Considerations Regarding the Pension Systems in Countries of Central and Eastern Europe

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Abstract

The purpose of the pension systems consists in compensation of the damages arisen following the occurrence of some risks which restrict the working capacity and generate financial instability.

The political reorganization of Central and Eastern European Countries, as also the accession to European Union required also the reorganization of the pension systems in these states. Regarding this aim, the main regulations implemented had targeted the consolidation and the reduction of the pressure in the public pension systems to maintain the financial sustainability of these.

This paper is proposing a comparative highlight of the main characteristics of the national pension systems in states from Central and Eastern Europe. The main conclusion resulted from this study is that the efficiency and the effectiveness of a national pension system are generated by the level of adequacy of it at the conditions existing into the respective country.

Key words: PAYG pension systems, sustainability, adequacy, demographic transition.
J.E.L. classification: J11, J38.

1. Introduction

Based on the pay-as-you-go (PAYG) principle, the pension systems in Central and Eastern European countries, benefited during the socialist period of a high level of contributions, so it had gave generous benefits with high replacement rates of incomes under the conditions of a relative low contributory stages and standard retirement age.

Latest modifications appeared into the demographic structure, like increased life expectancy, decline of fertility rate, emigration and also the increased unemployment rate and the tax avoidance, are real challenges to maintain the financial sustainability of pension systems.

The objective of this paper is to make a brief presentation of the characteristics of national pension systems in states of Central and Eastern Europe, as Czech Republic, Poland, Hungary, Romania and Slovakia. Also, we wanted to highlight the evolution of some macroeconomic indicators specific to public pension systems in these states, considering the 1990 as the year of reference.

2. Theoretical background

The development of the pension systems in Europe had been made following the principles sat up by Otto von Bismarck and William Beveridge, the purpose of these being poverty reduction, ensuring an adequate income and maintaining the consumption level in retirement period (Lanoo et. al., 2014).

The importance of the pension systems is given by the socio-economic aim of them. Studies show that the poverty and social exclusion risk is significant decreased after the financial transfers made through the pension systems (Arza, 2015; Balteş & Jimon, 2018).

In the member states of European Union, pension systems are diversified. It can be noted the presence of liberalized systems with a large share of private structures in the north-west side of the continent, meanwhile in central and eastern states the main role to organize and manage the pension systems is hold by state.

The new socio-demographic conditions had required the necessity to reform the pension systems (Bonenkamp et. al, 2017) and had leaded to numerous debates regarding the alternative solutions for the pension systems, financed according to PAYG principle (Wagner, 2005; Adascalitei, 2017), especially in Central and Eastern European countries.

3. Methodology of research

The present paper shows comparatively the main characteristics of the national pension systems in some countries of Central and Eastern Europe. This article is a descriptive research which uses the study of bibliographic sources as a method to present the essential aspects of pension systems of Czech Republic, Poland, Hungary, Romania and Slovakia. Also, the observation method and synthesis are used to highlight the evolution of macroeconomic indicators specific to pension systems in these countries.

4. Structure of national pension systems in Central and Eastern European countries and their main characteristics

The financial sensitivity of PAYG pension systems, compared with demographic modifications, leaded to the implementation of the multi-pillar structure proposed by World Bank. First Pillar represented by the public pension system is the main component. Based on PAYG principles, the finances of these came from the contributions payed by taxpayers and the distribution of pensions is made only if the eligibility criteria are accomplished (Table no.1).

Table no. 1 The eligibility criteria for retirement benefits established in 2016

Country	Standard retirement age		Minimum contributory stage (years)
	Women	Males	
Czech Republic	65	65	20
Hungary	65	65	15
Poland	67	67	25
Romania	63	65	15
Slovakia	62	62	15

Source: Own processing based on OCDE publications (https://www.oecd-ilibrary.org/finance-and-investment/oecd-pensions-at-a-glance_19991363) and according to Law no. 263/2010, with further updates.

Following the increased life expectancy of last years, the standard retirement age and the minimum contributory stage were extended, action which had leaded to a rise of the contributory period and an increase of the budgetary incomes obtained from contributions (Komp, 2018). With reference at the standard retirement age, the effects of the ageing population on the PAYG pension systems can be diminished by removing the upper limit of the retirement age (Cipriani -2018).

Also, with the purpose to increase the contributory degree, the anticipated retirement is discouraged by application of penalties in the computation formula of pension amount, but the extension of the professional activity is rewarded by bonuses added to received benefits.

The main benefits given by public pension systems include: the old age pension, the anticipate pension, the disability pension and the survivors pension. The redistribution of benefits is made using own computation formulas for each state. Therefore, Czech Republic had defined two components to establish the public pension amount, that are: a base component represented by a fixed amount of 9% of mean wage, and a second component, which is related with the incomes obtained in the activity period, and uses progressive replacement rates. In Hungary the computation of the benefits is made considering 33% of the mean value of net income obtained in the first ten years of contributory period, each extra year of contribution being rewarded by increasing this percentage, and then the amount obtained will be adjusted with the variation of the purchase price index. In Poland the amount of pension benefit is computed as a ratio between the amount of contributions and the mean life expectancy at retirement age. Romania and Slovakia use to compute the pension benefits a formula based on pension points, which reflects the value of incomes obtained in the activity period.

Regarding the Second Pillar of mandatory private pension funds, the implementation of this was and remains an intense discussed subject. Except the advantages brings by extension of income sources at retirement, it have to be considered the deficiencies of the pension funds privatization as: high expenses, increase of tax burden, investment and inflation risks (Louzek, 2008). All the states included in the analysis had regulated and implemented the Second Pillar, but following the economic crisis from 2007 which decreased the confidence in the stock market, the states have redefined the structure of private pension funds. So, Czech Republic, Poland and Hungary decided the nationalization of them, meanwhile Romania decreased the contribution rate to this pillar.

Except these two pillars, in each state it is regulated the voluntary pension system, based on life insurance policies, concluded with an insurance company. The system is a contributory one, the contributions payed to this pillar are tax deductible.

Redistribution in the cases of private managed pension funds is made in accordance with the history and amount of wage incomes and contributions. In these systems it is taken into consideration the life expectancy, so the pension amount is correlated with the collected contributions and also with the time for which these funds must be distributed.

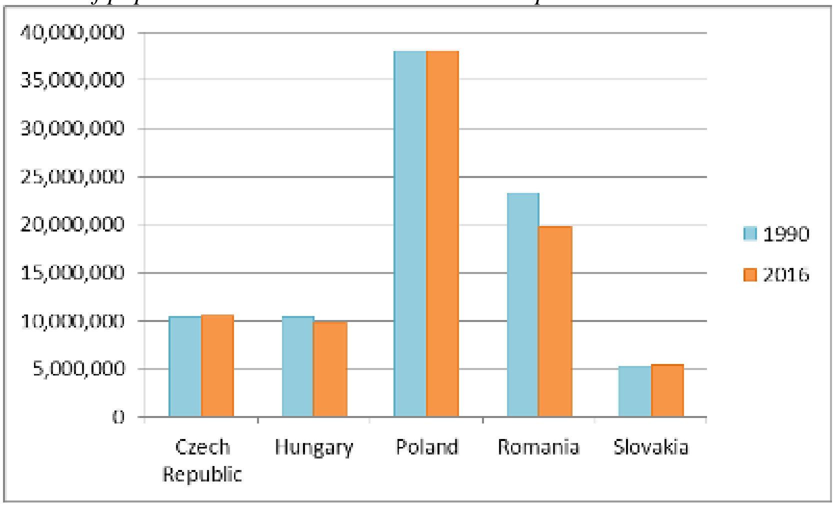
The states of Central and Eastern Europe have had a long process of reforming their national pension systems, but they are still confronting with problems regarding the financial sustainability. OECD (2017) sustains the importance of regulating the occupational pension systems, which into these states are "unexplored opportunities" (Padurics & Szalai, 2017).

With regard at maintaining the financial sustainability of public pension systems in the states of Central and Eastern Europe financed by PAYG principles, we consider that it is necessary to find solutions that will lead to increase the employment rate of working population, to decrease emigration, to stimulate the birth rate, as also to integrate the immigrant population, which could compensate the national natality fall.

5. Evolutions regarding the macroeconomic indicators specific to public pension systems

The demographic evolution of the population of Czech Republic, Poland, Hungary, Romania and Slovakia in 2016, compared with 1990, is represented into the Figure no.1. Compared with 1990, in Czech Republic and Slovakia the population had increased with 2%, respectively with 3% until 2016. In Poland we assist to a decrease of the population with 0.2%, and in Hungary and Romania the population recorded a reduction with 5%, respectively 15%. An important factor for this evolution is represented by the migration of working population. Data highlighted that between 1990 and 2016 in Czech Republic, Poland and Slovakia the net migration is positive. In Romania and Hungary this indicator recorded negative values, suggesting that these two states are exporting working force.

Figure no.1. Evolution of population in Central and Eastern European countries



Source: Own processing based on the data available at the Eurostat database

Between 1990 and 2016 can be noted an accelerated aging rate of population, the share of persons aged 65 years old and over in total population had increased in all five European states included in the research (Figure no.2). The most remarkably rise can be observed in the case of Romania (+7.10%) and Poland (+6%).

Correlated with the proportion of population aged 65 years and over in total population, a relevant indicator is represented by the old dependency ratio, which highlight the degree in which active population financially supports the elderly. In Figure no.3 can be remarked that in the period 1990-2016 this indicator had increased, the higher value was recorded in Romania (+10.3%), followed by Czech Republic (+8.6%), Poland (+7.7%), Hungary (+7.2%) and Slovakia (+4.6%).

Figure no 2. Proportion of population aged 65 years old and over in total population of Central and Eastern European countries

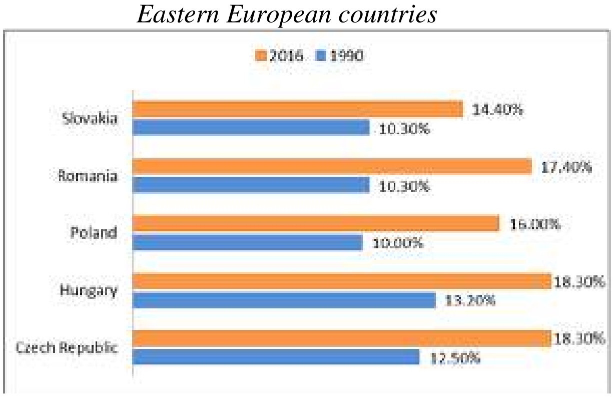
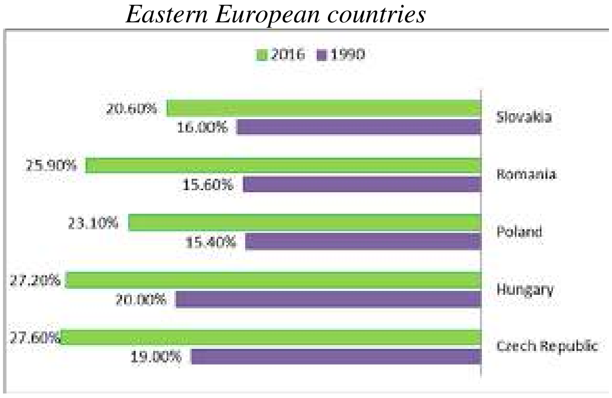


Figure no 3. Old dependency ratio in Central and Eastern European countries

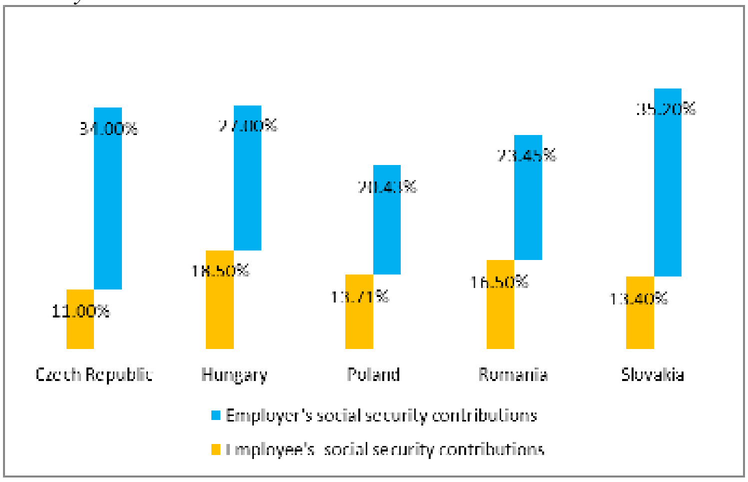


Source: Own processing based on the data available at the Eurostat database

Public pension systems of European states included in this research are based on the contributory and solidarity between generations principles. Wages taxation and the social security contributions have a straight effect on state social insurance budgets. In conditions of a high contributory rate, the tax burden increases and the productive activities carried out regulated and taxed, will be discouraged, situation which will decrease the budgetary incomes from contributions. A low contributory rate encourages the productive activities, but it does not give the assurance of obtaining enough budgetary incomes. It can be concluded that in both situations the financial sustainability of pension systems is threaten.

In Figure no.4 is presented the mandatory social security contribution rates applied by the countries included in this research in 2016.

Figure no 4. Social security contribution rates in 2016



Source: Own processing based on the OECD's publication: "Taxing wages 2017" and Law no.227/2015

In 2016 the wage's contributory rates recorded the highest values in Slovakia, Hungary and Czech Republic, states in which employers payed social contribution rates in a percentage of 27% to 35%. Regarding the employees contributions, the higher rates are established in Hungary, Romania and Poland.

Regarding the expenses of social protection systems, according with the data published by Eurostat, these own an important share of Gross Domestic Product (GDP). Therefore, in 2016 the expenses with social protection in countries like Hungary, Poland and Czech Republic exceeded 18% of GDP, meanwhile in Slovakia the share was over 17% and in Romania, over 14%. The share of pension benefits expenses in GDP in 2016 exceeded 11% in Poland, meanwhile in the other states from Central and Eastern Europe included in our research, the values of this indicator fluctuate between 8% and 9%.

The capacity of pension systems to ensure adequate incomes to beneficiaries can be appreciated through the replacement rate of incomes by pensions, computed by Eurostat as the ratio of incomes obtained from pensions by the beneficiaries aged between 65 years old and 74 years old and the incomes procured from wages by the persons aged between 50 years old and 59 years old. World Bank advises that the minimum value of this indicator to be at least 40%. In the cases of the five states included in research in 2016 the value of this indicator exceeded this threshold. The higher value is recorded in Hungary – 67%, followed by Romania – 66%, Poland and Slovakia – 62%, Czech Republic – 50%.

6. Conclusions

The states of Central and Eastern Europe have had a long reforming process, both regarding the political framework and also the socio-economic environment. Czech Republic, Hungary, Poland, Romania and Slovakia made important steps to reform their social protection systems and moreover the national pension systems.

Even if they have a history that had unified them and they are confronting the same demographic challenges, it can be noted a different approach regarding the regulations adopted to maintain the national pension systems sustainability. As Grech (2015) also shows, the regulations enforced reflect the decisions and the preferences of political leaders.

Public pension systems of these states of Central and Eastern Europe are the main form of financial protection of elderly, therefore maintaining and consolidation of pension systems sustainability represents a priority. Measures as increasing the retirement age, the minimum contributory stage, the contributory degree, have a positive effect on this purpose, but cannot solve all the existing challenges.

The regulation of public pension systems must be made from a multi-sectorial perspective to find out the suitable solutions in the national context. Through the directions to maintain the financial sustainability of public pension systems we mention: encouraging the increase of birth rate, decreasing the emigration, integration of immigrants and increasing employment rate.

Reducing the pressure existing into the pension systems through diversification and get some complementary financial sources in the retirement period, was perceived differently in Central and Eastern European countries. Implementation of Second Pillar does not have the expected results and the occupational pension systems own a limited area.

The general conclusion of this study is that the efficiency and effectiveness of a national pension system are determined by the degree of adequacy at the conditions existing in each state.

7. References

- Adascalitei, D., 2017. From Austerity to Austerity: The Political Economy of Public Pension Reforms in Romania and Bulgaria. *Social Policy & Administration*, 51(3), pp. 464–487.
- Arza, C., 2015. *Discussion Paper The Gender Dimensions Of Pension Systems: Policies and constraints for the protection of older women*, UN Women flagship report Progress of the World's Women.
- Balteș N., Jimon Ș., 2018. Pension system in reducing poverty risk in Romania, *Revista Economică*, 70(3), pp. 8-21.
- Bonenkamp, J., Meijdam, L., Ponds, E., Westerhout, E., 2017. Aging-driven pension reform. *Journal of Population Economics*, 30, pp. 953–976.
- Cipriani, G.P., 2018. Aging, Retirement, And Pay-As-You-Go Pensions. *Macroeconomic Dynamics*, 22, pp.1173–1183.
- Grech, A., 2015. Pension policy design changes in EU countries since the mid-1990s. *International Journal of Social Welfare*, 24, pp. 296–304.
- Komp, K., 2018. Shifts in the realized retirement age: Europe in times of pension reform and economic crisis. *Journal of European Social Policy*, 28(2), pp. 130–142.
- 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.
- Louzek, M., 2008. Pension system reform in Central and Eastern Europe. *Post-Communist Economies*, 20(1), pp. 119–131.
- Law no.263/2010 regarding the Unitary public pension system, published in Official Monitor no. 852 from 20th December 2010, with further updates.
- Law no. 227/2015 regarding the Fiscal Code, published in Official Monitor no. 688 from 10th September 2015, with further updates.
- OECD, 2017. Pension Markets in Focus. [online] Available at: http://www.oecd.org/pensions/private-pensions/Pension-Markets-in-Focus-2017.pdf [Accessed 25 September 2018].
- OECD, 2017. Taxing wages 2017, OECD Publishing, Paris, ISBN 978-92-27080-0. [online] Available at: https://read.oecd-ilibrary.org/taxation/taxing-wages-2017_tax_wages-2017-en#page1
- Padurics, A., Szalai, P., 2017. The Role of the Second and Third Pension Pillar in the Hungarian Pension System. *Public Finance Quarterly*, 2, pp. 212–232.
- Wagner, H., 2005. Pension Reform in the New EU Member States – Will a Three-Pillar Pension System Work?. *Eastern European Economics*, 43(4), pp. 27–51.
- https://ec.europa.eu/eurostat/data/database
- https://www.oecd-ilibrary.org/finance-and-investment/oecd-pensions-at-a-glance_19991363