The Effectiveness of Pension Systems in Some Countries of Central and Eastern Europe

Nicolae Balteș
„Lucian Blaga" University of Sibiu
baltes_n@yahoo.com
Ștefania Amalia Jimon
„Lucian Blaga" University of Sibiu; „Vasile Goldiș" Western University of Arad
jimonstefania@yahoo.com

Abstract

Pension system is the main structure of financial protection of elderly. Worldwide, it can be found some archetypical models of pension systems organization. In most countries from Central and Eastern Europe pension systems are based on the contributory principle and solidarity between generations.

This paper aims to appreciate the effectiveness of pension systems in five countries of Central and Eastern Europe, including Romania, in the period 2007- 2017. Therefore, it was considered both microeconomic perspective of pension systems beneficiaries, and macroeconomic perspective, through the equilibrium of social insurance budget and the amount of contributions applied to labor market.

The research leaded to the conclusion that the pension systems implemented in countries of Central and Eastern Europe, regardless of their organization, have both advantages and limitations, but the success of any national pension system is given by the adequacy to national context and conditions.

Key words: contributory pension systems, social transfers, intergenerational support, pension adequacy.
J.E.L. classification: D31, I31, J38.

1. Introduction

United Nations Organization by Universal Declaration of Human Rights (1948) underlines the right to social protection of everyone and emphasizes the role of the state in ensuring social protection to its citizens and especially to older people, which are financially vulnerable.

The social protection of elderly is mainly made through national pension systems. The aim of these is to ensure a decent life at old age, to protect against the poverty risk and to smoot the consumption.

Over the time, the pension systems have developed in order to reflect the needs of older population. Nowadays, World Bank and International Labor Organization sustain a multi-pillar structure of pension systems through which the needed resources will have more funding sources and, as a consequence the pressure existing in public pension system will decrease. The Central and Eastern European countries selected in this paper, namely Czech Republic, Hungary, Poland, Romania and Slovakia have passed through the experience of communism and now these are in the process of catching-up with developed countries. As a consequence, the national pension systems of these countries have been subjects of extensive regulations.

The paper aims to appreciate the pension systems effectiveness in five Central and Eastern European countries vis-à-vis the achievement of their objectives regarding the protection of elderly. Therefore, the paper has considered both the perspective of beneficiaries of pension systems, which want a maximization of the provided benefits, and also the macroeconomic perspective through the budgetary equilibrium. The study pursues the effectiveness of pension systems by the analysis of the most relevant indicators of pension systems throughout 11 years, respectively the period between 2007 and 2017.

The paper is organized in six sections. First section establishes the purpose of the paper, the second one summarizes the literature regarding the pension systems and it is followed by the section of research methodology. The fourth section overviews the national pension systems implemented by Czech Republic, Hungary, Poland, Romania and Slovakia, and in the fifth section is presented the evolution of indicators specific to pension systems which characterize their effectiveness. The last section is dedicated to conclusions and final considerations.

2. Theoretical background

The social protection system is considered by the International Labor Organization as a form of respect of primary rights of individuals, rights which are: right to health care, right to financial security of children, older people, and those persons who, due to disabilities or pathologies, are incapable to reach any revenue (ILO, 2012).

The state, through its institutions, has the capacity to organize and manage social protection system. Due to the regulatory and income redistribution functions, the state carry on actions in order to ensure social protection and decrease poverty risk among vulnerable citizens.

The pension systems can be defined as the mechanism of protection of individuals against the risk of losing or decreasing the ability to obtain the needed incomes in the future, following ageing, accidents, pathologies or disabilities, which restrain them in carrying out professional activities and even personal activities. The pension systems have the purpose to ensure and keep a decent life standard of older people, especially in conditions of financial instability (European Parliament, 2014). Therefore, decreasing poverty and consumption smoothing at retirement, are the main objectives of the current pension systems. Therefore, it can be said that the generosity of pension systems shows the respect, the decency and the dignity of human beings (Shahid, 2014).

World Bank promotes the idea of diversification of the funding sources of pension systems in three pillars. The first pillar is formed by the mandatory public pension system, managed by state. The second pillar, the mandatory pension funds privately managed, has the purpose to decrease the budgetary pressure of public pension system and ensuring adequate incomes at retirement. The third pillar consists of voluntary pension funds, as an investment alternative of private savings and a mean to supplement the revenues at retirement.

Worldwide, national pension systems show the political preferences from the period of theirs establishment (Perotti & Schwienbacher, 2009), being configured according with the political, economic and socio-cultural environment (Aggarwal & Goodell, 2013).

Therefore, in Europe can be noted a diversity of pension system organization. The western countries have implemented national pension system according with the principles established by William Beveridge. He promoted the universality of social protection systems and the provision of financial support to all citizens found in difficult situations. In these countries, state ensures to all its citizens a minimum income at retirement, but the most important role is held by privately managed pension funds. These are based on contributory principle, the funds being invested in different financial assets (monetary assets or stocks) with different risk degrees, following to redistribute at retirement, according with the foreseen life expectancy, either the assets or theirs value.

In most countries from Central and Eastern Europe pension systems were developed according with the principles set up by the Chancellor of Germany, Otto von Bismarck. Known nowadays as pay-as-you-go (PAYG) pension systems, these imply compulsory pecuniary contributions payed by the active persons on labor market and the redistribution through pensions. The right to pension is conditioned by the achievement of some stringent eligibility conditions, mostly referring to the minimum contributory period and the standard retirement age. However, in the latest decades these countries brought significant reforms in the field of social protection.

It can be noted that the pension systems established by democratic countries are usually based on contributory principle. This is conditioning the social transfers and the access to benefits by the accomplish of eligibility criteria (Beju, 2007; Dodlova et. al., 2017), so it can be said that national pension systems based on contributory principle does not decrease the poverty risk among all citizens (Collado & Iturbe – Ormaetxe, 2010) and their purpose are partially achieved.

3. Methodology of research

This paper is a descriptive research which proposes a comparative presentation regarding the evolution of some pension systems indicators with the purpose to bring out theirs effectiveness in five countries of Central and Eastern Europe. Therefore, the research used the method of bibliographic study, the synthesis method, the comparison method, the observation method and the graphical method in order to show the essential aspects of pension systems in Central and Eastern European countries, but also to highlight the evolution of the most relevant indicators of them, between 2007 and 2017.

4. Brief review of the pension systems implemented in countries of Central and Eastern Europe

In Central and Eastern European countries social protection systems and pension systems were founded in socialist period based on the principles established by the Chancellor Otto von Bismarck. The abolishment of the socialist governing system, transition to market economy and then integration to European Union had caused changes in these countries. The accommodation to the new socio-economic and demographic conditions leaded to the reformation of national pension systems (Bonenkamp et. al., 2017).

The greatest reform was the implementation of multi-pillar structure proposed by World Bank. Hungary and Poland were the first countries which have enforced the national pensions systems based on three pillars, in 1998-1999. Between 2005 and 2007 Slovakia and also Romania have applied the multi-pillar structure. Czech Republic has chosen a two pillars structure of national pension system: the compulsory public pension system and the voluntary pension system.

On the context of economic and financial crisis from 2007 and following the decreased returns of privately managed pension funds, the decision to privatize the pension systems through the 2nd Pillar was reconsidered. Therefore, Hungary in 2011 and Poland in 2014 decided the nationalization of mandatory privately managed pension funds. Also, Romania decreased the contributory rate to this pillar.

Therefore, the compulsory public pension system continues to be the main component part of the national pension systems these five countries. The post-socialist demographic changes generated the settlement of parametric reforms in order to strengthen the financial sustainability of public pension system. Another objective was to provide adequate benefits for pension system beneficiaries. Among these regulations, the most important have regarded the standard retirement age and the minimum contributory period, which were increased as a consequence of enlarged life expectancy. As well, it was discouraged early retirement by decreasing of provided benefits, meanwhile for the postponement of retirement is received additional revenue.

The redistribution of benefits is made through four categories of pensions, which are: the old age pension, the early retirement pension, the disability pension and the survivors pension. The benefits are related with the incomes obtained in the activity period and the paid contribution, the computation formula being specific for each country.

Regarding the redistribution of privately managed pension funds, the amount of benefit will indicate the history of incomes and contributions, taking into account the life expectancy. In countries considered in our research, this type of pension system is quite young, not having yet beneficiaries.

5. The effectiveness of pension systems in countries of Central and Eastern Europe through the evolution of specific indicators

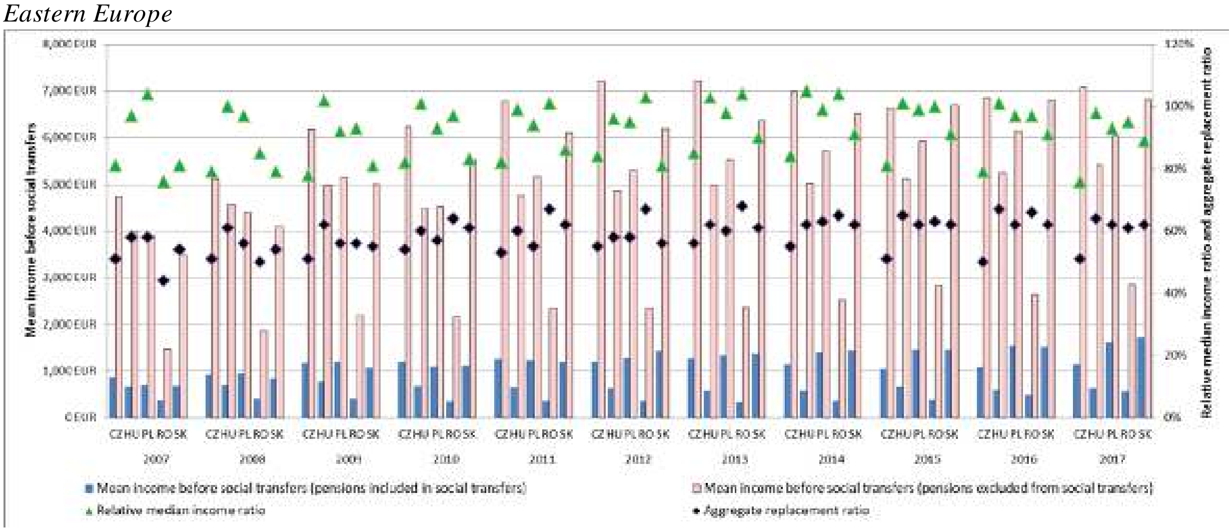
Regarding the pension systems, we can define the effectiveness as the capacity to achieve a purpose, respectively the capacity to ensure "a safe minimum income flow, avoiding impoverishment of elderly" (Lanoo et. al., 2014, p. 31). On the other hand, pension systems are macroeconomic structures through which social transfers are made, thereby their effectiveness imply the optimization of the redistribution of revenues and also of the contributory pressure of current taxpayers (Chybalski, 2016).

From the perspective of the pension systems beneficiaries, the received benefits are the criteria to appreciate theirs effectiveness (Figure no.1). In this regard, we consider that the benefits provided through pension systems are best reflected by the indicator mean income before social transfers of persons aged 65 years and over. It can be noted that in these 11 years of the study the value of this indicator, in the case in which pensions are included in social transfers, had a progressive growth, the greater has been recorded in Slovakia (+1,031 €) and the smaller in Romania (176 €). If the pension are excluded from social transfers, the mean income before social transfers of persons aged 65 years and over has significant increases between 1,094 € and 6,008 €. The higher values are achieved in Czech Republic, Slovakia and Poland, the lowest values being in Romania. These evolutions indicate the importance of financial transfers made through pension systems.

Beside income level, to appreciate the benefits provided through pension systems is used the indicator replacement rate of incomes by pensions. This indicator shows the ability of pension systems to maintain the revenues obtained before retirement and, according to World Bank, it is recommended that the value of this indicator to be at least 40%. In the period of our research, this threshold is exceeded in all five states, in Romania it can be noted a considerable increase of the value of this indicator compared with 2007 (+17%).

Linked with replacement rate of incomes by pensions, to appreciate the revenues of older people it is determined the relative median income rate, indicator which appreciates the equivalised median income before and after 65 years old. The values of this indicator in the analyzed years are over 75% in all five states, fact that suggests a good adequacy of benefits provided by pension systems in countries of Central and Eastern Europe.

Figure no.1. Evolution of the most relevant indicators regarding pension systems in countries of Central and Eastern Europe

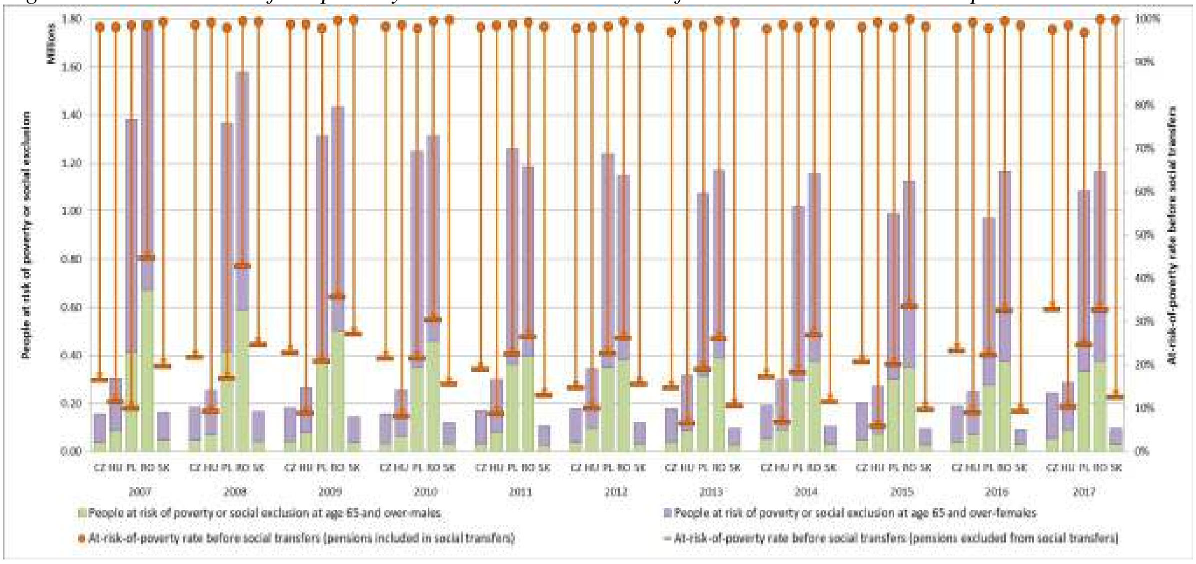


Source: Author’s own processing based on data published at Eurostat database

For a larger framework regarding the transfers made by pension systems, Chybalski & Marcinkiewicz (2016) recommend the correlative analyze of these indicators with the poverty and social exclusion risk (Figure no.2). The share of persons aged 65 years and over threatened by the risk of poverty is between 1.5% and 8.6% of total number of population, proportion being greater in case of women. It can be remarked that the number of persons at 65 years old and over threatened by the poverty risk in the analyzed period has decreased especially in Romania (with about 600,000 persons) and in Czech Republic had increased with almost 89,000 persons.

Except the number of persons threatened by poverty risk, we consider that the indicator risk of poverty and social exclusion rate before social transfers to have an important significance. Considering this, if pensions are included in social transfers, this indicator exceeds 97%. But, if the pension benefits are excluded from social transfers, it can be observed that the risk of poverty and social exclusion rate before social transfers decrease at values below 10%. This evolution highlights the direct influence of benefits provided by pension systems in reducing poverty and social exclusion risk, suggesting the dependency of elderly to the redistributions made through pension systems.

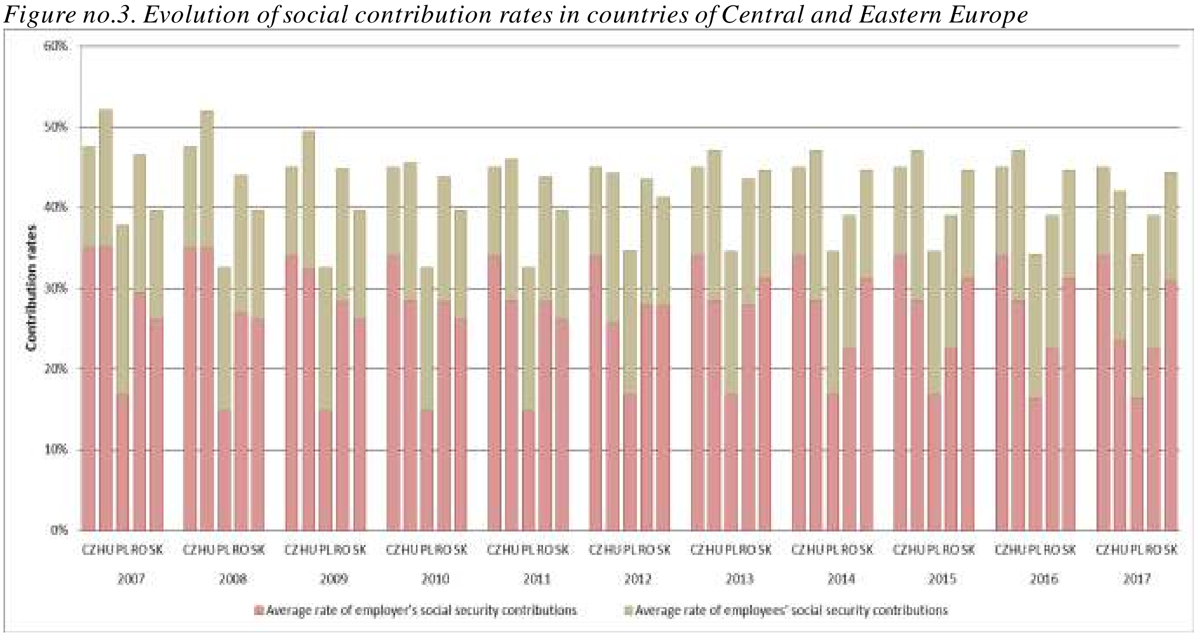
Figure no.2. Evolution of the poverty indicators in countries of Central and Eastern Europe



Source: Author's own processing based on data published at Eurostat database

Considering the point of view of the pension systems financial providers, the effectiveness is appreciated related with the costs involved to organize and manage the pension systems. The five countries of Central and Eastern Europe presented in this study have the main component of national pension system the public pension system. Their funding is made based on the contribution payed by employees and employers. Therefore the effectiveness of pension systems from a contributor perspective is reflected by the social contribution rate (Figure no.3). In the analyzed period, the social contribution rates are included between 30% and 50% and cover health care contributions, retirement contributions and unemployment contributions. With regard at the retirement contributions in 2017 the rates fluctuated between 19% and 34% of gross income.

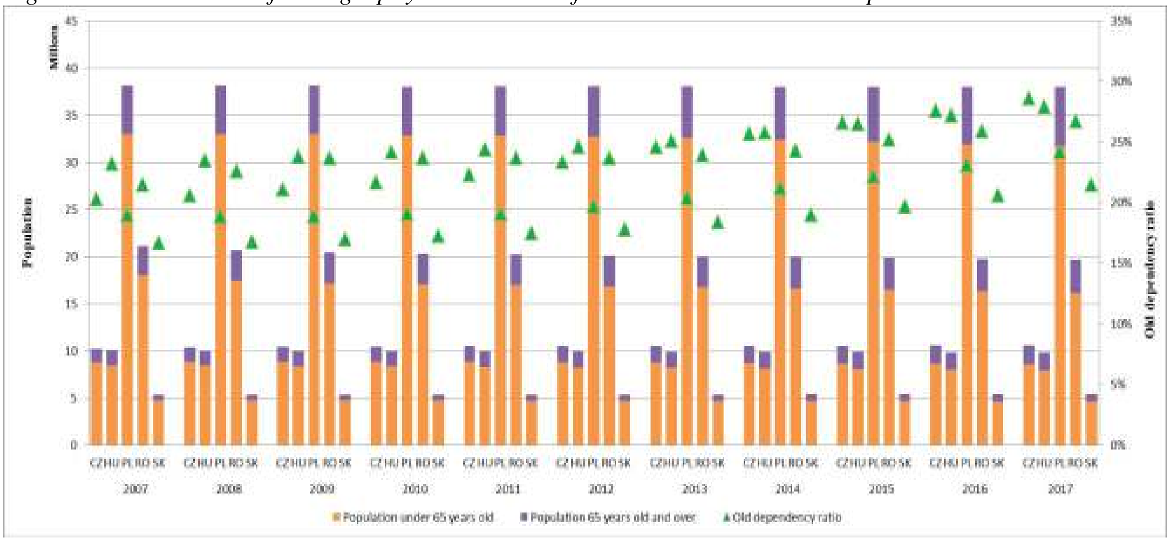
Figure no.3. Evolution of social contribution rates in countries of Central and Eastern Europe



Source: Author's own processing based on data published at OECD database and Romanian tax legislation

Also, an indicator of interest is the dependency ratio as the ratio between beneficiaries and contributors of pension systems. As it can be seen in the next figure, between 2007 and 2017 this indicator increased in all five countries of Central and Eastern Europe, the greater value being recorded in Czech Republic (8.3%), and the lower in Slovakia (4.8%). This evolution is sustained by the aging trend of population.

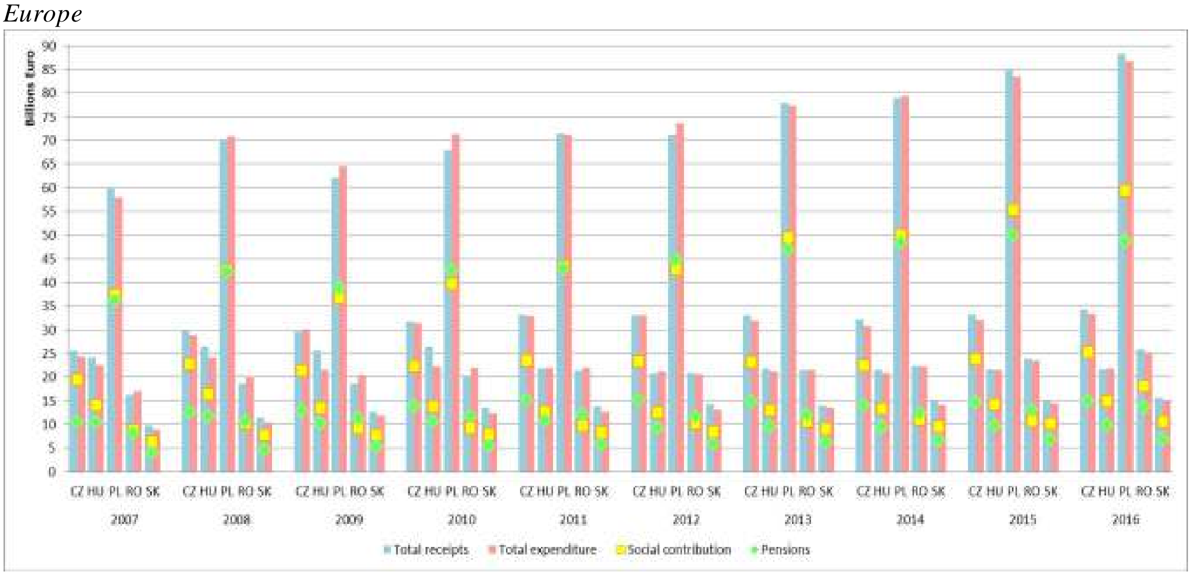
Figure no.4. Evolution of demography in countries of Central and Eastern Europe



Source: Author's own processing based on data published at Eurostat database

Nevertheless, at macroeconomic level the success of any pension system is given by the budgetary equilibrium, knowing that social protection systems have as main source of funding the contributions payed by employees and employers. For all five countries of Central and Eastern Europe the situation of Social Insurance Budget is showed in Figure no.5. It is noted that incomes obtained from contributions does not cover entirely the total expenses of social protection system, but it is enough for pension expenses, except Romania and Poland. The budgetary deficit is covered from other sources, mostly by subsidies from state budget and from loans.

Figure no.5. Evolution of main indicators of Social Insurance Budget in countries of Central and Eastern Europe



Source: Author's own processing based on data published at Eurostat database

6. Conclusions

Central and Eastern European countries have implemented extensive reforms regarding theirs national pension systems. The latest regulations aimed to consolidate the public pension systems, but also to adequate them to the current socio-demographic situation. As we could see, these reforms have partially succeeded in accomplish their purposes.

The aim of pension systems is to ensure financial protection of older persons. In European countries included in research, the objectives regarding the decreasing of poverty risk among older people and maintaining the consumption were achieved, but the deficit of Social Insurance Budget draws attention to the need of new regulations coordinated with current demographic situation and the conditions existing on labor market, so that tax policy can stimulate the entrepreneurship and legal work.

The regulations implemented by countries of Central and Eastern Europe regarding social protection system had mostly positive effects, but we consider that the reformation process must go on in the sense of consolidation the budgetary sustainability.

7. References

- Aggarwal R., Goodell J.W., 2013. Political-economy of pension plans: Impact of institution, gender, and culture, *Journal of Banking and Finance*, vol.37, pp. 1860-1879.
- Beju D., 2007. Coordonate ale reformei sistemului de pensii. Cazul României, *Transylvanian Review of Administrative Sciences*, no.20, pp. 16-32.
- Bonenkamp J., Meijdam L., Ponds E., Westerhout E., 2017. Aging-driven pension reform, *Journal of Population Economics*, vol. 30, pp. 953–976 .
- Chybalski, F., 2016. The Multidimensional Efficiency of Pension System: Definition and Measurement in Cross-Country Studies, *Social Indicators Research*, no. 128, 15–34.
- Chybalski F., Marcinkiewicz E., 2016. The Replacement Rate: An Imperfect Indicator of Pension Adequacy in Cross-Country Analyses, *Social Indicators Research*, no. 126, pp. 99–117.
- Collado M.D., Iturbe-Ormaetxe I., 2010. Public transfers to the poor: is Europe really much more generous than the United States?, *International Tax and Public Finance*, Vol. 17, pp. 662-685.
- Dodlova M., Giolbas A., Lay J., 2017. Social transfers and conditionalities under different regime types, *European Journal of Political Economy*, vol. 50, pp. 141-156.
- European Parliament, Directorate General For Internal Policies Policy Department A: *Economic And Scientific Policy*, 2014. Pension Schemes, European Parliament.
- ILO, 2012. International Labour Organization, *The protection of the right to Social Security in European Constitutions: Compendium of provisions of European Constitutions and Comparative tables* (Online version). Available on-line at:http://www.ilo.org
- Lanoo K., Barslund M., Chmelar A., von Werder M., 2014. *Pension Schemes.* European Parliament, Directorate General For Internal Policies Policy Department A: Economic And Scientific Policy.
- Perotti E., Schwienbacher A., 2009. The Political Origin of Pension Funding, *Journal of Finance Internediation*, vol. 18, pp. 384-404.
- Shahid A., 2014. Ageing with Dignity: Old-Age Pension Schemes from the Perspective of the Right to Social Security Under ICESCR, *Human Rights Review*, no.15, pp. 455-471.
- United Nations, 1948. *Universal Declaration of Human Rights*, UN Document No. A/810.