INSTITUTIONAL CHALLENGES FOR MANDATORY PENSION FUNDS IN CENTRAL AND EASTERN EUROPE

Bojana Olgic Drazenovic
Faculty of Economics and Business, University of Rijeka
Republic of Croatia
bojana.olgic.drazenovic@efri.hr

Vesna Buterin
Faculty of Economics and Business, University of Rijeka
Republic of Croatia
vesna.buterin@efri.hr

Stella Suljic Nikolaj
Faculty of Economics and Business, University of Rijeka
Republic of Croatia
stella.suljic.nikolaj@efri.hr

ABSTRACT

Pension funds are one of the basic contributors of the efficient financial system because of promoting long-term savings and stimulating financial development and economic growth. Strong development of pension funds in the last decades is driven by the growing demand arising from the ageing of the population in the last decades. Due to the great importance of pension funds in the social and political terms, their establishment, operations and investment structure are subject of the special interest in every country. Therefore, development of institutions is basic precondition for successful performance and meeting the specific goals of pension funds. Institutional framework include a set of laws and regulations, supervisory and regulatory institutions, organization structures, policies and procedures. In this paper we describe the intricacy of pension governance and instituional framework in the countries of Central and Eastern Europe (CEE). The comparative analysis indicates relative variation in their achieved results, portfolio structure, costs and legislative framework. Inspite of similar path of development and environmental conditions of pension system in these countries their responses to the impact of global financial crises were heterogeneous. Due to underperfomance of mandatory pension funds after 2008 and the shortfall in public fiscal revenues, confidence in the pension system and political suport weakened and triggered significant and comprehensive changes in the pension systems of CEE countries. They resulted in reduction, reform or reversal of second pillar and mandatory pension funds. The aim of this paper is twofold: to examine the diversity of formal institutional frameworks in and to point out possible indicators of institutional development that can be obstacles or incentivnes for pension funds perfomance.

Keywords: *Central and Eastern European countries, financial crises, institutional framework, mandatory pension funds*

1. INTRODUCTION

Numerous countries have faced the unsustainability of the existing pension systems (defined benefit system) due to the increasing number of retirees, longer life expectancy, declined birth rates and changes in the labor market that have increased fiscal imbalances. In Europe, the old-age dependency ratio, which is the ratio of the older population to the working population, is projected to double by 2050 (Song, Ryu 2018). Unfavourable problems were even more pronaunced in the countries of Central and Eastern Europe (CEE) at the begining of transition

period because of high unemployment, the informal economy and the evasion of tax revenues. Furthermore, their pension systems were extremely vulnerable to political pressure and abuse. Originally, CEE countries had followed the Bismarck model of pension system. However, in the mid-1990s, almost all CEE countries recorded significant deficits in state-funded pension systems i.e. pay-as-you-go system (PAYG), despite very high contribution rates. The restructuring of the pension systems initially involved different parametric measures, for example, increasing the retirement age, tightening conditions for retirement and increasing contribution rates. Nevertheless, these changes proved to be insufficient, and most countries undertook comprehensive reforms of generational solidarity and transition to a defined-contribution system or to mixed system in order to solve fundamental problems. Most of the CEE governments implemented pension reform initiated and encouraged by the World Bank report »Averting the Old Age Crisis« (World Bank, 1994). Reformed pension systems upgraded existing PAYG system with two pillars consisted of mandatory and voluntary pension funds. Pension funds have a direct impact on the growth of national savings, reduce pressure on government budgets and stimulate economic dynamics, while at the microeconomic level, the benefits are evident in strengthening individual responsibility (Orszag, Stiglitz, 2001; Barr, 2006). The special contribution of these systems is evident in stimulating the development dynamics of the financial markets, and especially in its long-term segment. The pension funds market is the fastest growing segment of the financial system in the CEE countries. Differences in the growth of assets under management are caused by the beginning and nature of reforms and the establishment of the mandatory (second) pillar of the pension system, the range of investment opportunities and specific investment regulation. The 2008 global financial crisis triggered the second wave of pension system changes. Many countries decided to diverge from the existing pension system, especially in the second pillar by reducing the amount of contributions transferred to the mandatory pension funds, changing fund participation rules or even nationalization of manadtory pension funds assets (Rudolph, 2013; Bielawska, Chłoń-Domińczak, Stańko, 2017). The objectives of this work are twofold: to examine the diversity of formal institutional frameworks in CEE that are central to the performance of public pensions and to point out possible indicators of institutional development that can be obstacles or incentivnes for pension funds perfomance. The paper is divided into five parts. The introductory remarks provide insight into the subject and the research problem. The second part briefly reviews the design of the pension system in the CEE countries.The third part present an overview of institutional framework for pension funds performance in selected CEE countries, while the forth section of the paper is focused on policy responses and changes in their pension system after the global financial crises. Finally, the last section offers conclusion.

2. OVERVIEW OF PENSION SYSTEMS IN CEE COUNTRIES

Almost three decades ago, CEE countries have carried out structural reforms of their pension systems. Several countries have introduced a Chilean-type of mandatory (three pillar model), privately managed pension system, strongly advocated by the World Bank (1994). Beside retaining public PAYG earnings-related scheme two additional pillars were introduced. The CEE countries that implemented this type of pension system include Hungary (1998), Kazakhstan (1998), Poland (1999), Latvia (2001), Bulgaria (2002), Croatia (2002), Estonia (2002), the Former Yugoslav Republic of Macedonia (2003), the Slovak Republic (2005), and Romania (2008) (Hirose 2011). Pension system in Czech Republic was formed in 1994, by adding a voluntary supplementary personal pension savings scheme to PAYG system (or first pillar). The additional pension insurance can be considered as the third pillar of the pension system.[1] Funded second pension pillar in Czech Republic was introduced in 2013 as optional one.

[1] The third pillar in Czech Republic also includes products offered by commercial insurance companies.

Slovenian pension system is an exception among CEE countries because of the lack of the mandatory second pillar. Pension system in Slovenia is set of PAYG system complemented with occupational pension scheme (second pillar) and voluntary personal savings (third pillar). The second pillar consists of supplementary occupational pensions that are mandatory in the public service, banking sectors and specific difficult for difficult and harmful occupations. For other sectors, employers can form voluntary occupational schemes on if at least two-thirds of employees agree to join. The key argument supporting the multi-pillar pension reform strategy was in promotion of solvency and sustainability of pension systems in the long term, achieving macroeconomic stability and boostening economic growth, increased domestic savings, fast capital market development, creating a stable base of institutional investors and better labour market incentives (World Bank, 1994; Orszag, Stiglitz, 2001; Hirose, 2011).

Table 1: Pension systems of selected CEE countries (Bielawska, Chłoń-Domińczak, Stańko, 2017; authors' update)

Country	1st pillar (unfunded – PAYG)	2nd pillar (Mandatory funded schemes)	3rd pillar (Voluntary funded schemes)	Contribution rates (2nd pillar)	
				2007	2018
Bulgaria	DB	2002	1996	5.0%	5.0%
Croatia	DB	2002	2002	5.0%	5.0%
Czech Republic	DB (since 2010 DC)	Optional (since 2013)	1994	-	5.0%
Estonia	DB	2002	1998	6.0%	6.0%
Hungary	DB	1998	1994	8.0%	-
Latvia	NDC	2001	1998	8.0%	6.0%
Lithuania	DB	2004	1998	5.5%	5.5%
Poland	NDC	1999	1999	7.3%	2.3%
Romania	DB	2008 (voluntary since 2018)	2007	2.0%	3.75%
Slovakia	DB (Points)	2005	1996	9.0%	4.25%
Slovenia	DB	X*	2000	X*	X*

**Exist for specific professions (from 1992)*

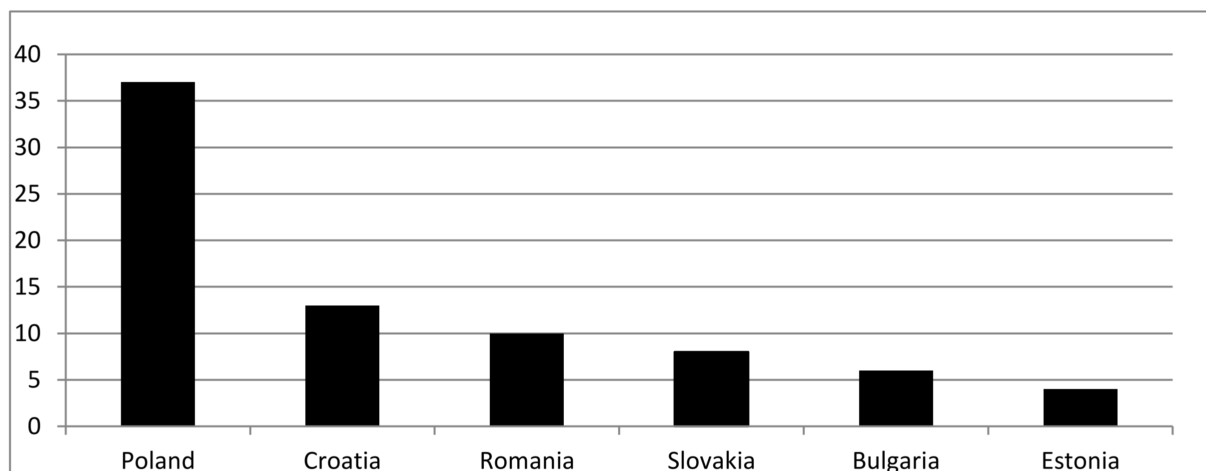

Chart 1: Mandatory second-pillar pension assets in 2018, in bn of EUR (OECD, 2017)

The main problems of pension funds in CEE countries are as follows (Bakker, Gross, 2004; Šonje, 2011; Prohaska, Olgić Draženović, Suljić 2015; Bielawska, Chłoń-Domińczak, Stańko, 2017):

- disproportion between huge demand of pension funds and underdeveloped capital market,
- vulnerability to political interference,

- conflict of interest between key stakeholders,
- conservative investment limits, which prevent them from better use of equity premium,
- high exposure to country risk given prevailing investing in domestic government bonds,
- fee structure – in most of the countries fees are quite high, particularly the ones charged on assets under management which determine the long-term cost of saving for retirement;
- problem of transparent measurement of pension fund performance (vulnerability to populism and ad hoc policy measures).

One of the main benefits of introducing mandatory pension funds was to strenghten local capital markets and creation of new class of domestic institutional investors. In Croatia mandatory pension funds became the second-biggest institutional investors after banks.

3. INSTITUTIONAL FRAMEWORK FOR MANDATORY PENSION FUNDS

Adequate financial infrastructure, high level of transparency and existance of specialized supervisory entity are necessary conditions in order to ensure responsibility of fund managers for dispose of savers resources and prevent misappropriation of fund assets (Castañeda, Rudolph, 2011). Most of CEE use a stringent legislative regulation related to the problem of investment structure, i.e. the maximum permissible volume of investment in certain types of assets, and restricting or prohibiting the entry of funds into risky and speculative affairs. Namely, unlike other institutional investors, the basic principles of the operation of pension funds are related to security, risk dispersion and maintaining the necessary liquidity, not primarily to maximize profitability of investments. Investment regulation and supervision of pension funds industry is a metter of capital market development. In general, CEE's capital markets are underdeveloped with shortage of investible assets locally. They are not capable of absorbing pension funds investments without a significant effect on domestic asset prices and risk of creating speculative bubbles. There is evident regulators reluctancy to permit more investments in foreign stocks or riskier instruments. Therefore, most of the pension funds assets is invested in local government bonds. In this unfavourable conditions, pension savers do not have enough knowledge and experience to select a pension fund, the investment options are limited and pension fund managers have strong incentives to maximize short-term returns. Therefore, Castañeda and Rudolph (2011) justify stricter investment regulation than those in deeper and more developed markets. Bielawska, Chłoń-Domińczak, Stańko (2017) state that quantitative and strict investment restrictions are justified in cases where fund managers and regulators do not have enough experience and for underdeveloped and volatile markets. Nevertheless, with market development, regulation should become more liberal. The pension privatization reforms created a "quasi-market" for pension services: it replaces the monopolistic state provider with competitive private pension funds managers. The market concentration has even increased over time for mandatory pension funds in CEE through mergers and acquisitions (OECD, 2017).

Table following on the next page

Table 2: Investment structure of mandatory pension funds in selected CEE countries in 2018 (IPE 2019a)

	Bonds	Cash and deposits	Stocks	Other assets
Poland	6,2	5,7	85,4	1,9
Slovakia	65,9	-	28,0	6,2
Croatia	70,7	5,4	16,0	1,7
Bulgaria	63,6	1,1	33,3	2,1
Romania	65,8	8,5	18,9	6,7
Estonia	48,9	2,1	17,3	31,3*
Latvia	44,6	4,5	2,2	47,3**
Lithuania	38,1	5,4	-	55,6***

** 18,9% units of stocks funds; 12,4% units of other investment funds*
***47,31% Investment funds*
**** 55,63% Collective investment units*

With regard to investment policy and investment regulation, most of pension funds in analysed countries followed a very conservative approach. Investment in government bonds significantly exceeds the statutory minimum and causes high exposure to the domestic market (high political and country) risk, especially in Croatia, Slovakia, Bulgaria and Romania. Traditionally pension funds in CEE have mainly invested in fixed income, but the last few years they have started to shift towards equities, investment funds and other alternatives. Exposure to stocks of pension funds portfolio is highest in Poland, while Croatia pension fund managers kept the investment orientation reluctant to take risks. 'One of possible explanations for that lies in the fact that corporate debt markets are dominated by bank-based lending and yet need to develop in the region. Another factor can relate to the high state indebtedness which kept yields on public debt securities attractively high' (Bielawska, Chłoń-Domińczak, Stańko, 2017, p. 23). Some of the authors considered it the most efficient strategies from the long term perspective that maximise the welfare of individuals (Blake 2008; Castaneda and Rudolph 2011). Recent attempts to improve the second pillar regulation in many countries included introduction of life-cycle investment strategies. Life-cycle investment strategy is built on the idea of "age-based investing" with possible opt-out for specific age cohorts. The idea is based on premises that riskier investments with high returns are suitable for younger persons at the beginning of the accumulation phase. On the other hand, for members that are approaching the retirement age, security of investment is more important than high returns (Kovačević, Latković, 2015, p. 32). Optimal shifting strategy from risky to conservative assets varies across the CEE countries. In addition to investment restrictions, most countries have introduced additional measures in order to preserve retirement savings. For example, minimum return guarantee on invested assets (Czech example) have been defined, as well as fund managers' obligations to regularly publish the performance and market value of the assets of the funds (Iorgova, Ong, 2008). However, this system did not facilitate any competition among the pension funds. Return guarantees proved to be costly for providers and this cost is eventually paid by future retirees, either in a form of high fees or a conservative investnment policy, and in the end results in the the effect of herding or similar investment patterns (Kominek, 2006). Herding phenomenon encouraged manager to skew asset allocations towards short-term portfolios and entail a convergence of portfolios towards sub-optimal portfolios (for example in Hungary and Poland).

However, minimum return guarantee is considered to be adequate mechanism in order to protect contributors from agent and principal problem (Castañeda, Rudolph, 2011). Due to the fact that pension funds in CEE countries are commercial entities, there is a large pressure on achiving high profit through fees and other costs. Once again, that can lead to the effect of herding, when managers produce annual performance very similar to each. On the other hand, pension funds members are passive due to a low elasticity of demand with respect to prices.

4. FINANCIAL CRISES AND DIVERSITY OF RESPONSES

The severity and duration of the global financial crises differ in CEE countries. Financial crises adversly hit the public finance, raised social transfers and caused tremble of public's confidence in their pension systems with quite different policy reactions. They varied from unchanged settings and slight adjustments to radical turns and even systemic changes and reversal of multi-pillar model. The scope of the change (in particular permanent vs. temporary one) is an outcome of many factors, including, most importantly, the public finance situation and worsening of the fiscal stability triggered by the financial and economic crisis after 2008 (Chlon-Dominczak, 2018). Different policy measured in CEE countries resulted from an economic downturn are shown in the table 1.

Table 3: Reversals of funded parts of multi-pillar systems in CEE countries (Bielawska, Chłoń-Domińczak, Stańko, 2017, p. 15)

Reversal	Hungary (permanent)	8% 2nd pillar contribution rate reduced to 0% in January 2011 and transferred to the 1st pillar - state PAYG system. Reversal is of a permanent nature
Part reversal part reduction	Poland (permanent)	7.3% contribution rate cut to 2.3% in May 2011. From February 2014 contribution at 2.92%, in February 2014 assets invested in government bonds transferred to PAYG scheme and redeemed. In 2014 system made opt-out and opt-in in specified time slots. Assets from FF transferred gradually to PAYG 10 years prior to retirement. Reduction in the size of mandatory funded system is permanent, however rights in the PAYG state pension system have increased.
Reductions in contributions	Slovakia (permanent)	9% contribution reduced to 4% in 2013with planned further increase to 6% in 2024. Funded scheme opt-out and opt-in system.
	Estonia (temporary)	6% contribution rate cut to 0% between June 2009 and January 2011 and shifted to PAYG. Gradual increase from 2011. Rate set at 3% in January 2011 and 6% in January 2012. In 2014-2017 at 8% to offset missed contributions
	Latvia (partial reduction)	8% contribution rate reduced to 2% in May 2009. Rates increased to 4% from 2013
	Lithuania (partial reduction)	5.5% contribution rate reduced to 2% in July 2009. Rates further lowered to 1.5% in January 2012 and 2.5% in 2013. Change to 3% (2%+ 1%) January 2014, voluntary participation. Additional contribution at 2% in 2016-2019.
	Romania (temporary)	Reduction in planned growth path of contribution rate from 2% to 6%. Rate froze at 2%, started to increase from 2011 at annual rate of 0,5pp.
No changes in 2nd pillar arrangements announced as of June 2012	Croatia	No changes, 2nd pillar contribution rate remains at 5%.
	Bulgaria	No changes, 2nd pillar contribution rate remains at 5%.
	Macedonia	No changes, 2nd pillar contribution rate remains at 7.42%.
Planned implementation of 2nd pillar continuing	Czech Republic	2nd pillar reform started on January 1, 2013. Contribution rate were set at 5%.

Pension system was particularly vulnerable due to its large dependence on government budget, partly caused by transition costs associated with introduction of second pillar. Some CEE countries have opted for using a pension (reserve) funds as a 'piggy bank' by reducing mandatoy pillars contribution. Hungary took the most extreme action by effectively nationalising the second-pillar pension (reserve) funds and use it to lower the public deficit. Following a pension reform, since 2011 new entrants to the labour market in Hungary have been enrolled in the public pay-as-you-go system only and no longer in a funded pension plan, while members of the previously mandatory funded pension plans were given the choice of keeping their accounts or transferring their assets into the pay-as-yougo system. Most of the participants chose to switch back to the pay-as-you-go system (Freudenberg, Berki, Reiff, 2016). Similarly, almost half of open pension funds assets in Poland were transferred to the PAYG schemes (or to the national budget), followed by a massive drop in a number of members of the second-pillar (only 18,3% of the eligible members). By law amandments, open pension funds were forced to transfer domestic sovereign bonds into the social security system, made participation optional and lower the level of paid contributions. The Czech Republic introduced an optional second pillar in 2013. Employees were given the option of diverting part of their earnings to the new second-tier pension funds. However, retirement funds never gained considerable interest, and new pillar was terminated shortly after it started operation. In the case of Estonia, Lithuania and Romania the reduction of pension is temporal and after the period of adjustment, the contribution rate are expected to come back to the initial level.The most recent policy retreat in Romania has occurred in 2018 with policy retreat i.e. cut of a contribution rate from 5.1% to 3.75%. Also, for Romania further second-pillar revisions are being considered, i.e to make individual accounts optional. Bulgaria moved to an opt-in model in 2016, while Slovakia has oscillated between mandatory and voluntary systems (a series of opt-outs). Fultz, Hiroses (2018) shows that second-pillar policies remain unsettled in most CEE countries (except Poland and Hungary). Three governments have allowed certain workers to exit the second pillars (Bulgaria, Croatia and Slovakia), refund their contributions, and receive a full public pension. The arguments for all of these changes were different (besides high pressure on budget resources): high level of fees and costs, intransparent system and low rates of returns. Neverthelss, all of these were design elements of pension system that were easy to correct, while the lost of trust in the pension system and reliability of accumulated pension savings can hardly be restored. Using the second pillar to stabilise public finances has proved to be a short-term solution. In Poland general government debt fell from 55.7% of GDP in 2013 to 50.2% the following year after the second-pillar reform. Only two years later it had groown up to 54.1% (IPE 2019). Without doubt, such crisis management shifts enlarged pension obligations into the future and financing of future pensions will rely mainly on PAYG pension schemes (Hinrichs, 2015, p. 24).

5. CONCLUSION

Further development and strenghtening of capitalised saving is inevitable regarding underlying economic and demographic forces which relate to population aging, public finance difficulties and global investment opportunities. Therefore, development and improvement of multi-pillar model shuld be a challenge and imperative for policymakers and pension-fund managers. Cross-national CEE comparison of the post-2008 reforms reveals different solutions for pension systems. Changes in pension system were consequence of political inconsistency and varied from minor (or none) modifications to radical pension reforms of institutional framework, regulation and structure of old-age security systems. The aim of these changes were to improve deteriorating condition of fiscal position and the rising pressure from current pension system expenditure after the outbreak of the global financial crises. For countries that opted for reversals of pension reforms savings form pension funds immediately lowered the public debt.

At the same time, that caused increase of the hidden debt in the form of future pension obligations of the state.

ACKNOWLEDGEMENT: *This work has been supported by the University of Rijeka under the project number uniri-drustv-18-61 and uniri-drustv-18-27.*

LITERATURE:

1. Bakker, M.R., Gross, A. (2004) Development of Non-bank Financial Institutions and Capital markets in European Union Accession Countries, WB Working Paper, no. 28, Washington: The World Bank. Retrieved 20.8.2019. from http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2004/04/06/000090341_20040406143746/Rendered/PDF/284040PAPER0WBWP028.pdf.
2. Barr, N. (2006) Pensions: overview of the issue, Oxford Review of Economic Policy, 22 (1), p. 1-14.
3. Bielawska, K., Chłoń-Domińczak, A. and Stańko, D. (2017), Retreat from mandatory pension funds in countries of the Eastern and Central Europe in result of financial and fiscal crisis: Causes, effects and recommendations for fiscal rules, MPRA Paper 83345, University Library of Munich, Germany
4. Blake D. (2008) It is all back to front: critical issues in the design of defined contribution pension plans, in Broeders D., S. Eijffinger and A. Houben (ed.), Frontiers in Pension Finance, Edward Elgar.
5. Castañeda, P., Rudolph, H.P. (2011) Upgrading Investment Regulations in Second Pillar Pension Systems: A Proposal for Colombia, Policy Research Working Paper, WP S5775, The World Bank.
6. Chlon-Dominczak, A. (2018) Impact of changes in multi-pillar pension systems in CEE countries on individual pension wealth, Journal of Pension Economics and Finance, Cambridge University Press, 17(01), p. 110-120.
7. Freudenberg, C., Berki, T., Reiff, A. (2016) A Long-Term Evaluation of Recent Hungarian Pension Reforms, MNB Working Papers 2, Magyar Nemzeti Bank, Budapest
8. Hinrichs, C. (2015) In the Wake of the Crisis: Pension Reforms in Eight European Countries, ZeS-Working Paper No. 01/2015, Zentrum für Sozialpolitik, Universität Bremen.
9. Hirose, K. (2011) Pension Reform in Central and Eastern Europe in times of crisis, austerity and beyond, International Labour Organization, Budapest.
10. Iorgova, S., Ong, L.L. (2008) The Capital Markets of Emerging Europe: Institutions, Instruments and Investors, International Monetray Fund, Monetary and Capital Markets Department, IMF Working paper WP/08/103. Retrieved 12.8.2019. from http://www.imf.org/external/pubs/ft/wp/2008/wp08103.pdf.
11. IPE (2019) CEE: A system in flux (by Krzyzak, K.) Retrieved 21.9.2019 from https://www.ipe.com/pensions/country-reports/cee/cee-a-system-in-flux/10022463.article
12. IPE (2019 Second-pillar pensions in Central & Eastern Europe. Retrieved 20.9.2019 from https://www.ipe.com/pensions/country-reports/cee/
13. Kominek, Z. W. (2006). Regulatory induced herding? Evidence from Polish Pension Funds. European Bank for Reconstruction and Development Working Paper (96).
14. Kovačević, R., Latković, M. (2015) Risk analysis of the proxy life-cycle investments in the second pillar pension scheme in Croatia, Financial theory and practice. 39(1): 31-55.
15. OECD (2017) Pensions at a Glance 2017; OECD and G20 Indicators, OECD Publishing, Paris. Retrieved 20.9.2019. from https://read.oecd-ilibrary.org/social-issues-migration-health/pensions-at-a-glance-2017_pension_glance-2017-en#page1

16. Olgić Draženović, B., Prohaska, Z., Suljić, S. (2015) Financial non-deposit intermediation institutions in the Republic of Croatia, Economic Policy Today: Political Rhetoric or a True Reform, Krtalić, S., Drejerska, N. (ed.), Juraj Dobrila University of Pula, Faculty of Economics and Tourism, Pula, p. 209-233.
17. Orszag, P. R., Stiglitz, J. E. (2001), Rethinking Pension Reform: Ten Myths About Social Security Systems, (Holzmann, R., Stiglitz, J. E. ed.) New Ideas about Old Age Security- Toward Sustainable Pension Systems in the 21 st Century, The World Bank. Retrieved 15.8.2019 from https://www8.gsb.columbia.edu/faculty/jstiglitz/sites/jstiglitz/files/2001_Rethinking_Pension_Reform_Ten_Myths.pdf.
18. Price, W, Rudolph, H. P. (2013) Reversal and reduction, resolution and reform: Lessons from the financial crisis in Europe and Central Asia to improve outcomes from mandatory private pensions, Washington, DC, World Bank.
19. Song, J., Ryu, D. (2018) Aging effects on consumption risk-sharing channels in European countries, Zbornik radova Ekonomskog fakulteta u Rijeci, 36 (2), p. 585-617.
20. Šonje, V. (2011) Pension systems and pension reforms: Case of Croatia (with a review of reforms in 13 emerging European countries), Arhivanalitika, Zagreb.
21. World Bank (1994) Averting the old age crisis: Policies to protect the old and promote growth. Washington DC: World Bank.