ADEQUATE AND SUSTAINABLE PENSIONS - WHERE IS THE BALANCE BETWEEN PAY-AS-YOU-GO PUBLIC PENSIONS AND CAPITAL PENSIONS

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Abstract

In most countries of the European Union the population is ageing and there is a pressure on financing the current levels of pensions. That is why many pension reforms were undertaken in a lot of countries. As a consequence, future pensions from public systems will be less generous compared to nowadays. Terms like "adequate" and "sustainable" are well perceived among politicians and researchers as long-term goals in pension security. The question is how to reach and preserve this state in the light of the macroeconomic and demographic trends.

Organizations like the European Commission, the European Parliament, the European Council, the World Bank, the International Monetary Fund, the Organization for Economic Cooperation and Development are proposing governments to make efforts for encouraging private pensions. In the European Union pension policy is within the competence of every member state. This leads to various proportions between public and private pensions.

The different decisions in pension security design are creating confusion among market players, beneficiaries and are increasing fragmentation, decreasing the pension product efficiency and erodes the trust. One solution of the problems is to adopt integrated approach for the whole pension system, develop long-term policies and find a balance between public and capital pensions. The report deals with analyzing these problems and seeking solutions for better saving for the households.

Keywords: *private pensions, integrated approach, pension security, adequate pensions, sustainable pensions*

INTRODUCTION

The study is motivated by the desire for detailed analysis how to improve the pension coverage in the European Union (EU) and how to solve existing problems in pension security in the Member States (MSs). Focus is given to Bulgaria and the analysis of the whole pension system that consists of pensions from public systems and pensions from capital provisions.

The continuous ageing in most countries in EU [1] and the high size of the government debt [2] are posing questions how the pensions from the public systems (Pay-As-You-Go, PAYG pension) will be financed in the future (the size of the government debt to GDP stands at 81.6% of the EU as of the end of 2017 with pre-crisis level from 57.5%), especially as, contrary to the common belief, government debt is not risk-free [3, p. 523]. Also, new types of investment risks are emending which is leading to an internal, endogenous understanding of the importance of the implementation of a holistic approach on risk management [4, p. 480] on the part of investors.

So it is expected PAYG pensions to be less generous in the future compared to nowadays. At the same time, there is pressure from the society not to decrease the size of the pensions and opposite to increase them. The policymakers and the experts [5] are seeing solution the smaller replacement ratio from public pensions to be compensated from supplementary pensions. These supplementary pensions constitute of occupational pensions, mandatory or quasi mandatory schemes and personal voluntary pensions.

Because the social policy is within the discretion of each Member State (MS) and there is no harmonization in social security there are various pension system designs in EU. That leads to huge differences in pension replacement ratio among EU [6] which is an impediment for developing of a single market.

The thesis of the study is that adopting integrated approach in pension security leads to better coverage and improved efficiency both from public and capital pensions. Capital pensions have to be regarded as a solution from governments and regulators not only as an option.

The aims of the research are reached through the following stages: description of the current situation of pension security in EU; analysis of the tendencies and factors; justification of the integrated approach for development of public and capital pension systems and pointing directions for changes and improvement.

We assume that when this solution idea (for integrated pension approach) is adopted it leads to more active role of the policymakers and better information toward individuals. First thing, is to know in clear understanding what problem we are facing today. Investments require the immediate participation of the investor in the process of choosing the object in which the investment is going to be done [7, p. 19].

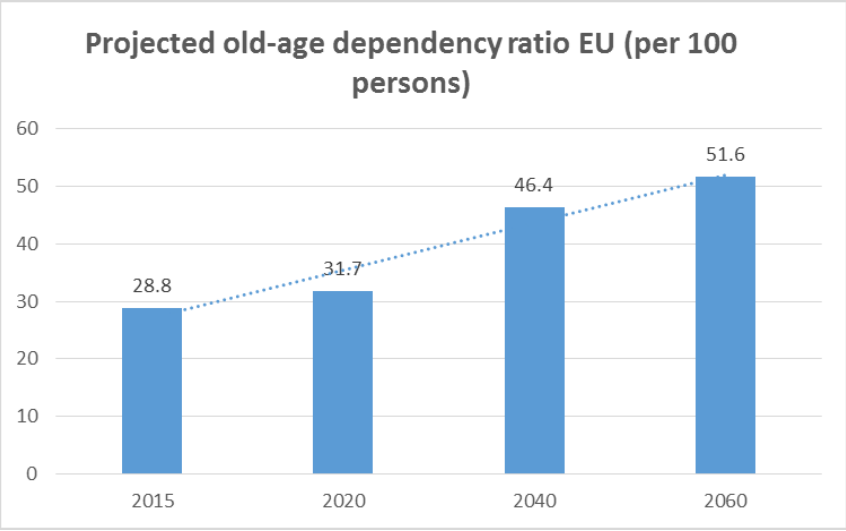
Secondly, there is need for better understanding the strengths and weaknesses of both public and capital pensions. Thirdly, policymakers could take improved decisions for the pension system design and for the regulation and the supervision over these markets. After that, the aims and the opportunities have to be communicated to individuals. And last, efforts have to be made the stakeholders to take active part in building and developing of the pension markets.

The lack of consistent policy in pension security leads to some problems or is an impediment for solving such problems. It is crucial to form and to follow certain pension policy. Public pensions have to be reformed. Capital pensions have to be part of the total pension system. Capital pension provision has to supplement the PAYG pensions. Private pensions have to be well regulated and supervised. At the same time, they need "encouraging" environment in order to reach the desired goals. Now we need to talk about total pensions, total pension security and total pension replacement ratio.

1. PRESSURE ON PAYG PENSIONS

The public pension systems depend on the incoming contributions. These contributions tend to decrease. There are tendencies for ageing of the population and increasing longevity (20 years is the life expectancy at age of 65 in EU average as of the end of 2016 which is more than one year higher compared to a decade earlier – 18.7 in 2006) [8] . The two trends are increasing the period of receiving pension. As a consequence – there is a threat the pension expenditures to increase. The process of ageing for the population in EU is described in the following figure.

Figure 1

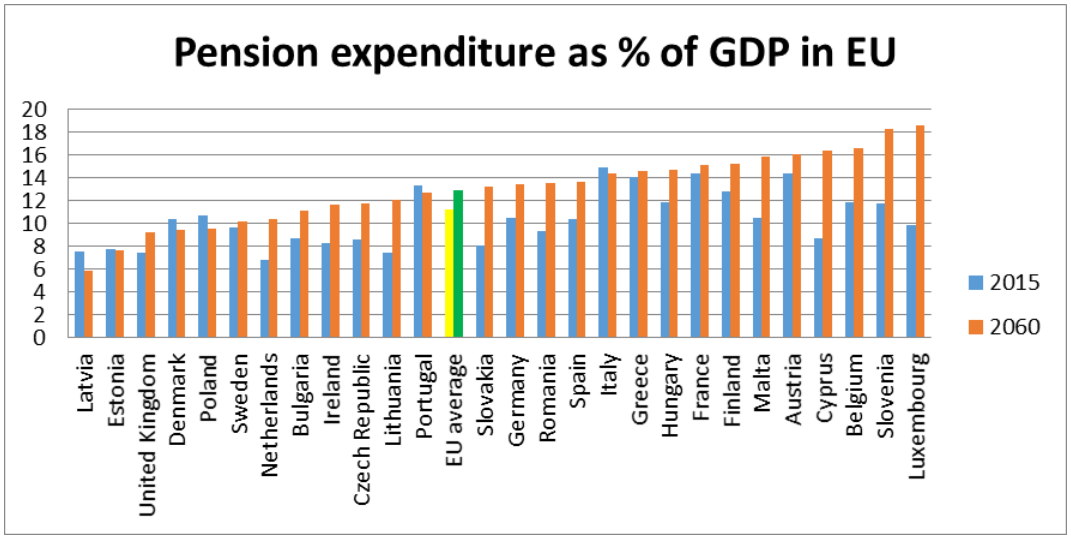


Source: Eurostat, http://ec.europa.eu/eurostat/web/products-datasets/-/tps00200

The projected old-age dependency ratio in the EU is supposed to almost double from the current levels – from 28.8 for 2015 up to 51.6 in 2060 – now 100 persons aged between 15 and 64 have to support 28.8 people 65 and over 65 years and in 2060 100 persons in working age have to support 51.6 economically inactive persons aged over 65. This ratio shows that the people in working age who is paying contributions is decreasing compared to older people.

Public pensions face the situation with less money to cover greater amount of expenditure. This requires additional money from the state budgets. The budget possibilities for increase are limited. The share of pension expenditure to GDP is 11.2% as of the end of 2015 [9]. It is expected to increase up to 12.9% in 2060. The following figure shows the expenditure for pension in EU countries now and as a projection in 2060.

Figure 2



Source: Eurostat,
http://ec.europa.eu/eurostat/tgm/table.do?tab=table&plugin=1&language=en&pcode=tps00153

It is striking that in countries with high pension expenditure the government debt is also very high – for example countries like Italy, Greece, Portugal and Spain [10] (Italy, Greece, Portugal and Spain have respectively 131.8%, 178.6%, 125.7% and 98.3% government debt as percentage of GDP compared to average 81.6% for the EU as of 31.12.2017). Countries with high pension expenditure and relatively "normal" government debt are Hungary, Germany and Luxembourg (the ratio of government debt to GDP in Hungary, Germany and Luxembourg is respectively 73.6%, 64.1%, and 23%). The state budgets are not in position to support increasing pension expenditures. The reason is that there is pressure to increase the share of other expenditures. The latest EU policies are to channel more resource to areas as defense, education, health, environment and migration [11].

These tendencies in public pensions leads to reforms in PAYG systems. The usual steps are increasing the pension age – thus preserving the period of pension payment. The increase of the insurance period as a precondition for qualifying a pension is another measure. Other measures include decrease in some rights – pension for dead spouse, pension for permanent disability and rights for early pension.

Based on the above-mentioned we can draw conclusions that the PAYG systems have difficulty to support adequate pensions – the amount of pension compared to workers' income prior retirement. Other problem is that public pension schemes are facing difficulties to ensure for long period of time the pensions' obligations – another conclusion is that the sustainability of pensions is under question.

So the problem is how to finance the expectations the pension system to provide 80% replacement ratio. Alone PAYG is not able or it will be at great costs. So it is not sustainable. The possible solution

is the main part from the pension security to be through PAYG (50-60%) and another 20% to come from capital pensions. Voluntary products can top up more. Here are popping the questions: what to be the proportion and what design to have for the capital pensions?

2. INCREASING ROLE OF SUPPLEMENTARY PENSIONS

Supplementary pensions are increasing their role in the last years. The main characteristics of these schemes are the accumulation of funds on name and account for an individual, investment of these funds and payment of pension calculated on the basis of the accumulated funds. As a consequence, they are referred as capital, private or funded pensions.

From the following table can be judged the increasing role of supplementary pensions in the total pension security in selected EU member states.

Table 1. The role of private pensions in the total pension security

indicator	as % of GDP		as % of total pension expenditure	
country /year	2013	2060	2013	2060
Netherlands	5.2	6.5	43.2	45.5
Denmark	4.6	5.8	30.8	44.7
Sweden	2.5	3.9	21.7	34.2
Lithuania	0	2.2	0	32.2
Estonia	0	2.2	0.2	25.9
Croatia	0	1.6	0	19
Latvia	0	1.1	0	12.8
Romania	0	0.8	0	9.3
Spain	0.7	0.8	5.3	6.9
Portugal	0.3	0.2	2	1.5

Source: European Commission: The 2015 Ageing Report, p. 82

Among the countries with the highest proportion of private pensions in the total pension security are Netherlands, Denmark, Sweden, Lithuania and Estonia. Not all member states gave the relevant information for the data in the report – only 10 member states provided accurate data. Private pensions have significant role also in countries like United Kingdom, Germany, Ireland, Finland and Austria. In countries members of the Organization for Economic Cooperation and Development (OECD) private pension assets are estimated at over USD 38 trillion [12] (the data encompasses 36 states members of OECD from Europe, Asia-Pacific, North and South America.). Four countries from Central and Eastern Europe (CEE) further developed private pensions [13] (Croatia, Estonia, Latvia and Romania).

The increased role of the private pension in Western EU member countries compared to that in CEE states stems mainly from the historical development of Defined benefit (DB, occupational pensions) plans connected with the employers. Occupational pensions were considered as a good tool because of the solid economic development, the growing incomes of companies in Western Europe countries. All these processes enjoyed good times from 1960 till 1990. After 1990s there is a clear process of shift from DB plans to Defined contributions (DC) schemes. In simple, the main difference between DB and DC plans is how is defined the pension benefit – in DB schemes the pension is predefined (as a percentage from particular anchor or through formula) and in DC schemes the pension depends on the

accumulated sum prior to retirement or defined are the contributions not the pension.

Private pension provision in EU has many forms. During the last years well accepted is the auto enrolment mechanism which decreases the costs of the service and increases the coverage. The last two are prerequisites for improved efficiency from private pensions – with equal resources to derive better result.

Nevertheless pension security is within the discretion of each member state the EU has some internal common rules [14]. In addition, in June 2016 the European Commission issues a proposal [15] for regulatory framework for development of pan-European personal pension product (PEPP). It is expected the Regulation to be adopted end of 2018 or in the beginning of 2019. Another projects by the European Commission are RESAVER [16] and tracking service for pension entitlements [17] (TTYPE). RESAVER is an opportunity for occupational pension provision for research staff enabling the mobility between research institutions in EU. TTYPE is a project for creation a "Track and Trace Your Pension in Europe" service to help people track information about their pension entitlements across Member States.

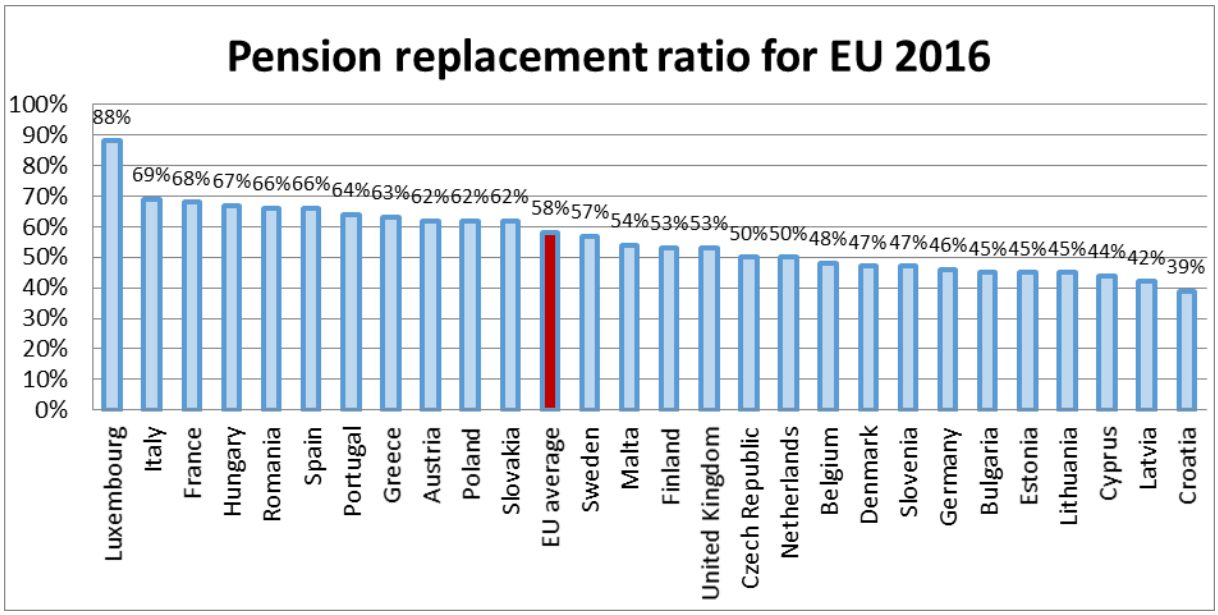
One conclusion from the analysis is that in the future the individual has to make more decisions about financial and security matters like pensions, providers, products and others. There is a clear trend that greater responsibility (also often associated with risk) to be carried by the individuals. An individual (as well as an institutional one) investor places free financial resources in various instruments aiming at achieving a certain amount of return in absolute terms [18, p. 332]. Another conclusion is that an individual has to save more. Based on these conclusions comes the finding that there is no sufficient research how interact different pensions, how are integrated the different targets, what means in overall, in average, for medium earners, for low income people.

3. INTEGRATED PENSION APPROACH

The integrated approach can be seen in different areas such as: the policy level; the regulation; the interaction between different authorities and the supervision. From the point of view of the policy level it could be searched in defining country specifics, analysing the problem, formulating analytical apparatus, developing strategy, defining EU level policy, tendency and measures. Furthermore, decision makers can set the targets - long term, medium term, short term. Another elements of the integrated approach are to define and execute appropriate communication strategy to the society and different stakeholders' groups.

Examples of instruments are the sources of financing the pension obligations, targeting high percentage of penetration in terms of participation and contributions payment and imposing good corporate governance of the providers. The target replacement ratios from pensions are also part of the integrated approach. The current pension replacement ratios in EU are shown in the following figure.

Figure 3



Source: Eurostat,
http://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&pcode=tespn070&plugin=1

The huge differences (more than two time in some cases) in the size of the pension replacement ratio among MSs is another prove of need for more active role of the policymakers.

Through the integrated approach it will be established link between all pension forms in a given country. This link has to be reflected in the social, labour and fiscal law. There are interdependencies between the pension forms. If a country promotes fiscally or socially one or the other pillar, the other pillars are affected by this [15].

The integrated approach has to take into account the advantages and disadvantages of both the public and the private pensions. For example, one advantage of the public pensions is that the government easily can index the size of the pension. As disadvantage is regarded the lack of inheritance of the accumulated rights in case of death of the individual prior to retirement. For the private pensions clear advantage is the direct relation between the accrued assets and the size of pension. Also the full inheritance of the accumulated funds in case of early death. One disadvantage could be the size of the costs of the service. Other disadvantage of the capital pensions could be that wealthy people can benefit more from this form of social security compared to middle and low income people (known as the "Matthew effect"). Also it is well known that charges and investment return are among the major factors that influence the size of the pension from capital schemes based on defined contributions. Influencing the size of the pension can be done partly by choosing the instrument in which to invest. Currently new types of investments are gaining speed, one such example is the so-called socially-responsible investments, or SRI, which have been gaining important for the last ten years [19, 516].

Any successful pension design in any country should start by taking into account all existing pension forms [20]. The integrated approach contains analysis of the current state, the traditions and achievements of the existing pension systems. It has to take into account the forecasts of macroeconomic developments and other factors that have an impact on the state of pension systems. Further it goes to formulating long-term and intermediate goals. After that is the provision of tools to achieve the intermediate and long-term goals. It comes with the formulation of the basic parameters of the solidarity and the capital system. Part of the structure are the mechanisms for subsequent analysis and establishment of institutional units for policy, analysis and control over both systems.

4. IMPLICATIONS FOR BULGARIA

The combined model of pension insurance in Bulgaria was properly introduced in 1999. It is the so called three-pillar model**.** The pension from the First pillar is solidarity, with the revenues from the insurance contributions of the workers have to be paid the pensions of the current pensioners. The pension from the Second pillar is funded, capital, personal. The vehicle is Universal pension fund (UPF), managed by pension insurance company. The pension from the Third pillar is voluntary. Again it is funded, capital and personal and comes from Voluntary pension fund (VPF). The combined model constitutes of main PAYG pension supplemented by mandatory from UPF and voluntary from VPF. Part of the Second pillar is the insurance of people working under first and second labour category (under dangerous or hazardous labour conditions). The insurance is carried out in Occupational pension funds, separate from Universal and Voluntary funds, managed again by pension insurance companies. This insurance is not part of the analysis in this report because it relates to certain category of workers and the pension from Occupational pension funds is not supplementary to PAYG pension but is an alternative.

Some of the objectives of the 1999 reform were to include in the pension protection individual initiative, personal responsibility and private capital. The targets were that the state pension would be replacing 40%-45% from the working income, another 15%-20% to come under the supplementary mandatory pension from the UPF and additional 10-20% to come from the voluntary pension. It could be said that these goals were realistic, but their poor performance over the next nineteen years has failed this reform. From today's date we can say that the state failed in the pension reform. This failure has four very clear expressions: lack of consistent policy; lack of adequate regulation; failure to build and carry out effective supervision, and failure to create and develop a competitive market. We are referring to the pension reform and its results because we believe that the lack of integrated approach was one of the fundamental reasons for the state failure. If the policymakers were adopting and executive the integrated approach some of the mistakes could be avoided.

Following the lack of consistent policy another mistake was made in 2016 - the pension model was slightly changed. The second pillar insurance in Universal pension fund was changed from mandatory to voluntary one. The insured person chooses whether to insure for a capital pension or to transfer the contribution for an increased amount of the solidarity-based pension. For the UPF insurance periods, the individual coefficient (serving for the calculation of the PAYG pension) is reduced by the ratio between the contributions of the UPF and the Pensions Fund of the Social Insurance Fund for the respective period. Here is one of the details of the amendments that unjustifiably give priority to the solidarity pension. In this case the PAYG pension is reduced taking account the official size of the contribution for Solidarity Pension Insurance Fund. The real size of the contribution is almost two times bigger as the State Budget is paying approximately half of the expenses for pensions. Through calculating with nominal size of contribution not the real one unfair and unduly is reducing the PAYG pension of those who are insured in Universal pension fund. “2016 pension model” changes reduce capital coverage, deepen the problems in this sector, and reduce the confidence of citizens in capital insurance.

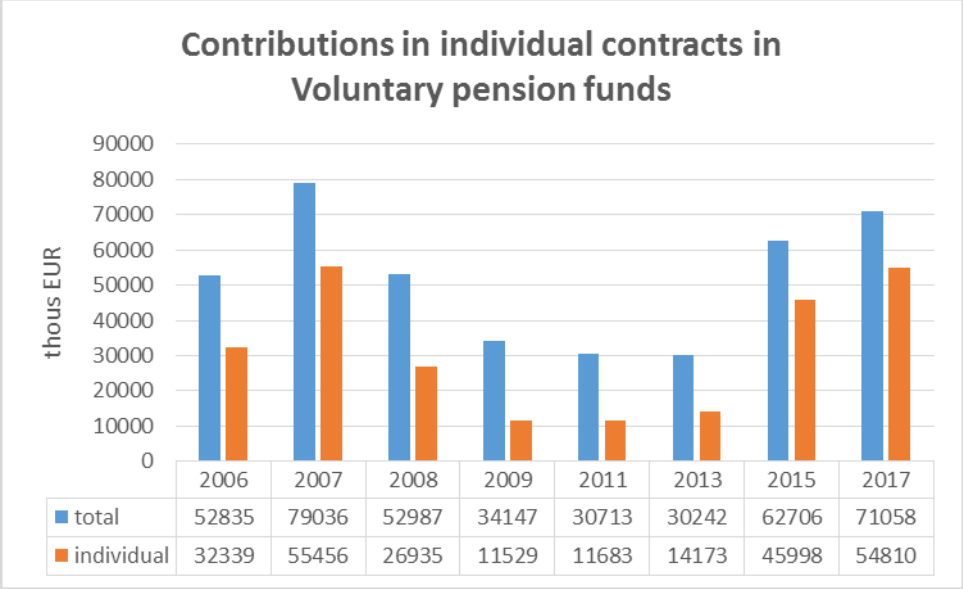
Three other priority areas were not addressed by the legislator - the impartiality of insurance contributions, improved investment results and risk management. The time is missed for adequate structuring of the pension protection through two pillars - solidarity and capital. We should not seek to compare and contrast the two pensions. On the contrary, we need to look at how the two pensions lead to adequate and sustainable pensions.

Most likely, new changes to the pension system will be made in maximum 5-10 years. Changes in a relatively short period of 10-15 years is a significant problem for a conservative system, such as the pension system. Changes in this system result after 30-40 years. At the same time, in Europe, the debate is how to increase the share of capital provision and improve the results of its operation. This debate discusses in detail the characteristics of individual capital pensions and capital-related occupational pensions schemes. For example, European Commissioner for Employment, Social Affairs, Skills and Labour Mobility Marianne Thyssen clearly puts two emphasis on the development of pension protection in the Member States [21], namely a longer period of work and an increase in

the role of supplementary, capital-based pensions. The EC places a mandate on governments and social partners to "actively promote" capital pensions by clearly demonstrating the "economic benefits of supplementary pensions".

The integrated approach could have positive effect in Bulgaria on both PAYG system and capital pensions. The development of insurance in Voluntary pension fund is shown in the following figure.

Figure 4



Source: Financial Supervision Commission www.fsc.bg and authors calculations

It is evident from the information that during 2007-2009 crisis the voluntary contributions declined significantly. Four years were needed to regain the trust – since 2014 there is an increase in the paid contributions. The increase comes mainly from individual contributions and the incoming payments from the employers are almost at steady level. These figures show that there is a great potential for increase of pension protection through capital pensions.

These conclusions is supported also from the comparison between the proposed PEPP framework (mentioned above in the text about EC initiatives) and the existing forms for pension security provided by pension institutions and life insurers in Bulgaria. The summary is in the following table.

Table 2. Comparison between the PEPP framework and the existing pension

feature	**PEPP**	**individual VPF**	**life insurance annuity**
type of scheme	DC/insurance	DC	insurance
design	funded/premiums	funded	premiums
pension vehicle	personal account/insurance pool	personal account	insurance pool
administrator	6 types of providers	pension insurance company	life insurer
guarantees	option	no	certain insurance sum
caps on charges	yes	yes, in broad ranges	competition based
decumulation options	flexible/MS discretion	flexible	flexible
transfer of funds	yes	yes	limited

tax treatment	under MS discretion	EEE	EET
investment choices	yes, incl. default option	no	yes
money inheritance	yes, not specified	yes	certain insurance sum
right of early withdrawal	penalised	yes	penalised
information	KIDs in PRIIPs	specified requirements	KIDs in PRIIPs

Source: the author

The comparison in the Table 2 gives an evidence that the design of personal insurance in Voluntary pension fund was well thought out. It needs 'fine tuning' in terms of increased efficiency and improved transparency.

High charges erode the trust of clients and politicians. On the other hand, the administration is carried out by private companies. Part of this strategy is to conduct constant control over the costs of the pension administrators. Charges have to be envisaged in the light of investment return, competition, risk management, transparency, asset management benchmarks, options for different risk profile, administrative capacity, marketing, servicing and costs. At the same time regulator and supervisory body have to stimulate asset management capacity within the administrator.

The topic of charges and costs is directly related with good corporate governance. The latter creates trust both in politicians and in clients.

In terms of asset management there is need of diversification geographically and by asset class. The regulators have to take into account the importance of the default funds. Benchmarks lead to greater transparency. Most experts accept as an appropriate investment result the target of inflation + 3%.

Concentration of most of the activities in single body can help for decreasing charges and low costs. Stimulation of the competition keeps alert the pension companies and is a prerequisite for better service for the insured persons.

Detailed legislation is another milestone of the capital pension in CEE region. Part of this are clear rules for pay out phase.

Politicians, labour unions, employers' organizations, regulator and supervisory bodies have to follow clear communication strategy toward the society. They have to send clear signals to the public about the role of the private pensions, the reasons for its development, the possibilities to the insured, about the risk, the problems and the potential solutions.

Part of the strategy for development is the set of incentives for insurance. In our opinion the regulators have to create good environment for employer's plans.

There has to be pressure from the European Commission over the local governments. Local authorities are less dependent on IMF and the World Bank.

Another conclusion is that both voluntary and mandatory has to be well developed at the same time. The extreme cases did not lead to good results. Examples are Poland with strong development of mandatory insurance between 1998-2008 and Czech Republic with well-developed voluntary pillar for the period of 1994-2011.

Taking into consideration the above mentioned it can be formulated five spheres as priorities: long-term strategy for development of capital pension as part of the whole pension system; financial sustainability of the schemes; adequate supervision and legislation; effective asset management and constant cost control.

CONCLUSIONS

The current study leads to a conclusion that it is a time to undertake decisive package of measures from the European Commission and each Member States to adopt integrated approach for pension security.

This integrated approach means to develop policy strategy for development of both public and private pensions. Organizational bodies, target ratios, analytical instruments, data base, regulatory and supervisory framework, market analysis and policy measures are elements of this approach. An additional instrument is the proper communication to individuals, employers and shareholders in service providers. These measures will lead to adequate and sustainable pensions.

The research brings an evidence that following the integrated approach in Bulgaria will attract additional resources in public and private pensions which will increase the pension coverage of the population.

REFERENCES

1. Eurostat, <http://ec.europa.eu/eurostat/web/products-datasets/-/tps00200>
2. Eurostat, <http://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&pcode=teina225&plugin=1>
3. Kitanov, Y. Are Risk Free Government Bonds Risk Free Indeed? Economy & Business ISSN 1314-7242, Volume 9, 2015, pp. 523-530
4. Zhelyazkova, V. Levels of Environmental Risk Management in Universal Banks. Ecology & Safety ISSN 1314-7234, Volume 10, 2016, pp. 480-486
5. European Commission, Action plan on building capital markets union, September 2015, <https://ec.europa.eu/info/publications/action-plan-building-capital-markets-union_en>
6. European Parliament, Resolution of 19 January 2016 on stocktaking and challenges of the EU Financial Services Regulation: impact and the way forward towards a more efficient and effective EU framework for Financial Regulation and a Capital Markets Union, 2015/2106(INI), point 20, <http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//TEXT+REPORT+A8-2015-0360+0+DOC+XML+V0//EN>
7. Kitanov, Y. Investment Management Fundamentals. VUZF University Publishing House, 2016
8. European Council conclusions of 28 June 2016, EUCO 26/16, point 11 <http://www.consilium.europa.eu/en/press/press-releases/2016/06/28/euco-conclusions/>
9. Heller, P., "The IMF's Involvement with Pension Issues: 2006 - 15", <http://www.ieo-imf.org/ieo/files/completedevaluations/SP%20-%20BP1%20-%20The%20IMFs%20Involvement%20with%20Pension%20Issues,%202006-15%20-%20Web.pdf>
10. Soto, M., "Pension Shock", IMF, Finance and Development Department quarterly publications, 06.2017, <http://www.imf.org/external/pubs/ft/fandd/2017/06/soto.htm>
11. OECD, Pension Markets in Focus, 2017, <http://www.oecd.org/finance/private-pensions/pensionmarketsinfocus.htm>
12. Eurostat, <http://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&pcode=tespn070&plugin=1>
13. Eurostat, <http://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&pcode=tps00026&plu

gin=1>

14. Eurostat, <http://ec.europa.eu/eurostat/tgm/table.do?tab=table&plugin=1&language=en&pcode=tps00153>
15. Eurostat, <http://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&pcode=teina225&plugin=1>
16. EU budget for the future, European Commission, <https://ec.europa.eu/commission/future-europe/eu-budget-future_en>
17. OECD, Pension Markets in Focus 2017, <http://www.oecd.org/pensions/private-pensions/Pension-Markets-in-Focus-2017.pdf>, p.3
18. European Commission, "The 2015 Pension Adequacy Report: current and future income adequacy in old age in the EU", Volume 1, p. 180
19. Kitanov, Y. Portfolio Investment Risks – Typology and Mitigation. Economy & Business ISSN 1314-7242, Volume 10, 2016, pp. 332-338
20. Zhelyazkova, V. SRI Strategies in Asset Management: Typology and Application Trends. Economy & Business ISSN 1314-7242, Volume 9, 2015, pp. 516-522
21. Council Directive 98/49/EC of 29 June 1998 on safeguarding the supplementary pension rights of employed and self-employed persons moving within the Community, OJ L 209, 25.7.1998, p. 46.,
22. Directive 2014/50/EU of the European Parliament and of the Council of 16 April 2014 on minimum requirements for enhancing worker mobility between Member States by improving the acquisition and preservation of supplementary pension rights, OJ L 128, 30.4.2014, p. 1,
23. Directive 2016/2341/EU of the European Parliament and of the Council of 14 December 2016 on the activities and supervision of institutions for occupational retirement provision (IORPs), OJ L 354, 23.12.2016, p. 37
24. Proposal for a Regulation of the European Parliament and of the Council on a pan-European Personal Pension Product (PEPP), <https://eur-lex.europa.eu/legal-content/en/ALL/?uri=CELEX%3A52017PC0343>
25. RESAVER <http://www.resaver.eu>
26. TType - Track and Trace your pension in Europe, <http://ttype.eu>
27. Immergut, E., Anderson, K. and Schulze, I. (2007), "The handbook of West European pension politics", Oxford University Press, Oxford, pp. 23-38.
28. Hagemeijer, K. (2009), "Rights-based approach to social security coverage expansion", in Holzmann, R., Robalino, D. and Takayama N. (ed.), Closing the coverage gap, World Bank, Washington, pp. 57-71
29. Commissioner Marianne Thyssen wants pension adequacy for all, Government Europa, 6th June 2018, <https://www.governmenteuropa.eu/marianne-thyssen-pension-adequacy/88099/>