

SEARCH FOR SUSTAINABLE PENSION SYSTEM AND STATE SUPPORT FOR FUNDED PENSIONS IN CEE COUNTRIES

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Abstract. Pension systems around Europe are being reformed for several decades already. Main objectives of the reforms are to enable people to have adequate income at retirement and to ensure the system's financial sustainability. Many European countries implemented policies aiming at diversification of financing sources of income at older age: risk-sharing between pay-as-you-go and funded pensions is expected to help in achieving social policy objectives towards pension systems.

Central and Eastern European countries (CEE) face even more challenges in ensuring adequate income at retirement. First, CEE countries were required to transform radically their economies in 1990s towards market economy, including old age pension systems. Second, in order to ensure diversified future old age pension income and attract more financial means to the system, introduction of funded pensions from scratch and ensuring as wide as possible coverage with funded pension schemes was of primary importance also.

The paper discusses latest developments of retirement pension systems in Europe and state involvement in private pension schemes. In doing so, the focus is on the introduction of funded private pension schemes in selected CEE countries. In spite of initially chosen different paths for the reforms, inconsistent state policies towards funded pensions in the CEE countries resulted in similar outcomes of the reforms.

The paper starts with discussion on main objectives of pension systems – enabling people to have adequate income at retirement and ensuring financial sustainability of the systems. Further, possibilities to achieve the objectives of pension reforms are analysed – diversification of income at retirement. Third part of the paper discusses prevailing debates on future of welfare state as such and individualisation trends within different European welfare state models. These debates and perceptions of population about responsibilities of a state for individual welfare affect direction of reforms and future shape of old age pension systems. Fourth part of the paper deals with state policies and tools that are used for encouragement of participation in supplementary pensions. Final part of the paper presents more detailed outline of the pension reforms in selected CEE countries and summarises particular challenges of their pension systems. The paper ends with a discussion on policy implications in relation to latest developments of pension systems in CEE countries.

Keywords: retirement income, funded pensions, state support, reforms, CEE countries.

JEL Classification: B55, H55, J26, J32.

Introduction

Main objectives of old age pension systems are to ensure adequate income for people at retirement and its sustainable financing. This became a challenge for public pension systems in many developed countries due to increasing longevity and declining fertility rates, when financial sustainability of the system depends on ratio of the contributors to the beneficiaries. Balancing of contributions to and benefits from public old age pension systems became

especially challenging when they are financed by only one financing method (most often pay-as-you-go (PAYG)). Thus old age pension systems are being reformed in many Western European countries for several decades already. Primary aim of the reforms was creating possibilities to secure income at retirement from different sources and sharing risks between PAYG and funded pensions: next to public pension (first pillar) introducing occupational or labour market related pension (second pillar) and individual pension savings (third pillar). Public pensions

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are mostly financed by PAYG method, while second and third pension pillars take care of retirement income most often with help of funded financing. Different financing mechanisms are expected to decrease risks of inadequate old age pension.

Central and Eastern European countries (CEE) face even more challenges in ensuring adequate income at retirement. First, CEE countries were required to radically transform their economies in 1990s towards market economy, including old age pension systems. Linking retirement benefits to paid social contributions and gradually increasing retirement age were the two key elements of initial pension reforms here. Second, in order to ensure diversified old age pension income and attract additional financing sources to the systems, introduction of funded pensions and ensuring as wide as possible coverage with funded pension schemes was of primary importance also. Funded pensions in CEE countries were introduced from the scratch 15–20 years ago as they were non-existent here before. Wider coverage of population with funded pension schemes (especially with the second pillar) was expected to be achieved by encouraging or sometimes obliging participation in them. However, in spite of the implemented and on-going reforms, old age pension replacement rates in CEE countries still remain among lowest in the EU.

This article aims at analyzing trends in old age pension systems in selected CEE countries in the context of European pension systems' development with the focus on state involvement in funded private pensions and its potential impact on retirement income adequacy.

In doing so, changes (trends) during last two decades in European old age pension systems focusing on introduction of funded pension schemes in selected CEE countries are analysed. Countries that are selected for primary attention in this analysis are Estonia, Latvia, Lithuania, Poland and Hungary as they chose different paths for the reforms initially, while current situation in old age pension provision shows some similarities in the outcomes of the reforms. Beside to additional challenges in achieving adequate income at retirement in CEE countries, pension reform outcomes here have not gained sufficient attention in academic literature yet. Initial transformations of retirement pensions were analysed by Müller et al. (1999), Orenstein (2008) and some international organizations as OECD (2004) and World Bank (Holzmann et al., 2003). The next episode of research on funded pension systems in Central and Eastern Europe was in the context of the 2008–2009 financial crisis when governments of CEE countries have temporarily or permanently reduced contributions to funded pension schemes from public sources (Guardiancich, 2013; Drahoukoupil & Domonkos, 2012; Naczyk & Domonkos, 2016; Schwarz et al., 2014; Bielawska et al., 2017). Poland and Hungary even partially or fully nationalized accumulated assets from funded second pillar to PAYG scheme aiming to address the countries' fiscal problems during the financial crisis (OECD, 2012; Bielawska et al., 2017; Altiparmakov, 2018).

Methodologically this article is an illustrative case study as according to Hayes et al. (2015) as it “describes a situation or a phenomenon, what is happening [...], and why it is happening” (p. 8). The article uses national and/or international data in order to compare implementation of old age pension reforms in selected CEE countries and the role of a state in encouraging participation in pension funds. It also discusses the objectives and tools of pension reforms and social policies' individualisation trends in Europe, thus can be considered to use a mixed method approach (Leech & Onwuegbuzie, 2009).

The article starts with discussion on main objectives of pension systems – enabling people to have adequate income at retirement and ensuring financial sustainability of retirement pensions. Second part of the paper analyses tools to achieve the objectives of pension reforms – diversification of income at retirement. Third part of the article discusses prevailing debates on future of welfare state as such and individualisation trends within different European welfare state models. These debates and perceptions of population about responsibilities of a state for individual welfare affect direction of reforms and future shape of old age pension systems. Fourth part of the article deals with state policies and tools that are used for encouragement of participation in supplementary pensions. Final part of the paper presents more detailed outline of the pension reforms in selected CEE countries and summarises particular challenges of their pension systems. The article ends with a discussion on policy implications in relation to latest developments of pension systems in CEE countries.

1. Objectives of old age pension systems in Europe

Enabling people to have adequate income at older age and ensuring sustainable pension system financing are two main objectives of pension systems reforms around Europe. Adequacy of old age pensions is defined by their ability to provide poverty protection, income maintenance and length of retirement (European Commission, 2018a). If retirement income can prevent falling in poverty, the system is adequate in terms of poverty prevention. Adequacy of pensions in relation to income maintenance is defined by their capacity to replace earned income before retirement and is measured by a replacement rate (as a percentage of the income just before retiring). The length of retirement is evaluated by when and for how long pensions are made available to people (ibid.).

Current situation among older population (aged 65 and more) indicates that about 20.3 percent of them were at risk of poverty or social exclusion in the EU-27 in 2020 (Eurostat, 2022b). However, risk of poverty and social exclusion among older people is very diverse across the European countries. In many continental and northern European countries, where pension systems are well developed and diversified, people aged 65 and over are significantly less likely to report financial hardship, while

the opposite situation is in many CEE and Southern European countries, where considerably greater proportion of older people report difficulties in making ends meet (Eurofound, 2017). Almost every second older person in Bulgaria (49.5%) and more than third of older population in Romania (43.7%), Latvia (43.1%), Estonia (42.5%), Lithuania (40.2%) and Croatia (32.4%) was affected by risk of poverty or social exclusion in 2020 (Eurostat, 2022b). This fact could be an indication of inadequate income as far as poverty prevention is concerned via old age pension systems in these countries and inefficiency of their social safety nets.

Old age pension replacement rate indicates how well pension income allows people to maintain their standard of living when they retire. Pension replacement rate compares the level of pension income with the income from work before retirement. Aggregate replacement ratio¹ (ARR) was on average 57 percent in the EU-28 in 2019 (Eurostat, 2022a). However, it varies greatly among the member states of the EU: from 37 percent in Bulgaria to 86 percent in Luxembourg of previous income (Eurostat, 2022a). Central and Eastern European countries are among those with the lowest old age pension replacement ratios (below 50 percent in Bulgaria, Croatia, Cyprus, Czechia, Estonia, Lithuania, Latvia, Slovenia and Romania) (Eurostat, 2022a). Low old age pension replacement rates indicate necessity to adjust or reform the pension systems in these countries in order to ensure adequate living standard at retirement.

Usually, in order to receive adequate income at retirement one has to participate in several available pension schemes during a working career. There is a variety of pension schemes with different financing mechanisms within European countries. The two main financing mechanisms of old age pensions – PAYG and funded – have their own advantages and disadvantages and in different stages of economic and demographic development might successfully cope (complementing each other) with potential risks related with income of current and future retirees. Originally public retirement pension systems in most of European states were based on PAYG method, which dealt very well with a challenge to provide older people with income immediately when one was not active on the labour market any more. During times of economic growth when part of retired population is relatively small in comparison with working population such compulsory income redistribution mechanism guaranteed sufficient flow of resources to finance old age pensions. However, ageing populations and slower economic growth during last decades of XX century prompted many countries to look for additional options to ensure adequate income at retirement for their populations. There is a risk that PAYG

systems due to worsening working to retired population ratio, as the data from many countries illustrate, on their own in future will guarantee even more modest replacement rates according to the data presented by the European Commission (2018a, p. 84)². As this is not sufficient and desirable, many European countries started to diversify their old age pension systems already several decades ago. Funded pensions that were introduced next to PAYG public schemes, despite their similar sensitivity to ageing problems, provide additional means for old age security and are aiming at future retirement income instead of satisfying needs of current retirees.

As reformed old age pension systems in CEE countries are not mature yet, retirement income from funded pension pillars here are still very symbolic due to the fact that it takes at least two-three decades to accumulate significant amount of money in a fund. In addition to “youth”, stability of the systems was negatively affected by constant their changes in CEE countries since the initial reforms. These reasons might explain why income at retirement in these countries are still inadequate, as the data shows and older people themselves indicate (Eurofound, 2017)³.

Adequacy of pensions is very much inter-related with a pension system sustainability (Economic Policy Committee and Social Protection Committee, 2019). Pension system sustainability can be defined by a balance between income to the system (in a form of various contributions from the participants and subsidies from a state budget) and its liabilities (in a form of benefits which were predefined by a law or collective agreements in advance). Fiscal and financial balance of national pension systems depends on old age pension replacement rates, balance between the duration of working life and the duration of retirement, labour force productivity and contributors to beneficiaries ratio. Scope and range of public old age pension benefits was increasing significantly from the originally established pension systems (more and higher level of benefits in comparison with the initial payments), which affected financial liabilities of the systems. In such situation sustainability of pensions became especially dependent on demographic indicators. Demographic developments (ratio of contributors to beneficiaries of the system) are important to balance contributions to the system and old age pension obligations as “generational contract” or PAYG financing

¹ The aggregate replacement ratio is the ratio of (i) the median individual gross pension income of people aged 65–74 to (ii) the median individual gross earnings of people aged 50–59. ARR calculations by Eurostat are based on three types of pensions: old age, survivors and private pensions.

² EU-27 public pension (earnings related) replacement rate in 2070 is projected to decrease by 8.3 pps to 38.1% from 46.3% in 2016. For some of CEE countries this decrease is projected even more drastic: in Poland – from 61.4% in 2016 to 23.0% in 2070 (by 38.4 pps), Latvia – from 51.7% in 2016 to 21.7% in 2070 (by 30.0 pps), Estonia – from 41.2% in 2016 to 25.8% in 2070 (by 15.4 pps), Lithuania – from 32.9% in 2016 to 17.5% in 2070 (by 15.4 pps).

³ The European Quality of Life Survey asked respondents to indicate how worried they are that their income in old age will not be sufficient on a scale from 1 (not worried) to 10 (extremely worried) in 2016. The answer to the question with a 6 or above is taken to be an indicator of income insecurity. In all the countries chosen for the analysis in this article, more than half of the respondents indicated that they are worried about their income at old age: Estonia (55%), Lithuania (60%), Poland (64%), Hungary (65%) and Latvia (69%).

method is used in majority of European countries to provide for statutory retirement income for older people. Balancing pension system income and its liabilities became a serious challenge for most of European countries as birth rates are low here while life expectancy is increasing for several decades in Europe already. CEE countries are even more challenged in ensuring sustainability of the system: demographic situation here is worsening not only because of low birth rates and increasing longevity but also due to significant emigration of working age population from these countries during last few decades.

2. Tools in achieving pension objectives: diversification of income sources at retirement

Income at retirement might come from different financing sources or pension pillars, as was mentioned already. Each pension pillar has its own specific objective in providing income at retirement and clarifies roles of a state, labour market and individuals themselves in assuring adequate income at older age (World bank, 1994; Wiß, 2015; Ebbinghaus, 2011). Different pension pillars can guarantee either basic income, maintain living standard via earnings-related statutory or occupational (private or public) pensions, and take a form of additional voluntary personal savings. However, retirement pension systems around the world are even more diverse and complex than three theoretical pillars. In most of European welfare states at least minimum level of income at retirement is provided by a statutory pension scheme. Though some countries have multiple schemes even within statutory (usually mandatory) pension arrangements – a flat-rate retirement income are supplemented by an earnings-related scheme, or a PAYG scheme accompanied by a statutory mandatory funded scheme. Next to statutory there are supplementary⁴ (occupational and/or personal) pensions that might also be organised either on mandatory or voluntary participation basis. Most of statutory (public) pensions are financed by PAYG principle, while supplementary pensions are usually funded.

Significance and share of income from supplementary pensions at older age varies a lot among the EU countries (European Commission, 2019). Supplementary pensions could take a form of occupational or personal pension arrangements. Occupational pension schemes are related to participation in the labour market: they can be organized at the level of sector, professional group, group of companies or individual company. Individual pensions are not attached to labour market participation and usually are offered as an additional form of saving for retirement. There are wide variations in population which is covered by supplementary pensions, in accumulated assets by the funds and their performance, in contribution rates to these schemes, in income share at retirement coming from these

schemes in different EU countries. Retirees from countries with developed supplementary pension schemes, as in Northern and Western Europe, receive significant part of their income at retirement from these pension schemes, while Southern European and most of CEE countries do not have well developed supplementary pension plans. For example, in some of the European countries income from occupational pensions comprise significant part of income at retirement (The Netherlands, Denmark, Sweden, Belgium, Germany) (European Commission, 2018a). This is not surprising, as more than half of the working age population (aged 15–64) in these countries are covered by occupational pension schemes (Belgium – 59.6%, Denmark – 63.4%, Germany – 57%, The Netherlands – 88% and Sweden – about 70% of the population) (European Commission, 2018a). Personal pensions are also popular in some of the European countries: significant parts of working age population (aged 15–64) were covered by individual pension schemes in Czech Republic (52.6%), Germany (33.8%), The Netherlands (28.3%) and Slovakia (26.3%) in 2016 (*ibid.*). In spite of very unequal coverage of population by supplementary pensions in different European countries, their role has, with a few exceptions, increased in Europe since 1990.

Lower coverage and relatively insignificant accumulated amounts by supplementary pensions (especially by the second pillar or occupational pensions) in the CEE and Southern countries might be explained by underlying social and institutional factors, such as preference for non-funded instruments or insufficient capacity of social partners (European Commission, 2018a, 2018b). Supplementary pension schemes, especially occupational pensions, are very much dependent on organised professional, labour or other unions, which are either very weak or underdeveloped in these countries. Another factor that might explain low coverage of population and insufficient accumulation of funds by supplementary pension schemes is low disposable income in these countries. Level of average disposable income is especially relevant for the coverage when supplementary pensions are organised on voluntary participation principle: it is hard to take away part of your income in order to contribute additionally to future pensions, even where fiscal incentives are provided.

Increasing encouragement by a state to participate in supplementary pension schemes is related to a perception that diversified pension system deals better with demographic challenges than a single pension financing method. Thus many CEE country governments striving for risk-sharing between the two pension financing methods introduce various tools to stimulate participation in newly introduced supplementary schemes.

3. Individualisation trends within welfare states and retirement financing systems

Sustainability and legitimacy of the welfare state has been the object for debates for several decades already. Welfare states received strong public support upon their

⁴ Supplementary pensions – those that are organized on the basis of professional activity (occupational pensions) or individual pension savings contracts (personal pensions).

introduction (Taylor-Gooby, 1999; Arts & Gelissen, 2001; Gelissen, 2000, 2002; Jæger, 2006). Social values, such as social solidarity, trust, duty and altruism were prevailing in arguments for support of newly formed welfare states (Hechter, 1988; Inglehart, 1977). However, the situation changed as citizens in many European countries now demonstrate much lower support to welfare systems in comparison with the situation of few decades ago (Greve, 2019). Decreased support for solidarity, duty and altruism in the welfare state might be explained by several arguments. First, the wider scope of various welfare benefits to increasing numbers of recipients resulted in increased taxation necessary to support increased state obligations. Second reason for decreasing support for a welfare state can be explained by changing perceptions of deservingness to be supported by the state (Roosma et al., 2016; Taylor-Gooby & Leruth, 2018). European citizens' perceptions of responsibility of the state to different groups of society were analysed in two waves of the European Social Survey (ESS) in 2008 and 2016. The survey included questions on a government's responsibility for a reasonable standard of living for the older population, child care services for working parents and unemployed. In comparison with the other socio-economic groups of society, the responsibility of a state for older people is still perceived as the highest. However, perception that a state is responsible for decent living standard of older people is also on decline from 2008 to 2016 in all surveyed countries representing different welfare regimes (European Social Survey, 2008, 2016). Such trends in perceptions of state responsibilities indicate that ideas of individual responsibility for well-being are gaining more significant support than previously. Furthermore, general trends in Europe in line with prevailing neoliberal thinking further encourage debates on legitimacy of welfare state from efficiency perspective and whether the goals of justice, redistribution and support for economic development have been achieved (Greve, 2019).

Significantly increased living standards in all European countries during last few decades did not turn into support to broad welfare programs by the "comfortable middle class" (Wilensky, 1975; Galbraith, 2017). As Wilensky (1975) argued, the more universalistic and generous welfare state does not imply bigger support to it and popularity of it. According to Wilensky (1975), political support of increased middle class shifts from the collectivist policies to those who offer cost saving policies. Galbraith (2017) also argues that content majority (upper middle class) develops "selective perception of the role of the state" (Mau, 2003): while enjoying comfort and security themselves, they complain about high taxes and do not like sharing their income with others. Rose and Peters (1978) also support the argument that the middle class paying taxes does not like doing it for others, therefore they argue that state welfare policies shall be targeted only at the most needy ones.

Latest debates on legitimacy of welfare state from its sustainability and efficiency perspective further increased

support to the ideas of marketisation of different areas of welfare state in many European countries (Crespy, 2016). Such trend indicates increasing individual responsibility for own welfare in situations of social contingencies. Changing perceptions of society about governments' responsibility for decent living standard of older people, debates on sustainability and efficiency of various welfare programs coincided with necessity to diversify retirement pension systems due to ageing of societies in many European countries. Increasing perception of individual responsibility for future income at older age is also prominent Central and Eastern European countries. Here individualisation trends in addition to the above mentioned factors can be explained also by an "allergy" to collectivist policies that were encouraged and implemented during previous period.

4. State support for supplementary pensions

Different countries have varying policy approaches and tools to stimulate and support participation in supplementary pension schemes. State interest and involvement in diversification of retirement income can be explained by several arguments. First, several sources of income at retirement enable people to reach adequate income level at retirement (not only in terms of poverty prevention, but also in terms of adequate living standard which can be assured with a higher replacement ratio). Second, it is expected that increased reliance on income from supplementary pensions at retirement will help to balance public budget in aging environment as far as sustainability of public pensions is concerned (as liabilities of public scheme will not be increasing or even might be reduced). Third, active state encouragement to save for retirement helps to "correct" behavioural problems, which can arise in two ways. First, when people can't make good decisions to take care of their future retirement because of complex and conflicting information (concerning future, financing methods and mechanisms, etc.) or second, when they are not saving for older age even if the problem is acknowledged (Barr, 2012, 2013)⁵. In both cases people might result in a situation without sufficient means at older age. Such situation is "costly" for an economy since various public social support programs likely to be introduced or significantly expanded in scope to help people without adequate income at older age. Therefore many countries introduce different policy measures encouraging voluntary saving in supplementary pension schemes (if participation in supplementary schemes is not organized on mandatory basis). Furthermore, introduction and support for funded pensions might be attractive to national politicians as well: they are often criticised for low replacement ratio of PAYG pensions, while replacement rate by funded pensions is justified by market volatility, success of investment, economic development, etc.

⁵ Barr (2012, 2013) calls the first situation "bounded rationality" and the second one "bounded will power".

Availability of funded pension schemes means not only increased possibility to diversify future retirement income, but also provides additional incentives to save for retirement in a population where individualisation trends are becoming more prominent as they create image that everyone saves for his/her retirement. Funded financing of old age pensions might be attractive to people with medium or higher income also, since replacement rate by PAYG pensions for this group is unattractively low due to their redistributive character. This group of population with average and higher income might ensure higher replacement rates of retirement income only with help of funded pensions.

There is no one “right” way to encourage people to save more for their old age. Different countries stimulate savings via supplementary pension schemes with help of various financial incentives. These incentives might be of two types – tax and non-tax. Tax incentives take form of various tax allowances which can be applied on contributions to pension schemes, benefits in payment and/or return on investment of pension fund. Most popular tax regime that is applied in encouraging pension savings via supplementary pensions is the “Exempt-Exempt-Taxed”

(“EET”), where both contributions and returns on investment are exempt from taxation while benefits are treated as taxable income upon withdrawal (OECD, 2019). Countries might use non-tax incentives as well, mainly via co-contribution to supplementary schemes. Non-tax incentives to save additionally for retirement usually take form of either matching contributions proportional to an employer’s/employee’s own contributions or fixed flat-rate subsidies. Summary of various financial incentives to save additionally for retirement in selected countries is presented in the Table 1 below.

It is expected that financial incentives will encourage population to save more for their retirement. However, these incentives (especially tax incentives) are relevant only to those who participate in the schemes, either on compulsory or voluntary basis. Thus in a situation with significant part of labour force working informally or not paying income taxes, tax allowances are not relevant.

It is argued, especially by the World Bank, that co-contributions provide more tangible incentives for individuals to participate in pension funds than the introduction of mandatory participation in supplementary schemes and providing preferential tax treatment (Hinz et al., 2013).

Table 1. State support for supplementary old age pension schemes in selected OECD countries (source: OECD, 2019)

Selected OECD countries	Tax incentives			Non-tax financial incentives		
	Contributions	Returns on investment	Benefits in payment	Employer matching contributions	Government matching contributions (matching rate, %)	Government fixed nominal subsidies
Western Europe						
Austria	T	E	T		4.25	
Germany	E	E	T	X		X
Iceland	E	E	T	X		
Italy	E	T	T	X		
Central and Eastern Europe						
Czech Republic	T	E	E		20	
Estonia	E	E	T			
Hungary	T	E	E		20	
Latvia	E	E	T			
Lithuania	T	E	E			X
Poland	E	E	T	X		X
Other selected countries						
Australia	T	T	E		50	
Chile	E	E	T		50 or 15 ⁶	X
Mexico	E	E	E		325 ⁷	X
New Zealand	T	T	E	X	50	
Turkey	T	T	E		25	X
United States	E	E	T	X	50 to 100 ⁸	

⁶ Chile has two different programs, one for young low earners (50%) and one for voluntary contributors (15%).

⁷ The matching programme for Mexico applies only to public sector employees.

⁸ The matching programme for the US refers to the Thrift Savings Plan for federal employees. The first 3% of employee contribution is matched dollar-for-dollar, while the next 2% is matched at 50 cents on the dollar.

Non-tax financial incentives (especially matching contributions), according to experts from the World Bank (ibid.), provide an immediate and easily understandable value proposition to prospective entrants to the system. Usually governments are directly paying certain amount corresponding to a certain proportion of the individual's contributions (up to a ceiling) into the pension account of eligible individuals.

Co-contributions to supplementary pension schemes are expected to encourage participation in supplementary pension schemes and subsequently help to increase replacement ratio of future pensions in countries with lower income and where participation in private pension schemes is based on voluntary basis. Such co-contribution incentive might be attractive to low-income earners in higher income countries also. However, impact of non-tax incentives on participation level and future income from supplementary pension schemes is under-researched so far, as they are quite recent phenomenon in order to made far reaching conclusions on their real effects.

5. Pension reforms and state support for supplementary pensions in Central and Eastern Europe

Perception of individual responsibility for adequate income at retirement is gaining more support in society in Central and Eastern Europe during last few decades. Private sector is seen as an important partner by a state and society in providing social welfare. Next to these changes in perceptions, demographic developments and inadequate public old age pensions led to old age pension system reforms in CEE countries. The official retirement age was/is gradually extended, the rules and role of public PAYG systems have changed, and multi-pillar pension systems were introduced in which responsibilities for retirement income were split between public and private sectors (see Table 2 below).

Table 2. The introduction dates and rules of participation in funded pensions in selected CEE countries (sources: Holzmann & Guven, 2009; Bielawska et al., 2017)

Country	Year of Introduction	Rules of participation
Hungary	1998	Mandatory for new entrants, voluntary for all employed
Poland	1999	Mandatory for new and younger than 30 years of age employees, voluntary for aged 30–50
Latvia	2001	Mandatory for new and younger than 30 years of age employees, voluntary for aged 30–50
Estonia	2002	Mandatory for new employees, voluntary for aged 19–60 in year of reform
Lithuania	2004	Voluntary for new and current employees

In most of the selected CEE countries private funded pensions were introduced on mandatory basis for new entrants to labour market (with exception of Lithuania). Younger employees were obliged to participate in funded schemes in Poland and Latvia, other employees in these countries as well as all current employees independently of age at the time of the reforms in Hungary, Estonia and Lithuania had right to choose their participation. To encourage participation in newly introduced pension funds, governments of Hungary, Lithuania and Poland introduced non-tax financial incentives for those who opted to participate in them (refer to Table 1). Government was matching contributions to the funds with 20 percent rate in Hungary, fixed nominal subsidies were available to the participants in Lithuania and Poland. Employer matching contributions were available for the participants of private pension funds in Poland as well.

The initial size of contributions (from wage) to pension funds varied from 2.5 to 5.5 percent in Lithuania, from 2 to 8 percent in Latvia, 6 percent in Estonia, from 6 to 8 percent in Hungary and 7.3 percent in Poland (Bielawska et al., 2017). Main financing sources of funded pensions were direct contributions from wages and matching contributions or fixed-rate subsidies by employers or a state. Specific feature of pension reforms in the CEE countries was possibility for the participants of newly established funds to transfer part of their social insurance contributions to funded pensions (as in Lithuania, Latvia, Estonia and Poland). This meant that funded schemes were partially financed at an expense of public pensions. Such situation created permanent dilemma for politicians in CEE countries in choosing which part of population to “support” more from current social insurance contributions: to maintain faster old age pension indexation for current retirees of public pension system (by contributing less to the second pillar) or to provide future retirees with a possibility of higher income at retirement (by contributing more to the second pillar). Such financing of private funded pensions with transfers from public PAYG scheme created political sensitivity of usually not so sensitive private pensions. It is still too early to assess objectively the benefits of such “exchange” of social insurance contributions (transfer from PAYG schemes to pension funds) for pension system participants. During first decade of participation in funded pension schemes the participants have accumulated relatively small amount of assets and therefore most of them received a lump sum payout instead of an annuity upon their retirement. Furthermore, decreased social insurance contributions to public PAYG schemes of pension funds participants resulted in their lower retirement pensions from first pillar in comparison to those who did not participate in pension funds (Medaiskis & Gudaitis, 2013).

Pension fund dependence on political decisions resulted in a situation when faced with 2008–2009 global financial crisis, many CEE country governments opted for a partial or full reduction of contributions from PAYG

to second pillar. For example, transfer of contributions from PAYG scheme to funded pensions was significantly reduced in relation to the crisis in Lithuania (from 5.5% to 2%), Latvia (from 8% to 2%), Estonia (from 6% to 0% (temporary 2009 Jul – 2011 Jan)) and Poland from 5% to 2.3%). Participation rules in the funds were also changed after the initial reforms. For example, possibility for the participants of the pension funds to withdraw from funded second pillar and return to PAYG pillar (with accumulated assets or leaving the savings in the funds) was allowed in Latvia and Estonia after 2008–2009 financial crisis. Hungary and Poland after the crisis even nationalized recently introduced funded second pillar. Latest situation during the COVID19 pandemic encouraged further discussions on status of funded pillars in CEE countries. First signs of the decisions of some CEE countries' governments to allow access accumulated assets in funded pension schemes before reaching retirement age, suggest that such responses following short-term objectives of balancing public accounts may affect achievement of long-term goals of funded schemes. Estonian government considers termination of matching contributions to pension funds, while current participants of the funds will have a choice to continue their contributions or stop them. All the mentioned examples illustrate that the introduced second pension pillar – funded pensions – in the CEE countries are still object for political debates as far as their “destiny” in future retirement income is concerned.

Thus in spite of the implemented and still on-going reforms, old age pensions in these countries are still inadequate in terms of their ability to ensure decent living standard after retirement or even in terms of poverty protection. This can be explained by several factors. First, the explanation can be associated with lower economic productivity in the region in comparison with Western European countries (in spite of their faster economic growth). Second, multi-pillar pension systems in CEE countries are relatively recent phenomenon, while pension system transformation takes at least two-three decades to accumulate funds. The results of reforms diversifying sources of retirement income shall be expected much later after the introduction of pension funds. Third, even with increasing perception of individual responsibility for living standard at retirement and growing coverage of population by pension funds in CEE countries, accumulated amounts in the funds are not very significant and income from private pension funds still comprise symbolic income at retirement. Fourth set of arguments is related with inconsistent political decisions concerning key parameters of the second pension pillar in CEE countries. Frequent changes of pension system rules and parameters negatively affect stability and consistency of the reformed old age pension systems and their ability to ensure adequate income at retirement in CEE countries.

All these mentioned facts were among main reasons, why outcomes of the pension reforms in the CEE countries have not achieved the desired outcomes of the

pension reforms so far. As significant part of the population in the CEE countries remains with low accumulated amounts in funded schemes, many governments here are still concerned with the sustainability and adequacy of their pension systems. Thus further analysis of state involvement in private market encouraging people to save for their retirement still has to be performed. This becomes of importance as there is a lack of systematic analysis and comparative assessments of current and potential future reform outcomes in CEE countries. There are not many attempts to compare the results of pension accumulation systems in CEE countries with those in Western European countries either.

Conclusions and policy implications

Public pension systems face challenges due to aging societies in all the analysed CEE countries: pension replacement rates are decreasing while financial sustainability of the systems is threatened at the same time. Aiming at possible solution of the problems related to ageing societies, the countries introduced funded pensions which are expected to supplement income at retirement. Diversification of income at retirement not just enables people to use different financial mechanisms to receive higher and/or more stable income at retirement, but also there is expectation that such mechanism will attract additional financial resources for pension system (from people themselves and from a state). However, success of such reforms is not straightforward. Fifteen or twenty years of the reforms is too short period of time to make far reaching conclusions without additional scrutiny if income at retirement from funded system will provide significant improvement of living standards for future retirees: it is relevantly short period as far as acquisition of retirement pension rights is concerned.

Furthermore, introduction of funded pensions and support to them by public and politicians in CEE countries illustrates prevailing individualization trends in European welfare states: funded pensions emphasize individual responsibility for living standard at retirement more than PAYG pensions. As higher participation rates and increased income from funded pensions are desired, governments in CEE countries introduced various tax and non-tax incentives for participants of the schemes. This creates even more attractiveness to join funded pensions next to perception of your own responsibility and possibility to expect higher income at retirement. In some of the countries participation in funded pensions was introduced on obligatory basis. Special arrangements allowing transfers of part of contributions to PAYG system to newly introduced pension funds can be considered a distinctive feature of pension reforms in the CEE countries.

In spite of similar objectives of pension reforms in the CEE countries, the analysed countries chose different paths for implementation of changes within their pension systems. However, one feature uniting the reforms was

constant changes of funded pension parameters and rules of participation in them. These changes were implemented as consequences of internal policies (e.g. frequent changes of the governments and their political agendas) or/and external shocks (e. g. global financial crisis of 2008/2009). Frequent changes of the parameters, high public expectations for quick and positive investment performance and at the same time unsustainable financing sources of funded pensions are among main reasons why confidence by politicians and society in funded pension schemes is not very high in CEE countries yet (despite high number of persons who have accounts in pension funds which might be an outcome of increased perception on individual responsibility for own living standard at retirement).

Another insight that could be drawn from the analysis of the reforms in the CEE countries is the fact that diversification of pension systems in addition to supplementing PAYG schemes, created tensions between the two – PAYG and funded – pension pillars as part of the contributions to PAYG were now transferred to funded schemes. The “conflict” between the two pension system pillars could even be seen as a reason for reducing size of transfers from PAYG to pension funds or even nationalising the accumulated funds.

The results of the study have important implications for pension policy. Along with an acknowledgement of importance of diversified pension system as a strategic social policy priority at a national level, long-term strategic goals for pension systems should be formulated in the CEE countries. First of all, there should be political consensus among all related counterparties – governments, policy makers, regulators and society – concerning shape of the system in order to avoid further inconsistent changes of pension systems’ parameters. Second, state involvement and its role in funded pension schemes shall be re-assessed from a perspective of increasing non-standard or precarious forms of work (e.g. self-employed, part-time employees). In the further research, it would be valuable to assess how different pension development scenarios could affect total replacement rate in the CEE countries.

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Conflict of interest

The authors have no conflict of interests to declare.

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