PENSION REFORMS IN CENTRAL AND EASTERN EUROPEAN COUNTRIES AND THEIR OUTCOMES

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Abstract

All Central and Eastern European countries have achieved reforms of their pension systems varying in orientation and depth. We have presented the most important moments in the history of reforms of six countries (Romania, Hungary, Poland, Czech Republic, Slovakia and Bulgaria) and we have tried to explain the reforms' motivation. The paper reviews the performance of the pension systems in the selected countries regarding the issues of pension adequacy and financial sustainability.

Keywords: *pension system, financial sustainability, pension adequacy, pension reforms, public pensions, private pensions*

JEL Classification: J_{11}, H_{55}, G_{23}

Introduction

In recent years, the pension reform was an extensively discussed topic in most European countries. All states have been deeply affected by aging (as a combined result of falling fertility rates and increasing life expectancy), by the effects of globalization (which determines the increase in competition at international level) and also by changes in family structure, increased international mobility, etc. The pension systems must respond to all of these changes, and also to significant changes occurred in the labour market as the rising share of the services sector and the emergence of inequality and insecurity as a result of spreading of atypical forms of employment.

Literature review

Pension systems have as primary objectives *consumption smoothing* over the individual's lifecycle and *insurance* against uncertainties of longevity (Blake, 2006). In addition, public policy has another two objectives: *poverty relief* and *redistribution* to poor elderly (Barr and Diamond, 2008). A well functioning pension system should achieve its objectives in ways that are compatible with economic growth, labour market efficiency and capital market development. The Central and Eastern European countries have taken important steps toward increasing the financial sustainability of their pension systems and reducing labour market distortions caused by high contribution rates through the reform of their existing PAYG systems and introducing fully-funded components based on individual accounts. Nevertheless, the level of expenditures on pensions in many economies remains quite high, and the fiscal balance precarious (Snelbecker, 2005).

The pension reform in Central and Eastern European countries

The Central and Eastern European countries have inherited from the communist regime redistributive pension systems (PAYG). These pension schemes experienced a series of problems in the early years of transition because of contraction of the economic activity as a consequence of restructuring the public-owned enterprises, the reduction in number of taxpayers, the increase of the employment in the informal economy sector and high tax evasion, proving to be unsustainable in market economy conditions. In the early 90's, employment rates fell by over 20% in Central and Eastern European countries, and the governments have chosen to meet this challenge by encouraging early retirement. In only a few years, the number of pensioners increased on average by about 20%, and in countries like Poland and Romania even by 40-60% (Palacios, Rutkovsky and Yu, 1999). This policy proved to be costly and many countries were forced to take further measures to reduce pension costs by reducing the pension according to the adjustment relative to inflation level, by rising the statutory retirement age or by measures of improving the collection of contributions.

Towards the late 90s, together with overcoming the shock of transition, most countries in Central and Eastern Europe began a process of profound reform that had both parametric and structural components.

Parametric reforms are the ones introducing small changes in legislation in order to improve the actuarial balance of the system, without changing its institutional framework. These reforms have focused mainly on improving the financial sustainability of the public system and less on ensuring an adequate pension for its beneficiaries. These reforms, along with rising the statutory retirement age for both men and women, involved increasing the minimum contribution period, changing of the method of calculation of pension and correlation of the pension level with the earnings across the whole active period, tightening eligibility for disability pensions, changing of the pension indexation formula (the shift from indexing based on wage growth (100%) to inflation-indexing (100%) or to a mixed system of indexing, meaning the transition to a less generous indexation mechanisms) etc.

Structural reforms are the ones that alter the structure of the pension system by introducing pension schemes which are based on capitalization, replacing or complementing the pure redistributive system.

The mixed system introduced in most Central and Eastern European countries was inspired by the multi pillar system suggested by the World Bank, this including: pillar I – public social insurance, pillar II – privately managed mandatory contribution funds and pillar III – voluntary contribution pension funds privately managed.

In Central and Eastern European region, the structural reform of pension systems began with the introduction of voluntary private pension pillar III in 1994 in Hungary, the Czech Republic and Bulgaria (see table no. 1) and then was introduced the pillar II (the one of the mandatory private pensions). Romania was the last country in the region that had implemented multi-pillar system.

Table no. 1

Introduction of private pensions in the analyzed countries

Country	Pillar II Mandatory private pension	Pillar III Voluntary private pension
Hungary	1998	1994
Romania	2007	2007
Poland	1999	1999
Czech Republic	-	1994
Slovakia	2005	1997
Bulgaria	2002	1994

Source: APAPR

The structure of pension systems in Central and Eastern European countries, as a result of the gradually developed extensive process of the reform, is shown in table no. 2.

All six analyzed countries have reformed public pension system by strengthening the link between received pension rights and the contributions paid to the system.

Hungary, the Czech Republic and Bulgaria have a redistributive public system with defined benefit, while in Romania and Slovakia operates a public system based on points. The points-based system is similar to a reformed defined benefit system, in which, the entire active life income is revaluated in connection to the average salary. Poland has replaced the public defined benefit pension scheme with a scheme based on notional accounts which functionally mimics a defined-contribution pension scheme funded by capitalization, but still remaining a pay-as-you-go scheme. Current pension payment is made on behalf of all current contributions to the system, but the pensions are determined by scriptic gathering of contributions in notional accounts and are remunerated with notional interest (set exogenously and based on long-term average growth of GDP / capita or the salary earnings). In this way, the system has an automatic mechanism for adjusting the level of pensions calculated according to life expectancy or to other factors that threaten the financial sustainability of the system.

The analysed countries, except the Czech Republic, have introduced a second pillar with mandatory contributions for certain age categories, privately managed, being a defined contribution type by taking over in this scheme, a part of the contribution owed to the public pension system.

By the introduction of mandatory private pension schemes, the long term financial sustainability of the public system is improving, but on the short and even medium term, redirecting a portion of social security contributions to pillar II is a challenge for the public system. In this context, naturally raises the question about who will bear the costs of transition to the mixed system.

Table no. 2

Structure of the pension systems in the analyzed countries

Statul	Pilllar I	Pillar II	Pillar III
Hungary*	Public, mandatory, PAYG, DB	Privat, mandatory, DC	Privat, voluntary, DC
Romania	Public, mandatory, PAYG, Points	Privat, mandatory, DC	Privat, voluntary, DC
Poland	Public, mandatory, PAYG, NDC	Privat, mandatory, DC	Privat, voluntary, DC
Czech Republic	Public, mandatory, PAYG, DB	-	Privat, voluntary, DC
Slovakia	Public, mandatory, PAYG, Points	Privat, mandatory, DC	Privat, voluntary, DC
Bulgaria	Public, mandatory, PAYG,DB	Privat, mandatory, DC	Privat, voluntary, DC

DB – defined-benefit; DC – defined-contribution, NDC – notional defined-contribution

* starting with 1 Jan. 2011 Hungary has renounced at the pillar II and created a system with two pillars

All six analyzed countries have introduced the voluntary contribution pension schemes (pillar III) to supplement pension rights paid from pension schemes with mandatory participation (pillar I and II).

Defined contribution pension schemes automatically adjust pension rights based on the rise of life expectancy. The capital accumulated in the accounts will be converted into an annuity after retirement. Annuities are even smaller when life expectancy is higher.

The analysis of the pension reforms outcomes in Central and Eastern European Countries

The analysis of the pension systems in analysed countries will be accomplished according to the degree of achievement of the following common objectives set at EU level regarding the pension systems:

- ***adequate*** retirement incomes for all and access to pensions which allow people to maintain, to a reasonable degree, their living standard after retirement, in the spirit of solidarity and fairness between and within generations;
- the financial ***sustainability*** of public and private pension schemes, bearing in mind pressures on public finances and the ageing of populations, and in the context of the three-pronged strategy for tackling the budgetary implications of

ageing, notably by: supporting longer working lives and active ageing; by balancing contributions and benefits in an appropriate and socially fair manner; and by promoting the affordability and the security of funded and private schemes;

- that pension systems are ***transparent***, ***well adapted*** to the needs and aspirations of women and men and the requirements of modern societies, demographic ageing and structural change; that people receive the information they need to plan their retirement and that reforms are conducted on the basis of the broadest possible consensus.

In order to characterize a pension scheme in terms of its ability to provide adequate pensions, it can be followed the evolution of several key indicators that capture the situation of today's retirees as well as the one of the future pensioners.

ISG has defined a set of indicators based on data on income by a household survey, as follows:

- at-risk-of-poverty rate for people of 65+;
- aggregate replacement ratio;
- median relative income of elderly people.

At-Risk-of-poverty rate for the elderly people is an indicator that shows the share of persons with equivalised disposable income below the risk of poverty threshold that is set at 60% of the national equivalised disposable income (after social transfers). This indicator shows how a pension system acts against poverty.

In 2009, at-risk-of-poverty rate for elderly people in the EU27 was 17.8% (see table no. 3), exceeding the one for people under 65 (16%). With values above average, therefore with a high poverty risk are Bulgaria (39.3%) and Romania (21%). At the opposite end is Hungary (4.6%) and Czech Republic (7.2%).

However, the large differences between countries should be viewed with caution because in assessing the relative position of elderly people is taken into account only monetary income. There are some states where the elderly benefit from certain free or subsidized social services (health services, transportation, etc.). Also, it is not taken into account the property acquired by them (private savings, real estate) that influence the distribution of the income of the pensioners.

An important role of pension systems, along with the fight against poverty, is the preservation of the standard of living after retirement. ***Aggregate replacement ratio*** is an indicator of the adequacy of pensions, this will point out the maintaining of the standard of living after retirement at the level acquired during the active life. The indicator is defined as the ratio of the median gross individual pension of persons in the 65-74 years group and the median gross individual earnings of persons of 50-59 years group, excluding other social benefits.

In the EU27, in 2009, aggregate replacement ratio was 0.51, which means that the median pension reached about 51% of median earnings (table no. 3). This level can mean a reduced replacement income or a reduced coverage of pension schemes, but can also mean career with frequent interruptions and reduced contributions to the system due to undeclared work. We have to keep in mind that, the aggregate replacement ratio is an indicator that is based on data regarding gross income and that factors such as the differences in household composition, structure of tax systems, structure of the social protection etc. may have a strong influence on the living standards of individuals.

In Romania, the aggregate replacement ratio is 55%, so above average. Values above the average register also Slovakia, Poland and Hungary. The lowest aggregate replacement ratio is observed in Bulgaria.

Table no. 3

Indicators of current adequacy of pensions (2009)

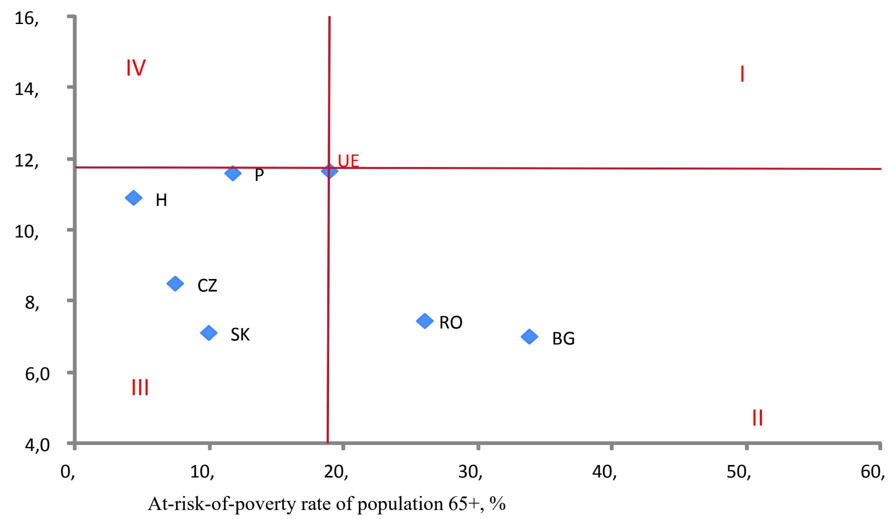
Indicators	EU27	Romania	Hungary	Poland	Czech Republic	Slovakia	Bulgaria
At-risk-of-poverty rate of 0-64 year olds (%)	16,0	22,7	13,8	17,6	8,8	11,0	18,1
At-risk-of-poverty rate for people aged 65+ (%)	17,8	21,0	4,6	14,4	7,2	10,8	39,3
Aggregate replacement ratio (%)	0,51	0,55	0,62	0,56	0,51	0,55	0,34
Median relative income of elderly people	0,86	0,93	1,02	0,92	0,78	0,81	0,63

Source: EU-SILC

Median relative income of elderly people is another indicator that can be considered to characterize the adequacy of pension systems (table no. 3). This is expressed as the ratio of median equivalent disposable income of people over 65 years old and of median equivalent disposable income of people in the 0-64 year age group. Thus calculated indicator is relevant for assessing the overall situation of the income of elderly people relative to the situation of the active population because it takes into account also the household composition (reflecting the equivalent income of the household).

In 2009, the relative median income ranged from 63% in Bulgaria to 102% in Hungary. Thus, Hungary has one of the most generous pension systems. Romania ranks second with a relative median income of 93%, increasing as a result of the rising of the value of the pension point in election year 2008.

Analyzing the public pension expenditure and at-risk-of-poverty rate for persons 65 years and over (figure 1) we can see that countries fall into two categories. Hungary, Poland, Czech Republic and Slovakia achieved relatively low at-risk-of-poverty rates for the elderly (compared to the EU27 average) in parallel with reduced public spending. This could be due to a strong redistributive character of the pension systems and a favourable demographic situation today. By contrast, Romania and Bulgaria have reduced public spending on pensions and high at-risk-of-poverty rates by demonstrating a significant expansion of poverty among the elderly in recent years. This may be due to demographic aging (fertility decline in parallel with increasing in life expectancy), a relatively high disposable income of the working age population as a result of reduced taxes and reduced pension rights, pension indexation with inflation only or rapid economic growth that benefited only the active population, not retirees.



Source: EUROSTAT/ESSPROS and EU-SILC

Figure no. 1. *At-risk-of poverty rate of people aged 65+ and pension expenditures in analysed countries (2008)*

Analyzing the pension systems in terms of gender differences, it appears that women are more at risk of poverty than men, the difference between the two rates ranging from more than 20 percentage points to 1.7 percentage points in Romania in Hungary.

These differences are due to several factors such as:

- lower participation of women in the labour market;
- lower pay for women, there are specific occupations for women which are less valued than those in which men are better represented;
- more frequent career interruptions for women because they assume more family responsibilities (raising and educating children, etc.);
- the predominance of women among those with atypical employment contracts, etc.

In the EU27, the average aggregate replacement rate is lower for women than for men by 4 percentage points (50% vs. 54%). In Romania, the gap is slightly higher (6 points). In the Czech Republic the situation is reversed, aggregate replacement rate is higher for women.

Significant gender differences appear in terms of relative income for persons aged 65 and over. In Poland and Romania differences exceed 20% for men, while in the Czech Republic the situation for women is more favourable (see table no. 4).

Table no. 4

Gender differences regarding current adequacy of pensions (2009)

Gender differences regarding:	EU27	Romania	Hungary	Poland	Czech Republic	Slovakia	Bulgaria
At-risk-of-poverty rate (%)	-8,6	-20,5	-1,7	-4,7	-11,5	-16,6	-25,6
Aggregate replacement ratio (%)	0,04	0,06	0,07	0,08	-0,06	0,03	0,05
Relative income of elderly people	0,10	0,20	0,09	0,26	-0,11	-0,08	-0,01

Source: EU-SILC

Regarding the objective of ensuring financial sustainability of the pension systems in view of the aging population and increased pressure on public finances, the performance of the pension system in Central and Eastern European countries can be observed analyzing the data in table no. 5.

Table no. 5

Indicators regarding sustainability of the public pension system

Indicators regarding sustainability of the public pension system	EU27	Romania	Hungary	Poland	Czech Republic	Slovakia	Bulgaria
Public pension expenditure as GDP %, 2007	10,1	6,6	10,9	11,6	7,8	6,8	8,3
Public pension expenditure as GDP %, 2060	12,5	15,8	10,7	8,8	11,0	10,2	11,3

Source: EUROSTAT/ESSPROS

From the table we can notice that among all countries analysed Romania is the country with the highest risk regarding the public pension system sustainability. Anticipated growth in public spending on pensions as % of GDP during 2007-2060 in our country is 9.2 pp compared with only 2.3 pp in the EU27. One country will present an improvement in financial sustainability of the system, namely Poland.

The explanation for this development is related to the inclusion in the Polish public pension system of an automatic mechanism for adjusting the level of pension and ongoing coverage of the system depending on the development of objective indicators (such as demographic dependency ratio).

It should be noted here however that the European Commission's forecasts do not take into account changes in the new pension law for Romania (Law 263/2010). The legislative changes introduced by this law aims to:

- introducing a new pension indexation formula, less generous, since 2012;
- raising the retirement age to 63 years for women and 65 for men gradually until 2030;
- inclusion of certain categories of taxpayers who have not previously contributed (army, police, etc.);
- reduction of early retirement and restriction of disability retirement;
- increasing the contribution base to include new categories (liberal professions).

All these measures will result in a less pronounced increase in public spending on pensions in the future compared with the 2009 European Commission forecast.

A few conclusions

Each of the pension systems of the six countries examined shows both strengths and weaknesses. In terms of financial sustainability the polish system seems to have the best performance, while the Romanian system seems to present the greatest risk. The most effective systems in poverty relief of the elderly are the pension systems from Hungary and Czech Republic. Romania, although it has the second-highest at-risk-of-poverty rate for the elderly, presents high median relative income for people of 65+ and a relative high aggregate replacement rate. But we have to take into account the fact that both of these indicators are relative measures and their values are influenced by changes in the income of both the elderly (numerator) and the working age population (denominator). If the income of the working age population is low that might give the impression that the position of the older cohort is good.

We cannot finish this paper without making the following remarks:

- there is no ideal pension system that fits all countries;
- the optimum system differs from country to country and from one period to another;
- by the mean of the reform should be obtained a solidarity beneath and between generations, an adequate pension level, a modern and financially sustainable pension system;
- the pension reform should not be made in detrimental of the current beneficiaries;
- for justifying the reform, by participating in more than one pension schemes, the total amount of pensions must be higher than the total amount of the

pension from the unreformed pension system (regard the high level of administration costs!)

- people now have more options, but also, they are exposed to more risks.

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