activities, thus contributing to diminishing the dependency ratio. The need of maintaining on the labour market an increased number of older workers presupposes a new approach of all issues related to the relation between age and labour market (continuing education and training, re-skilling, creating special jobs with flexible working time, etc.).

The demographic transition shall diminish, progressively, the availabilities of human resources on the labour market. In the year 2014, the average employment rate in Romania was of 61.0%, and 28.35% of the labour force was in agriculture, while 42% were identified in the services' sector.

Much less visible are the variations of supply on labour market and of the ratio between employed and unemployed population. During the last two decades also a rejuvenation of the labour force occurred due to the fact that on the labour market entered numerous generations born before 1989 with individuals having relatively high levels of education and training, advanced knowledge and who represent a valuable potential for the economic sector. However, this demographic dividend was not valorised accordingly. The low opportunities of employment within the national economy, according to personal preferences, the lack of jobs according to skills/competences, but also the lack of opportunities for obtaining adequate incomes for decent living determined many youths to emigrate.

If in the year 1990 there were 0.4 pensioners for each employee, the relationship changed in 1998, and currently for each employee there are 1.2 pensioners and, for the time horizon 2060 for each employee there will be 1.5 pensioners.

The change of the relationship between the cohort entering and the one exiting the labour market shall have significant consequences regarding labour force supply, productivity and labour force demand.

The demographic changes will exercise pressure also on the education system. The diminishment of the pupil/student cohorts shall trigger a diminishment of teaching staff supply on the labour market, a fact which on one hand shall make possible some budgetary resources savings but, on the other hand, will create a specialised staff void required for organising training and re-skilling courses during the entire active life in view of increasing the capacity of continuing the economic activity of elderly.

*Another consequence is the increasing pressure on the state budget* both with respect to incomes, thus affecting the economic growth and on the expenditures' side by increasing expenditures for social assistance and health.

The relationship between the number of "Romanian productive citizens, contributing to the public budget and the social funds" and the one of the beneficiaries of these funds decreases continuously together with the decrease in the numbers of those entering the labour market and the increase in the number of retired individuals.

An increase in the public expenditures for social protection above the current level might take place only under the conditions in which an increase of the weight of budgetary incomes in GDP takes place as well, as these are among the lowest from the European Union.

The demographic policy in the period 1967-1970 has as consequences an amplified pressure on the public health care and pension systems around the year 2035, which requires to reform in the shortest time possible the health care system by including private suppliers of medical services and maintaining the already implemented key reforms within the pension system.

---

<sup>2</sup> *Mid-term forecast 2016-2020 – autumn variant 2016*, National Commission of Forecast (in Romanian) [www.cnp.ro](http://www.cnp.ro)

*Ageing and population decrease shall affect the domestic savings' rate and, implicitly, investments.* At the same time with demographic ageing increases the weight of households with a low savings rate. The savings' possibilities of the elderly population diminish and, as result, the diminishment of Romania's capital dependency on external capital flows, while the domestic financing of economic growth becomes more marked.

The transition to older age groups is often accompanied by the decrease in the standard of living. The diminishment of economic possibilities and the worsening of the health condition make elderly more vulnerable regarding poverty. However, in Romania, the poverty or social exclusion risk (AROPE) for the age group 65 years of age and over had a descending trend for the last decade, as it reached 33.3% in 2015, and the severe material deprivation rate reached 21.5% slightly under the average value on country of 22.7%, but slightly higher than the value recorded for the age segment 18 to 64 years of age (21.2%).

The changes in the household and family structure related to the diminishment in the size of the first and to the disorganisation of the latter will have **social consequences** both at individual but also at society level. If before the issues of the elderly were solved inside the family, today and in the future the society will have to interfere increasingly more often in solving these issues. The exodus from village to town or abroad of young individuals, the industrialisation and urbanisation process, as well as the pension and health insurance systems led to placing some of the responsibilities for the elderly outside the family, thus changing the relationships between the generations.

The issue of the social consequences that are implied by population ageing represents a research field due to the multiple circumstances in which this population category finds itself, and at the same time displays various particularities. At the same time, the social consequences vary in relation to other aspects such as: economic, socio-cultural, psychological-social, and socio-medical ones. From among the social consequences of demographic ageing, we mention:

❖ *Disengagement and termination of the professional activity which triggers effects of social, family and individual nature.* The impact of such a moment is felt differently from individual to individual and presents particularities related to gender, social environment and professional training.

Women have a slightly easier transition in this respect as compared to men, which is explainable based on their various roles within the family and in the household. In turn, men are less involved in such activities and begin to see themselves as useless, displaying indisposition and sometimes dissatisfaction and apathy.

The studies realized by various experts highlight the fact that the shock of retirement is more intense among individuals with higher education and, in general, among skilled individuals, as compared with individuals with lower levels of education and training or even unskilled ones.

❖ *The feelings of uselessness and social isolation* which are related to the transition to pension and they are exacerbated in the case of elderly lacking occupation. At the same time, they are more obvious among men and among those in the urban area as compared with the rural area, and for individuals with precarious training against the group of skilled individuals, and in particular the individuals with higher education. These states have negative influence on the health status of the elderly favouring the manifestation of severe psychical illnesses, in particular the ones depression and anxiety.

❖ *Loneliness* is recorded especially among women who are more than men due to the gender imbalances in favour of women of old age, but also because of increased mortality rates among men.

❖ *The social relationships of elderly with individuals of their own generation, and with other age groups, especially with young individuals.* The loss of social relationships emphasise the feeling of loneliness, favour social isolation and the emergence of depressive states. Disregarding and marginalising elderly by the young generation has strong negative effects for their health. In this context, an important role play family, friends, relatives, acquaintances all being able to stimulate the upkeep of the social relationships of the elderly.

### **Economic and social implications of demographic evolutions in Egypt**

With a surface of almost one million square kilometres, from among which almost 90% is desert and a population of 87.96 million inhabitants on 1 January 2015, Egypt is the most populated country of the Arab world and the second on the African continent.

Egypt is struggling to keep under control a population boom, a phenomenon which amplified during the last three years. By 60.9% of the population younger than 30 years of age on 1 January 2015, the population increase will continue to diminish already scarce resources and it might contribute to more marked social discontent.

In Egypt, the number of births increased by 45.44% between 2006 and 2015. The weight of the age segment 0-14 years reached 31.26% on January 2015, while the weight of those of 65 years of age and over was of 4.3%.

Egypt's population is focused in a narrow band along the Nile between the eastern and the western deserts and 57.3% of the population lived in the rural area and 42.7% in the urban areas in the year 2015.

One of the reasons leading to the explosion of the birth-rate growth boom is the change in the regulations regarding housing in the nineties which allowed young individuals to marry easier and, most probably, led to an increase in pregnancies and births. To this is added the abolishment of sexual education and awareness increasing programs regarding contraceptive methods as result of the 2011 uprising.

On the other hand, Egyptian women give birth, in average, to 3.5 children an average higher than the world average of 2.5 births per woman. Even if fertility in Egypt decreased from 5.3 births per woman in 1980 to 3.0 births in 2008, still the birth rate in 2014 of 3.5 births/women indicates that Egypt's demographic transition stagnated and the rapid population increase might be expected to continue. Egypt's population increase meant the increase in the numbers of women at reproductive age in the period 1980-2014 their numbers reaching 22 million. To this is added also the fact that in Egypt several families still marry their daughters at young ages which implies that in 2014 more than half a million of young girls with ages between 15 and 19 years of age were married. For these young girls, early marriage means, in general, giving birth early which is yet another driver of country's population growth.

The demographic changes of the last decades in Egypt have strong economic and social consequences.

The population increase worsened the situation on the labour market. Each year, more than 800000 young individuals enter the labour market, which is already affected by an unemployment rate of 13.4% in the second semester of the year 2013, and by the beginning of 2015. Young individuals who are mostly more educated than their parents are most affected by unemployment, over one-third (38.9%) from them being unemployed. Young women and men with higher education levels are also affected by unemployment in high shares. The gap between the unemployment rate for young women and men is very large: 35.5 pp (46.9% the unemployment rate for women and 11.4% for men, in 2014).

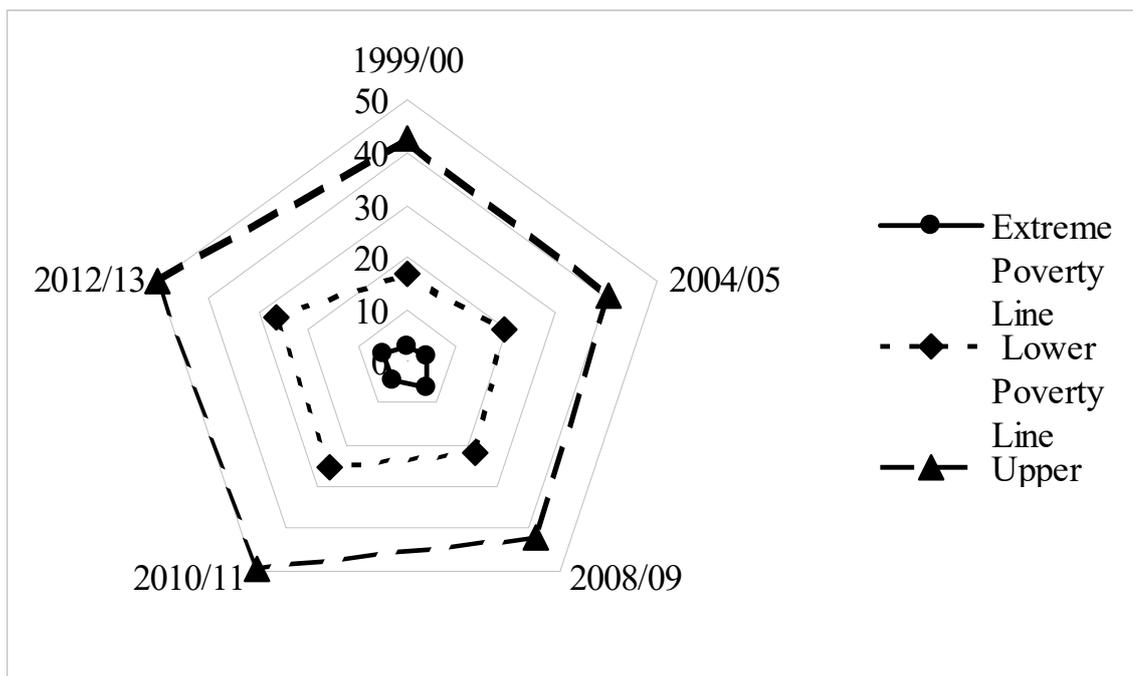
Almost one-third of Egypt's population is under the age of 15 years which means that in the following 15 years more than 27.5 million young individuals will reach the working age. This unprecedented number of young Egyptians ready to enter on the labour market might lead not only to increasing unemployment rates, but also to wages' diminishment with major implications both at national and family level.

A numerous school populations and the school enrolment rates on increase, in particular for girls are factors generating the insertion of teaching personnel in the labour market.

The demographic evolutions from Egypt have as consequence the increase of the poverty rate from 16.7% in 1999/2000 to 26.3% in 2012/2013 and to 27.8% in the year 2015 (Figure 1).

Poverty in Egypt displays regional disparities: while in the metropolitan areas (Cairo, Alexandria, Port Said and Suez) the poverty rate was of 15.7% while in the urban and rural areas from Lower Egypt was of 11.7%, respectively 17.4% in 2012/2013. In Upper Egypt, both in urban and rural areas the poverty rates are much higher than in Lower Egypt reaching 26.7%, and respectively 49.4% in 2012/2013. In general, rural areas have a higher poverty incidence than the urban ones from Egypt. In 2008/2009, the poverty rate in the urban area was of 11.0% while in the rural area the poverty rate was of 28.9%.

Figure 1 Poverty rates in Egypt, 1999-2013, (%)



Source: Ichiki Tsuchiya, *Interim Report for Household Expenditure Patterns in Egypt during the 2000s*, IDE-JETRO, 2016, [www.ide.go.jp](http://www.ide.go.jp)

The demographic developments impacted also the health state of the population. According to the 2015 World Health Statistics regarding the health care facilities and health care personnel, Egypt has 0.6 basic health care units per 100000 inhabitants, 28 medical doctors and nurses to 10000 inhabitants for applying the various health care programs. The total health care expenditures represent about 5% from GDP. During the last years were registered a series of progresses in improving the health status of the population and in diminishing some communicable diseases (poliomyelitis diphtheria, tetanus, convulsive cough and tuberculosis). However, their effects were different depending on the fields and level of development of the regions in which they were implemented.

The population growth leads to increased public expenditures and pressure on the food and water resources, on the infrastructure and health care which facilities which are already limited.

Egypt's demographic realities and the associated economic and social implications generated lead to the requirement of cooperation between the authorities regulating the health and educational system and those regulating industry, housing, transportation, agriculture and many others.

### Conclusions

The effects of the demographic ageing process of population for Romania or the ones of the demographic boom in Egypt on the development of the economic and social life, and on the future demographic evolutions will emerge in time triggering disturbances at the level of the school population, of the fertile age population, and of the working age population.

Romania underwent during the last decades significant changes in the population structure partly due to undergoing the demographic transition period, and partly because of the political changes which had a strong influence on the evolution of the demographic phenomena. The structure on age of Romania's population mirrors a slow but continuous process of demographic ageing, determined mainly by the decrease in the birth rate which led to the absolute and relative diminishment of the young population (0 – 14 years of age), and to the increase in the weight of the elderly population of 65 years of age and over.

The potential GDP decrease by diminishing the contribution of labour force and of capital, the increasing pressure on the state budget by increasing the social assistance expenditures and the slowdown of the savings' rate are the main economic consequences of population ageing.

The increase in the numbers of elderly has also social implications: shifts related to changing lifestyles, termination of working relationships, the changes suffered within family and within the social group of each person, the emergence of feelings of uselessness and social isolation. The changes occurred in family development where there are elderly persons create social issues both for the individual getting older, but also for the society.

The nature and amplitude of demographic developments in Egypt have strong economic and social implications: high unemployment, in particular among youths; lacking jobs as consequence of high and sudden labour force increase; the increase of public expenditures; the strong pressure on natural resources that cannot support a population with a high growth rate; the necessity of supplying basic services for an increasing number of Egyptian citizens: adequate housing, sanitation, medical assistance, education etc.; a high poverty rate; significant disparities between urban and rural areas, but also between regions, etc.

### References

- [1] Baza de date TEMPO-online data base, Romania's National Institute of Statistics, [www.insse.ro](http://www.insse.ro)
- [2] *Country Profile – Egypt*, 2015, United Nations - Economic Commission for Africa, [www.uneca.org](http://www.uneca.org);
- [3] Hala Youssef, Magued Osman and Farzaneh, Roudi-Fahimi, (2014), *Responding to Rapid Population Growth in Egypt*, Policy Brief, Population Reference Bureau, [www.prb.org](http://www.prb.org);
- [4] *Human development report* (2015), UNDP, [hdr.undp.org](http://hdr.undp.org);
- [5] Ichiki Tsuchiya, *Interim Report for Household Expenditure Patterns in Egypt during the 2000s*, IDE-JETRO, 2016, [www.ide.go.jp](http://www.ide.go.jp);
- [6] *Prognoza pe termen mediu 2016 - 2020 – varianta de toamna 2016*, Comisia Natională de Prognoză, [www.cnp.ro](http://www.cnp.ro);
- [7] *Raportul de țară al României pentru 2016, inclusiv un bilanț aprofundat privind prevenirea și corectarea dezechilibrelor macroeconomice*, Comisia Europeană Bruxelles, 26.2.2016 Swd(2016) 91 Final, [www.ec.europa.eu](http://www.ec.europa.eu);
- [8] UNICEF *Annual Report 2015 Egypt*. <https://www.unicef.org>;
- [9] World Bank, 2015. *Egypt: Promoting Poverty Reduction and Shared Prosperity, A Systematic Country Diagnostic*, [www.worldbank.org](http://www.worldbank.org);
- [10] *World Employment and Social Outlook*, Trends 2015, International Labour Office, [www.ilo.org](http://www.ilo.org);
- [11] *World Population Ageing 2015*, Department of Economic and Social Affairs Population Division, United Nations, [www.un.org](http://www.un.org); *World Report on Ageing and Health*, 2015, World Health Organization, [www.who.int](http://www.who.int).