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THE CHANGING LANDSCAPE OF VOLUNTARY PENSIONS IN THE CEE REGION

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ABSTRACT
The main aim of this paper is to assess the significance of voluntary pensions in selected CEE countries and to discuss the changes in the role of the third pillar. The study provides insight into the recent reforms and implemented solutions with respect to the supplementary pension schemes in Bulgaria, the Czech Republic, Croatia, Hungary, Poland, Romania and Slovenia. The empirical study analyses the development of voluntary private pension plans in these countries in the time span between 1998 and 2015 using statistical data on the assets of the third pillar pension plans, the contributions paid and the membership.

Keywords: CEE countries, pension system, third pillar, voluntary pensions

1 INTRODUCTION
The last two decades have seen significant pension reforms in many European countries. These were driven by the unfavourable demographics that resulted in strong fiscal pressure on public pension systems based on the PAYG formula. But it seems that the most fundamental changes during that time affected pension systems in Central and Eastern European countries. They inherited purely PAYG pension systems from the communist era. But shortly after the political transformation at the beginning of the 1990s, it became obvious that the old pension systems were not sustainable and they would not withstand the burden of aging populations. As a result, in the late 1990s most of the CEE countries implemented a three-pillar pension model, promoted by the World Bank. It enhances the role of privately managed funds, both mandatory and voluntary, that constitute the second and the third pillar in a multi-pillar pension system. Compared to other European countries, the CEE countries formed a very distinctive group in this respect, their pension system designs resembled more those in Latin America than in Europe. However, the financial crisis in 2008 very strongly affected pension systems in the region. Among various measures taken to overcome this problem such as raising the retirement age, reducing benefits from the first pillar or elimination of the early retirement option, in some countries of the CEE region a retreat from previously introduced reforms was observed (see e.g. Milos and Milos, 2012; Chybalski, 2011; Aslund, 2012; Hinrichs, 2015 for a review). These originated from two main factors. First, the crisis created an additional pressure on public finances and in order to support the publicly managed part of pension system, the role of the second pillar was reduced in favour of the first pillar. Second, it caused severe drops in the value of assets allocated in private pension funds. As a result, pre-funding as a method of financing retirement was put into doubt. For example, in Poland the role of the second pillar was drastically reduced and in Hungary it was practically nationalized, whereas some countries such as Estonia, Latvia, Lithuania and Slovakia decided to cut the contribution rates assigned to the second pillar.

The recent reforms in the CEE countries reducing the role of second funded pillar, together with the information policy on the projected low replacement rates from the public system, can be a driver for boosting additional, voluntary retirement savings. On the other hand, the reforms, especially in Hungary and Poland, were a visible manifestation of the political risk affecting funded pensions, which changed the perception of the assets collected in the second pillar as
the property of the plan members – it became obvious that they were privately managed, yet not private. As a consequence, the public trust into the third pillar might also have been weakened. However, there is no doubt, that in order to maintain their standard of living in retirement, the current working generation needs to save additionally on a voluntary basis. Berk et al (2013) argue that the current pension systems in the CEE countries are not capable of ensuring adequate pension benefits in the future. They show that specifically mandatory private pension plans are not able to sufficiently supplement retirement income, thus there is a strong need to promote additional saving plans and to promote financial literacy among the working population. A study by Pienkowska-Kamieniecka (2013) also supports the view that in the CEE countries the main factor in the relatively low interest in the voluntary pension scheme is insufficient economic and financial education in these societies.

This study provides an insight into voluntary pensions in the seven CEE countries: Bulgaria, the Czech Republic, Croatia, Hungary, Poland, Romania and Slovenia. The topic of voluntary pensions has not been sufficiently explored in previous studies, as the main body of literature on multi-pillar pension systems is focused on the first and the second pillar. Especially in regard to the international comparisons in terms of quantitative analyses, there is a gap in the current literature. This paper presents statistical data on the assets of the third pillar pension plans, the contributions paid to the voluntary pension plans and the membership. The main aim of the analysis is to assess the role of the supplementary savings collected on a voluntary basis in the CEE region, especially with respect to the recent changes in the mandatory private pensions. One can formulate the hypothesis that in view of the resemblance between the second and the third pillars in terms of financing vehicles and similar kinds of risk, they can exist more like substitutes than complements. Thus, the question arises whether reduction of the role of the second pillar in Poland and Hungary has been accompanied by an increase in voluntary pension savings. Is the situation in these two countries different from the other CEE countries studied, where the post-crisis reforms did not directly affect the second pillar? Do all voluntary pension schemes analysed share a common pattern in terms of development dynamics? To answer these questions, empirical research is conducted. This makes it possible to capture the dynamics of the voluntary savings by incorporating data from years 1998-2015.

2 VOLUNTARY PENSIONS IN SELECTED CEE COUNTRIES
This section includes short descriptions of the voluntary pension schemes in the seven CEE countries, namely Bulgaria, the Czech Republic, Croatia, Hungary, Poland, Romania and Slovenia. Additionally, to present the relationship between the second and third pillar more comprehensively, information on the institutional settings as well as recent changes in the mandatory and voluntary private plans is provided. Table 1 shows the calendar of the implementation of the key reforms that affected the second and the third pillar development in the countries studied. In all cases, the solutions within the voluntary system were implemented at the same time, or even earlier than with respect to the second pillar. Consequently, new voluntary pension products were added. From the group of the studied countries, in Hungary and Poland the interference of policy-makers in the second pillar in the post-crisis period was the most influential and resulted in its closure or serious impairment. The Czech Republic attempted to create the second pillar in 2013, which later was considered to be a failure. However, this pillar was not meant to be mandatory, but voluntarily chosen as an option within the contribution to the mandatory system.
Table 1: Key reforms of private pensions in the CEE countries (own elaboration)

<table>
<thead>
<tr>
<th>Country</th>
<th>Pillar II – mandatory private</th>
<th>Pillar III – voluntary private</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bulgaria</td>
<td>2002 Universal pension funds, Professional pension funds</td>
<td>2002 Voluntary pension funds</td>
</tr>
<tr>
<td></td>
<td>2007 Supplementary voluntary pension funds with occupational schemes</td>
<td></td>
</tr>
<tr>
<td>Czech Rep.</td>
<td>2013 Retirement funds (voluntary pillar II)</td>
<td>1994 Voluntary pension funds (from 2013 converted into Transformed funds)</td>
</tr>
<tr>
<td></td>
<td>2015 Liquidation of pillar II</td>
<td>2013 Participating funds</td>
</tr>
<tr>
<td>Croatia</td>
<td>2002 Mandatory pension funds</td>
<td>2002 Open-ended voluntary pension funds, Close-ended voluntary pension funds</td>
</tr>
<tr>
<td>Hungary</td>
<td>1998 Mandatory privately managed pension funds</td>
<td>1994 Voluntary pension fund</td>
</tr>
<tr>
<td></td>
<td>2010 Nationalization of mandatory pension funds</td>
<td>2006 Retirement Saving Account</td>
</tr>
<tr>
<td></td>
<td>2010 Nationalization of mandatory pension funds</td>
<td>2007 Occupational pension funds</td>
</tr>
<tr>
<td>Poland</td>
<td>1999 Open pension funds</td>
<td>1999 Occupational pension schemes</td>
</tr>
<tr>
<td></td>
<td>2011 Lowering contribution to OPF</td>
<td>2004 Individual Retirement Accounts</td>
</tr>
<tr>
<td></td>
<td>2014 Nationalization of 50% of OPF assets, participation in OPF no longer mandatory</td>
<td>2012 Individual Retirement Savings Account</td>
</tr>
<tr>
<td>Romania</td>
<td>2007 Privately administrated pension funds</td>
<td>2007 Voluntary pension fund</td>
</tr>
<tr>
<td></td>
<td>2009 Contribution rate frozen at 2%</td>
<td></td>
</tr>
<tr>
<td>Slovenia</td>
<td>2000 Mandatory occupational plans for hazardous professions, voluntary for others</td>
<td>2000 Voluntary occupational and personal plans</td>
</tr>
<tr>
<td></td>
<td>2004 Expansion of the coverage of mandatory occupational plans to the public sector</td>
<td></td>
</tr>
</tbody>
</table>

2.1. Bulgaria
Bulgaria set up a multi-pillar pension system in 2002. The mandatory private part is based on the universal pension funds compulsory for all employed (and self-employed) persons born in 1960 or later, and the complementary professional pension funds compulsory for employees working under difficult and hazardous conditions. The third pillar comprises voluntary pension funds, which are of a personal type, but also employers may pay contributions on a voluntary basis. Both employees' and employers' contributions are subject to tax deductions, and the amount of the contribution is not legally restricted. There are also supplementary voluntary pension funds with occupational schemes introduced in 2007, based mainly on the employer's contribution, but they are of minor relevance in terms of coverage and assets. All four types of funds operating in the second and in the third pillar of the Bulgarian pension system are managed by the licensed pension insurance companies.

2.2. Czech Republic
The pension system in the Czech Republic differs the most from the systems in the other CEE countries, as it never had a mandatory second pillar. In 1994, voluntary pension funds were
introduced in the form of personal plans. There is a modest minimum monthly contribution stipulated by the contract between the pension fund managing institution and the fund member. The state also matches the contribution, and the employers can also contribute to the personal plan of the employee. In 2013, the existing voluntary pension funds were converted into “Transformed funds”, and they were no longer allowed to accept new entrants. At the same time, in the third pillar “Participating funds” were established, and additionally the new funds (“Retirement funds”) were placed in the second pillar. The participation in the latter scheme was voluntary, but part of the mandatory contribution was designated to this pillar (plus an additional employee contribution). However, the second pillar has never gained much interest, and it is currently in the process of termination.

2.3. Croatia
The reform restructuring the pension system in Croatia according to the World Bank multi pillar model was started in 1998, but the new regulations on the second and the third pillar were implemented in 2002. The mandatory private pensions consist of individual accounts in pension funds administered by the mandatory pension fund management companies (OMFs). The pension management companies also administer the voluntary funds, both open-ended personal (ODMFs) and close-ended occupational (ZDMFs) funds. The contribution to the third-pillar plan is not limited, but in the occupational scheme it can be shared between the employer and employee. Participants in voluntary schemes obtain an annual state subsidy along with tax deductions.

2.4. Hungary
The multi-pillar design of the pension system in Hungary in its complete form was established in 1998; however, the voluntary funds were introduced four years earlier. The predominant saving schemes in the third pillar are based on personal pension plans in pension funds. The legislative changes in 2007 also enabled the creation of occupational pension funds, but in practice the first OPF started in 2011. Contributions to the voluntary pension funds can be paid both by the employers and by employees, regularly or irregularly. In 2006, the Retirement Saving Account (NYESZ) was introduced. This is a kind of voluntary personal plan offered by banks in the form of a pension product with a wider investment choice. Additionally, pension insurance products are also subject to tax deductions. In 2010, the assets accumulated in the second pillar were practically nationalised and the mandatory funds lost 97% of their members in favour of the PAYG system, as participation was no longer mandatory.

2.5. Poland
In the course of the reform of the Polish pension system implemented in 1999, alongside with the PAYG public scheme, the second pillar and the third pillar began operation. Initially, voluntary savings for retirement within the pension system were available only in the occupational pension schemes (PPE). However, in 2004 personal pension plans called Individual Retirement Accounts (IKE) were established, and in 2012 another personal scheme called the Individual Retirement Savings Account (IKZE) was started. PPE plans are set up by employers on a voluntary basis, but their contributions to the plan are basic. An employee can additionally contribute to a PPE, but it is not obligatory. Occupational pension plans can take the form of a pension insurance contract, an employee pension fund or an investment fund. IKE and IKZE accounts offer a wide variety of choices to plan members in terms of financial vehicles. They can be offered as various savings products provided by investment funds, brokers, insurance companies, banks and general pension companies (PTE).
The second pillar is based on individual accounts in the open pension funds (OFE) managed by the general pension companies (PTE). Up to 2011, the contribution rate to the OFE amounted to 7.3%, but in 2011 this was reduced to 2.3%. In 2014 some significant reforms took place that affected the second pillar, namely government bonds (over a half of OFE assets) were transferred to the first pillar, and the membership in the OFE was no longer mandatory – an agent could decide whether to share his or her mandatory contribution between the first and the second pillar or to contribute solely to the first pillar.

2.6. Romania
Romania is one of the last countries from the CEE region that adopted the multi-pillar pension system. It was in 2007, about a decade after private pensions were introduced in countries such as Poland, Hungary or the Czech Republic. Thus, the Romanian pillars II and III are relatively less developed in terms of maturity. The second pillar relies on the pension funds administered by private institutions. Participation is mandatory for employees and the self-employed aged up to 35 as of January 1, 2008. Simultaneously with the second pillar, the third pillar was introduced. Contrary to the mandatory funded pillar based on personal scheme, the voluntary pillar was established in the form of occupational plans. Establishment of an occupational plan is voluntary for employers, just as membership is voluntary for employees. Occupational plans can be administered only by an authorised entity such as a pension company, an investment administration company or an insurance company. The plan regulations specify the amount of the contribution (up to 15% of the gross wage) as well as whether the contribution is shared between the employer and the employee. In 2012, a guarantee fund to protect the second and the third pillar savings was created.

2.7. Slovenia
Slovenia substantially reformed its pension system in 2000. According to the new regulations, the occupational pension plans became mandatory for hazardous professions, the banking sector and the public sector (from 2004). Private sector workers can join the second pillar on a voluntary basis, as do employers. The plans can be administered by mutual pension funds, pension companies, insurance companies and the state owned company called Kapitalska Družba (the only provider of the mandatory supplementary pension plans). There are also personal pension plans within the third pillar, however the coverage is much lower than in the occupational plans due to the lower tax relief.

3 EMPIRICAL RESULTS
The empirical analysis provides detailed data on voluntary pension plans implemented in the selected CEE countries. Statistical data are collected from various sources comprising local pension fund associations, financial supervising agencies or other regulatory institutions. The list of sources is as follows: Financial Supervision Commission (FSC, Bulgaria), Croatian Financial Services Supervisory Agency (HANFA, Croatia), The Association of Pension Funds of the Czech Republic (APS ČR, Czech Rep.), The Magyar Nemzeti Bank (MNB, Hungary), Financial Supervision Authority (KNF, Poland), The Romanian Pension Funds' Association (APAPR, Romania), Securities Market Agency (ATVP, Slovenia), Insurance Supervision Agency (AZN, Slovenia), Ministry of Labour, Family, Social Affairs and Equal Opportunities (MDDSZ, Slovenia) and Eurostat (EU-LFS dataset, National accounts dataset). When merging the data on different types of voluntary plans within one pension system the figures sometimes may be understated, as the data from the very early stage of implementation of particular pension plans have not always been provided. However, the scale of these data gaps can be regarded as negligible.
Figure 1 shows the dynamics of the number of third pillar members in the countries studied. To enable comparisons, membership is expressed as percentage points in reference to the number of employed persons. Note however, that the values could not be identified with voluntary pension coverage, because in some countries the regulations implemented allow for participation in more than one pension plan. So the number of pension plans can exceed the number of employed persons. However, the reference to the number of employed people instead of to the total working age population accounts for the differences in the employment rates across countries. Although in most of the personal plans an employment contract is not required for participation in the third pillar, the unemployed persons are only very rarely active members of the voluntary pension plans. In some plans, members’ accounts could be inactive (they are not credited with contributions) whereas in others, members’ activity, in terms of the frequency of contributions, is stipulated by law. This is especially the case of these occupational plans, where the arrangements guarantee that the employer as well as the employee contribute to the voluntary plan on a regular basis.

**Note:** The data do not include NYESZ accounts (Hungary).

**Figure 1:** Number of pension plans members as a share of the number of employed persons (own processing based on FSC, HANFA, APS CR, MNB, KNF, APAPR, MDSSZ, Eurostat)

As presented in Figure 1, the highest participation rate is recorded for the Czech Republic. In this respect, it is an unquestionable leader among not only other CEE countries, but among all countries with voluntary personal pension plans. Such a high level of participation is usually attainable only in the systems with occupational pension plans with the auto-enrolment solution. A relatively high membership rate is also recorded for Hungary and Slovenia. Nonetheless, in both countries it is tending to decrease, as it reached its peak in 2008 in Hungary and in 2011 in Slovenia. In the rest of the countries studied, a similar pattern is observed, that is, the number of third pillar participants is slowly increasing.
The current relevance of third pillar savings can also be assessed by comparing the assets managed by the private sector operating in the third pillar of the pension system. Figure 2 presents the tendencies in this respect. In the Czech Republic, the assets amount to almost 8% of GDP. Although in 2000 the assets in reference to GDP were equal in the Czech Republic and Hungary, in the latter the increase in assets was significantly slower over the next 15 years. Bulgaria experienced the greatest decline in third pillar assets in 2007, and although in absolute numbers its assets are now much higher than before 2007, in relation to GDP they are still smaller. In countries such as Croatia, Poland and Romania, accumulated voluntary pension savings are growing steadily, however the reference to the GDP shows that they are still of minor importance to the whole economy.

![Figure 2: The assets in the third pillar as a share of GDP (own processing based on FSC, HANFA, APS CR, MNB, KNF, APAPR, ATVP, AZN, Eurostat)](image)

Note: The data do not include NYESZ accounts (Hungary) and pension plans provided by Insurance Companies (Slovenia)

The structure of the private voluntary pension plans and its dynamics between 2009 and 2014 is illustrated in Figure 3. Hungary was excluded from this part of the analysis, as the data provided by the MNB could not be divided into occupational and personal plans. But in Hungary the majority of third pillar participants are members of personal plans. It is also impossible to distinguish between collective and individual pension plans in Slovenia. However, individual agreements are much less popular than collective ones, as in 2014 only 18 thousand people in Slovenia participated in pension plans on an individual basis. The personal plans prevail in Bulgaria and the Czech Republic. In Poland and Romania, where occupational plans are predominant in terms of assets, there is also the lowest third pillar participation rate. Over the 5-year period studied, the changes in the structure of assets were not significant.

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1 Data provided by MDSSZ.
Nonetheless, the greatest dynamics were observed for Poland. The first personal plans in Poland were introduced 5 years after occupational plans, but the new kinds of personal account – more favourable for individuals in terms of tax relief - were launched 13 years after the foundation of the third pillar. So the potential for significant changes in the pension assets structure in Poland is considerable.

Figure 3: The share of the assets in the occupational and personal pension plans in the third pillar (own processing based on FSC, HANFA, APS CR, KNF, APAPR)

Figure 4 presents the changes that took place between the years 1998 and 2015 in terms of the contributions paid each year to the voluntary pension plans. It better illustrates the popularity of the third pillar than does coverage, as it accounts for both the number of participants as well as the contribution rate. For all of the countries studied except for Romania, which started its third pillar in 2007, immediately after the crisis began, contributions to the voluntary systems dropped to some extent. Bulgaria and the Czech Republic experienced the greatest decrease. In the Czech Republic in 2013, when the third pillar was reorganised, revenues to the voluntary plans also significantly rose. In Croatia, Hungary, Poland and Romania, the more or less steadily growing trend of contributions is observed, except for a minor disturbance in 2007. The only country that recorded declines in contributions after 2012 is Slovenia.

Figure following on the next page
Figure 4: Annual gross contributions to the voluntary plans in mln of national currency (own processing based on FSC, HANFA, APS CR, MNB, KNF, APAPR, ATVP, AZN)

Note: The data do not include NYESZ accounts (Hungary) and pension plans provided by Insurance Companies (Slovenia)
4 CONCLUSION

The similarity and relative homogeneity of the pension systems in the CEE countries facilitate comparisons and conclusions. Some of the countries studied experienced a reduction in the second pillar, some did not, but all of them had to reduce the generosity of their public pension systems. The empirical study by Marcinkiewicz (2015) on the coverage and modelled replacement rates in the OECD countries shows that the third pillar is very rarely a meaningful complement to the second pillar; more often it plays a greater role in the pension systems where the second pillar does not exist, and moreover, the lower generosity of the public pension systems fosters the third pillar development. This study shows that in the countries studied, voluntary pensions play an important role only in the Czech Republic. This country has never introduced a mandatory second pillar, unlike the most of the CEE states. It also provides relatively modest benefits in terms of adequacy from the public system. It is also symptomatic that in Slovenia the voluntary pension plans are quite well developed in terms of coverage and assets. In this country the second pillar is not mandatory for all, but only for certain sectors. The regulatory changes seriously diminishing the role of the second pillar in Poland and Hungary do not seem to have a significant impact on boosting voluntary pension savings. However, these reforms took place relatively recently, in 2010 in Hungary and in 2011 and 2014 in Poland, so the effects may occur, but in the future, over the next several years. The results of this study allow formulation of some conclusions regarding common trends. First, they show that the voluntary pillar in most of the countries studied was hit by the crisis, but mainly in terms of smaller revenues, not of membership or assets. Contributions in all of the countries decreased significantly after 2007, to regain its dynamics shortly thereafter (except for Slovenia). Second, the third pillar is the most developed in terms of assets and participation in Hungary and the Czech Republic, which are the countries with strongly prevailing personal plans, but also in Slovenia, where occupational plans are predominant. Thus, the design of voluntary pillar in this respect does not seem to matter. Note however, that in most cases, employers can also contribute to personal plans. Third, almost in all of the countries examined, there is a steady growth of the voluntary pension sector; however, the differences in its development in particular countries are quite large. Without a closer look at the situation in each country separately, one can only speculate what the reasons behind these differences are. This, however, requires in-depth qualitative and quantitative analyses of the socio-economic conditions in each country, which is beyond the scope of this study.

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LITERATURE:

464

