

## Development Opportunities for Non-State Pension Funds in the Republic of Moldova in the Context of Digital Economy

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### Abstract

*The investment potential of a non-state pension fund can be determined by two approaches: as an investment object, and as an investment subject. Although there are no functioning non-state pension funds in the Republic of Moldova, their investment potential from the two points of view is really low. Unfortunately, the poor degree of digitization of the country is one of the multiple reasons that impede the growth of the investment potential of local non-state pension funds, as well as of the overall development of the private pensions system. In the condition of digital economy, the ability to learn and adjust to fast changes in the economy is essential, while the lack of this ability is more likely to lead to a fundamental slowdown in the development of a given sector of the economy, or of the overall national economy. The goal of this paper is to delimit the development opportunities for non-state pension funds in the Republic of Moldova in the condition of digital economy, as well as to define the benefits that can be generated for the social and economic situation of the country, for the private pensions system, and the investment potential of the domestic non-state pension funds.*

**Key words:** pension system, digitization benefits, non-state pension funds, investment potential

**JEL code:** J32, G23

It is unarguable that digital economy is running the world today. It is continuously expanding worldwide, and is the leading factor determining growth and innovation. The advantage brought together with the digital economy is the internet of things, that permit people to feel safe, to keep being connected socially, as well as to keep their independence as people age. Furthermore, these trends and innovations determine more changes, such as the formation of new business models and new ways of knowledge transfers with no boundaries on the world market. The online markets are limitless, which contributes to the fact, that it is no longer necessary for a company to be of a large scale in order to be able to compete and maintain competitiveness on the market. This brings a lot of opportunities, as well as investment and growth potential for small and medium enterprises. The scale of the operational activity can be defined only by the amount of world's internet and technology users. Social media, mobile web services, cloud services, and other benefits brought by the digital economy remove the boundaries for all kinds of companies, but also sharpen the responsibilities of their business leaders. Thus, digitization becomes the core element of current global social and economic transformation. The amount of connections between equipment, businesses, and individuals is constantly increasing at a fast pace, while these connections become stronger.

On the other hand, nowadays, population ageing is a continuously growing and emerging problem. The global decrease in the birth rates, and, respectively, the decrease of the number of children and young people occur concurrent with the growth of the older population. As most of

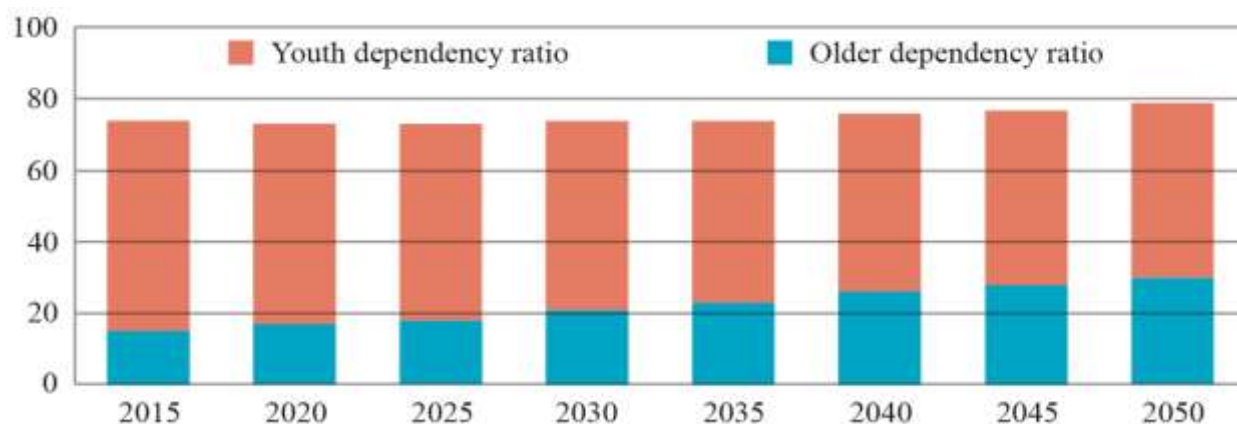
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the countries maintain the pay-as-you-go (PAYGO) pension systems for their retirees, the equilibrium between generations and the respective dependency ratios have changed together with the population ageing phenomenon. The entire world is facing the process of population ageing, while in the last decades certain countries have started various programs to encourage births and improve the demographic situation.

As youth dependency ratio is defined as the number of people aged 0 to 19 per 100 people aged 20 to 64, and older dependency ratio is the number of people aged 65 and over per 100 people aged 20 to 64 (He et al., 2016), figure 1 shows the current as well as projected dependency ratios until 2050. As can be observed, youth dependency ratio decreases, as projected, while older dependency ratios are expected to increase.

Population ageing is the result of various interdependent factors, some of which are the quality of living, improvements in medicine and science, which, in their turn, lead to longer lifespans; social and economic changes that determine people to choose their careers over family foundation and childbirth; environmental factors that, in some regions, lead to infertility, as well as other factors.



**Figure 1. Dependency ratios for the world: 2015 to 2050**

**Source:** He et al, p. 24

These demographic projections lead to the identification of a fast approaching challenge resulting from continuously increasing costs of the pensions. The recent financial crisis (2007-2009) proved the actual weakness of the pension schemes based on capitalization, while retirees re-planned their retirement age, and a part of the older population that has already retired returned to the labor market. This enhances the transfer of the responsibilities for a decent retirement and pension amount from the public systems to individuals' private balance sheets.

All of the aforementioned factors and phenomena determine the Governments to look for ways to avoid or, at least, decrease the chances of poverty for their current and future retirees. Some of the most common opportunities to achieve that goal are as follows:

- Increase the amount of social insurance contributions from the earnings of the employed population;
- Raise the minimum age for retirement eligibility;
- Increase the tax-funded subsidies or the Government borrowing to subsidize the social insurance budgets;
- Decrease the payments to retirees.

Opinions on which way would be the most appropriate to achieve the goal to ensure a decent retirement vary mostly according to each state's economic and social situation.

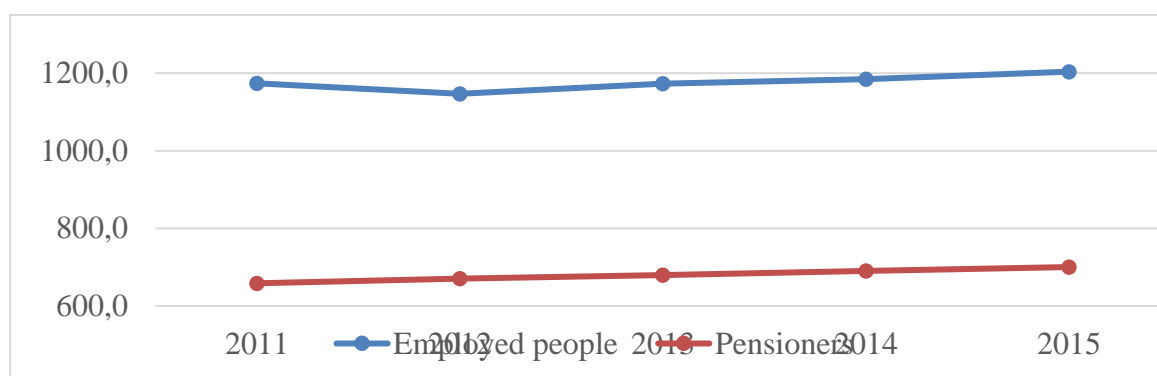
International data shows, that investors worldwide estimate that 61% of their current income would be enough in order to retire comfortably, which is lower than the traditional 75% considered for the pension plans (Vazquez, 2016). On the other hand, on average investors expect returns

about 10% above inflation to ensure a decent retirement, a figure that is about 3% higher than usually advised for financial security (ibid).

The Republic of Moldova faces similar problems. Unfortunately, the situation gets aggravated by the massive emigrations abroad of the population able to work, in the hope to achieve higher revenues and better standards of living. In 2011-2015 only, the working population aged 15-24 decreased by approximately 30%.

As a consequence, the number of pensioners within the country grows at a faster pace than the number of contributors to the social security system, thus increasing the burden on the currently employed population, and determining a big part of the employees to hide their real revenues. The current pension system in the Republic of Moldova has only one active tier, which is the national PAYGO system. International practices, in this sense, vary, but most of the countries have at least a two-tier pension system, distributing the burden of pensioners' decent retirement assurance between the national PAYGO systems and non-state pensions and pension plans.

The ratio of employed people to pensioners in the Republic of Moldova is continuously decreasing during the last years. This occurs due to an increase at a faster pace of the number of retirees in the country versus the growth of the number of employed people (figure 2). For 2015, this ratio represented 1,72. Thus, even though currently this ratio is not critical, this correlation of accumulated funds and paid pensions does not allow the accumulation and capitalization of the resources generated from contributors' incomes, in order to create and, later on, to contribute to a reserve fund for the case of deficits coverage, or other force majeure situations, so that the retirees keep receiving the allocated funds during their lifetimes from the moment they retire, and have the opportunity for a decent retirement.



**Figure 2. The correlation between the employed population and the number of pensioners in the Republic of Moldova**

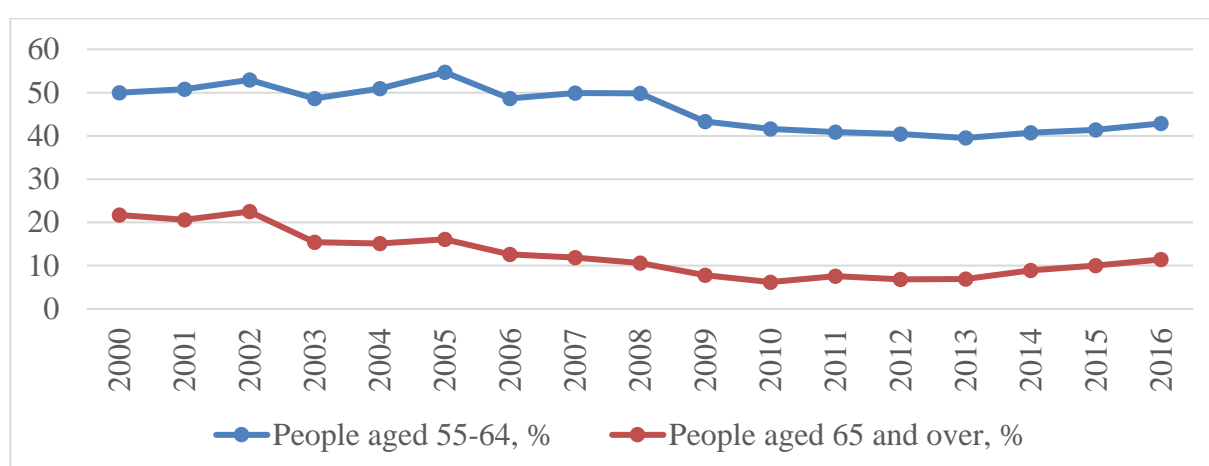
**Source:** *The National Bureau of Statistics of the Republic of Moldova. Pensioners on the evidence of the social insurance institutions, according to gender and pension category (online). Available on: [http://statbank.statistica.md/pxweb/pxweb/ro/30%20Statistica%20sociala/30%20Statistica%20sociala\\_09%20PRO/PRO010200.px/?rxid=b2ff27d7-0b96-43c9-934b-42e1a2a9a774](http://statbank.statistica.md/pxweb/pxweb/ro/30%20Statistica%20sociala/30%20Statistica%20sociala_09%20PRO/PRO010200.px/?rxid=b2ff27d7-0b96-43c9-934b-42e1a2a9a774). Retrieved on March 25th, 2017*

The decreasing ratio between the current employed population versus the number of pensioners determines the responsibility of the population for their own retirement security to grow. Regardless the theoretical awareness of the population on the subject, people from the Republic of Moldova do not seek for opportunities to invest, so that at the moment of their retirement they could assure a better quality of life. The non-state pension funds, which, on the international plan, stand as a backup to assure a comfortable retirement, are not considered as an investment option for the population of the Republic of Moldova. There are three non-state pension funds in the Republic of Moldova, which were founded in 2008-2010. Although it has been seven years since, these non-state pension funds have not registered any activity, and have not received

any contributions from the population, affecting and being affected by the investment potential of these funds.

The income inequality in the Republic of Moldova leads to a delay in considering additional retirement savings for the biggest part of the Moldovan population. Furthermore, the discrimination in the way of pension calculation formula between several categories of employees and the rest of the country's population, enhance the inequality in revenues of people after they retire.

Another factor that negatively influences the investment potential of the non-state pension funds is the post-soviet culture and psychology of the population. In the former Soviet Union, people strongly believed in the state and its powerfulness, and that the Government will ensure a decent life to the good and loyal employees when they will retire. Hence, the culture of not considering making additional savings for their future. These beliefs determine many retirees to continue working even after reaching the retirement age (see figure 3), regardless the awareness that the average pension amount received by the pensioners from the Republic of Moldova is less than the existence minimum for the people who reached the retirement age and retired.



**Figure 3. The rates of employed people aged 55 and over as percentages of the total population in the corresponding age groups**

**Source:** The National Bureau of Statistics of the Republic of Moldova. Rates of activity, employment and unemployment according to age, gender and areas, 2000 - 2016 (online). Available on [http://statbank.statistica.md/pxweb/pxweb/ro/30%20Statistica%20sociala/30%20Statistica%20sociala\\_\\_03%20FM\\_\\_03%20MUN\\_\\_MUN010/MUN010400.px/?rxid=b2ff27d7-0b96-43c9-934b-42e1a2a9a774](http://statbank.statistica.md/pxweb/pxweb/ro/30%20Statistica%20sociala/30%20Statistica%20sociala__03%20FM__03%20MUN__MUN010/MUN010400.px/?rxid=b2ff27d7-0b96-43c9-934b-42e1a2a9a774). Retrieved on March 25th, 2017

As can be observed, the population reaching the retirement age, in the last 5 years, stays employed, as follows: about 40% of the country's population of the 55-64 age group continues working, while about 10% of the 65 and older age group stay employed. Mostly, the possibilities to continue activity for retirees aged 65 and over is possible in urban areas, while in the rural ones these percentages are very low. Currently, in the Republic of Moldova, there are 1 376 persons with a doctorate degree, of which 242 are habilitated doctors. This is equivalent to approximately 4 persons with a doctorate degree per 10 000 population, as of beginning of 2017. Digitization would permit keeping and vectoring the great knowledge and expertise of these persons in the benefit of the national economy, as well as to the country as a whole, while maintaining them active as a labor force and concomitantly assuring an additional source of revenue during their retirement.

The investment potential of the non-state pension funds can be estimated from two approaches, and namely as an investment subject, and as an investment object. Unfortunately, the

current situation in the country contributes to a low level of investment potential of the non-state pension funds. The poor and non-vectored degree of digitization of the country is one of the multiple reasons that impede the growth of the investment potential of local non-state pension funds, as well as of the overall development of the private pensions system. In the condition of digital economy, the ability to learn and adjust to fast changes in the economy is essential, while the lack of this ability is more likely to lead to a fundamental slowdown in the development of a given sector of the economy, or of the overall national economy.

To the investment potential as both investment subject and investment object, the benefits brought by digitalization would be:

- Transparency - via, for example, online calculators for various products offered to population as well as probability, on the other side, for investors to determine and estimate the efficiency and returns on the non-state pension fund's activity. This would synergize into an increase in the overall credibility in the activity of these funds.
- Access to data - the main resource in the context of digital economy is information. This is a non-scarce resource, a fact that boosts even further its importance to the holders. Due to digitalization, data, information and analyses can reach the beneficiary in terms of seconds.
- Access to better and more performant software - together with digitization, the possibilities as choice and accessibility to various software products increase, innovations in this regard appear on a regular, and even almost daily basis; high competition triggers permanent improvement of the software existing on the markets.

As an investment subject, non-state pension funds would gain more benefits from several points of view. One of them would directly regard the staff or the employees and / or investment agents of the funds through:

- More educational opportunities. Nowadays there are a lot of educational platforms. Webinars, online courses, digital libraries, all make education more accessible.
- More software opportunities for: (1) searching investment opportunities on the national and especially international markets; (2) increasing the amount of ways and means to process and analyze data; and (3) for improvement of the security systems for the investment activity of the pension funds.
- Speeding the de facto completion of transactions on national and international / global markets. Due to digitization, markets are limitless, and institutions no more have to face boundaries on the international markets.
- Easier for participants to interact, exchange experience, and transact. Due to high speed and efficiency of connections, current or former employees from various non-state pension systems, as well as from other financial institutions, can share their experience or provide consultancy.
- No language barriers. Although there are several commonly spoken languages in the world, digitization brings the instant translators contributing to the elimination of any language barriers.
- More access to international and global practices. Internet is one of the main sources of information. From amateur bloggers to field experts, a lot of people share their researches, findings, algorithms, models and ideas, most of which can be easily accessed online.

The positive contribution to the investment potential of non-state pension funds of the mentioned benefits is enhanced by the fact, that most of those are time saving, and, respectively, cost minimizing. Digitization would also contribute to better, accurate and timely statistics, which, in its turn, would determine a more efficient research and projection of future trends, in order to allocate the disposable resources of the non-state pension funds.

Digitization would contribute to combatting fraud in the public sector as well as in the institutions from the financial sector via shared information. A more transparent functioning is a key element to boosting the trust of the Moldovan population into financial institutions, savings programs, and non-state pension plans, due to the unfavorable experiences in the last decade of the previous century.

Another approach of benefitting in the context of digital economy from the point of view of non-state pension funds as investment subjects would regard the population. Digitization would result, in time, in alternative sources of revenue, and respectively more disposable investment funds. Another pure benefit would imply user friendly access to data, with no needs for additional explanations or demonstrations of the interfaces and software usage.

As well, digitization would contribute to education of the population regarding the necessity to invest for retirement, and the ways to estimate investment opportunities for the retirement. In this context, the growth of investments from population might be a promising opportunity for both institutional and private investors, contributing to the formation of competition and improvement of the products and services provided to population by the non-state pension funds. On the international plan, digital economy permits the increase of labor force participation among the older population. Digitization allows older workers to work full time or part time even after their retirement. Furthermore, the work provided with the help of outsourcing platforms can benefit both - the retiree and entrepreneurs on the national and/or international plan. Retirees have a lot more experience, and these can be vectored to the benefit and future growth of enterprises, and their local economies respectively. Likewise, the retirees are no more isolated and can keep their social connections, same as when being fully employed. People from the Republic of Moldova are active social media users. There are circa 700 thousand active monthly users from the Republic of Moldova on Facebook, which represents 19,7% of the country's population. Unfortunately, a big part of Moldovan social media users applies it mostly for entertainment purposes, rather than educational or informative ones. Due to the big number of people working abroad and sending remittances back to their relatives in the Republic of Moldova, most of the population has access to computers or other hardware, and to the internet. Unfortunately, a high percentage of the latters do not acknowledge the constructive ways to use the devices they have with access to internet, regardless the fact, that the Republic of Moldova, actually, has one of the best and fastest internet connections in the world.

As the responsibilities pass from the state and governmental institutions to individuals, those institutions should ensure the availability of opportunities to invest and of savings programs and vehicles for the population, so that they become actually able to ensure themselves a decent retirement. The appearance of these opportunities would contribute to the diminishing of the burden of challenges to assure a proper pension to future retirees on the long-run. The state has to ensure the access to better and faster information, as well as an effective regulation to the benefit for all contributors. Favorable tax policies could actually encourage the population to make resources' placements, so that the chances to assure their own retirement become very high. Population ageing, longer lifespans, and deriving challenges determine workforce to age. The population of the Republic of Moldova does not have the tools necessary to understand the responsibility of ensuring their own comfortable retirement.

Digital economy, thus, becomes one of the most important factors that would contribute to the improvement and enhancement of the pensions challenge. Digitization in this sense would commit to ensuring that the current employees have an efficient balance of investments, as well the most relevant information with regard to possibilities to maximize the benefits of non-state pensions.

Digitization of the non-state pension system definitely brings and develops a series of opportunities for non-state pension funds in the Republic of Moldova. Benefits would be transparency, credibility growth, information and data benefits such as easier access and faster analysis, educational benefits, growth of disposable income and other opportunities. But it should not be unseen, that opportunities result in challenges, and taking into account the current state of non-state pension funds in the Republic of Moldova, there are a lot of challenges to be overcome.

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