

ECONOMIC AND SOCIAL ASPECTS OF THE DEMOGRAPHIC AGEING PROCESS IN THE REPUBLIC OF MOLDOVA

Olga SÂRBU

Agrarian State University of Moldova, Chisinau
42 Mircesti street, MD-4209, Chisinau, Republic of Moldova, Phone: +373 22 432387,
E-mail: osarbu@mail.ru

Corresponding author: osarbu@mail.ru

Abstract

Purpose of this paper consists in analyzing economic and social aspects of demographic aging process in Moldova. To interpret the accumulated data and calculations performed analytical method of calculation tabular method and graphical method was applied. Intense process of aging is associated with changes in all spheres of social and economic life and affects equally the interests of older people and society as a whole. In Republic of Moldova aging population has grown in the last two decades, being conditioned both declining birth rate, which is very low and does not provide simple reproduction of the population and the mass migration of population that leads to the depopulation of the country. Maintaining the natural and migration increase with negative values amplifies the negative demographic deterioration of the country, which influences economic development, competitiveness and stability of the country and welfare of its citizens. In this situation it is necessary to respond positively to the challenges of demographic change through the complex and multisectoral approaches designed to correct current unfavorable demographic evolutions.

Key words: adult population, demographic aging, demographic situation, young population.

INTRODUCTION

The UN report regarding the analysis of the population age structure modification in the period 1950-2050 indicates that the current century will witness the rapid population ageing which is a global phenomenon affecting the life of everyone. The main problem, caused by the transformation of population age structure, consists in the multitude and complexity of population ageing consequences and their resolution can be hampered by the fact that social institutions of contemporary society were formed under conditions of young population. Population ageing presents a shift of the population age structure to mature ages and it is determined by the demographic transition process from high levels of natality and mortality, specific for the reproductive system of agrarian societies, to low levels of natality and mortality, characteristic for industrial societies.

Population age structure represents an important characteristic of each country. Population ageing is a consequence of the population age structure modification occurring in the process of demographic

transition or demographic revolution [5].

Population is considered „young” when people aged 60 and over are less than 8%. If their share is 8-12% - the population is in „the pre-ageing period”, and if it is 12% and more the population is ageing. The level of population ageing in a particular country is determined as follows: 12-14% - medium level, 16-18% - high, 18% and more - very high level. UN experts, analyzing the demographic processes and classification of countries according to the ageing degree, use the following criteria: young population has in its structure 4% of people aged 65 years old and older and for the mature population this index varies between 4-7%. If the share of people 65 and older is more than 7%, the population is considered aged.

In the Republic of Moldova, working population means men aged 16-61 years old and women aged 16-56 years old. The persons who exceed the limit of retirement age are considered aged. In the socio-demographic analysis the following classifications are used: children 0-14 years old, working-age population 15-59 years old and elderly people - 60 years old and over. [3]

Population ageing is a complex phenomenon having important implications in all spheres of life. In economics, population ageing have negative consequences on the economic growth, accumulation of savings, investment and consumption, labour markets, pensions, tax charges and transfers between generations. In the social sphere, population ageing influences family size and living conditions, dwelling requirements, migration trends, epidemiological situation and structure of medical services. On the political arena, population ageing may influence the outcome of elections and political representation system.

Globally, the growth rates of the elderly population is of 2,6% per year, considerably exceeding the growth rates of the total population. It is expected that by 2050, compared with other age groups, the elderly population will increase much faster. All the above mentioned require to elaborate and implement deep socio-economic reforms in most countries. [3]

MATERIALS AND METHODS

In order to achieve the purpose and objectives of our study there were used quantitative and qualitative research methods, allowing to determine the prevalence and extent of investigated characteristics as well as to evaluate the level and quality of life of elderly people. The quantitative research was based on the analysis of NBS statistical data obtained from household budget surveys, survey on labour force in the agricultural farms and other statistical data. There were also used a number of administrative data provided by National Social Insurance Office, National Agency for Employment and other institutions.

RESULTS AND DISCUSSIONS

Economic development of the contemporary world during the XXth century and at the beginning of XXIst century is characterized by the internationalization and integration of the world economy, increase of migration and information flows, development of new technologies which, in turn, caused significant

changes in the lifestyle of the population, value orientations, including the reproductive behaviour of the population. All this has led to deep changes in the demographic development of the world countries, manifested primarily by significant decrease of the birth and fertility rate, establishing a clear trend of population ageing.

The modification of population age structure, as a result of past demographic development features and disturbances of different nature, leads to economic, social and other consequences both for the entire country and for different parts of it. As a rule, these are long-term consequences gaining increased proportions or reducing to some stages of demographic development depending on the type of age structure. It should be mentioned that often the consequences of population age structure change are treated superficially, being reduced only to issues related to population ageing. But they have a much broader spectrum and include all age groups putting their mark on many social processes.

The changes in the age structure of the population involve changes in the general structure of social needs. For example, reduced number and share of children in the population structure results in fewer places in school and preschool institutions, and respectively, fewer teachers, educators, etc. Increased share of elderly people in the population structure causes the necessity to supplement medical and social institutions as well as to train special staff. Important changes related to the modification of population structure occur as well in other spheres of human life: personal, family, professional, economic, political, cultural, etc. So, this means emphasized changes in all spheres of the contemporary society, especially the society of tomorrow.

Population ageing is the most important and long-lasting change in the age structure of a population in the process of demographic transition. In the Republic of Moldova, population ageing has started later compared to many developed European countries because the decline in birth rate began with a disparity.

Statistical analysis proves that at present the demographic process in the Republic of Moldova started to repeat the demographic transition model that has been developed in recent decades in the developed countries and which is characterized by the shift from high levels of mortality and natality to lower levels. Having an inevitable character linked to the general trend of society modernization, the demographic transition in the Republic of Moldova performs some specific features because of the negative changes in mortality levels and a rapid decline of birth rate, fact that will contribute much to increase the rate of population's demographic ageing.

Population structure by age has the specific feature of population ageing, i.e. increased share of elderly men and women and reduced share of persons aged 0-14 years old. According to the population census in 2004 compared to 1959, the share of persons aged 60 and over increased from 7,7% to 13,78% and the share of young people aged 0-14 year old significantly reduced from 33,4% to 19,77%. During the same period the specific

share of adult population aged 15-59 years old increased from 58,9% to 66,45% (Fig. 1). Numerically, the number of elderly people increased by 3,3 times, from 222,5 thousand people in 1959 to 484,9 thousand people in 2004. At the beginning of 2008, the absolute number of persons aged 60 and over compared to 2004 decreased slightly reaching 488,4 thousand, which constituted 13,67% of the total population.

Due to the high mortality level of the working age men the population ageing phenomenon is mostly a women-specific process, fact which reconfirms the specific regularity of population ageing depending on gender. Currently, women represent more than 60% in the structure of population aged 60 and over. In elderly population the share of women aged over 60 is about 30,8%, while the share of men is 6% lower – 24,8%. Although, during the reference period the population of working age (16-56/61 years old) increased, the forecasts show that by 2013 this figure will decrease continuously.

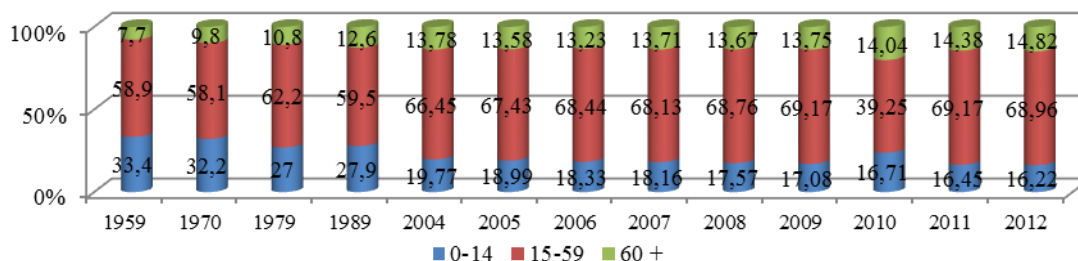


Fig. 1 Population structure by age groups (in %) in the Republic of Moldova in the period 1959-2012
 Source: Elaborated by author based on data of NBS, Statistical Yearbook of the Republic of Moldova 2012, p. 36

In the evolution of population structure by age groups from territorial perspective, the transformations occurred similarly by reduced number of young people and increased share of the elderly population, due to the high level of birth rate decrease. Population ageing in the Republic of Moldova is uneven, from a territorial perspective the share of the elderly population in some districts varies from 10,7% in the center up to 24,3% in the north. The highest share of elderly population is concentrated in the north of the country, the estimated average being of 18,3%. The most affected districts are: Donduseni, accounting for 24,3% of the elderly population, Drochia – 21,6%, Briceni – 21,4%, Edinet – 21,1%,

Riscani – 20,4% and Ocnita – 19,8%. Only in three administrative-territorial units (Ialoveni, Chisinau and Calarasi) of the Republic of Moldova, the share of population aged 60 and older is less than 12%. Thus, it can be stated that, in a greater or lesser extent, all other administrative-territorial units are affected by the demographic ageing phenomenon. Analysis of population structure by large age groups - children (0-14 years old), adults (15-59 years old) and elderly people (60 years old and older) - demonstrates the existence of extremely large differences in the number of these groups at administrative-territorial level. It was highlighted a high concentration for the adult population (15-59 years old),

respectively, of the working age population, primarily in Chisinau municipality which has reached a share of 74,%. This is due to intense internal migration flow toward the capital, which is an administrative, political, economical and cultural center of our republic, the main reasons being related to work and study. Obviously, high development rate of the capital, residential construction, higher employment opportunities make Chisinau very attractive, especially for young people. A high share of adult population (working age) is also recorded in some districts located near the capital. Thus, in the districts Anenii Noi and Ialoveni, the share of working age people is of 70% and 70,6% respectively of the total population. In the north part of our republic the share of population aged 15-59 years old is the lowest, averaging 65,7%. Balti municipality located in the north is marked by a prominent concentration (72%). In the south, the estimated average (68,9%) is exceeded only in Basarabasca district, reaching 70,3%. [3]

It should be mentioned that the category of territorial administrative units with a relatively young demographic structure includes the localities with a high degree of economic development, which, in recent decades, have received a great part of immigrants (flows of people of working age) coming from localities with a low economic level, mainly from rural areas. Two municipalities: Chisinau and Balti attract young working-age population, allowing them to maintain a favourable age structure of the population, however, these two cities record the lowest number of children aged 0-14 years old. Children share in the capital, in the period 1990-2011, decreased from 23,9% down to 13,6%. The same situation is specific for Balti, where the percentage of children (0-14 years old) constituted 13,9% in 2011. In hierarchical order, Chisinau and Balti municipalities are followed by the districts located in the north of the country which record the lowest values of young population share and a high level of demographic ageing. The largest number of children in the population structure was recorded in Cantemir and Telenesti districts (21,1%). It should be noted that on the whole

territory of the Republic of Moldova, the rural areas compared to urban areas have a higher share of children in the age structure of the population.

In the next few decades, in the Republic of Moldova, population ageing process will continue rapidly. Even if effective measures are taken to stimulate birth rate, they will not significantly influence this phenomenon. Unstable socio-economic situation, underdeveloped labour market, low wages in the country, as well as the possibilities of free movement at least for medium term will stimulate negative external migration, which will continue to affect the age structure of population. Given that subsequent changes in the population age structure emerge quite clearly, they can be anticipated through the elaboration of appropriate measures that will allow the adjustment of all structures and society as a whole to these long-term demographic changes. Although the ageing process is inevitable, its consequences are largely determined by the approach to solve the discussed problem and by the elaborated sectorial options and programs.

The process of population ageing in the Republic of Moldova, unlike global trends, is more pronounced in the rural areas (table 1).

Table 1. Stable population by areas, gender and age groups on January 1, 2012, thousand people

	Total, thousand people	of which		
		Men and women aged 0-15 years old	Men aged 16-61 years old, women aged 16-56 years old	Men aged 62 years old and over, women aged 57 years old and over
Total,	3559,5	624,0	2369,5	566,0
of which:				
-women	1847,8	303,1	1150,3	394,4
-men	1711,7	320,9	1219,2	171,6
including:				
- urban areas, total	1485,7	221,5	1038,7	225,5
of which				
-women	787,4	106,5	522,3	158,6
-men	698,3	115,0	516,4	66,9
- rural areas, total	2073,8	402,5	1330,8	340,5
of which:				
-women	1060,4	196,6	628	235,8
-men	1013,4	205,9	702,8	104,7

Source: Elaborated by author based on data of NBS, Statistical Yearbook of the Republic of Moldova 2012, p. 39

The variations in population distribution by areas are unessential. In 2011, the urban population ratio was of 41,7%, the lowest

found level in Europe which indicates the country's economic underdevelopment. In absolute values we observed that urban population decreased more than the rural one, leading to a relative process of ruralization, contrary to global trends, but which is also an indicator of disadvantageous character.

Population ageing, evaluated from territorial perspective, is more pronounced in the rural areas, establishing significant differences between towns and villages. Statistical data analysis according to the area of residence, shows that almost 15,5% of the rural population is over the age of 60 years old (in urban areas – 13,7%), and the share of elderly women in the total female population was of 18,4% at the beginning of 2012.

Statistics confirms that male population in the urban areas in recent years is characterized as a relatively young population (the share of age groups over 62 years old is only about 10%) and in rural areas it exceeded the ageing limit, accounting for 12%. Urban female population aged over 57 years old makes up 20% and in rural areas it is characterized by a high degree of ageing (23%), which suggests that population ageing is primarily determined by the ageing of female population in rural areas. Population ageing is a consequence of the increasing share of adults and the elderly people, while the share of children and adolescents is lower and therefore there is an increase in the average age of the population. The evolution of ageing process is characterized by the following features: it is more intense for women than for men due to higher life expectancy of the female population; it happens more intensely in the rural areas compared to urban areas due to longer life expectancy in urban areas. Therefore, population ageing is mainly a women-specific process, due to high mortality of the working age men. Currently, in the structure of population aged 60 and over, the women constitute more than 60%.

Population ageing coefficient (the number of persons aged 60 and over per 100 inhabitants), in the period 1980-2011, had an unstable evolution, with a tendency to increase from 10,7 in 1980 to 13,9 in 2003, then it decreased insignificantly reaching 13,5

in 2006. From 2007 to 2011 it had a tendency of increase up to 14,8 (if the value of this index is of 12,0 the population is classified as aged).

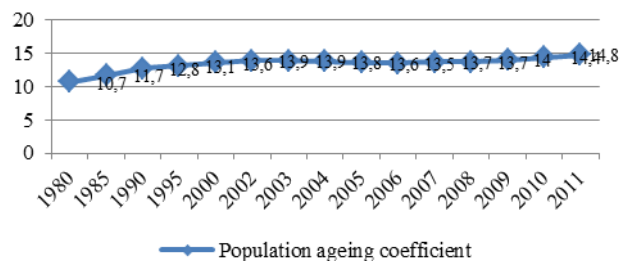


Fig. 2 Evolution of the population ageing coefficient in the Republic of Moldova in the period 1980-2011

Source: Elaborated by author based on data of NBS, Statistical Yearbook of the Republic of Moldova 2012, p. 39

This trend will obviously have impact on the age structure of human resources in the health care system so that the average age of the medical staff will continue to increase and the rate of retired medical staff will increase too.

The effects of population ageing are multiple and complex, having a significant influence on the social development and economic growth. This influence is manifested by health care systems, social insurance and labour force. A major concern is connected to the problem of ensuring the stability of retirement funds and increased expenses to form it.

It should be mentioned that in order to accomplish the objectives related to social protection of the elderly people, whose number is steadily increasing, offering them opportunities to get a worthy job in spite of the need or desire to remain economically active, and access to appropriate health care services will be difficult, especially for the Republic of Moldova. In the economically developed countries, the current and coming generation of elderly people, who live in conditions of economic stability and high living standards, had the opportunity to accumulate materials resources and are able to pay, for example, some social assistance or home care services or others, while in the Republic of Moldova current and future generations of elderly people have lost the accumulated money during the economic crisis in the 90's of last century, were unemployed or worked in the agricultural sector, receiving extremely low wages and

therefore fund allocations reduced. Without achieving an increased rate of economic growth and in order to solve this problem it would be necessary to increase the burden on the elderly working age population (raising taxes or other contributions).

The average life expectancy at birth is one of the main indices characterizing population health. Life expectancy at birth indicates the number of years a newborn infant would live if prevailing patterns of mortality at the time of its birth were to stay the same throughout its life.

At international level, there are deep contrasts, reflecting the economic gap between developed and developing countries. Technological, economic and cultural progress as well as policies and programs implemented over the last decade in the Republic of Moldova, generated positive results in many areas: increasing the level and quality of life, enhancing the access to medical services, improving population health and as a result, increasing life expectancy.

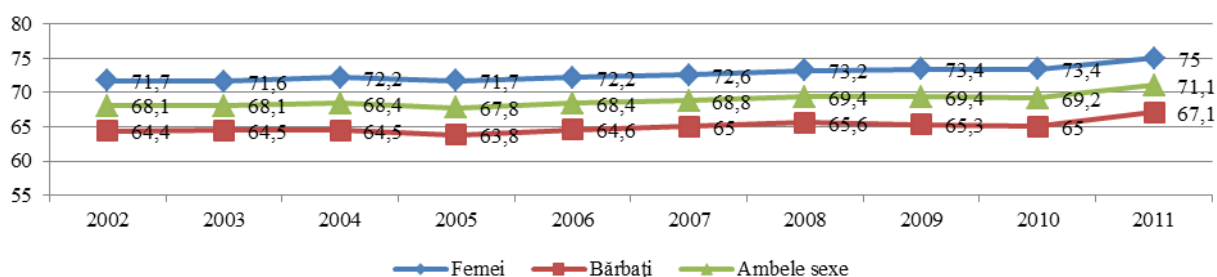


Fig. 3 Life expectancy at birth (in years) in the Republic of Moldova in the period 2002-2011
 Source: Elaborated by author based on data of NBS, Statistical Yearbook of the Republic of Moldova 2012, p. 40

Life expectancy at birth increased from 68,1 years old in 2002 to 71,05 years old in 2011, including 67,1 for men and 75,0 for women, which means that on average for both sexes during ten years it increased by about 3 years. Women live longer than men by 7,9 years. This difference is due to higher levels of premature mortality of men. Because of different mortality levels, the average life of urban residents was longer than of those from rural areas, respectively by 3,5 years for men and 3,2 years for women. Increased life expectancy, along with the reduction of fertility rate causes population ageing and this trend of increasing life expectancy at birth will continue in the future being a characteristic process of the European countries.

In terms of population ageing, the share of working age population is inevitably reducing and there is an inevitable ageing of the labour force itself. In this context, population ageing can become a factor that will hinder the economic growth, if we don't find the possibility to stop rate reduction of labour force and to implement effective measures to increase labour productivity. However, it should be noted that countries with relatively

young working population, including the Republic of Moldova, have a potential that can ensure economic growth. At present, we should not focus on measures that will be necessary only when there is labour force shortage, but it is necessary to focus our efforts on creating jobs for the economically active generations, especially for young people who will reach the working age. Labour market development, stimulated employment in the formal sector of economy will help to increase tax revenues and opportunities for expanding social programs for elderly people.

The transition to older age groups is often accompanied by lower living standards. Often reduced economic possibilities and worsened health make the elderly people vulnerable in terms of poverty. In the Republic of Moldova, the main material source for this category of people is the pension which is very modest, representing 28,7% of the national average nominal salary in 2011. Average old age pension in the Republic of Moldova is the lowest in Europe and covers only 58-60% of the subsistence minimum. More than 90% of retired people receive pensions of less than one thousand lei, which prevent some elderly

people to live a full life. The majority of elderly people are protected from health risks, disability and low living standards. Demographic transition submits a very difficult problem related to the insurance of pension systems viability i.e. creating conditions for the economic security of elderly persons. Thus, adjusting the rate of pensions to the living standards is still an important objective of policies connected to the population ageing phenomenon.

At the end of 2011 the number of pensioners was of 638,3 thousand persons, including 473,1 thousand reaching the retirement age, their share being lower compared with the year 1999, which is explained by the fact that currently, the generations entering retirement are less numerous as they were born during the war and post-war years and because of increased retirement age. In 2003, the share of 57 years old women reached the lowest value, while in the following years there was recorded a gradual increase in the number of women of this age, which obviously leads to increased number of retired women. Because of the difference between the retirement age for men and women, established by law (62 years old versus 57 years old) the wartime generations of men reach retirement 5 years later than women, thus, for men this process is just beginning.

Along with declining fertility rates and increasing life expectancy at birth, pension expenditures will have to increase, which presents a huge challenge for social insurance systems. Also, we have to mention that in the Republic of Moldova, the retirement age is much lower compared to developed countries. One of the measures that will help to reduce social expenditures would be to equalize the retirement ages for men and women which also could be a measure to stimulate participation in the labour force.

Insuring pensions for the elderly people, increased expenses for the health care and social services will be the most difficult medium and long term social problems in the Republic of Moldova, because of the fact that by 2015 the number of elderly people will increase continuously and taking into consideration that after 2020 the retirement age

will be reached by the people who are currently not employed or work without labour contract. Therefore, the minimum social service costs for them will be incurred by the social funds.

There are enough reasons to suppose that in the next few years, people who have reached retirement age will be professionally more active than their precursors. In the future, reduced natality rate will decrease the pressure of young people on the jobs of elderly people. Elderly people will have to work, because their significant number will not allow the young people with a relatively small share in the population structure to maintain them.

It should be noted that population ageing occurs in permanently changing social conditions: reduced family size, modified intergenerational relationships, concerns about caring for the elderly people. In 2011, in the Republic of Moldova, the number of families consisting of one person increased up to 25,9%. The persons aged 60 and over recorded the share of 20,2% in the total number of households. [4]

Changes concerning the disorganization of family structure and reduced size of households will have social consequences at both individual and society level. If before, the problems related to the elderly people were solved within the family, then at present and in the future, the society will have to involve itself more and more in order to solve these problems. Family alienation, rural-urban exodus of young people, industrialization and urbanization processes, as well as pension and health care insurance systems transferred some of the responsibilities for the elderly people outside the family, thus changing intergenerational relations. It is an obvious fact that the relative independence of the elderly people from their descendants caused some rupture between parents and children, accompanied by undesirable effects such as isolation, abandonment or institutionalization of the elderly person. The problem concerning the maintenance of an elderly person within the family raises the issue of developing the social assistance services at the community level.

Population ageing is accompanied by the process of epidemiological transition, characterized by the shift from the prevalence

of infectious diseases, high levels of maternal and infant mortality to the domination of chronic diseases in the population mortality structure. Demographic changes and epidemiological transition are in a strong correlation. As low birth rate and deadly infectious diseases take place, the average life of the population is increasing. In addition, there is an increasing life expectancy of people who have suffered from various childhood diseases. Consequently, the share of the elderly people, who are subject to chronic diseases in a greater extent than younger people, increases in the population structure. The higher numbers of elderly people the higher spreading degree of the non-infectious diseases. Thus, population ageing accelerates the epidemiological transition.

Population ageing will have a significant influence on the health care system, caused by increased mortality because of chronic diseases and by the number of people with disabilities (elderly people are more at risk of disability than younger people) fact which will require the restructuring of social services and extension of gerontological, rehabilitation and palliative care services.

CONCLUSIONS

Socio-economic status of any country is decisively determined by the quantity and quality of human resources. Contemporary demographic situation in the Republic of Moldova and outlined trends in this field can't ensure the sustainable development of the country. The process of population ageing becomes increasingly evident. Population structure records the constant growth of the elderly population, especially in rural areas. Other specific trends for our country include: the "ruralization" and "feminization" of the elderly population, increased number of elderly people who live alone and those who received a degree of disability. These events take place on the background of massive and long-lasting migration processes of young people for employment, fact which contributes to artificial ageing, to the transformation of the family role and importance - the main social institution to assist the elderly people.

In the next decades, the intensity of population ageing will increase the by the expanding number of elderly generations born in the 70-80's of last century, simultaneously with the reduced number of working age population as a result of less numerous generations born in the 90's of last century.

All the demographic processes and phenomena affect the sustainability of economic and social development of the country in general as well as the situation of the elderly people in particular. Therefore, our society must find ways to solve the dual problem: on the one hand - to ensure sustainable social and economic development of the state and on the other hand - to ensure the possibility that elderly people could live safely and decently and would be able to participate in society's life as full citizens.

For the Republic of Moldova, the stabilization of population ageing process involves removing demographic and discriminatory imbalances and asymmetries and adjusting the ageing process to real socio-economic conditions. In the short term, the solution for this issue consists in stabilizing the reproduction by consistent demographic and family policies. In the long term, it would be necessary to use these resources in the socio-economic development and adjust the social sphere to the demographic trends and sustainable standards.

REFERENCES

- [1] Anuarele statistice ale Republicii Moldova 2005-2011, Chişinău, Statistica, 2005-2012
- [2] Aspecte privind nivelul de trai al populaţiei în 2011. Chişinău, Statistica, 2012. 131 p.
- [3] Paladi, Gh., Gagauz, O., Penina, O. Îmbătrânirea populaţiei în Republica Moldova: consecinţe economice şi sociale. AŞM, Chişinău, 2009, 222 p.
- [4] Informaţie privind beneficiarii de pensii şi alocaţii sociale de stat, aflaţi la evidenţa Casei Naţionale de Asigurări Sociale la situaţia de 1 ianuarie 2012, <http://www.cnas.md/libview.php?l=ro&idc=244&id=1730>
- [5] Вишнеvский А.Г., Население России 2003-2004. Одиннадцатый - двенадцатый ежегодный демографический доклад. Москва., 2006, 356 с.