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"COMPARATIVE SOCIAL POLICY AND WELFARE"

ADEQUACY OF OLD-AGE PENSION SYSTEMS IN LITHUANIA AND POLAND: COMPARATIVE ANALYSIS

Master's thesis

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ABBREVIATIONS

AROP -At risk of poverty

AROPE – at risk of poverty or social exclusion

DB – Defined benefit

DC – Defined contribution

ECP – Employee Capital Plan

EMCO – Employment Committee

EU – European Union

EUR – Euro

FDC – Financial defined contribution

FUS – Fundusz Ubezpieczen SPolechnych

GDP – Gross domestic product

IKE – Indywidualne Konto Emerytalne

LFMI – Lithuanian Free Market Institute

LTU – the Republic of Lithuania

NDC – Notional defined contribution

OECD – Organization for Economic Cooperation and Development

OFE – Otwarte Fundusze Emerytalne

OMC – the Open Method of Coordination

OPZZ – Ogolnopolskie Porozumienie Zwiazkow Zawodowych

PAYG – pay-as-you-go pension scheme

PL – Poland

PTE – Poweszechne Towarzystwo Emerytalne

SMD – Severe material deprivation

SODRA – the State Social Insurance Fund Board

SPC – Social Protection Committee

TRR – Theoretical Replacement Rate

ZUS – Zaklad Ubezpieczen Spolechnych

MAIN CONCEPTS

Adequacy of old age pension system - A multi-dimensional approach indicates three aspects of pension adequacy: poverty protection, income maintenance and pension duration. Adequacy is measured by its capability to replace earned income before retirement (European Commission, 2018).

Defined benefit (DB) schemes – pension schemes where the benefits accrued are linked to earnings and the employment career (the future pension benefit is pre-defined and promised to the member) (European Commission, 2018).

Defined contribution (DC) schemes – pension schemes where the level of contributions, and not the final benefit, is pre-defined: no final pension promise is made. DC schemes can be public, occupational, or personal: contributions can be made by the individual, the employer and/or the state, depending on scheme rules (European Commission, 2018).

Old-age pension – periodic benefit paid to a person who reached retirement age and is established by law who have acquired the right to receive it.

Old-age pension reform – particular changes in the system to achieve its efficiency by improving the administration system, transparency, information, refinement of the ratio of pay-as-you-go payments and the cumulative benefits system in order to attain adequacy and sustainability (Bitinas, 2011).

Pay-As-You-Go (PAYG) schemes – pension schemes where current contributions finance current pension expenditure (European Commission, 2018).

Pension accumulation - accumulation of pension contributions in the pension fund (LR pensijų kaupimo įstatymas, 2019)

The Open Method of Coordination – is an EU policy-making process, or regulatory instrument by using soft intergovernmental methods, such as guidelines, indicators and sharing of best practice. (EPRS, 2014).

INTRODUCTION

Old-age pension system is one of the most difficult systems of social security, as it is based on the principles of solidarity between society and voluntary pension insurance. Every state is responsible to create a social security system so it would ensure a reasonable quality of life of retirees, enabling them to participate in the cultural, political, and economic life of society. In many countries, social issues mostly depend on the public sector. Consequently, the state must finance almost the entire pensioner's expenditure.

Unfortunately, nowadays pension systems in Europe are heavily pressured by various negative demographic factors such as aging population, increasing emigration as well as decline in birth rates. On the one hand, demographic ageing can look like a positive process as it shows economic, medical as well as social improvement in Europe, which enables elderly people to have longer and healthier lives. However, on the other hand, it also brings some challenges, such as finding a balance between employed and retirement pension recipients as well as social contributions and benefits. Therefore, it is especially important to analyse and evaluate pension systems in order to solve such problem in the future.

Reformation of pension system in the Central and Eastern European countries are very much influenced by the past decisions. Lithuania and Poland are not the exception in this case. Poland was one of the first countries in Central and Eastern Europe in 1999 which implemented a reform of the pension system by moving from a defined benefit scheme to a defined contribution scheme, where the future old-age pension depends on the amount of contributions paid and the annual return on investment of pension funds. Lithuania, in turn, have decided to take the same decision only in the year of 2004. Currently, both countries have implemented new reforms with regards to second pillar and are in the transitional stage of its implementation.

In this Master’s thesis will be analyzed, how the decisions, taken by the governments had shaped the current policy of old-age pension systems in terms of the adequacy in these both countries. The author will attempt to search for solutions in achieving higher adequacy of old-age pension systems in Lithuania and Poland by comparing their reforms, identifying the main weaknesses and strengths of these models and interviewing experts with regards to these matters.

Many Lithuanian authors have already analysed old-age pension reforms, principles and perspectives, but the analysis was mostly focused on financial sustainability, issues in the pension schemes as well as effects on public finances. Azguridienė (2010), in her work analyses the sustainability of pension system and argues that pay-as-you-go system cannot guarantee long term benefits, therefore the expectations of retirees are unrealistic. Other authors, for example, Bitinas (2011), focused on the challenges for the Lithuanian pension systems such as ageing of the population and the last economic crisis. He claimed, that partial privatization of pension system is ineffective in order to combat above mentioned challenges, instead, some long term solution should be created. The new pension system should be based on hybrid models and not on traditional models (continental, liberal or Eastern European), stronger encouragement from the government to participate in a third pillar voluntary pension and occupational pension schemes is needed, in order to achive higher pension sustainability. Skučienė (2016), in turn, had analysed the weak sides in pension design systems such as insufficient use of potential labour force and unstable pension system financing methods. Lazutka (2002) was one of the authors, who analysed sustainability as well as adequacy of pension systems. He argued, that in order to combat challenges related to ageing population, changing pensions systems and financing methods are not effective, as all of pensions systems do not provide independence between pensioners and workers. He, unlike Azguridienė (2010) is sceptical about private pensions and claims, that only State pensions can guarantee a person's protection from uncertainty, while private pensions cannot be defined in advance due to inflation or longer life span. It might increase the sustainability of pensions however at the same time decrease their adequacy. Authors Medaiskis and Gudaitis (2013) in their research work concentrated on pension adequacy while comparing the pensions of the individuals who participated in the “second pillar” and made a conclusion “that an average wage earner’s accumulated amount in all fully funded second pillar pension fund groups exceeds the reductions in old-age pension in the first pillar”. Such conclusion contradicts the theory made by Lazutka (2002), which argued that private pensions cannot be adequate and guarantee stability.

Polish old-age pension system was also widely analyzed by various Polish authors. Polakowski and Hagemejer (2018), examined the characteristics of the pension system after the reform of 1999, including coverage, benefit adequacy, financing, and contribution rates, etc. Kompa and Witkowska (2014), have described the performance of the pension funds operating in Poland in the years 1999–2013, however, they mostly focused on the sustainability – emphasized the danger of decline of the pension funds assets for Polish capital market and the whole economy. In 2016 these authors have also examined, if 2011-2014 reforms better protect the retirement savings. Wiktorow (2007), in turn, pointed out some questions such as the adequacy of pension benefits, state guarantees, and gender inequalities that are connected with the old-age system, while Zabkowicz (2016), got deep into reforms of 2011-2013 and their relationship with institutional and economic interests. The 2019 pension reform has so far received little research and no studies have been carried out to provide an overview of the reform and its consequences. Such studies and reviews can be expected in the near future.

Research aim: Based on the comparative analysis of Lithuanian and Polish pension systems, to anticipate their improvement possibilities with regards to adequacy.

Research object: old-age pension systems in Lithuania and Poland.

Research tasks:

1) To characterize the concepts and measurements of old-age pension system adequacy;
2) To review old-age pension reforms/future plans designed by European Union;
3) To describe main old-age pension reforms in Lithuania and in Poland by analyzing statistical data, theoretical and legislative literature and reviewing research made by different authors;
4) To analyze expert opinions in Lithuania and Poland about old-age pension adequacy and to provide their recommendations regarding changes in this system so it will be more beneficial for the pensioners.

Research methods:

Theoretical analysis methods: Literature analysis, statistical data analysis, analysis of legal documents.

Empirical research methodology- qualitative approach

Data collection method: expert interviews

Data analysis method – qualitative content analysis

To collect the evaluations about the quality of Lithuanian and Polish pension systems, two Lithuanian and four Polish experts (politicians and/or scientists and financialists) will be interviewed. The interview format will be designed as formal conversation with predetermined open questions asked by interviewer and answered by the interviewees. The possibility of an individual interpretation will be also provided by asking to supplementary/follow up questions.

Qualitative content analysis is suitable kind of analysis for this research, as it will allow to investigate general content of expert opinions about old-age pension adequacy in Lithuania and Poland and receive their recommendations about better improvement of these systems. Therefore, the main questions of this research are:

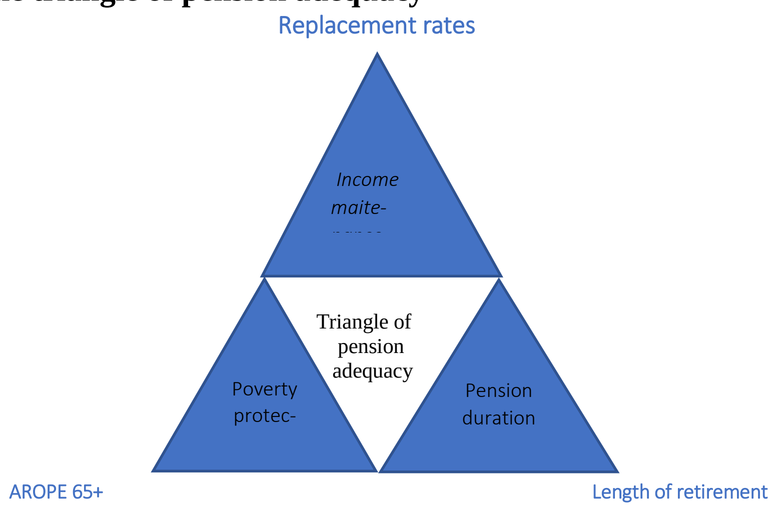
1) What are expert opinions about old-age pension adequacy?
2) What could they recommend for the improvement of these systems so they become more beneficial for retirees?

This Master's thesis consists of Introduction, three main parts, Conclusions and Recommendations. In the first part, the main theoretical concepts, and measurements of the adequacy of old-age pension systems are reviewed. In the second part, the main old-age pension reforms, recommendations, designed by the European Union, are presented, as well as the most important old-age pension reforms in Lithuania and in Poland are described by analyzing various literature and statistical data. In the third part, the theoretical description of choosen research methodology is presented and findings of the empirical research – the opinions and recommendations of experts about the old-age pension systems adequacy improvement are provided.

1. THE ADEQUACY OF OLD-AGE PENSION SYSTEM – CONCEPTS, APPROACHES AND MEASUREMENTS

The main objective of pension system in every country is to ensure an adequate income amount in retirement to prevent poverty among the elderly population. At the same time, an adequate pension system should provide reliable tools to even the lifetime consumption to most of the population. Therefore, before analysing the adequacy of old-age pension systems in Lithuania and Poland it is especially important to understand and to define the main aspects, approaches and indicators of old-age pension adequacy in order to implement as adequate pension system as possible, which is crucial in providing a decent life of retirees. Although pension policy is different in various countries, this has not stopped international institutions and scholars from investigating adequacy aspects. According to European Commission (2012), to achieve adequacy, pensions must be sustainable, safe and adapted to changing circumstances as reflected in the three European pension objectives of adequacy, sustainability, and modernisation. The adequacy of pension system always relates to its sustainability and vice versa. In other words, sustainability and adequacy of pensions is like two sides of the same coin. If a pension system is inadequate, an increase in pension amounts or in demand for other benefits may be required, which will negatively affect sustainability. In turn, if the pension system is unsustainable, pensions will be become inadequate in the long run. Therefore, the adequacy and sustainability of the pension system needs to be addressed in a coordinated manner and the balance between these two features should be reached. European Commision, in its Pension Adequacy Report (2018) has defined a multi-dimensional approach to the pension adequacy. Such approach indicates three aspects of pension adequacy: poverty protection, income maintenance and pension duration (see figure No. 1).

Figure No. 1 The triangle of pension adequacy



Source: Adapted by author according to European Commission (2018)

These aspects are measured by the capability of pension benefits to protect retirees against poverty by reasonably replacing their earnings while in employable age despite their types of employment, income and gender. That means, that there is a direct relation between pension adequacy and poverty reduction and prevention between women and men aged 65 and older.

To measure poverty, the EU member states agreed to implement general poverty indicators, which are one-dimensional (monetary) and relative (based on some level of income distributed in different countries) (Eurostat, 2005). These indicators are divided into three different types of rates (AGE, 2018):

Figure No. 2 Types of poverty rates

At risk poverty rate	Material depriviation rate	The rate of persons living in jobless houeholds
The proportion of people whose income is less than 60 % of the national equivalized median income.	The proportion of people who cannot afford at least three items out of items such as ability to pay the rent or/and utility bills, eat healthy, have access to transport, have television, telephone or internet, have holidays at least once per year, etc.	Indicates households where working age people work less than 20% of their potential during the last 12 months.

Source: Adapted by author according to AGE Platform Europe Policy Statement, Poverty Watch (2018)

As figure No. 2 shows, at-risk-of-poverty (AROP) is based on equivalised household disposable income, furthermore, this can include other social benefits, capital and work income, and is net of taxes.

It is also important to emphasize, that the rate of persons living in jobless households is not that relevant to the elderly who are over 65 years old, comparing to other people age groups, as most of them are no longer employed (with some exceptions), they can live in nursing homes or be homeless, therefore not included in the statistics. Furthermore, quite a big amount of older people (mostly those, who were self-employed), although they do not receive a lot of income and have small pensions, still hold some wealth such as real estate (property) where they live. However, it does not mean, that these individuals are not affected by poverty – they still have expenses related to their own homes which are often exceedingly difficult for them to handle.

In addition, adequacy is measured by its capability to substitute earned income before retirement. According to European Commission (2018), it can be done by using the Theoretical Replacement Rate (TRR) indicator methodology, when the adequacy of current pensions is being accessed for particular cases of employment length and income, and later beeing compared with the similar results forty years later.

The third aspect – the pension duration also must be considered for measuring adequacy as it has a strong effect on the sustainability of pensions systems. Here the biggest challenge is to achieve the balance between the two – pension adequacy and sustainability, the duration between life in employment and life in retirement. The aspect of pension duration relates to other two – poverty prevention capacity and income maintenance, therefore it is important to determine at what age people should retire.

Europe Commission is not the only one institution, which defines adequacy of pension systems. The World Bank has also made an influence in shaping pension reforms. In 2005, it already stated that pension system should be able to provide benefits, which are adequate (provided to the full breadth of the population and sufficient for preventing old-age poverty on a country-specific absolute level in addition to providing reliable means to smooth down the lifetime consumption for the majority of the population), sustainable (is financially sound and can be maintained over a foreseeable horizon under a broad set of reasonable assumptions), robust (has the capacity to withstand major shocks, including those coming from economic, demographic, and political volatility), and affordable (is within the financing capacity of individuals and the society and does not unduly displace other social or economic imperatives or have untenable fiscal consequences) (Holzmann and Hinz, The World Bank Group, 2005)".

In addition, adequacy means that all people despite their level of economic activity should have access to benefits which are sufficient to prevent poverty. However, adequacy needs to be guaranteed over time so that "the pension program should be structured so that the financial situation does not require unannounced future cuts in benefits, or major and unforeseen transfers from the budget" (The World bank, 2006).

In 2016, The World Bank closely related adequacy of pension system to efficiency, sustainability, coverage, and security, therefore reforms which attempt to achieve one of these outcomes potentially affect the others. It stated that adequacy and sustainability must always be crucial aspects "to public and private pension outcomes and must be part of any pension system framework". It was offered to divide inadequate pensions by income, gender and so on and to measure adequacy by retirement income as percentage of average wages in certain countries, own earnings as well as poverty levels.

Furthermore, ensuring that people accumulate sufficient retirement benefits will help them to avoid poverty and to increase their prosperity at the old age and to protect them against a heavy drop in living standards at retirement.

The aspects and measurements of old-age pension adequacy have also been of interest to various scholars. The multidimensional indicators of adequacy are also offered by some researchers.

Rajevska (2014), in her work "Adequacy of pensions in the Baltic region. *Regional Review",* indicates two approaches of the old-age pension adequacy. The first one describes old-age pension system as adequate when the level of old age consumption is above the poverty line and the second one – measures adequacy according to monthly income during life when a person is active in the labour market (i.e., in terms of replacement rates). She agrees with the concept of European Commission that a multidimensional approach with regards to the objectives of the pension systems is indeed the most appropriate. That is especially relevant when adequacy has to be measured for more countries and evaluated by comparing the results. It is sometimes complicated to achieve as retirees can receive income from many various sources, such as work, investments, they can also still hold some wealth such as real estate (property) where they live. All these sources have influence of their level of living and total income.

An interesting approach of old-age pension adequacy is beeing offered by author Chybalski (2012). He introduces the approach of three dimensions which is poverty, income and the differentiation of pensioners' material situation by gender. As we can see, his approach is also multidimensional however the bigger attention is paid to material situation differences between genders. He also suggests using at least a few indicators in order to obtain as accurate outcome as possible about adequacy (see Table No.1).

Table No. 1 Indicators of pension system adequacy

Pensioner income indicators	Pensioner poverty indicators	Pensioner gender differences indicators
• Median relative income ratio of elderly people • Aggregate replacement ratio (excluding other social benefits) • Relative inequality of income distribution ratio • Net pension wealth by gender	• At-risk-of-poverty rate of older people (after social transfers) • Change in at-risk-of-poverty rate of older people after retirement (after social transfers)	• Gender differences in the at-risk-of-poverty rate of older people (after social transfers) • Gender differences in aggregate replacement ratio • Change in at-risk-of-poverty rate of older people after retirement by gender (after social transfers) • Median relative income ratio of elderly people by gender • Relative difference in net pension wealth by gender

Source: Adapted by author according to Chybalski (2012)

Such approach is quite two-sided. On the one hand, it can offer new opportunities for many other analyses in the field of pension security, including comparison of adequacy in various pension regimes. Furthermore, pension systems can be a crucial factor while explaining poverty differences between gender. In many EU countries these systems still have some significant drawbacks with regards to women discrimination. The amount of women pension benefits is often lower than men as women still face a challenge to strike between a family and work and often have longer non-active periods in paid labour market or lower earnings. Older women also need more medical care and spend more time in ill-health comparing to older men (AGE, 2018). That means that older women have higher health costs and become even more affected by poverty. Therefore, various pension gender differences indicators can help evaluate gender inequality reasons in old age more accurately which can help to create efficient tools in combating it.

On the other hand, the approach of Chybalsky with regards to gender differences can be difficult and maybe unrealistic to implement in countries, where such inequalities for elderly exist for a long time (for example Estonia, Lithuania, Latvia). Until this day none of the schemes functioning in Estonia, Latvia or Lithuania are intended to facilitate such levelling.

To conclude, it seems, that until now one common agreement between experts and scholars about best approach and measurement of pension adequacy was not reached yet. However, most of them agree that the multidimensional approach is the most appropriate, as pensions are adequate when they are able to provide a decent quality of life of pensioners, to prevent poverty and to create a reliable mechanism for smoothing down the income over their lifetime. Furthermore, adequacy interrelates with other aspects, such as sustainability, efficiency, security, modernisation and so on, therefore, the proper balance between them should be created.

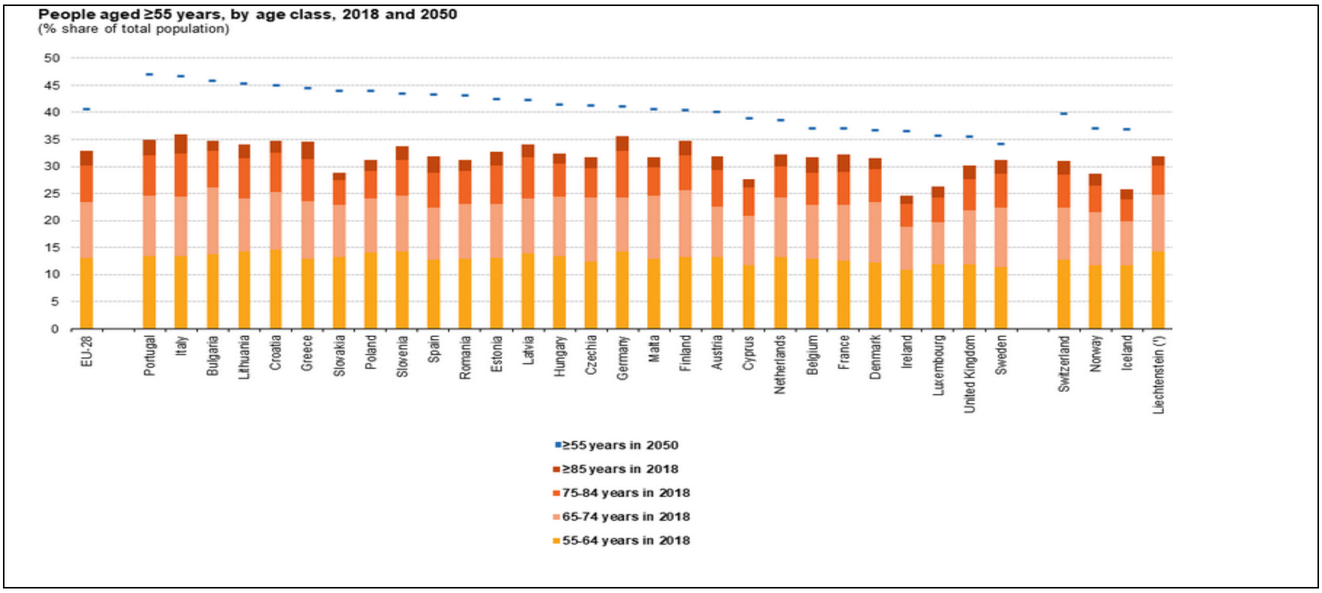
European Commission is the main institutional set-up in which aims to tackle old-age pension adequacy problems in all Member states. It actively participates in preparing and introducing old-age pension policy reforms and sets out an agenda for making pensions adequate and sustainable in the long term.

2. OLD-AGE PENSION REFORMS DESIGNED IN THE EUROPEAN UNION

2.1. The importance of old-age pension reforms in the European Union

Population ageing is a long-term process which was triggered by increased life expectancy, lower fertility rates and in some countries by rising migration. Furthermore, the financial and economic crisis has seriously worsened the underlying ageing challenge. The demographic situation in the whole EU is changing quite significantly. It is projected that the population of Europe Union countries will increase from 512 million of 2018 to 525 million by 2044, where the most significant increase will happen in the population of older people (65 years of age and more) rising from 101 million at the start of 2018 to reach 149 million by 2050. (Eurostat, 2019). In 2018, people older than 55 years or more accounted for almost one third (32.8 %) of the total EU-28 population (see Figure No.3). Especially high increase of 60.5% is expected in the population of very elderly (aged 75-84). To compare, it is projected, that the amount of people younger than 55 years will drop by 9.6 % (Eurostat, 2019).

Figure No. 3 People aged more than 55 years, 2018-2059



Source: Eurostat (2019) https://ec.europa.eu/eurostat/statistics-explained/index.php?title=File:People_aged_%E2%89%A555_years,_by_age_class,_2018_and_2050_(%25_share_of_total_population)_AE2019.png

Due to the phenomenon of a rapid population aging in all the Member States, European pension systems are facing the challenge to remain financially sustainable as well as adequate. That forces EU policy makers to design and implement various old-age pension policy reforms. As old-age pension systems as well as population aging scale vary among countries there is no single strategy which can tackle these problems (European Commission and the Social Protection Committee, 2012). However, pensions are the main source of income for older people in Europe, mostly from 'pay-as-you-go' public schemes. Retired people drawing a pension are a significant and because of demographic ageing — a growing part of the EU population (about 124 million, or a quarter of the total population) (European Commission and the Economic Policy Committee, 2015). Furthermore, pensions influence public budgets as well as labour supply in many ways therefore these impacts must be also considering in pension policy.

2.2. The Open Method of Coordination

Since 2000, the European Union as a response to aging population, has been implementing the Open Method of Co-ordination (OMC) of its pension systems. OMC is an EU policy-making process, or regulatory instrument, which was for the first time mentioned at the Lisbon summit in March of 2000 (EPRS, 2014). The main reason for the OMC implementation was identification and promotion of social policies. The open method of coordination (OMC) has increased the competence of the European Union to coordinate areas where the legislative processes are weak, or where new areas require regulation of Member State policy (Szyszczak, 2006).

The OMC can be viewed as new and experimental mechanism, which is part of the response by the EU to regulatory limitations. OMC mechanisms involve establishing guidelines, quantitative and qualitative indicators and benchmarks, and national and regional targets, based by periodic evaluations and peer reviews (Table No.2). The evaluations are aimed at helping Member States learn from one another and consequently improve their domestic policies.

Table No. 2 The strategies of the Open Method of Coordination

The strategies of the Open Method of Coordination
• drawing up common guidelines at the EU level • setting goals, timetables, common indicators, benchmarks • Member States create national action plans involving multi-level actors drawn from stakeholders and civil society • experience of best practice exchange between Member States • Action Plans are monitored and evaluated by the Commission and peer review • EU Guidelines are reviewed • results assessed.

Source: adapted by author according to EPRS (2014)

It is important to mention, that OMC is not a part of EU legislation, it is rather a method for spreading best practices, exchange information and reach convergence in various policy areas, such as social inclusion, pensions and healthcare, research and development, education, , environment, immigration, modernisation of social protection, etc. The role of the European Parliament in this process is seen to be very limited and mostly confined to giving advice, while the Commission's role is limited as well to mere monitoring and surveillance. Each Member State, in turn, makes an individual decision on what method of which area to implement.

The use of the OMC to analyse pension insurance in the Member States was for the first time mentioned in the report of 2000 “Adequate and Sustainable Pensions: A report by the Social Protection Committee on the future evolution of social protection” (Poteraj, 2006). The European Commission proposed several objectives to adapt pension systems to the main trends in society, namely population ageing, increases in life expectancy and low fertility rates. It was believed that it was necessary to use the open method of coordination (OMC) to adapt common objectives into national policy strategies which could be reached by promoting exchanges of experience based on good practice.

The three main objectives of the OMC regarding pensions systems are as follows (European Commission, 2005):

- adequate retirement incomes for all and access to pensions which allow people to maintain, a decent living standard after retirement;
- the financial sustainability of public and private pension schemes, by supporting longer working lives and active ageing and by promoting the affordability and the security of funded and private schemes;
- the transparency of pension systems, which are admirably adapted to the needs of women and men and the requirements of modern societies, demographic ageing, and structural change.

Later in October 2000, the European Commission created the framework for analysis of the pension problem in the Communication on the Future Evolution of Social Protection from a Long-Term Point of View (European Commission, 2000). The Document emphasised that the most important factor for secure future of pension systems is sustained growth of the economy and active employment strategy. In the Commission's opinion, pensions reform should be modernised - go together with a robust economic policy. Commonly agreed indicators should allow effectively measure major economic, financial and demographic trends affecting the sustainability of pensions. The future of pension systems depends on policies in different areas including public finances, social protection and employment. Therefore, integrated, consistent and comprehensive policy strategies are required to cover these areas.

European Commission until now is continuing to create strategies which aim is to strengthen pension adequacy in Member states. Some of these reports will be introduced below and their main aims, tools and strategies regarding pension adequacy will be also described.

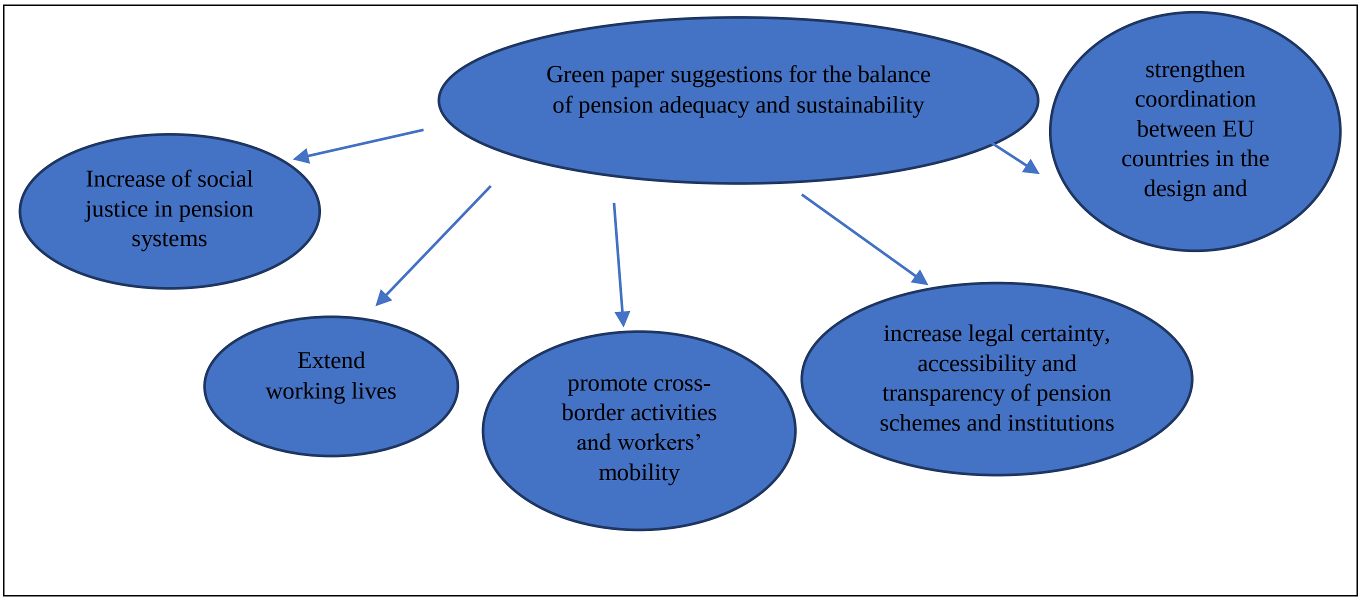
2.2.1. Green Paper in terms of European old-age pension systems

The green paper is the document, which main aim was to improve the coordination of initiatives regarding improving pensions systems of EU countries after recent financial and economic crisis which led to demographic ageing. The purposes of this paper were created "in the context of the Stockholm strategy and in accordance with the new Europe 2020 strategy" (European Commission, 2010). The principles of national solidarity are of great importance here, furthermore, there is no suggestion, that one common pension system design can fit to all of Member States.

Green Paper focuses on the significance of pension system adequacy enabling pensioners to maintain an appropriate living standard in retirement. However higher public pension expenses can have a negative impact for the sustainability of public finances. Therefore, this document suggests pensions funds as a way to achieve the balance between adequacy and sustainability. Their proper design can stimulate free movement of capital and labour.

Figure No.4 illustrates main suggestions for the balance achievement between pension adequacy and sustainability.

Figure No. 4 Green Paper suggestions for the balance of old-age pension adequacy and sustainability



Source: adapted by author according to European Commission, Green paper (2010)

According to the Commission, increasing of social justice in pension systems can have a positive impact on the adequacy of pensions, particularly providing an access to supplementary schemes, short-term and atypical contracts.

Extension of working lives can be done by increasing pensionable age - rewarding later and penalising earlier retirement, also encouraging greater gender equality in the labour market. However, working lives should be extended, while taking account of the specific features of occupations, labour market entry ages, workers' health and the needs of older workers.

Promotion of cross-border activities and workers' mobility can be done by strengthening the internal market for pensions and using it to generate new sources of income for pensions (for example, reverse mortgages). Furthermore, people should be able to easily change jobs while employers should be able to recruit the proper person with the appropriate skills or if it is not possible - to provide training possibility.

An increase in accessibility and transparency of pension schemes and institutions should be done by improving an access to information for workers about different pension products. The information provided should be clear and not too complicated so every individual could choose the best pension plan easily.

Strengthening coordination between EU countries in the design and implementation of policies is also an especially important objective of the Green paper, as it would allow member states to compare their experiences and to follow the most successful ones. It was suggested that this could be done by creating common statistical tools (for example, distribution of income, median low-income gap, long term unemployment rate, people living in jobless households, etc). The Commission strongly believes that pension systems should be able to rely on the contribution of occupational and personal pension schemes therefore the creation of an EU methodology for pension statistics would be beneficial to citizens as it would allow them to follow up about their retirement income from the different sources.

2.2.2. White Paper - An Agenda for Adequate, Safe and Sustainable Pensions

Two years later, the European Commission published its White Paper on an agenda for adequate, safe and sustainable pensions, which was a follow up of launched in 2010 Green Paper.

The White Paper continued to tackle same problems in pension systems as it was done in Green Paper and created an agenda of strategies for making pensions adequate and sustainable in the long term (European Commission, 2012).

Many pension systems in the European Union need some reorganization so they can provide adequate pensions on a sustainable basis. The European Commission aimed to reinforce second and third-pillar pensions and would support EU member states in increasing retirement ages as well as in restricting access to early retirement. Furthermore, the Commission also planned to design a "code of good practice" for European occupational schemes, focusing on issues of employee coverage and measures of risk-sharing. With regards to development complementary private retirement savings, the Commission planned to invite the Social Protection Commitee (SPC) to exchange good practice about individual pension statements, which would help individuals of all Member States to plan their retirement better and to choose more beneficial pension schemes.

In addition, an agenda focused on the improving of the conditions for a labour force participation of women and men so they could increase their possibilities to accumulate more retirement savings. To reduce gender gap in pensions the Commission undertook to cooperate with SPC and the Employment Committee (EMCO) for the best pratice identification, such as minimum pensions entitlements, promotion of eqal pay, care credits, etc. It would also communicate with other social partners to design ways of labour market practices and workplace.

Regarding cross-border activity, the Commission said it would promote the creation of pension-tracking services, which would be allowing people to be informed about their entitlements accumulated in different jobs and different countries.

The Commission suggested various policy initiatives - EU policy instruments - towards offering better support to pension reform efforts such as legislation over financial incentives to policy coordination, progress monitoring towards shared objectives and measure implementation within the integrated and comprehensive Europe 2020 framework. The Commission said it would encourage Member States in implementing new pensions reforms by granting financial support for their initiatives however said it believed each of EU countries understand the importance for pension reforms.

The significance of active ageing promotion on pension adequacy and sustainability was the core of White Paper. In addition, it was said by the Commission, that the Member States must cooperate and to respond to the challenges that population ageing represents together with European institutions and social partners.

2.2.3 Pension Adequacy reports

In order to evaluate effectiveness of the initiatives and strategies, which were suggested according to OMC and described in the White Paper and other documents related to pension reforms, the Directorate - General for Employment, Social Affairs and Inclusion of the European Commission and the SPC jointly and periodically prepare Pension Adequacy reports. These reports provide projections of the budgetary impact of ageing population in the Member States as well as the data about various indicators related to pension adequacy in these countries.

Pension Adequacy in the European Union 2010-2050 report (2012) draws mainly on indicators of current and prospective pension that have been created for the pension systems of the Social OMC.

The conclusion of this report was that pension reforms have improved the medium to long-term sustainability of public pension expenditure. Furthermore, public pension schemes have become more resilient to population ageing phenomenon and their future contribution to pension incomes is ensured better. However, overall, the adequacy of pension systems was not positive enough and uncertain (European Commission and Social Protection Committee, 2012).

It was confirmed in the Pension adequacy report of 2015, Volume I, that until the year of 2014, 22 Member States had already implemented increased pensionable age (except Bulgaria, Belgium, Luxembourg, Austria, Finland and Sweden) (see table No.3).

Table No. 3 Pension reform elements aiming to extend working lives until end of 2014

Member States	Age for early retirement raised	Pensionable age increased	Women Pensionable age brought up to men's	Length of contribution period increased	Automatic indexation to life expectancy	Limit to combine work and pension eased
BE	yes					yes
BG						
CZ		yes	yes	yes		
DK	yes	yes			yes	yes
DE		yes				
EE		yes	yes			
IE		yes		yes		yes
EL	yes	yes	yes	yes	yes	
ES	yes	yes		yes		yes
FR		yes		yes		
HR	yes	yes	yes			yes
IT	yes	yes	yes	yes	yes	
CY		yes		yes	yes	
LV		yes		yes		
LT		yes	yes			
LU						
HU		yes				
MT		yes	yes	yes		
NL		yes			yes	
AT	yes		yes			

PL		yes	yes	yes		
PT		yes			yes	
RO		yes				
SI		yes	yes	yes		
SK		yes	yes		yes	
FI	yes					yes
SE						
UK		yes	yes			

Source: adapted by author according to European Commission and Social Protection Committee (2015)

Denmark, Greece, Italy, Cyprus, the Netherlands, Slovakia and Portugal directly linked pensionable age to life expectancy in the future.

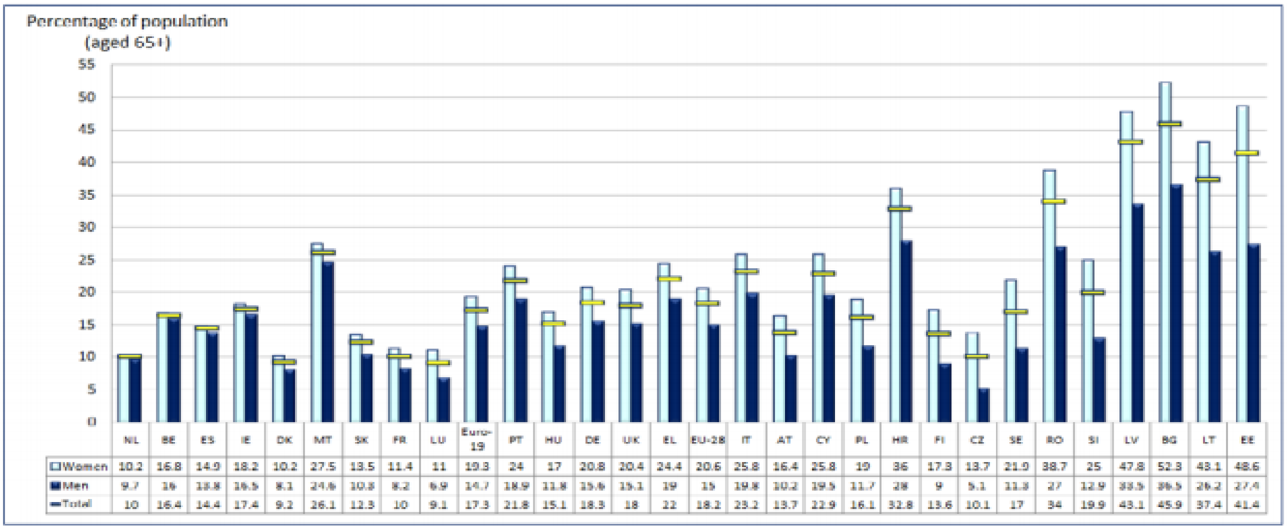
It is important to mention, that with regards to Women Pensionable equalization to men, most of the Member States agreed to apply this reform element in the future, therefore in the table it is marked positively. For example, In Lithuania, the retirement age will be 65 for both men and women by the year of 2026.

Furthermore, some other elements in some countries, such as an increase of pensionable age, were changed later. For example, in Poland, it was increased in the year of 2012, however in 2015 the current government launched a draft bill in the winter of 2015 to reverse retirement reforms and bring the retirement age back to 65 years of age for men and 60 for women (European Trade Union Institute, 2020). It only confirms that fact, the each of member states although seeks to cooperate among EU, can also accept or not the proposed reforms independently.

The Pension Adequacy Report of 2018 (Volume I) explored in detail for the first time, the possibilities for people in different types of employment and self-employment to accumulate adequate pension rights. It also reflected on gender differences in old-age poverty and pension entitlements comparing each Member state, and despite improvements, in some countries old-age poverty remain quite large.

For example, in the year of 2016, one of five women aged 65 or over is at risk of poverty or social exclusion in the EU. Figure No. 5 shows that the AROPE rate for women ranged from around 10 % in the Denmark and Netherland to over 50 % in Bulgaria, and over 40 % in the Baltic States. The highest gender differences in the AROPE rate were in Estonia, followed by Lithuania, Latvia and Bulgaria.

Figure No. 5 The AROPE rate of older people (65+), by gender, 2016, %



Source: Eurostat, Eurostat. Note: Sorted by differences between the AROPE rate for women and the AROPE rate for men

The Pension Adequacy Report of 2018, Volume II, argues that unfortunately, the AROPE rate for older people in Lithuania is among the highest in the European Union, therefore, although pension reforms are likely to influence long-term sustainability positively, they do not solve the problem of low current and future pension adequacy. Poland, in turn, has an AROPE rate below the EU average.

Therefore, in next chapters of this work it will be described, how pension system had been developing historically in Lithuania and Poland, furthermore the recent pension reforms will be analyzed and evaluated. It will be attempted to find solutions for pension adequacy improvement in the future by comparing two neighbour countries, Poland and Lithuania and to ascertain if there is a bond between particular pension reforms and the level of pension adequacy is now in each of these countries.

2.3. Adequacy studies of old-age pension system in Lithuania

2.3.1. Development of the old-age pension system in Lithuania until the reform of the year 2003

Lithuania, unlike Poland and part of other European Union countries, did not belong to the early introducers of its pension system reforms with regards to introduction of multi-pillar system. Although Lithuania and Poland are neighbour countries with similar culture and became members of EU same year in 2004, Lithuania was slower in reforming its pension scheme. In order to find out the reasons of this phenomenon, it is important to analyse the main history events with regards to pension policy in Lithuania as past events had a great impact on later implemented pension reforms.

The beginning of autonomous Lithuanian pension policy can be linked to the restoration of independence in 1918, when Lithuania and Russia took different paths.

During the inter-war period, Lithuania tried to catch up with the countries of Western and Central Europe which were much more advanced in the field of pensions. Therefore, in creating the laws, Lithuania used the examples of other European states, especially Germany. The result, unfortunately, was not too successful, as the economy in the country was destabilized after World War I (Lazutka, 2006). Lithuania lost its independence in 1940 and, not surprisingly, failed to introduce public pensions for private sector employees.

Later, when the pension system was created, Lithuania did not have the opportunity to complete it. The occupation of the Soviet Union led to the further development of the pension system for five decades. During that period, the pension system of the Soviet Union was used to protect the Lithuanian population in old age and operated until the restoration of independence in 1990. The interesting fact is, that the Soviet pension system had some of the features of Bismarck's insurance system - for example, pension entitlements were linked to previous employment and benefits were linked to former wages. However, unlike the Bismarck scheme, pensions were financed from the general state budget (Leppik, 2002).

The development of a new social insurance pension system in Lithuania started before the announcement of Lithuania's independence. In 1990 The Supreme Council has adopted a resolution "On Reorganization of the State Social Insurance System in the Lithuanian SSR" (Medaiskis, 1995). It specified that Lithuanian trade unions subordinate to the Soviet Union should take over social insurance from the state. In1990 on March 13th the State Social Insurance Fund Board (SODRA) was created. The main aim of this reform was the introduction of insurance priority, to maintain job promotion and regulate social benefits. From 1991 SODRA was based on the principles of solidarity meaning, that citizens, by paying contributions to SODRA have to support current pensioners and, when they reach the age of retirement, their children will pay their pensions (PAYG principle) (Levišauskaitė, Malinauskas, 2006).

From the year 1995, in Lithuania was implemented Bismarckian model pension system, which was financed autonomously from the state budget and administered by a separate social security institution from the government. The reasons for this decision were quite controversial – from one side it wanted to radically change the former Soviet social security system, but at the same it was unable to avoid previous experience. As it was already mentioned, Soviet pension system had some Bismarckian features in terms of linking the amount of pensions with the amount of former salary and work experience (Lazutka, 2006). Therefore, it can be stated, that the decision to create such social security was dependent on its older history.

Until 1990 there were no private pension funds in Lithuania, the 1995 pension reform did not include private funded pensions either. From 1994, the Lithuanian Free Market Institute (LFMI) began to press the Government to create conditions for private pension funds. The largest Lithuanian business organization, the Confederation of Industrialists, published several articles in newspapers on behalf of its president, which criticized the social security system and called for the adoption of laws on private pension funds (Lubys, 1995 a). However, Lithuanian Democratic Labour Party, which in 1992-1996 had a majority in the Parliament (Seimas), showed no interest in private pensions. Furthermore, the management of the Ministry of Social Security and Labour and the Social Insurance Fund did not question the benefits of the social security system and did not focus on private pension schemes.

In 2001 January, the new government (under the leadership of the Social Democratic Coalition) implemented its own pension reform concept. This was a time, when pension system adequacy - to make peoples life better after retirement, became the main goal in redesigning pension system. The concept also stated that quasi/mandatory funded pension system operated by the private pension funds must be introduced (second pillar) and the redistribution effect in the system should be reduced (Bitinas, 2011). The concept also stated that the first pillar of pension system of Lithuania must provide the state social security pension, while the third pillar is a voluntarily funded pension system (managed by pension funds and financial companies).

2.3.2. Old-age pension system in Lithuania from the year 2003 until 2018

At the end of the twentieth century and the beginning of the 21st century, most of the European Union EU) countries have embarked on pension system reforms. It was a requirement for the EU candidate countries to implement pensions to get an access to the EU.

As Lithuania was one of the candidates to become a Member state, such requirement could have speed up the process of redesigning its pension system.

Furthermore, Mr. Ignatavičius, a specialist of the Ministry of Social Security and Labour, had also argued that the best time to start a pension reform should be between years 2004-2008 as significant increase in the number of people of working age is foreseen in relation to 1980-1990 birth wave. As a result of this demographic wave, it was projected, that the social security budget for 2005-2020 will increase, while between years 2040-2070 the country will experience budget deficit, due to the low birth rates (Ignatavičius, 2001). Therefore, by introducing this reform it was planned to take advantage of the temporarily favourable demographic situation and to accumulate more in the participants' personal accounts, plus increase the sustainability in the state social security budget.

The phase of the creation of pension reform began in Lithuania in 2002 when a law on the Reform of the Pension System of the Republic of Lithuania was adopted, therefore the beginning of the pension system reform in Lithuania is considered to be the one that entered into force on 1 January 2003 in Lithuania (Lietuvos Respublikos pensijų sistemos reformos įstatymas, 2002).

A basis of this reform was a transition to multi-pillar pension schemes and partial privatization of the pension system – a transmission of part of social services from the government to private companies.

According to this law, residents could voluntarily accumulate a part of their social security contributions in personal accounts opened in pension funds. According to Lazutka (2008), introduction of funded pension insurance managed by private pension funds will help to promote savings in the country, strengthen capital markets and develop financial infrastructure. Furthermore, it will ensure a supplementary pension which will depend on contributions, paid by each individual.

It was believed that new pension reform will help to reach the better balance between pension system adequacy and sustainability, plus individuals will be able to choose how to accumulate an additional pension individually.

Thus, after the new pension reform started operating in 2004, Lithuanian pension system consists of three parts (see table. No. 4).

Table No. 4 Pension system in Lithuania after the 2004 reform

Pillars	*Voluntary/Compulsory*	*Financing method*
I	Compulsory	Lithuanian State Social Insurance Fund
II	Voluntary	Private pension funds (financed by the state)
III	Voluntary	Private pension funds (financed by private companies)

Source: adapted by author according to Sakalas, Leščinskienė (2006)

The first pillar is based on compulsory social insurance contributions which are directly managed by government institutions. The social insurance pensions scheme is the most important in Lithuania with regards to coverage and provision of income in old age. The system is financed by employers, employees on a pay-as-you-go (PAYG) basis. It is designed to replace part of work income when an insured person retires. The pension benefit consists of two components - the general component amount is calculated on the basis of the contributory period and the supplementary component which is earnings-related.

The second pillar is a fully funded DC (defined contribution) scheme. It is based on personal fully funded accounts of participants who could pay part of their obligatory pension insurance contribution into their personal account instead of paying a full contribution into the general social insurance fund. It should be mention, that unlike in many other Member states (as they required obligatory participation in the second pillar for specific age groups and/or had banned participation from a certain age), participation in the second pillar was fully voluntary (Medaiskis, Gudaitis, 2013). Workers could decide to remain in the first (pay-as-you go) pillar or to participate in both pillars.

The third pillar is also voluntary fully funded DC scheme - it was basically accumulation of personal savings according to participant needs and was not related to obligatory social insurance contributions. The state tried to promote an accumulation into third pillar in the long run by creating various tax incentives, providing life insurance contracts and developing occupational pension fund schemes (Gudaitis, 2009). However, until now it still takes the smallest part of the pension system. Also, there are no occupational pension schemes in Lithuania, although in 2006 Law on Occupational Pensions was adopted (LR Profesinių pensijų kaupimo įstatymas, 2006).

All of three pillars have common features in between: the first and second are work-based and the second and third can be both organized on accumulation basis.

Mathematically old-age pension benefit is calculated as follows (Formula No.1):

Formula No.1 The calculation of old-age pension benefit

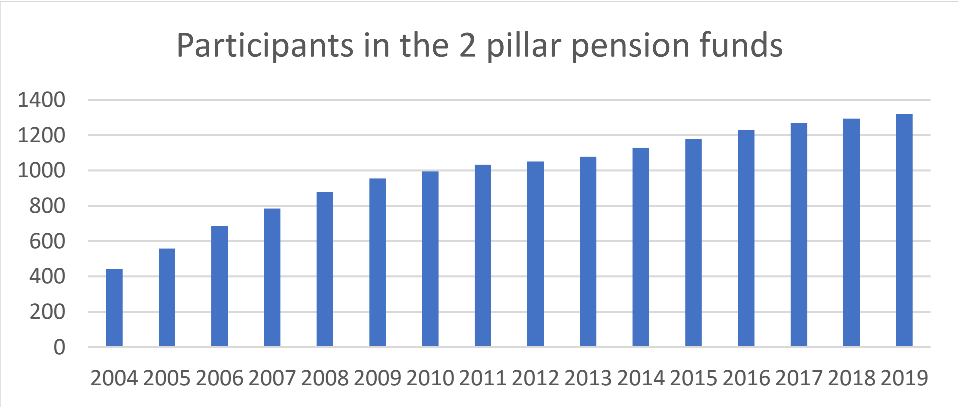
Old-age pension benefit = I pillar (Basic pension (fixed part of pension) + Supplementary pension part) + II pillar (if chosen) minimum pension fund profitability - pension fund management costs) + III pillar (if chosen) (voluntary accumulation)

Source: adapted by author according to Lazutka (2008)

It is important to mention, that in Lithuania, unlike in Poland, there are possibilities for early retirement. In order to retire earlier, no more than 5 years until retirement age should be left, also the person should not receive any constant income or benefits and she/he should not work and receive any insure income. Early retirement pension is calculated the same way as the old-age pension, however it is reduced by 0.4% each month left before the old-age pension. Also, the old-age pension is reduced by 0.4% each month the early retirement pension was paid (Sodra, 2010).

It should be stressed, that the residents were quite interested to participate in the second pillar as they believed this will ensure them better life after the retirement. The State Social Insurance Fund Board under the Ministry of Social Security and Labor (SODRA) announced, that by the end of 2019, more around 1 million 300 hundred participants, which were insured for a full pension, participated in fully funded second pillar pension funds (Figure No.6). Table shows that in the period of years from 2004 since the reform was implemented, until 2020, the amount raised more than three times, from 442.7 to 1318.9 thousand.

Figure No. 6 Participants in the 2 pillar pension funds



Source: adapted by author according to Sodra (2020), https://atvira.sodra.lt/lt-eur/

In 2008, Lithuania, was strongly affected by the economic crisis. According to the data of Lithuanian statistics institution, GDP declined from 2.9 (in 2008) to minus 14.7 (in 2009) while unemployment rate raised from 5.8% in 2008 to 17.8% in 2010; employment rate (15-64) declined from 64.3% to 57.8%. According to the Eurostat data, public sector debt increased from 15.6% of GDP in 2008 to 38.2 in 2010.

It is important to mention, that economic crisis was an additional burden for the pensions system together with a growing ageing society. Especially, it had a strong impact on the funded pension - the results were very unstable due to downturns in financial markets; therefore, they did not function better as pay-as you go systems (Bitinas, 2011). The time for reforms were crucial in Lithuania as without the incentives for the private pension accumulation and increase of retirement age, the deficit of state social insurance fund raise and the trust of people in social insurance system would also fell down (Bitinas, 2012). Therefore, during the economic crisis, in order to ensure enough funds for the fulfilment of budget commitments of the State Social Insurance Fund it was decided to temporarily reduce pensions.

The contributions which were moved to pension funds were decreased temporarily (from 5.5 % to 2% of the employee's salary) in 2009–2011 (Ministry of Social Security and Labour, 2011). In such way, the participants of the funded pension system had smaller first pillar pensions and less state guarantees, as the state social insurance system became dependent on the situation of the financial and as well as labour market and had to adapt in order to improve the budget results. Because of heavy financial burdens, the statutory funded pension scheme has experienced some challenges. The contribution rate to be transferred from PAYG into the statutory funded system was reduced gradually (from 5.5% in 2007 to 1.5% in 2012 and to 2.5% in 2013) (The Ministry of Social Security and Labor, 2020).

As a response to these challenges, the Lithuanian Parliament on June 8, 2011, has adopted Guidelines of pensions and social insurance reform. The main objective of the reform was to guarantee that persons would receive adequate pensions, and that social insurance fund budget would be stable, and that pension system would ajust easier to future demographical and economical changes (Bitinas, 2012). The first phase of this reform would start in 2012 and is continuing until 2026. Second stage will start form 2027 The most important principles indicated in the Guidelines were as follows (Bitinas, 2011):

- More transparency in the pension system;
- Separation of the social insurance and social assistance;
- Clear indexation rules and clear relationship between social insurance fund and state budget;
- Consolidation of privileged state pensions to the state social insurance system and to professional funds;
- Better regulation and more efficiency in second pillar private funded pension schemes;
- Better management of the social insurance fund is based to achieve the most crucial purpose - to balance the budget of the social insurance fund.

After these principles were adopted, the government started to implement relevant changes in the pension system. In order to achieve better relation between contributions and benefits and make labour market more flexible and to separate social insurance and social assistance, on June 9, 2011 the Parliament approved the amendments to the Law on state social insurance pensions, whereby the retirement age would increase by 4 months per year for women and 2 months per year for men as of until it reaches 65 years in 2026. In the year 2011, the retirement age was 60 years for women and 62.5 years for men. (LR Valstybinių socialinio draudimo pensijų įstatymo straipsnių 21,25,33,56,57,67 pakeitimo ir papildymo įstaymas). The obligatory pension social insurance record requirement for a full pension was 30 years for both genders, which it is planned will be increased up to 35 years in the future.

In addition, it was also important to motivate people to accumulate more for their future on their own to guarantee more adequate pensions in retirement. In order to create more possibilities for people to decide on voluntary accumulation of their pensions, on June 28 2011, the Government has approved some changes in the funded pension scheme and presented them to Parliament. According to these changes, from the year 2013, as announced by the pension systems of the Republic of Lithuania Reform Act (2013), the person’s contribution to retirement pension consisted of three parts (for those, who decided to participate from the year of 2013):

- part of a person's obligatory social insurance contributions (2%);
- a personal contribution (1% (raised to 2% in 2016) of personal income, of which state social insurance contributions are calculated);
- and state subsidies (firstly 1% and 2% from the year 2016).

Participants, which were participating until 2013, could choose one of the following: to terminate transfers of social insurance contributions to pension funds and remain only in the “Sodra” system (in this case contributions that were transferred to the pension fund to Sodra are non – refundable), or to continue the accumulation by contributing own funds and by receiving an additional contribution from the state budget, or to participate in the accumulation of pensions under the previous conditions (do not change anything) by transferring social insurance contributions from Sodra at a fixed rate (2013 - 2.5% of received income, 2014 - 2%) (LR Pensijų sistemos reformos įstatymo 1,2,3,4, 7 ir 8 straipsnių pakeitimo įstatymas).

2.3.3. The reasons for accelerating the 2018-2019 old-age pension reform

Unfortunately, old-age pension second pillar reform, implemented in 2013, was criticized. First, the State was allocating part of “Sodra’s” funds to private pension funds which in turn implemented administration fee to be paid by participants. According to to the Republic of Lithuania Social Security and Labor Ministry (2018), “the system did not work well and correctly” therefore a new reform is needed.

Second reason, which had an influence on the implementation of the new reform was the difficult demographic situation in Lithuania due to emigration and low fertility rates leading to increasing population ageing. The number of elderlies who are aged 65 and older people and the proportion in the total population grows every year, while the total population decreases. At the beginning of 2019, Lithuania had 2794.184 thousand residents, out of whom 552.373 thousand, or 19.8 per cent, were aged 65 and older (Lietuvos statistikos departamentas, 2019). To compare, in

2014, residents aged 65 and older amounted 542.739, while the total population – 2943.5 (see table No. 5).

Table No. 5 Elderly people by sex and age group in 2014

Age group	Total (thousands)	Males	Females
All	542.739	182417	360322
65-69	136848	53716	83132
70-74	139514	50473	89041
75-79	120058	39275	80783
80-84	85674	25030	60644
85-89	45160	10806	34354
90-94	13331	2667	10664
>95	2154	450	1704

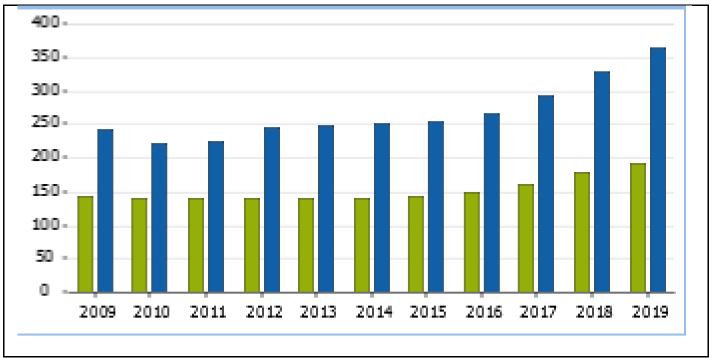
Source: adapted by author according to Lietuvos statistikos departamentas (2014)

It is important to mention, that there is large number difference between genders in Lithuania – the population of elderly women is almost twice as high as that of elderly men. As Table no. 4 indicates, in 2014 Lithuania had 360.322 females and only 182.417 males. This difference proves, that males in Lithuania still do not have necessary skills or knowledge about healthy aging which in many cases leads to early death.

Low fertility rates – another serious issue in Lithuania. In 2018, 28,1 thousand babies were born and comparing to 2017 (28,6 thousand babies born), this amount is 1.9 % lower.

On the other hand, there can be noticed some positive changes with regards to the constant growth of the average old-age benefits in Lithuania (Figure No.7).

Figure No.7 Average old-age pension with the required length of service In Lithuania



Source: Sodra, https://atvira.sodra.lt/lt-eur/

Figure No. 7 shows, that average old-age benefits with the required length of service (blue color) were increasing from EUR 241 in the year of 2009 to EUR 364 in the year of 2019.

However despite the implemented changes in the Lithuanian pension system and slight increase in pension amount, the challenges for future pension adequacy still arise from demographic developments. According to European Commission (2018), Lithuania will be one of the fastest ageing countries because of the highest emigration in the EU and low fertility rates. Because of these phenomena, the demographic old-age dependency ratio (20-64) is projected to increase in Lithuania from 31.3 % to 68.4 % over the projection period from 2016 up to 2056. Extremelly high increase is expected in the very elderly groups of people who are 80 and older - from 6.1 % in 2020 to 13.3 % in 2050 (European Commission, 2015).

The process of aging population brings various challenges to the Lithuanian social insurance system therefore it is very important to set them up and try to find solutions in order to combat them efficiently. The current situation in the Lithuanian social area is an inseparable part of global processes in Europe and in the whole world. Furthermore, it is beeing worsened, because elderly people are still seen as a burden of the society and their potential as a valuable resource is beeing ignored (as in majority post-soviet countries). Age discrimination is very widespread here as well (Selli, Czabanowska, Danusevičienė, Butkevičienė, Jurkuvienė, Overall, 2016).

In order to combat poverty and to include older people into economic and social life, Lithuanian government have signed the decision "Confirmation of overcoming strategy of national aging population consequences ", (Nutarimas "Dėl nacionalinės gyventojų senėjimo pasekmių įveikimo strategijos patvirtinimo", 2014). Unfortunately, despite such initiative and pension reforms, quite high numbers of old and very old people were still experiencing financial insecurity, social inequality and poverty. Table No.6 indicates, that in 2016 in Lithuania almost 40 % of people aged 65 and more were at risk at poverty and social exclusion. Furthermore, the level of material deprivation and social exclusion among the elderly living alone in Lithuania is exceptionally high. Two out of three people aged 65 and over living in a one-person household are at risk of poverty and social exclusion ((Mikulionienė, Rapolienė, Valavičienė, 2018).

Table No.6 Poverty indicators in Lithuania in 2016

Indicator	Total	Men	Women
At risk at poverty or social exclusion (AROPE), 65+(5)	37.4	26.2	43.1
At risk of poverty (AROP), 65+(%)	27.7	16.7	33.2
Severe material deprivation (SMD), 65+(%)	17.3	13.7	19.0
At risk at poverty or social exclusion (AROPE), 75+(5)	38.7	25.5	44.1
At risk of poverty (AROP), 75+(%)	28.1	14.4	33.6

Severe material deprivation (SMD), 75+(%)	17.0	13.0	18.6
Material and social deprivation, age 65+(%)	34.9	30.0	37.4

Source: adapted by author according to European Commission (2018) Pension adequacy report

Interesting fact is that, in the context of other European countries, Lithuania, in 2017 and in 2018 was one of those few countries (together with Latvia, Bulgaria and Estonia) where at-risk-of-poverty rate of people who were 65 years old and more reached 33.4 % and 37. 7 % respectively, while the total rate in the EU was only 15.0% and 16.1% (Eurostat, 2020).

Such figures are a cause of concern, therefore, it is obvious that without more significant changes in the pension system, every generation will continue to receive lower pension compared to past incomes which will increase poverty in old age. The system, mostly financed by current payments (PAYG) faces huge challenges, therefore the need of new reform in the area of pension policy is growing every day.

2.3.4. Old-age pension system in Lithuania in the period of 2018 to 2020

From 2018 January 1, new version of the Law on State Social Insurance Pensions (2019) entered into force (Valstybinio socialinio draudimo pensijų įstatymas, 2019) according to which, pension points and indexation rules were introduced. Furthermore, the required length of work to receive an old-age pension was gradually extended from 30 years to 35 years in 2027. The pension calculation system was changed, according to which the amount of the pension depends on the work experience accumulated throughout the entire career, the total score, the basic pension indicator and the value of the accounting unit in the year of the retirement (Sodra, 2020). Previously existed basic and supplementary parts of pension were replaced by general part and individual part of pension (Formula No. 2).

Formula No. 2 Old-age pension I pillar calculation

Old-age pension benefit (I pillar) =	General part of pension * Basic pension amount = accumulated work experience/Compulsory work experience (in 2018 – 31,5 years) +
	Individual part or pension = Point value (in 2019 – EUR 3.81) * Number of accumulated points

Source: adapted by author according to Sodra (http://www.sodra.lt/en/how-is-the-pension-calculated)

The general part of pension depends on the pension social insurance contributions the person has made and on the basic pension amount for the year of the person's retirement while **the**

individual part of pension depends on the total accounting units (points) the person has obtained and on the value of the accounting unit (point) for the year of the person's retirement. **1 point is obtained**, if the employer or employee pays the pension social insurance contributions from the value of his/her salary or income that is equal to 12 average monthly salaries established for that year.

According to Sodra, after the implementation of the new version of the Law on Pensions (2019), due to the indexation of pensions, social insurance pensions increased annually: in 2018 - 6.94%; 2019 - 7.63% in 2020 - 8.11% individual pension share and 9.94% general pension share. This increase should help to reduce the poverty rate of older people.

The European Commission (2018) emphasized that Lithuania has made little progress in the area of old-age pension policy. It stated, that "the social insurance pension scheme is rather well designed: all employees and the self-employed are covered; the retirement age is increasing faster for females and therefore will reduce the gender gap for benefits; the pension formula ensures redistribution and does not allow high inequality". However, the introduction of pension indexation is aimed at increasing the long-term sustainability of the pension system, but this measure may reduce pension adequacy in the long run because of the decreasing number of employees and will negatively affect those with shorter careers. The pension level will increase more slowly than average wages in the future.

In addition, the European Commission (2018) argues, that the Lithuanian pension system is still not very effective in protecting the elderly from poverty and social exclusion. Pension spending is one of the lowest in the EU (6.9% of GDP in 2016, while in the ES – 11%.). Old-age pensions are low and the poverty rate for older people is one of the highest in the EU.

Therefore, it is obvious, that without more apparent changes, generations will continue to receive lower pension compared to their incomes, so it is necessary to intensify the pension reform in Lithuania by strengthening financing of both – first and second pension schemes and by encouraging employees and employers to participate in financing funded pension schemes more actively, instead relying on contributions from public funds.

In summer of 2018, Lithuanian president has approved and signed law amendments, which is believed will open new possibility to implement new pension accumulation reform since the beginning of 2019. According to the Bank of Lithuania, the proposed pension reform is an appropriate response to demographic challenges (Lietuvos bankas, 2018).

Generally, this reform will include the reorganization of pension accumulation (second pillar of pensions) and the transfer of basic pensions to the state budget (Ministry of Security and Labour, 2018). It was announced that the reorganization of the second pillar system aims to: "no longer oppose current and future retirees, but to improve the situation of both; to ensure an increase in old-age pensions so that the population feels greater incentives to accumulate for the future and to receive two pensions – one from "Sodra" and another from accumulation funds; to reduce pension fund fees.

From 2019 January 1, the new Law on Pension Accumulation entered into force. According to this Law, “Sodra's” transfers to private pension funds will be terminated, therefore, accumulation will no longer relate to reduction of “Sodra’s” pension as it has been so far until now. Second of all, according to Ministry of Security and Labour, employed people will be able to accumulate 3% of their wages or will have the opportunity to start accumulating from 1.8% and 3% accumulation of wages over five years into second pillar pension (Verslo žinios, 2018).

The state, in turn, will motivate individuals to accumulate at the second pillar of pensions by granting contribution incentives and reducing taxes which are paid to Sodra. This is going to happen as follows: 1,5 % of the average monthly wage will be transferred from the State budget into account of everyone, who decides to accumulate 3% of their wages. In addition, taxes to Sodra are going to decrease, which will compensate some of the personal contribution paid by the person. The gradual change in contributions will be as follows:

- 2019 - personal contributions 1.8% - state incentive 0.3%;
- 2020 - personal contributions 2.1% - state incentive 0.6%;
- 2021 - personal contributions 2.4% - state incentive 0.9%;
- 2022 - personal contributions 2.7% - state incentive 1.2%;
- 2023 - personal contributions 3% - state incentive 1.5%

Additional incentive will be granted if the worker chooses to accumulate more than 3% of his salary. In such case he will be subject to personal income tax incentive (State Tax Inspectorate, 2019). An employer can also contribute to the accumulation of his employee - in such which case he will be able to take advantage of the income tax relief.

It is important to mention, that the incentive is also granted if worker accumulates in a third pillar pension fund, by allowing him to take personal income tax benefit annually and return up to 20% of the amount paid into pension fund.

The Ministry of Social Security and Labour of the Republic of Lithuania (2018) notes that “such inclusion in the accumulation system has been used as one of the most effective tools to encourage people to accumulate if they have not yet accumulated. However, this is by no means a coercive mechanism, as any worker has the right to refuse to accumulate if he does not want to or has other priorities”.

There is a temporary suspension of contributions - it is possible to make a 12-month break throughout the accumulation period. This transfer suspension period may be divided into parts, however it is important that one part is not less than one month and the total duration not exceed one year. Changes after the implementation of the pension reform are presented in the table below:

Table No.7 Changes in accumulation after the implementation of the pension reform

Before 2019	After 2019
Group 1. (People under 40, who did not accumulate additionally (only Sodra's contribution))	• will be included in the second pillar pension accumulation system automatically • will be able to refuse to do so after informing “Sodra”.
Group 2. (2% of their remuneration is transferred to the pension accumulation account, 2% of the paid contributions are transferred to “Sodra” and 2% of the average national wage is allocated from the state budget)	• contribution amount will raise to 3% of the remuneration • “Sodra” transfers to pension funds will be terminated. The reduced taxes will completely offset the rejection of Sodra's transfers and changes in payments, as the incentive made by the State will amount to 1.5% of the average national wage. • will be able to stop accumulation by notifying their pension accumulation company until June 30 of 2019. • can return to “Sodra” with the whole already accumulated amount of funds and to restore the size of the reduced pension contribution due to accumulation or: • can terminate the accumulation and use those funds when they reach the age of retirement
Group 3. (Current accumulators, who do not contribute from their remuneration - contributions to the pension fund are transferred only by Sodra),	• the personal contribution amount will be 1,8 % of the remuneration which in 5 years will reach 3 % while Sodra transfers to pension funds will be terminated. Individuals in this group can terminate accumulation and choose same ways of return already accumulated funds.
Group 4. (Employed people who do not currently accumulate and are already 40 years old or more)	• will not be automatically included in the updated accumulation system, but may at any time enter into a savings agreement under the same conditions as other accumulating individuals.
Group 5. (Individuals who terminated accumulation in 2013)	• participants under the age of 40 will be automatically included in the updated accumulation system and the same rules will apply as for the ones in the group 1. • Participants over 40 years of age will not be included in the accumulation, but may conclude an accumulation agreement on a voluntary basis (same rules as for ones in group 4).

Source: adapted by author according to Verslo žinios (2018)

In addition to the changes described above, this reform has also established new types of pension benefits: retirement annuity, with a mandatory limit of 10000 Eur (paid until the death of retiree), one-off pension payment (if accumulated up to 3000 Eur) and periodic pension benefit (if accumulated from 3000 to 10000 eur 000 Eur) The two last benefits will be inherited,

From 2020 July 1, the new Law of the Republic of Lithuania on Pension Accumulation according to which pension annuities are paid by the Sodra, while annuities calculated and started to be paid before this date will continue to be paid by life insurance companies under agreements concluded with annuity recipients.

It is important to mention, that from June of 2019, the investment strategies were also changed. The funds of the second pension to be invested only in life-cycle investment strategies (SWED bank, 2018). The investments of these funds are going to be managed considering the age of their participants. The older the participant gets, the more the pension fund is going to reduce the amount of the risky and increase the amount of safe investments. This seems to be convenient for the participants, as they will not need to change pension funds or investment risk. In addition, all participants, who have accumulated in traditional pension will be able to transfer these funds free of charge into life cycle-pension funds which will be provided depending on their age (SWED bank, 2018).

Some more positive changes were introduced with regards to asset management fees and additional contributions. From 2019, the asset management fee decreased from 1% to 0,8 %, giving the possibility to accumulators to save some additional funds while investing.

Furthermore, it will be possible to pay additional contributions to the second pillar pension fund individually (from own funds) or the employer of the participant will be able to transfer it to their pension fund account by paying an additional amount to their salaries. In this case, the participants will benefit from income tax exemption and their employers, in turn, will benefit from the profit tax exemption. Besides, the accumulators can choose on their own the amount and the frequency of the transfers.

The detailed analysis of the new pension reform shows that it might indeed help to prepare for demographic changes when the number of retired people exceed the number of the ones of working age. The reorganization of the accumulation allows the population to accumulate independently and to receive not only pensions from Sodra but also personally accumulated pensions.

In addition, these changes can significantly reduce the fees of pension funds, which would allow to accumulate more. The bank of Lithuania also welcomes the use of mandatory life cycle funds as it would allow young employed to earn higher return, and also wold help to save the accumulated health before the retirement age (Lietuvos Bankas, 2018). Furthermore, it can encourage the accumulation without confronting current and future pensioners, and reduce inequality as at the current reform, the citizens accumulate quite differently, and this can lead to quite high inequality at old age.

Simonas Krėpšta, Chief adviser to the President, Head of the Economic and Social Policy Group stated that according to the latest economic development scenario, calculating the pension indexation coefficient, old-age pensions could grow by 7.17% in 2021. This means that the average old-age pension would increase from € 377 in 2020 to € 404 in 2020. As it is already clear that the Lithuanian economic downturn is one of the smallest in the European Union, relatively good indicators make it possible to take care of the pensioners. However, he also noted, that pension indexation formula could be improved in a way that the growth of pensions would correspond to the funds collected in the budget. Despite all the changes, which it is believed, will help to organize the pension system in Lithuania better, several weak sides of the reform must be evaluated too. Some critics argue that changes will only burden the situation of future pensioners. First of all, there is a threat that automatic inclusion of people into the accumulation of the second pillar can bring some confusion for those who do not want to accumulate as after the conclusion of the pension accumulation agreement, they will not be able to terminate pension accumulation except for the first termination of the pension accumulation agreement (within 30 calendar days after its conclusion) (SWED bank, 2018).

Secondly, the Minister of Social Security and Labour, Linas Kukuraitis, is sceptical about the plans to transfer pension annuities only to Sodra and also claims that there is still no universal solution for collecting funds for the old age as in in his opinion, it is worth to accumulate for at least 25 years (Ministry of Social Security and Labour, 2018). According to Board member of the Investors' Association, Sigita Pranckėnaite, uncertainties can also appear because the new system of pension annuities is quite complicated and might discourage people to accumulate in the second pillar of pensions.

Another disadvantage of promoting personal accumulation is the investment risk as there is no guarantee that the value of the investment will increase. Past performance does not guarantee future results plus many people are not very much financially educated so it will be difficult for them to choose the correct investment strategy. Therefore, generally it can be stated that the difficulties of the new pension reform are its complexity. For this reason, there is a thread many people may decide not to change anything and will remain participants in the second pillar pension system or will just terminate the accumulation.

Although the new pension system proposes a big variety of choices on accumulation in second pillar according to everyone’s needs, it is still too early to evaluate, how effectively this will prevent demographic and social challenges.

It is very likely, that in order to mitigate the negative effects of demographic trends, not only benefit measures should be accounted, but also other alternatives, such as the inclusion of people of retirement age in the labour market, which would help to improve their financial situation. As participation of people of retirement age in the labour market depends on many aspects, such as health, motivation, experience, knowledge and skills, working conditions, and other factors, that must be taken into account while involving such people in more active employment.

2.4. Adequacy studies of old-age pension system in Poland

2.4.1. The development of Polish old-age pension reform of 1998-1999

Poland was one of the first countries in Central and Eastern Europe which begun reforming their pension system. In the beginning the Polish pension system was based on a pay-as-you-go rule (as in Lithuania), a system based on contribution-based benefits, where the pension amount depends on worker’s contribution history such as wages, age at retirement, length of employment. Such pensions were dependant on inflation, so they provided rather basic, but guaranteed amount income for retirees.

The design of the 'old' Polish pensions system was based on Bismarck's social legislation - the Old Age and Disability Insurance Bill which was adopted in Germany in 1889 (Krawczyk, 2011).

The old age pension programme was designed to provide a pension annuity and was financed by a tax on workers after retirement age. Such system was a funded defined benefit pension system, to be paid from Pensions Reserve Fund or Social Security Reserve Fund and managed by ZUS (the social insurance institution, Zakład Ubezpieczeń Społecznych), meaning that investment risk was assumed by ZUS. The problems with such scheme appeared when ZUS started not to receive enough funds to carry on and fund the plan. The main reasons of these problems were high level of unemployment (from the year 1989 to 1990 which in turn have led to mass migration from Poland – from one and three million in this century alone (Krawczyk, 2011).

In addition to that, the demographic structure of the Polish population started to change and caused the rise of old age dependency ratio from 15.26 in 1989 to 17.75 in 1999, and 19.32 in 2011 (Kompa, Witkowska, 2014). Therefore, it was necessary to start thinking about reforms, as it was already obvious, that the system was unsustainable because of low retirement age which led to increased number of young pensioners followed by higher pension costs. Unfortunately, the governments were not too eager to take actions in order to implement changes with regards to later retirement. The reason was political – because of high unemployment, any reforms towards such provisions would probably be not very successful (Polakowski, Hagemejer, 2018).

In general, a lot of various actors took part in the debates regarding pension reform: advisers, officials and experts from the Ministry of Finance as well as the Ministry of Labour and Social Policy. Trade unions also created some proposals, where they endorsed mandatory funding and participation of government in pensions funds, while ministries supported a voluntary funded pillar. However, the Polish pension system received a lot of attention not only from social security professionals, but also from politicians and the society.

The International Monetary Fund and the World Bank, because of the above-mentioned reasons have insisted on the importance on the implementation of the new pension reform. The World Bank introduced three-pillar pension system (World Bank, 1994) was broadly accepted by the centre-left coalition, which was led by the post-Communist party, finalized by the centre-right coalition linked to the "Solidarność" trade union confederation (Polakowski, Hagemejer, 2018). The official from the World Bank was temporarily appointed as proxy of the Office of the Government for the Pension Reform. As a result, the corrections of later retirement were still not introduced and the possibilities to contribute longer were not implemented. Although it was technically possible to reduce the expected rise in pensions, the opposition from pensioners and their representatives was too persevering to let it happen (Gora, Rutkowski, 1998).

Eventually, although many different institutions and politicians have influenced the process and results of pension reform, the biggest challenge was to find the compromise between the political parties in Parliament. The proper leadership skills as well as co-operation was a crucial step towards implementation of new pension reform. The representative of the Government for the Pension Reform, played a very important role in this process. That time the governments of prime ministers Cimoszewicz and Buzek emphasized the necesssity for a for a representative for pension reform with independancy from political influence(Gora, Rutkowski, 1998), furthermore, the representatives (Baczkowski, Hausner and Lewicka) managed to professionally focus on pension reform related tasks avoiding any political intervention. Efficient co-operation with trade unions was also not less important. After some mutual consultations, the trade union "Solidarność" introduced its own reform proposal in 1995, which included the creation of mandatory funded pillar (Gora, Rutkowski, 1998). The representatives of the Government for the Pension Reform understood the neccesity to act quickly in such circumstances and managed to take advantage behind new pension reform.

Therefore, after long debates, the government have finally introduced the pension reform of 1998, which was implemented in 1999 in order to reduce various risks (hyperinflation, increased unemployment, migration), to improve sustainability of the pension system and to ensure more generous benefits to future generations. The aim of this reform was also to motivate the working population to save more voluntary (Gomulka, Styczen, 1999). This reform was extremely radical as it has aimed complete shift system from defined benefits (DB) to a partially privately managed defined contribution (DC) system, plus a mandatory system of privately managed pension funds and a voluntary third pillar (see Table No.8).

Table No.8 Characteristics of Polish pension system after the 1998-1999 reform

PILLAR	I	II	III
Contributions (% of gross wage)	12.22 (mandatory)	7.30 (mandatory)	Voluntary as contracted
Funds	FUS (social insurance fund individual accounts)	OFE(individual accounts, financial investment yield)	PPE, IKE, IKZE (individual accounts, financial investment yield)
Management	ZUS (public agency)	PTE (private companies)	PTI (Private companies)
Financing	PAY (Pay-as-you go)	Funded (NDC) – capital and funded contributions	Fully funded (DC)- capital

Source: adapted by author according Zabkowic (2016), Polakowski, Hagemejer, (2018)

The first mandatory pillar was publicly managed by ZUS (the social insurance institution, Zakład Ubezpieczeń Społecznych) and financed through a PAYG method. All contributions paid by an insured person were periodically adjusted with the notional rate of return and transferred to individual account (Zabkowic ,2016). The retirement pension was calculated by dividing the amount accumulated over the individual's years of employment by life expectancy at the age of retirement.

The second pillar was also mandatory and consisted of Open Pension Funds (Otwarte Fundusze Emerytalne - OFE) managed by Private Pension Entities (Powszechne Towarzystwa Emerytalne - PTE), and was based on a defined contribution but financed using the funded method. This pillar was linked to the PAYG (the first pillar) by ZUS which was collecting contributions and transfering in due portions to Open Pension funds. However, ZUS did not supervise the Open Pension Fund segment – it was under control of private financial.

The third, voluntary pillar, was composed of various forms of private, voluntary savings schemes based on a defined contribution and financed using the funded method (Dybal, 2011).

In addition, after the reform, Poland, have introduced the new occupational pension plan (unlike in Lithuania, where it is not introduced yet). According to such plan, employers will be able to transfer employee contributions to group insurance with a joint-stock or mutual life-insurance company, an occupational pension fund or to open investment funds (Gora, Rutkowski, 1998).

It is important to note, that that the new reform did not apply for everyone. From the year of 1999, persons, depending on the year of their birth, participated in different schemes (ZUS, 2019):

- old-age pension scheme operating under the earlier rules (before 1999)– for persons born before 1 January 1949

- old-age pension scheme operating under the new rules (from 1999)– for persons born after 31 December 1948.

Those individuals, who were born after 31 December 1948, but before 1 January 1969 could either remain in the pre-1999 pension scheme (PAYG), or join the new pension scheme (by combining PAYG and funded model, where contributions are accumulated both - in Social Insurance Fund and in the Open Pension Fund (Kaczmarczyk, 2014).

To conclude, in the new system, the number of years worked were not so important, however, a minimum level of deposit was required in the individual account (Zabkowic ,2016). According to the new reform, in order to improve sustainability of the budget as well as to make life of retirees more adequate, the workers were motivated to participate in the second and third pillars, as the level of benefits in retirement will mostly depend on how much money they collected in these pillars. However, until now almost all pensions are still paid from the old DB system, therefore, the current adequacy of pension system still does not reflect potential improvements in the future. This will be seen later, when pensions will be calculated according to the principles established in 1999.

2.4.2. Old-age pension system in Poland after the 1998-1999 reform until the year of 2018

After the implementation of the reform of 1999, the OECD argued, that in terms of its sustainability was successful as Polish economy benefited from greater diversity of pension income sources, later retirement, higher national saving, a smaller underground economy deeper capital markets (Dybal, 2011). According to projections prepared by European Commission, because of 1999 reform it is expected that in the period 2010 to 2060, spending on the pension system in Poland will decrease from 11.8% of GDP to 9.6% of GDP, while in the majority of Member States spending is expected to rise (Table No.9).

Table No.9 Projected age-related expenditures 2010-2060 as percentage of GDP

	2010	2060		2010	2060
Belgium	11.0	5.6	Hungary	11.9	2.8
Bulgaria	9.9	1.1	Malta	10.4	5.5
Check republic	9.1	2.7	The Netherlands	6.8	3.6
Denmark	10.1	-0.6	Austria	14.1	2.0
Germany	10.8	2.6	Poland	11.8	-2.2
Estonia	8.9	-1.1	Portugal	9.8	3.7
Ireland	7.5	4.1	Slovenia	11.2	7.1
Greece	13.6	1.0	Slovakia	8.0	5.2

Spain	10.1	3.6	Finland	12.0	3.2
France	14.6	0.5	Sweden	9.6	0.6
Italy	15.3	-0.9	United Kingdom	7.7	1.5
Cyprus	7.6	8.7	Norway	9.3	4.9
Latvia	9.7	-3.8	EU 27	11.3	1.5
Lithuania	8.6	3.5			
Luxembourg	9.2	9.4			

Source: adapted by author according European Commission (2012), The 2012 Ageing Report. Economic and budgetary projections for the 27 EU Member States (2010-2060)

Despite that, this reform had negative outcomes. The biggest challenge here was the financing of all costs related to this transition. According estimations prepared by Dzybal (2011), taken from ZUS, the transition costs continuously during in the period 1999-2010, contributions transferred from Social Security to pension funds increased from PLN 2,262.7 million to PLN 22,347.2 million. This led to an increased public debt, as “many planned cost-saving measures were delayed, modified or abandoned and thus pension expenditures increased much more than expected” (Polakowski, Hagemejer, 2018).

Firstly, the privatization received a lot of support (even by trade unions), while public social institutions did not get much trust, as it was expected that private sector provision of pension funds will provide better quality of service. Such an image was successfully advertised by the media as well as by financial service companies. Secondly, people have favoured an idea of having individual accounts and the possibility to control pension amounts by contributing independently. Although some experts tried to emphasize the disadvantages of this idea, such as private pensions administrators’ charges and fees, it did not have much impact on the positive opinion of main actors involved. However, after a few years the official reports were prepared, which showed more realistic and not too optimistic situation with regards to private pension funds in terms of investment policies and administration fees. Some concern was raised by social partners with regards to economic and social efficiency of pension privatization, as well as the termination of early retirement. However, these concerns were taken seriously between politicians only after the beginning of the global financial crisis. And although Poland was not too much affected by this crisis comparing to Lithuania and other Eastern and Central European Countries, the economy in the years 2009, 2012 and 2013 still experienced slowdown that jeopardised its sustainability. As a result, Polish budget deficit increased from 1,9% in 2007 to 7,5% of GDP in 2010 (Jakubowski, 2016).

As a result, early retirement opportunitities that existed before 2008 were terminated. It is possible to retire earlier only in case of working in dangerous or difficult conditions before the year of 1999 in the form of a bridging pension for workers (bus and engine drivers, people working in a very hot or very cold microclimate, underground, underwater, in the air) (European Commission, 2015) However this system will be waived in the future as well. There are no other early retirement opportunities in Polish general pension system.

After joining the EU, Poland experienced the pressure from the EU to meet Masstrich criteria, therefore the decision was made to partly nationalize assets of the privately managed pillar, to reduce its size and make it voluntary. According to to Kompa and Witkowska (2014), in 2011, the contribution transferred to pension funds was reduced from 7.3% to 2.3% and 5% was placed in a special individual account. The government approved such changes as necessary action for the decrease of the budget's deficit. Although some experts argued, that such step was a "significant step backward", "un-privatizing the pension system" (Hagemejer, Makarski, Tyrowicz, 2013), the Prime Minister Donald Tusk assured that "it is no more than a bookkeeping change in the way to handle the public's retirement money" (Bilefsky and Zurawik, 2013).

It is also important to note, that The Ministry of Finance and The Ministry of Labour and Social Policy were the main actors in creating the design and implementation of the pension system re-reforms in 2011 and 2013. During this period, both ministries emphasized negative impact of the private pillar on public finances due to high transition costs and on future pensioners due to smaller pensions, higher administrative fees and small investment returns (Polakowski, Hagemejer, 2018). Instead, they highlighted the stability of the first pillar and the necessity to develop more the third voluntary pillar. The opposition of such proposal was formed of a group of experts who tried to defend mandatory private pensions. They argued that private pensions are necessary in order to have higher pensions and faster economic growth. It is important to note, that their position was quite influential because of their approach to the media and strong arguments. Surprisingly, in this case the World Bank as an important contributor of the reform, did not make any comments and did not take part in the debate.

Another important topic of the debate was the ownership of the property rights. The opponents of the re-reform argued that pension fund reserves were owned privately and noted that savings in the pension funds can be inherited under some provisions (Jarrett, 2011). On the contrary, the Supreme Court confirmed that mandatory pensions contributions are public property. Another debate because has started with regards to provision of private assets. The goverment then, in order to close the debate, decided to transfer only invested into government bonds pension fund assets and other state-guaranteed papers to the public pillar.

As the main aim of the re-reforms of 2011-2013 was to promote fiscal stability, the retirement age was gradually raised from 60 to 67 for women and 65 to 67 for men. Trade unions tried to protest this increase and requested the options of earlier retirement for people with long contribution periods. However they did not manage to achieve their demands, as previously two main of them designed different pension models - "Solidarność" had supported a pension system with a privately-managed pillar and had defended the multi-pillar solution during 2011-2013, while the other (OPZZ) opposed the second pillar, due to high administrative fees and other administrative charges (Polakowski, Hagemejer, 2018). The raise of retirement age was mostly a result of the pre-election campaign promises of the ruling party as well as the President.

After changes in 2014, the Polish pension system was still based on individual accounts. The pension model in Poland after the re-reforms consisted of mixed systems: PAYG/NDC in the first pillar and privately managed FDC in the second pillar. The biggest change in the second pillar was that it became voluntary and decreased in size. The contribution transferred to private pension funds, in 2014 was 2.92 % of the salary, compared with the 7.3 % after the 1999 pension reform (Kompa, Witkowska, 2014). The 2013 re-reform made changes in the regulatory system of second private-pillar pensions. The consequences of this reform were prohibited investments in government bonds, furthermore, owned by pension fund assets and invested in government bonds were moved to the public-pillar pension fund and credited to the individual NDC sub-account. In addition, contributions paid the last 10 years before retirement were transferred only to the public pillar.

With regards to actors who had the main impact on reforms during years 1999-2013, it can be noted, that social partners plaid smaller role with regards to changes in the private pension funds and in general pension system. It is important to emphasize, that increased size of the public pillar strengthened the participation of the government, as "representatives of the trade unions and employers are members of the ZUS (the social insurance institution) oversight board" (Polakowski, Hagemejer, 2018).

In addition, the promotion of additional savings was also an important step in order to improve people's life after the retirement. Unfortunately, the method, the government used in order to implement the 2011-2013 reforms lowered the trust of citizens. The reason was that promises (such as no increase of retirement age, additional contributions after retirement) were made without proper understanding of transition costs as well as effects on the future benefits. Overly optimistic prognoses were made by the group of financial experts which convinced politicians and public in a successfulness of the reform. Therefore, it was quite important to rebuild this trust and as well as to increase financial education in order to improve the future life of pensioners.

2.4.3. The effects of Polish old-age pension system in Poland in terms of its adequacy

European Commission (2018) in the report “Current and future income adequacy in old age in the EU” stated, that situation of current pensioners was relatively good, as pensions provided a proper protection against poverty. Between 2008 and 2016 there was a significant decline of the old-age at-risk-of poverty or social exclusion (AROPE) rate in Poland (from 26.9% to 16.1%), due to the large drop in the level of severe material deprivation (from 20.8% to 5.9%) (Table No .10). To compare, in Lithuania, AROPE rate in 2016 was more than two times higher (37.1%). According to European Commission, such situation was mostly related to the improvement of housing of the elderly.

Table No.10 Poverty indicators in Poland in 2016

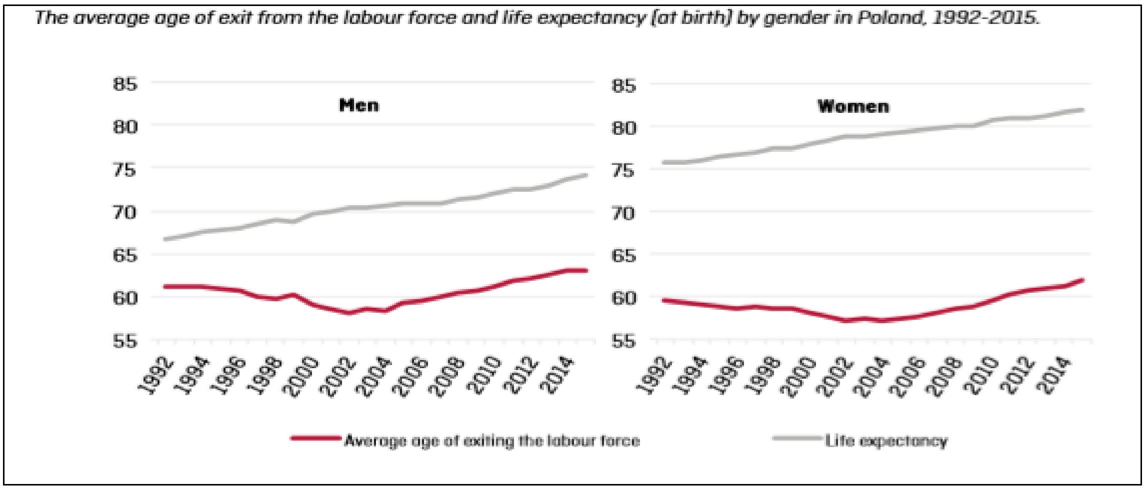
Indicator	Total	Men	Women	Change 2008-2016
At risk at poverty or social exclusion (AROPE), 65+(5)	16.1	11.7	19.0	-10.8
At risk of poverty (AROP), 65+(%)	12.8	9.1	15.2	1.1
Severe material deprivation (SMD), 65+(%)	5.9	4.3	6.9	-14.9
At risk at poverty or social exclusion (AROPE), 75+(5)	15.2	9.9	17.8	-11.4
At risk of poverty (AROP), 75+(%)	11.6	6.8	14.1	1.6
Severe material deprivation (SMD), 75+(%)	5.8	4.8	6.3	-14.9
Material and social deprivation, age 65+(%)	11.8	16.6	16.2	2.5

Source: adapted by author according to European Commission (2018) Pension adequacy report

According to the World Bank (2012), in the year 2011, there were only 35% of people aged 55-64, who were active in the labour market in Poland, while in all the rest of EU Member States the share of workers was 51%. However, in 2015 the situation already strongly improved - employment rates of workers aged between 50 and 64 were the highest ever recorded (Kielzewska, Lewandowski, 2017), which could also have a positive effect on the decreased poverty rates.

As we can see from Figure No.8 below, an increase in the total employment rate between both genders during years 2006 and 2015 appeared because of the improvement of employment opportunities and implementation of better social policies. The improvement in educational opportunities for older workers also played an important role in the growth in the total employment rate. However, in general, when it comes to work possibilities, it can be noticed, that Poland quite successfully managed to turn population ageing from challenge into the opportunity.

Figure No.8 The average age of exit from the labour force and life expectancy (at birth) by gender in Poland (1992-2015)



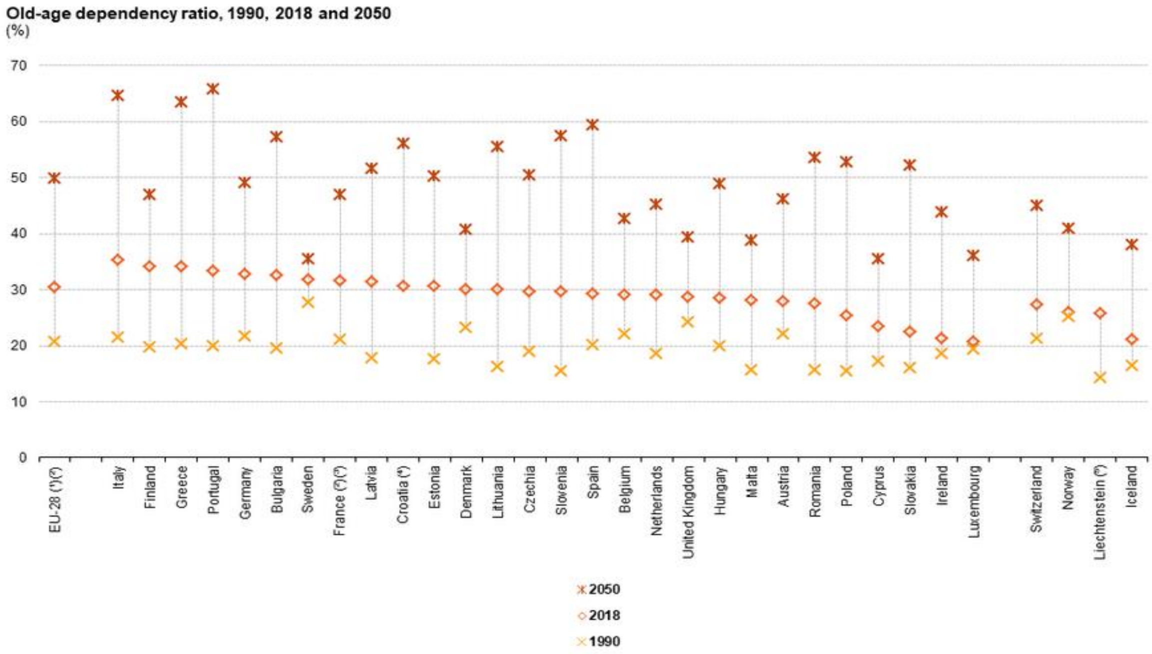
Source: Kiełczewska A., Lewandowski P (2017) calculations based on Labour Force Survey data

Furthermore, old-age pension benefits in Poland, tend to slightly increase. According to the ZUS data, average old-age pension benefits increased from 2131 PLN (EUR 477 Eur) in 2016, to 2257 PLN 504 in the year of 2018.

Despite the positive aspects of pension policy, there are some remaining challenges. In 2017 the pensionable age was reversed to 60 years for women and 65 years for men, which, according European Commission (2018) will increase risk of poverty among older women as well as gender pension gap in the future. Therefore, the effective retirement age by promoting longer working lives should be implemented as it is one of the important measures to improve future adequacy and sustainability of the pension system. Furthermore, promotion of additional savings (for example the employee capital plans), can improve the policy system.

In addition, Poland, as Lithuania, faces significant challenges related to demographic changes. It is projected, that the median age of the population is going to increase from 39 in 2015 to 45 in 2030. In 2050, there will be one individual aged 65+ in Poland for every two individuals aged 15-64. Between years 2015 and 2050 the total size of the Polish population is expected to decline by 10%, while but the number of people aged 15-64 decline by 11% and people aged 65 and more – respectively by 83% during same year period (European Commission, 2017).According to Eurostat, in the context of other EU member states in 2018, Poland had a share of about 32.5% of people old er than 55 years of age of the population and belongs to those countries, were the amount of older people is the highest (to compare, the highest share was in Italy - 35.9 %, while the lowest – in Ireland 24.7%). Also, by 2050, half of the EU Member States are projected to have an old-age dependency ratio above 50.0 % and Poland is one of those countries (Figure No.9). That means that these countries will have less than two persons of working age for every person aged 65 years or more.

Figure No.9 Old-age dependancy ratio, 1990, 2018 and 2050



Source:https://ec.europa.eu/eurostat/statistics-explained/index.php?title=File:Old-age_dependency_ratio,_1990,_2018_and_2050_(%25)_AE2019.png

Figure No.9 also shows, that the share of people older than 55 years old in Poland is projected to be one of the highest between other member states (around 44%). In addition to that, by 2050, half of the EU Member States are projected to have an old-age dependency ratio above 50.0 % and Poland is one of those countries. That means that these countries will have less than two persons of working age for every person aged 65 years or more.

Unfortunately in general, Poland continue to experience the drop in number of population due to emigration and continous low fertility rates. Fihel and Okolski (2017) argue, that the process of population decrease started at the beginning of the 2000s and will not stabilize in the near future. According their estimations, extremely low fertility rates still is the main factor affecting population ageing in Poland and even if „the fertility remained at the level registered in 1985–89, the share of young persons (aged below 20) in the population would stabilize at around 30% and would not change importantly due to the outflow abroad or increasing longevity“. However, such positive scenario will likely not happen in the near future, as the share of young people continue to decline due to already lower generations than their parents (due to massive migration of older generation in the 2000s).

Therefore it is difficult to predict, how many years it will take to stabilize the population growth as the majority of people, who already emmigrated, are not likely to come back as they set up their families abroad.

2.4.4. Old-age pension system in Poland from the year of 2019

As it was described before, the Polish pension system used to have three pillars: first pillar- PAYG scheme (ZUS) with mandatory a contribution of 12.22 %, second pillar - a capital pillar (OFE) with a mandatory contribution of 7.3 % and a voluntary third pillar (IKE, IKZE). After the reforms of years 2013-2014, the second pillar was weakened, while redirecting the biggest part of mandatory contributions to ZUS and taking over half of OFE assets. The significance of OFE decreased, as contributions transferred to it became small (around 0.2 per cent GDP), however assets under their management remain meaningful (around eight per cent of GDP) (Laszek, 2019). The government has decided to terminate the remaining part of OFE, to redirect its remaining contributions toward the PAYG scheme and to transfer assets to voluntary IKE schemes.

The main reason of such decision, according to the government, was to improve the adequacy of the pension system in Poland and to save people's money (by limiting the negative impact of asset withdrawal on the stock exchange) (Laszek, 2019). From June 2019, the government has signed the new Act on Employee Capital Plans introduced a new occupational pension savings scheme (Employee Capital Plans). It was estimated that this scheme will cover all Polish workers and increase their pension savings. The scheme automatically covers all workers (age 19-55), and is paid by employees, employers, together with payment from the State budget (the Labour Fund, which is used to finance unemployment benefits and active labour market policies). Older employees aged 55-70 can also join ECP voluntarily. ECP scheme is based on an auto-enrolment mechanism with a possible refusal at any time (Dominczak, 2019). It is important to note, that accumulated savings will be accessible to the participant when he reaches the age of 60 (except for serious illness or housing purposes). The amount of mandatory contribution equals to 3.5% of the wage, with an optional additional contribution of up to 4.5% of the wage (Table No.11). Furthermore, employees with salaries below 120% of the minimum wage will pay reduced mandatory contributions, but no less than 0.5% of their wage. Also, as an incentive an additional co-payment will be made from the public Labour Fund (lump-sum payment of PLN 250 (€60) and an annual payment of PLN 240 (€57)) for the participants, who contribute more than the minimum amount (ZUS, 2019).

Table. No. 11 Amount of ECP contributions

Amount of ECP contributions	Contribution from the employee's gross remuneration, to be paid by:	
	the employer	the employee
Basic compulsory contribution	1.5%	2%
Additional voluntary contribution	up to 2.5%	up to 2%

Source: adapted by author, according to Dominczak (2019)

Employers will be able to choose an asset manager from among the following: investment fund companies, insurance companies and pension fund societies, which manage the open pension or employee pension funds. The structure of the investment will be adjusted to the participant's stage in life, with the fixed date standard pay-out option is a lump-sum withdrawal of 25% of the accumulated funds (untaxed), and the rest can be taken in the form of 10-year scheduled withdrawals. The entire amount can be paid out in a lump sum, but in such a case 75% of the ECP savings will be taxed (ZUS, 2019). The savings can also be used to purchase an annuity.

So overall, after implementation the new reform, the old-age pension scheme remained with only two subsystems: the general pension scheme and the voluntary funded pension scheme.

The general pension scheme has the following funds:

- Social Insurance Fund (FUS), managed by a public institution – the Social Insurance Institution (ZUS)
- Open Pension Funds (Otwarte Fundusze Emerytalne, OFEs) managed by private institutions General Pension Societies (Powszechne Towarzystwa Emerytalne, PTEs);

According this scheme, old-age pension is available to persons reached the retirement age (60 years for women and 65 years for men) and also if at least one contribution for the old-age pension insurance was transferred by ZUS to an individual account of the person insured. The amount of pension very much depends on paid contributions (see formula No.3).

Formula No.3 Calculation of old-age benefit (FUS)

Old-age pension benefit (FUS) =	total amount of the credited old-age pension insurance contributions after adjustment + initial capital after adjustment + funds credited to the sub-account / average life expectancy for persons of an age equal to the retirement age of the insured person concerned, expressed in months; according to tables published by the Central Statistical Office

Source: adapted by author according to ZUS (2019)

The voluntary funded pension scheme, which is managed by private institutions (Open Pension Funds, Occupational Pension Schemes, Individual Pension Accounts, Individual Pension Security Accounts Employee Capital Plans) and is designed to provide in the future increased pension benefits for additional contributions.

It is important to mention that until the year of 2015, participation in the Open Pension Fund was mandatory for participants born in 1969 or later. Currently, people who only start to work, can choose if they want to join such a fund. Persons who have been OFE members already, could choose, from 1 April to 31 July 2016, whether to continue their membership in the Fund. After that date, they can change their decision but not before the year of 2020.

To sum up, it is currently difficult to predict, how successful this reform will become in the future, as it is not clear, what percentage of workers will choose to stay in the ECP scheme. One the one hand, it can have negative effects, as some economists claim that it will be less savings in the ECP than the government predicts due to "higher tax wedge due on contributions paid to ECPs" (Dominczak, 2019). Plus, additional contributions will reduce net wages and raise total cost for employers and fiscal costs will increase because of co-payments from the Labour Fund.

Furthermore, according to Chief Economist and Vice President of the Civil Development Forum, Laszek (2019), "the biggest winner" by terminating the mandatory public capital pillar and transferring remaining assets to a voluntary third pillar "is the government itself, cashing in taxes that were meant to be paid over coming years at the moment of transfer of assets". The use of retirement savings transferred to the third pillar will remain restricted, which will give the possibility for the government to take over those funds in the future by creating new reforms. In addition, it was decided to nationalize these savings, because as it was explained, they were financed from mandatory social security contributions. Unfortunately, such actions lowered already low trust of citizens, as many of them felt that those money belong to them (Laszek, 2019). In other words, the main goal of this reform was not the adequacy of the pension system, but its sustainability– how to increase general government revenue.

On the other hand, according to Dominzcak (2019), the new reform may also have a positive impact on GDP development in Poland. If the market works well, attractive rates of return will be suggested by the fund representatives. This will lead to accumulation of additional old-age savings and increased old-age income in the future.

2.5. Differences and similarities of Lithuanian and Polish old-age pension systems

Lithuania and Poland are the countries, which are neighbours and members of the European Union with common history and similar culture. Despite that, the old-age pension systems in these two countries were developing in different speed. The design of “old” pension systems in Poland and in Lithuania was based on PAYG rule – a model based on defined benefits (DB). Due to population aging phenomenon, in 1998 Poland started to reform its pension system and was one of the first countries in Central and Eastern Europe which moved from DB to DC model. Lithuania, in turn, took the same step, however only six years later – in 2004. Such delayed move was influenced by the occupation of the Soviet Union as after the restoration of independence in 1990, it was quite difficult to avoid previous experience and immediately and drastically change the pension system.

After these reforms, the pension system in both countries consisted of three pillars, where the first was compulsory and the most important one. Third pillar was and still is voluntary a privately funded pension scheme and the smallest compared to other two in both countries. The second one is also voluntary in Lithuania, while in Poland from its implementation it was compulsory and only after the reforms in 2011-2013 became voluntary as the employees were able to decide whether their contributions are to be still paid to OFEs or all of them transferred to PAYG, plus this pillar has decreased in size. After the financial crisis in 2008, Lithuania had also reformed its second pillar – the contributions into the fund were decreased as well however later state incentives and social insurance contributions were introduced in order to motivate people to accumulate more independently. In addition, during that period, in order to increase old-age pensions, alleviate demographic and economic problems, the Lithuanian and Polish governments decided to gradually increase the retirement age – by 65 years for both genders in Lithuania (by the year of 2026) and by 67 years for both genders in Poland. In addition, in 2018, the pension calculation of the I pillar in Lithuania was changed - previously existed basic and supplementary parts of pension were replaced by general part and individual parts (point value calculation). In Poland, the amount of pension in the I pillar according to the new rules is very much related to the amount of contributions paid and is based on individual sub-accounts (total amount of the credited old-age pension insurance contributions after adjustment, initial capital after adjustment and funds, credited to the sub-account).

Despite implemented reforms in the pensions system, the demographic situation in Lithuania and Poland remained to be difficult due to continuous low fertility rates and high emigration. Therefore, it was necessary to prepare and implement new reforms in both countries which would improve the adequacy of people after the retirement. New reforms have been implemented in both countries in 2019. Table No. 12 shows the main differences and similarities of Lithuanian and Polish old-age pension system after these reforms.

Table No. 12 The main differences and similarities of Lithuanian and Polish old-age pension systems after the year of 2019

Old-age pension system after 2019	Lithuania	Poland
Retirement age	65 for both genders by the 2026	Women 60 Men 65
I pillar	Yes - Mandatory (PAYG)	Yes (or general pension scheme) – Mandatory (PAYG/NDC) Born before 1949: -PAYG Born from 1949 but before 1969: - PAYG or PAYG based on NDC Born from and after 1969: - PAYG based on NDC
II pillar	Yes - Voluntary DC	No - abolished
III pillar	Yes – Voluntary DC	Yes – Voluntary DC
Occupational Pension schemes	No	Yes
Early retirement schemes	Yes	No
Indexation of pension benefits	Yes	Yes
Average old-age benefits (EUR) in 2018	330	504

Source: created by author

In 2017, despite the European Comission recommendations to EU members to increase retirement age in order to reduce poverty at the old age, Poland has decided to reverse it to 60 years for women and 65 years for men.

Table No. 12 shows, that other than different retirement age, there are more differences between pension systems in both countries (for example, early retirement schemes in Lithuania, occupational pension schemes in Poland). Average old-age benefits in Poland are slightly higher than in Lithuania, however in both countries they were constantly and similarly increasing. By implementing the newest reform, Lithuania made changes in the second pillar - Sodra's transfers to private pension funds were terminated and instead, it was suggested to people to accumulate on their own - transfer 3 % of their salary. In such case the State would provide an incentive - 1.5% of the national average wage. Poland, in turn, was more drastic - the old-age second pillar was abolished, and the contributions redirected toward the PAYG scheme (nationalised), while assets transferred to voluntary (III pillar) schemes. Therefore, instead of three pillar old-age system, Poland now was two kinds of schemes - the general pension scheme and the voluntary funded pension scheme. In addition, a new occupational pension savings scheme (Employee Capital Plans) was introduced, in order to help Polish workers to increase their pension savings.

As reforms in both countries have happened very recently, it is difficult to predict what impact it will have on the adequacy of the old-age pensions. However, the old-age systems must be constantly reviewed in order to improve the performance of their elements.

3. EMPIRICAL RESEARCH ON THE ADEQUACY OF OLD-AGE PENSION SYSTEMS IN POLAND AND LITHUANIA

3.1. Description and justification of the research methodology and data collection method

Research aim: Based on the comparative analysis of Lithuanian and Polish pension systems, to anticipate their improvement possibilities with regards to adequacy.

Research object: old-age pension systems in Lithuania and Poland.

Research objectives:

1) to compile a research design and to conduct qualitative structured interviews;

2) to analyse the data obtained during the interviews using content analysis method;

3) to evaluate the adequacy of Lithuanian and Polish old-age pension systems refining the most significant improvement solutions possible.

Research methods: A qualitative approach.

Data collection tool: Structured interview.

To find out how the ongoing pension reforms in Lithuania and Poland are perceived by Lithuanian and Polish pension experts and what are their recommendations for the improvement, *a qualitative approach* as an empirical research methodology was chosen. It is assumed, that qualitative approach is suitable for this research as it is regarded as exploratory and is used to uncover trends in thoughts and opinions and seeks to explain 'how' and 'why' a particular phenomenon (Denzin & Lincoln, 1994). Furthermore, qualitative research aims to reveal the entirety of the research phenomenon in its usual context; therefore, the space of qualitative research is often a daily, normal life with the various activities and social interactions that take place in it (Gaižauskaitė, Valavičienė, 2016). Qualitative research does not aim to test theories (test known statements), but develops theories based on empirical facts (they are developed from the obtained data). It appreciates the fact that attitudes and practices differ because of a lack of subjective perspectives and related social, biographical contexts (Flick, 2014). Thus, the focus is on the perspectives, subjective concepts, knowledge and experiences of the research participants, everyday contexts. Also, a qualitative research was chosen due to its ineherent flexibility and orientation into interpretation and process (Kardelis, 2002).

Qualitative interviewing. There are still not so many scientific discussions done about recent old-age pension system reforms, therefore qualitative interviewing was chosen as the most appropriate data collection method for this research. Today, interviews are the main method of data collection in qualitative research. Thus, qualitative interviews allow for the collection of in-depth, context-related, open responses from research participants, expressing their views, opinions, feelings, knowledge, interpretations and experiences, rather than the pre-defined choices offered by the researcher from their own perspective (Patton, 2002; Creswell, 2009). Unforeseen information is usually expected during qualitative interviews. Qualitative interviews aim to obtain data that meet the objectives of qualitative research. Open-ended questions, which are expected to be as broad, comprehensive, open as possible, formulated and presented by the research participant himself / herself, reflecting his / her perspective. An interview is done when we want to learn from people what we cannot see directly - we cannot-see (observe) feelings and thoughts; we cannot replicate behaviors or interactions that occurred some time ago (Gaižauskaitė, Valavičienė, 2016).

Structured interview. According to Gaižauskaitė and Valavičienė (2016), structured questionnaire is used when open-ended questions are preliminarily formulated, and their exact order is provided. A structured qualitative interview is conducted when the study aims to compare specific cases or social categories. Whereas this study, this study covers the case of more than country, and this is a comparative analysis (Lithuania & Poland), the chosen qualitative method was a structured interview.

Two main questions of this research are: a) what are expert opinions about old-age pension adequacy? b)What could they recommend for the improvement of these systems so they become more beneficial for retirees?

As these questions are too broad, the answers can be difficult to answer therefore it was a need to narrow them down. Some questions in the questionnaire start with one most important or general question of the research which is clarified by one or several detailed questions. The main criteria of questions were positive and negative aspects of pensions reforms in terms of its adequacy. Furthermore, as some questions were related to recent specific matters of Lithuanian and Polish old-age pension reforms, a short description (one sentence) about the situation was provided before the question was asked. This helped to receive more thorough and detailed answers from the participants and to reveal the problem raised and achieve the intended tasks of the research.

As the main object of this research is to compare adequacy of old-age pension systems in Lithuania and Poland, all questions asked were related to various aspects of new pensions reforms and their effect on adequacy. As a result, twelve survey questions were formulated (see Annex 1), which were not modified during the study to maintain uniformity and proper comparison of both countries.

Expert interview. Whereas this study requires a specific knowledge in the area of pensions, it is necessary to conduct a qualitative research by interviewing experts who specialize and / or have reliable knowledge in this field.

Froschauer and Lueger (2009*)* argued, that experts provide valuable information as they are equipped with specialist knowledge which they have gained through an in-depth understanding of a particular topic area. Experts as a result help in the clarification of specific issues which one is uncertain about. Littig (2013) adds that experts often have privileged access to decision-making processes and people and defines an expert as one, who has special knowledge in terms of technicalities, decision making and organisational matters as well as interpretative and evaluative knowledge which is related to their field of work.

The size of sample. As the methodological literature does not provide clear rules for determining the sample size of a qualitative study (Rupšienė, 2007), it was not strictly defined. In total 16 emails were sent to experts - a request to participate in an interview and to answer questions related to old-age pension reforms in Lithuania and Poland. 2 Lithuanian and 4 Polish experts agreed to participate in the research. 2 of them preferred to reply to questions in written form, furthermore, 2 experts requested to stay anonymous.

The participants were selected by using a theoretical sampling strategy, meaning that the interviewer's choice was made according assumption that the participants will seem likely meet the research criteria (Warren, 2011), as it was already known that participants are specialists in the area of old-age pensions.

In this study, the participants were indistinguishable by gender, age, degree of education and the position held.

The following selection criteria were set for the selection of experts:

1) the participant must have scientific experience in writing and conducting research on the subject of old-age pension systems;

and/or;

2) the participant must have work experience in Ministry of Social Security and Labour in Lithuania/Ministry of Labour and Social Policy in Poland and/or other institutions specializing in the are of old-age pension systems.

The main objective of the selection experts was to find those, who could comprehensively and professionally answer interview questions which would lead to the collection of competent and valuable data.

Table No. 13 below provides the main characteristics of the respondents.

Table No.13 The main characteristics of the participants

Number of the participant	Code of the participant	Country	Type of interview	Fields of expertise/occupation	Interview duration
1	1LTU	LT	Online interview (Skype)	Lithuanian economist, Doctor of Social Sciences, professor at Vilnius University and member of the Senate, previously (1992-1993) Minister at the Ministry of Social Security and Labour.	40 min.
2	1PL	PL	Written interview (e-mail)	Associate Professor at the Department of Economics, Radom Academy of Economics, Poland, 2004-2010 Advisor at the Ministry of Labour and Social Policy, Warsaw, Poland.	-
3	2PL	PL	Written interview (e-mail)	Polish economist, Honorary Professor at Bonn-Rhein-Sieg University of Applied Sciences, Germany. Senior Researcher at International Centre for Research and Analysis (ICRA) in Warsaw. Before, assistant professor at the Department of Economics of Warsaw University and adviser to the Polish Minister of Labour and Social Policy (1980-1991), adviser to the trade union federation "Solidarność".	-
4	3PL	PL	Online interview (Skype)	Principle researcher in project about comparative analysis of old-age pension system reforms and crises (sponsored by National Centre for Science Poland), Assistant Professor, Department of Labour and Social Policy, Poznań University of Economics and Busines, previously Post-doctoral researcher, Department of Labour and Social Policy, Poznań University of Economics and Business.	40 min
5	4PL	PL	Online interview (Skype)	Economist at Regional IMF Office for Central and Eastern European and Baltic Countries, previously Economist and old-age pension fund investment specialist at World Bank Office in Warsaw, and researcher at Research and Development Center, Central Statistical Office.	30 min
6	2LTU	LT	Online interview (Skype)	Expert in European Union Social Law, Free Movement of Workers, The Management of Social Protection System, Coordination and Reforms, The Social Protection Law, The Pension Law, The Labour Law former vice Minister at the Ministry of Social Security and Labor (areas covered: social security, pensions and state social benefits).	60 min

Source: created by author according to collected data

As this study covers not only Lithuania, but also Poland, furthermore, due to the worldwide Covid pandemic, it was chosen to carry out an online formal structured interview. Also, as it was already mentioned, two experts (1PL and 2PL) provided written answers to the research questions and sent them to the researcher by e-mail.

Online interviews have a lot of advantages as a qualitative research method. They allow to reach the participants living in other time zones at a time convenient for them and does not require significant financial costs. Furthermore, it is easier to create a research schedule (more flexibility because there is no need to travel to the place of interview) and less problems arise if the participant or researcher wants to change the meeting time (Gaižauskaitė, Valavičienė, 2016). Also, it is more convenient for both - the researcher and the participant, as they can choose a comfortable environment during the interview. The biggest disadvantage of this kind of interview which sometimes can happen is technical interference (unstable internet connection, old or broken computer, etc). Technical interference can have negative effect on the quality of the retrieved data (bad sound), therefore it is very important to test technical equipment before the interview takes place.

During the analysis, recorded interviews were transcripted, and also translated into English (interviews with Lithuanian experts). Afterwards the transcripts were read many times by the researcher in order to get general understanding and impressions about the content related to the aim of the research.

E-mail correspondence is a common form of communication that is unlikely to cause additional difficulties for the participants. The general advantage of written interviews is that an interview transcript is formed immediately, and the participant's information is recorded exactly as he / she provided it (Gaižauskaitė, Valavičienė, 2016).

Ethical principles. Ethical principles in interaction with human participants is a particularly important step before conducting interviews (National Advisory Board on Research Ethics, 2009). Gill et al., (2008) also recommend that before an interview takes place, participants should be informed about the study details and given assurance about ethical principles, such as anonymity, voluntary participation and confidentiality. For this reason, the experts were contacted via e-mail, were these principles were explained as well as the purpose of this research.

Participants were also informed, that all received data will be strictly used only for the research reasons and will not be transmitted for any other uses other than this research. If any critical discoveries are found, they will be explained in regardful and analytic manner. The participants have acknowledged their understanding about the content of the research and as well as their agreement for the interview. Consents of 4 experts to use their personal data (name, surname) were also obtained while 2 of the exports did not give their consent to expose their identity.

It is important to mention, that all the oral interviews were recorded using a smartphone (after the oral permission was received from the participants) as it helped to have concrete data afterwards. Gill et al. (2008) advice that recording interviews and making transcripts afterwards, protects against bias and provides a permanent record of what was and was not said. Taking notes was not an option as it would distract the participants and also delay the interview process.

Coding of expert names will be used in the data analysis part of the research due to ethical principles plus in order to make the text less burdensome (easier to read). The number and country code (LTU and PL) will be used for expert name coding.

Limitations of the research. This study has its limitations because the research sample has been smaller than expected. It was planned to have interviews with the equal number of experts from Lithuania and Poland. However usually experts are not very easily accessible due to their busy schedule and the specifics of their professional activity (Gaižauskaitė, Valavičienė, 2016), therefore only two Lithuanian experts were interviewed instead of planned four. On the other hand, according to Sandelowski (1995), "it is not always certain that the richness of data increases with the number of participants or text pages". Furthermore, experts provided detailed answers to questions which were identical (structured) to everyone, therefore it was still possible to compare and to obtain valuable data.

In addition to that, it is also important to mention, that Polish experts were interviewed in English, which is not their native language, therefore this can be considered as an insignificant challenge for the researcher as a proper preparation before conducting interviews was required (knowledge of specific terminology, additional skills) in order to correctly ask or to clarify expert answers if needed.

Furthermore, the researcher is self-critical and understands that the lack of experience and the language restrictions (as the interviews (transcripts) with Lithuanian experts were later translated from Lithuanian into English language) may have influenced the findings.

Despite all the limitations described above, the researcher tried to be highly organized and systematic during whole data collection and analysis process in order to be able to provide detailed and adequate description of the findings.

3.2. Presentation and interpretation of research results

The method of data analysis of this research will be explained in this chapter. Firstly, the theoretical background is explained, in order to better understand the practical proceeding, which is described in the second part (the Analysis itself).

3.2.1. Method of analysis – theoretical background

Content analysis was used as a method of data analysis in this research. This kind of analysis is determined in many different ways. Nowadays this qualitative research technique is very widespreadly used in various areas. This kind of method helps the researcher to better understand a particular phenomenon, and can impart new conceptions as well as practical influences. Content analysis might include various kinds of data: images, symbols, signs, sounds, numbers, and so on. According to Krippendorff (2004), content analysis is a scientific and analytical tool, where credibility as well as repetitions are extremely crucial features.

Prasad (2008) describes content analysis as a scientific study of content communication which studies the content with reference to the meaning, context and intentions contained in messages. Erlingsson and Brysiewicz (2017), state that the objective in qualitative content analysis is to systematically transform a large amount of text into a highly organized summary of main results.

The process of content analysis includes some specific procedures. The scholars Assarroudi, Nabavi, Armat, Abadi, Vaismoradi, in their article „Directed qualitativecontent analysis: the description and elaboration of its underpinning methods and data analysis process "(2018), describe qualitative content analysis as the particular research approach, which purpose is to clarify and interpret textual data by using the systemic procedure of coding. Saldana (2013) defines a code as a word or short phrase that symbolically assigns a "summative attribute for a portion of language-based or visual data". When codes are organized to describe different aspects, similarities or differences, of the text's content that belong together, they are categorized and a category answers questions about who, what, when, or where, in the quest to express the main content (Erlingsson and Brysiewicz, 2017). On the point of theme, Erlingsson and Brysiewicz (2017) explain that it expresses an underlying meaning, found in two or more categories. The "hidden" data can be also searched in order to create more themes. This can depend on the purpose of the research.

It is assumed that content analysis is suitable type of data analysis of this research. A structured questionnaire was used which limited the broad interpretation, therefore the experts' answers were not too difficult to compare.

3.2.2. Data analysis – practical proceeding

During analysis of the obtained answer during interviews, 2 categories were identified: “Negative old-age pension system adequacy aspects” and “Positive old-age pension system adequacy aspects in case of modification”. During further analysis, 5 subcategories were identified in case of “Negative old-age pension system adequacy aspects” (Table No. 14) and 6 subcategories in case of “Positive old-age pension system adequacy aspects in case of modification” (Table No. 15).

Negative old-age pension system adequacy aspects

Table No.14 Findings on negative old-age pension system adequacy aspects

Category	Subcategory	Arguments (Citations)
Negative old-age pension system adequacy aspects	Shorter pensionable age	*<...>it legitimizes gender inequality (1LTU).* *Gradual increase of the age people retire is necessary, and in particular equalization of male and female retirement ages (2PL).* ***<…>** if this age becomes lower, consequently retirees will get lower pensions. That in turn will lead to higher poverty level <...> shorter retirement age will also contribute to the gender gap in old age (3PL).* *<...> in about 25-30 years from now, there will be a decline in working age population by 3 million in Poland because of such decision, which is quite a lot (4PL).* *The retirement age must increase as life expectancy increases (2LTU).*
	Early retirement schemes	*<…>unemployment insurance measures would not reduce future pensions, while early retirement schemes would reduce it because of actuarial adequacy reasons (1LTU).* *earlier retirement for women leads to lower pensions, in addition to the fact that their pension is lower anyhow – due to shorter careers and lower earnings. (2PL).* *<...> This had a very bad effect on the adequacy of pensions at the old age (3PL).* *If a person <…>is forced to take an early retirement pension because he or she cannot find work, his or her pension is significantly reduced (2LTU).*

	Special public pension schemes	*<…>the "privileged" state pensions should be converted into contributory occupational pensions rather than from beeing paid directly from the budget (1LTU)* *Special public pensions should be terminated, instead they should function as occupational pensions(2LTU)*
	13^{th} old-age pension	*In Poland (and Lithuania) "the mockery" with 13^{th} , and then 14^{th} pensions should be terminated (1LTU)* *<…>pensions need to be increased but I do not know if it is good idea to grant 13 pension, I think it would be better to increase pensions a little, to raise a few euros a year to the level where retirees can live in dignity(2LTU)*
	Nationalization of II pillar in Poland	*<…>such kind of changes only undermine confidence in the system (1LTU)* *<…> the way second pillar was abolished* undermined *trust in the pension system and the state policies in this area (2PL)* *<…>the nationalization of the second pillar is a negative thing - it was possible to continue and let this system to operate for those who had already chosen it (2LTU)*

An absolute majority of participants (5 out of 6) distinguished a shorter retirement age as negatively affecting the adequacy of the old-age pension system, therefore this factor was assigned to the category "Negative old-age pension system adequacy aspects".

According to the participant 1LTU, the biggest thread is that this factor "*legitimizes gender inequality*" and is not based *"on sustainability of pensions"* in the long run. Therefore, Polish decision to reverse the retirement age is wrong and should be reconsidered. The participant 2PL has similar opinion and claims that "*gradual increase of the age people retire is necessary ".* Furthermore, in order to reduce gender inequality *„equalization of male and female retirement ages"* is very important as well. He aso critizices the reversal of the retirement age reform in Poland, as this reform was implemented without any preliminary measurements "*which would facilitate people to accept later retirement, which would change negative attitudes of employers toward employing older workers, <…>without introducing large scale life-long learning which increases employability of older people.* Also, in order to effectively combat gender inequality at the old age, according to 2PL, instead of shorter pensionable age, new instruments should be introduced, which would help women to find proper alternatives in terms of children, elderly or disabled relatives care "*as older women often retire as early as possible because their families expect from them taking care of grandchildren and sick and disabled family members ".* An expert

3PL shares similar views about shorter pensionable age, and claims that this will eventually lead to lower pensions. Lower pensions in turn, will increase poverty in the old age „„*...because in DC systems poverty risk is high with lower salaries“.* He also distinguishes gender gap in old-age as a consequence of shorter retirement age *„As women usually have shorter or fragmented careers because of family obligations“.* A participant 4PL also has a negative opinion about shortening of pensionable age. He claims that during the period of demographic ageing, shorter pensionable age in Poland "*…was sort of wrong policy decision*“ , therefore in the near future this will lead to *„…a decline in working age population by 3 million in Poland“,* also „*... it is costly, and it creates poverty risk for older age persons*“. According to him, this will especially badly affect older women as they will retire earlier than men. Therefore, pensionable age should be increased and also equalized for both genders as it is planned to be done in Lithuania. Participant 2LT supports gender equality, therefore he destinguished the importance of retirement gender equalization. He supports the idea that pension system should be clear and transparent, and countries which shorter pensionable age just play „*...a populist game*“ as in such case some other parameters are implemented, for example longer work experience in order to be able to retire. He claims, that in order to achieve clearance in old-age pension systems, an increase of retirement age is necessary as „*... life expectancy increases*“. To sum up, reduction of pensionable age leads to lower old-age pension, which in turn increases poverty and gender inequality.

The second subcategory „Early retirement schemes "was also assigned to the category "Negative old-age pension system adequacy aspects", as 4 of 6 participants assessed this aspect as negatively affecting adequacy of old-age pension systems. Participant 1LTU is sceptical about early retirement schemes because they reduce future pensions, therefore „ *the possibility of early retirement should be abolished altogether “.* According to him, people must work until the age of 65 and if it is not possible to do so because of disability or incapability to find a job, then disability or unemployment benefits should be paid. Consequently, early retirement schemes should not exist as they reduce adequacy of old-age pensions, while "*…unemployment insurance measures would not reduce future pensions*". Participant 2PL states that early retirement schemes especially negatively affect women, because "*their pension is lower anyhow – due to shorter careers and lower earnings*" and those people, who started their career early, used to receive lower salaries or have poor health. In such way *"uniform retirement ages are thus redistributing form poorer to richer members of the schemes – particularly in defined contribution or strictly earnings-related schemes. One should seek solutions which compensate this".* Participant 3PL shares same views with the participant 2PL claiming that *"in DC system if you want to retire early, then contribution rates as well as salaries should be higher".* Otherwise early retirement schemes have *"a very bad effect on the adequacy of pensions at the old age".* He acknowledges that it can be challenging to motivate people to work longer, therefore as an alternative he suggests stronger development of occupational pensions. Participant 2LTU argues that early retirement schemes should be abolished in both countries as such schemes reduce old-age pensions and that "*will have a bad impact on adequacy".* He, also as participant 1LTU, suggests implementing other measures instead, for example if a person is not able to work, then "*unemployment benefits or social assistance payments*" should be used.

To conclude, early retirement schemes in no way can improve old-age pension system adequacy, on the contrary – they can increase poverty. Other measures should be developed more actively instead – unemloyment, disability benefits, social assistant payments and occupational pension schemes.

Two of the participants, when asked the question about the aspects of the old-age pension system in Lithuania and Poland which could be improved, mentioned „Special public pension schemes" as unnecessary tool in the pension scheme, therefore this aspect is also assigned to the category "Negative old-age pension system adequacy aspects". According to participant 1LTU *"…the "privileged" state pensions should be converted into contributory occupational pensions rather than from beeing paid directly from the budget".* Participant 2LTU shares the same opinion, claiming that *"Special public pensions should be terminated, instead they should function as occupational pensions – a special fund most be created (by a State) for policemen, judges and so on – and a certain share for working in difficult conditions should be paid to such people if the State decides so".* 2LTU thinks, that the abolishment of such schemes is necessary, because "*the system should not have unnecessary privileges and it should be universal, it should be logical".* Otherwise, such "privileged" pensions, which are paid from the budget will only increase inequality at the old age.

Same participants, 1LTU and 2LTU, also emphasized, that although old-age pensions must be higher, "13^{th} old-age pension" cannot improve adequacy of Lithuanian and Polish pensions. 1LTU notes, that *In Poland (and Lithuania) "the mockery" with 13^{th} , and then 14^{th} pensions should be terminated",* while 2LTU suggests that instead of granting 13^{th} pensions, "…it would be better to increase pensions a little, to raise a few euros a year to the level where retirees can live in dignity".

3 of 6 participants, claimed that the part of the recent reform, which is "Nationalization of II pillar in Poland" has a negative impact on the trust and flexibility of the old-age pension system in this country. Participant 1LTU states, that "…*such kind of changes only undermine confidence in the system",* while 2PL also confirms that*"... the way second pillar was abolished undermined trust in the pension system and the state policies in this area".* Participant 2LTU also negatively evaluates the nationalization of II pillar in Poland and thinks, that such decision not only breached

the social justice *"...it is necessary to look at social justice - if a person has an agreement with the pension fund and participates for many years, I think it should not be abolished. "*, but also made such reform look inflexible and unstable *"the nationalization of the second pillar is a negative thing - it was possible to continue and let this system to operate for those who had already chosen it in the past or to integrate it in some way".*

Positive old-age pension system adequacy aspects in case of modification

Table No.15 Findings on positive old-age pension system adequacy aspects in case of modification

Category	Subcategory	Arguments (Citations)
Positive old-age pension system adequacy aspects in case of modification	Work after retirement	*It is necessary to promote by adapting labour market relations and conditions (1LTU).* *<...>continuation to work after the pensionable age should be promoted, but only in case of productive jobs (1PL).* *Yes. But it is not just promotion. <...> measures which would facilitate people to accept later retirement,<...> changing situation of elderly at the labour market (2PL).* *Continuation after pensionable age should be promoted, but in a way that working conditions are healthy for the older people (3PL).* *People should think more responsibly and rationally and understand that work after retirement can be a great protection against poverty. This should be somehow incentivised by the State (4PL).* *It is necessary to encourage <...> but I think more serious incentive instruments should be introduced (2LTU).*

	Pension indexation	*<...> a well-thought-out long-term pension increase program is needed, <...> followed by strict adherence to the existing indexation mechanism (1LTU).* *<...>there is need to change taxation system, so it will become progressive, not regressive as it is now (1PL).* *Pensions should be indexed with the growth of earnings (2PL).* *<...>different indicators should be added into indexation (3PL).* *Politicians should modify the indexation mechanisms because according to projected decline in the replacement rates, soon <...> almost all pensioners receive benefit which is close to a minimum benefit. And this will especially affect women if they retire at 60 years of age (4PL).* *<...> there should be some additional guarantees that a certain percentage must still be indexed, despite the economic slowdown (2LTU).*
	Accumulation into pension funds	*Yes, they should accumulate. Lithuania has made the right decision to restructure accumulation on the basis of life-cycle funds, which protects the savings of people (1LTU).* *There is nothing wrong in promotion of additional savings as long as taxpayer money are not used to fund it. <...>and the state should provide regulations which make these saving safe (2PL).* *If you invest, the state has to guarantee some kind of protection of the invested funds and it should have an annuity option (3PL).* *Yes, if you accumulate capital in private pension funds it is unavoidable to face some kind of a risk, however both countries offer life cycle funds in order to minimize the risk (4PL).* *I think people need to accumulate on their own, but such systems need to be encouraged by the state. <...> it is necessary to increase financial literacy, to clarify that it is a long-term product (2LTU).*

	Occupational pension schemes	*In Lithuania, replacing the second pillar with occupational pensions is an idea to consider (1LTU).* *<...>publicly funded institutions were not allowed to build occupational pensions schemes – now, <...>these institutions will be able to form those quasi-obligatory new pension funds. This is good news. The bad news is taxpayer financial support to all these (2PL).* *<...> trade unions should be involved more at the company branch level, then it's a good thing. You need to have some essential factors to guarantee the success in occupation pension schemes (3PL).* *I would say it's quite attractive scheme - an alternative source of savings because employee contributions are almost equalized by employer contributions . But of course, employers here play an important role (4PL).* *It all depends on trade union activity, state guarantees, the number of subsidies and the type of pension system. If Lithuania creates more favorable conditions for state benefits <...> then so be it (2LTU).*
	Public (I pillar) old-age benefits	*I believe that first pillar pensions will remain the largest and most significant part (1LTU).* *<...>public old-age benefits should be the main source after retirement (1PL).* *For people with lower earnings, shorter, interrupted contribution careers (like women) public pensions will be always main source of income <...> there is a need for basic but adequate universal pension for all older residents (2PL).* *The purpose of pension scheme is to guarantee poverty alleviation <...>These goals can be achieved only by the public old-age benefits (3PL).* *I think public old age benefits will be always the main source after retirement, its unavoidable (4PL).* *<...>public old-age benefits will be always the main source of income after retirement (2LTU).*
	Termination of Sodra's transfers into II pillar in Lithuania	*It is good that part of SODRA's contributions will not be used anymore to feed into the private funded pensions (2PL)* *If the state offers the annuity, then it's a good thing and also if the State faces the risk, I think it is a good decision (3PL)* *I think this is the right decision as it makes the system more clear (4PL)*

		I think this is the right solution. These things must be decoupled for the sake of transparency and clarity of pensions system (2LTU).

6 other aspects, according to the majority of the participants, may have a positive impact on the adequacy of old-age pension systems with the condition that some adjustments/supplements is done, therefore they are assigned to the category „Positive old-age pension system adequacy aspects in case of modification". First of them is the aspect "Work after retirement". All 6 participants think that work after retirement should be promoted, but in a way that many various incentives and programs should be created and implemented by the State. Participant 1LTU states, that it is a necessity to promote, by "*…adapting labour market relations and conditions (part-time employment, combining teamwork with younger workers), as well as by motivating the employer, for example, by not applying the "floor limit" of social security contributions for such employee".* Participant 2LTU shares same views and confirms that work after retirement is a very positive tool for the adequacy in the old-age, however just a promotion is not enough, lots of measures should be implemented in order to succeed: "*but it is not just promotion –<...> measures which would facilitate people to accept later retirement, which would change negative attitudes of employers toward employing older workers and strictly and effectively ban ageism, changing situation of elderly at the labour market, introducing large scale lifelong learning which increases employability of older people*…". Participant 3PL also has similar opinion, however he thinks it is quite difficult to motivate people to work longer, especially those of poor health and those who "*…wear-out after many years of hard work".* According to him, the biggest attention should be paid to health of older workers – working conditions should be healthy and properly adapted. This can be done by implementation of various instruments: "*…part time work, reskilling, reduction of working hours, less work intensity closer to retirement age".* Furthermore*, "work after retirement should be flexible where living and working balance can be achieved (where older people can pay more attention to their health or spend more time with their relatives)".* This participant regrets that there is not much done in this area by the State in both countries, and without such measures work after retirement cannot be a good alternative for the elderly. Participant 1PL shares an interesting opinion and argues, that work after retirement should be promoted „*but only in case of productive jobs, definitely not in case of government employees, who in their huge majority only collect salaries and make life of ordinary citizens unnecessary hard".* Participant 4PL notes that people their selves should be responsible and understand the importance of work after retirement as "*…a great protection against poverty"* however as this is not enough the State should be more contributory: „*this should be somehow incentivised by the State".* Participant 2LTU supports the

idea of working after retirement, however acknowledges, that *„more serious incentive instruments should be introduced".* According to him, older workers should be encouraged financially by *„tax breaks for working retirees (lower social security contributions or taxes)".* Such incentive would provide not only *„...more dignified source of livelihood",* but would also collect „...*additional contributions to budgets*".

After all, it can be concluded, that in case of proper modification – tool implementation, work after retirement can have a positive impact on old-age pension system adequacy.

The subcategory „Pension indexation" was also assigned to the category „Positive old-age pension system adequacy aspects in case of modification", as all of the participants find that pension indexation mechanisms are still not enough beneficial to the adequacy of old-age pension systems. In order to make such mechanisms more effective, various corrections should be done. Participant 1LTU notes, that current indexation mechanism can not properly increase pensions in Lithuania, as wages still grow much faster than old-age pension benefits. Therefore, together with this mechanism, „*a well-thought-out long-term pension increase program is needed, with the goal of reaching 50%, preferably 60% of replacement rate".* Participant 1PL agrees with 1LTU and confirms that current indexation in both countries will *„...lead to a decline of the ratio between old-age pensions and average wages",* therefore the taxation system should be changed *„so it will become progressive, not regressive as it is now*". He suggests to increase taxes for the wealthy and reduce dispensable expences in some areas, such as "…army, navy, air force and police". Participant 2PL agrees that indexation should be modified in a way so pensions are *„...indexed with the growth of earnings".* He critized the indexation mechanism in Poland because there *„..it is growing with the growth rate of the sum of wages – in the situation when in the future number on contributors due to demography will be declining.* Furthermore, according to him *„balancing pension finances should not be done by manipulations of indexation but by increasing effective retirement age, and/or increasing funding – higher contributions or higher subsidies from tax revenue".* Participant 3PL also thinks that current indexation mechanisms should be redesigned due to demographic changes and reduced labour market, therefore, in order to improve adequacy, „*...different indicators should be added into indexation".* According to participant 4PL, it is necessary to modify indexation mechanisms, because „*according to projected decline in the replacement rates, <...> almost all pensioners will receive benefit which is close to a minimum benefit".* Here important role should also play increased pensionable age (in Poland). Participant 2LTU highlight the importance of pension indexation system *„because it allows to maintain a certain level of pensions so that they do not depreciate".* As indexation of pensions is connected to economic growth, there must be something done in order to protect pensions in case of economic downfall, such as *„...*some additional guarantees that a certain percentage must still be indexed".

It can be concluded, that pension indexation mechanisms can play an important role with regards to old-age pension system adequacy improvement if additional guarantees, indicators or measurements are implemented. Also, the development of indexation system should go hand in hand with properly created long term pension increase programs, redesigned taxation systems and increased retirement age and funding (cotributions, subsidies).

The aspect "Accumulation into pension funds" also falls into category "Positive old-age pension system adequacy aspects in case of modification". Participant 1LTU positively evaluates accumulation into pension funds, although there will be always risks with regards to „fluctuations in the value of assets". On the other hand, *„the general trend is growth, unless something like "force majeure" happens".* According to 1LTU, an introduction of life-cycle funds was a very positive decision as it *"...protects the savings of people of pre-retirement age from possible significant depreciation",* therefore in order to improve adequacy of old-age pensions, such restructuring of accumulation should be followed. 2PL notes, that "*There is nothing wrong in promotion of additional savings as long as taxpayer money are not used to fund it",* however the State should be responsible *„..to make it as safe as possible through adequate regulatory framework".* He agrees, that voluntary accumulation can be a good tool for additional savings, but the system should not be incentivezd by taxpayers money or state subsidies, as „ *voluntary savings are accessible only to those who have higher earnings and relatively stable jobs.* Therefore appropriate regulations should be provided by the state in order to avoid „*redistribution towards the richer part of the population*". Similar opinion was shared by 3PL, he claimed that if people decide to invest, „*...the state has to guarantee some kind of protection of the invested funds"in a way so „..the value of contributions cannot decrease overtime",* otherwise it should not be done. Also, according to him, only people with higher salaries usually invest, so voluntary accumulation usualy can not affect postively those who are mostly affected by poverty at the old age – those with shorter career, lower salary and so on. He also argues, that annuity options in Poland should not be that expensive. Participant 4PL, as 1LTU, emphasizes the importance of life cycle funds for accumulation – „..., *if you accumulate capital in private pension funds it is unavoidable to face some kind of a risk, however both countries offer life cycle funds in order to minimize the risk".* He positively evaluates accumulation into private funds, but *„...a question is how this should be promoted properly because such schemes in both countries are still not that popular*". One of the promotion tools, according to him, can be *„...an easy access to the information about such accumulation".* Participant 2LTU, as other 4 participants, agrees that people should accumulate into pension funds but *„...such systems need to be encouraged by the state".* He, as 1LTU and 4PL, thinks that life cycle funds partially resolve the risky part of this system, however, unlike 2PL, he states, that the system should be funded by tax credits or subsidies from the state. According to him, in order to motivate people with lower salaries to accumulate, more incentives should be implemented, for example, „..*higher incentives for those who receive lower salary incentives comparing to those with higher salaries"*. Furthemore, he highlithes the fact, that *„.. it is necessary to increase financial literacy, to clarify that it is a long-term product*".

"Occupational pension schemes" is the subcategory also assigned to the category of "Positive old-age pension system adequacy aspects in case of modification". 5 from 6 participants think, that such schemes can be a good tool with regards to the pension adequacy improvement but only if some conditions are met. Participant 1LTU had some critics for the recent occupational pension reform in Poland because *„...the reform has silently increased the burden of financing pensions",* however he believes, that *„In Lithuania, replacing the second pillar with occupational pensions ... is an idea to consider".* Unfortunately, according to him, because of recent changes in the Lithuanian old-age pension system second pillar (abolishment of employers contributions) it will be difficult to implement, as „...*it would now be necessary to introduce an additional employer contribution, which is quite complicated and "painful*". Therefore, he suggests to redesign the second pillar in a way that states contributions are redirected to employer „...*by reducing the tax burden on him accordingly*". Participant 2PL in turn, argues, that recently introduced occupational pension scheme in Poland is a two-sided decision: it is a positive move for the publicly funded institutions, as from now „...*these institutions will be able to form those quasi-obligatory new pension funds".* The negative aspect is that all taxpayers will have to fund such schemes, and as the majority of the participants are those with stable and well-paid jobs, this can increase inequality at the old age. Participant 3PL agrees that occupational pension schemes can positively affect old-age pension adequacy because "… *if you are able to contribute together with the employer it can be a significant contribution ".* However, according to him, the state incentives might not motivate people enough to contribute more, therefore, in order to succeed, „*trade unions should be strong*", plus better quality of social dialogue is needed. Participant 4PL also finds occupational pension scheme attractive, „*because employee contributions are almost equalized by employer contributions* . However, as 3PL, he is concerned about the lack of motivation to accumulate, especially of those people, who *„are far away from the retirement age".* According to him, the success of occupational pension schemes very much depends on employeers – it is important that they understand the significance of such accumulation and agree to contribute together with their employees. Participant 2LTU evaluates occupational pension schemes positively and regrets that such scheme does not exist in Lithuania. He agrees that such reform could positively affect the adequacy of Lithuanian pension system, however in order to follow Polish example, Lithuania must create "…*more favorable conditions for state benefits (for example, if the benefits from occupational pensions will be higher than from the third pillar)"* plus *„there must be better* *financial guarantees".* Furthermore, he like 3PL emphasizes the importance of trade unions, mentioning that *„trade unions in Lithuania must be strengthened".* According to 2PL, it is also important to financialy educate people so they will be more motivated to participate in such schemes. Also integration of second-pillar pensions into occupational pension schemes in Lithuania could help participants to move from one to another easier.

4 of 6 participants, when asked their opinion about recent „termination of Sodra's transfers into II pillar in Lithuania" replied, that they evaluate this decision positively. Participant 2PL, empahsizes, that "*It is good that part of SODRA's contributions will not be used anymore to feed into the private funded pensions",* although he expressed the concern, that if "*…the state budget will subsidise voluntary contributions of the richer part of the population*" this might increase inequality in the old-age, therefore this should be modified. Participant 3PL also states that „*If the state offers the annuity, <...> and also if the State faces the risk, I think it is a good decision. However, he like 2PL, agrees that „...It's expensive with all the incentives the state provides plus it usually supports those who do not really need that (people with higher salaries). In such way such support may increase inequality at the old age*". Participants 4PL and 2LTU evaluate such reform as positive with regards to clarity and transparency of the system. According to 4PL *„...this is the right decision as it makes the system more clear, additional voluntary accumulation into pension funds should be separated from the state pensions in order to avoid confusion.* Participant 2LTU has the same opininion as 4PL and claims that "*…These things must be decoupled for the sake of transparency and clarity of pensions system. And now it's all clear and good that people have been allowed to contribute extra".* Plus, according to him, this move will make such accumulation more sustained and protected by unexpected decisions from the State: *"And in legal terms, in this case it will be more difficult to abolish such pensions for the State, because a person contributes independently from his own funds".*

"Public (I pillar) old-age benefits" was also assigned to the category "Positive old-age pension system adequacy aspects in case of modification". All 6 participants acknowledged that public old-age benefits play a crucial role in combating poverty at the old age. Participant 1PL states, that "*public old-age benefits should be the main source after retirement "as* they are „*based on solidarity of generations ".* Same views share participants 4PL and 2LTU, claiming that public old-age benefits will always be the main source after pensioanble age. Also, according to 1LTU, the combination of all three pillars is important, however „*first pillar pensions will remain the largest and most significant part of this trio*". Participant 2PL in turn, claims that I pillar will be always the most important part of old-age pension system, especially for the particular group of people „*with lower earnings, shorter, interrupted contribution careers".* He adds, that there is also a need *„..for basic but adequate universal pension for all older residents",* which would effectively combat poverty. Participant 3PL, has similar opinion and notes, that public old-age pension should be the most important one, because *„…no one will pay minimum or universal benefits for people, who are not insured“.* Acoording to him, more attention should be paid to the poorest, because other instruments, such as additional accumulation will not solve the adequacy problem of such people. He concludes that the main goal of old-age pension system is „*...to guarantee poverty alleviation, consumption smoothing and meeting minimum standards of everyone and the distribution. These goals can be achieved only by the public old-age benefits“.*

CONCLUSIONS

1) The theoretical analysis of concepts and measurements of the adequacy of old-age system showed, that a multidimensional approach (when poverty protection, income maintenance, pension duration and other factors are evaluated) are effective before reforming pension systems. Furthermore, the adequacy and sustainability are inseparable from each other, therefore should be considered together when designing and implementing pension reforms.
2) The Open Method of Coordination is a valuable method used in order to help to prevent poverty at the old age and to guarantee an adequate old-age pensions. It is important to emphasize that OMC mechanisms are not obligatory for the implementation and is not a part of EU legislation. However, due to the constantly growing population ageing challenges, it is highly recommended for all the Member States to cooperate with each other by exchanging information and spreading best practices in various social policy areas, such as pensions, education, healthcare and so on. This could help to improve weak aspects of their local policies.
3) Comparison of old-age pension systems in Lithuania and Poland showed, that the main aspects after the earliest Lithuanian (in 2004) and Polish (in 1998) reforms where a transition from DB to DC model and an implementation of a three-pillar system. Furthermore, I pillar in Poland started to function from PAYG as NDC model.
4) Comparison of the demographic situation in Lithuania and Poland, showed that both countries will be among the oldest in the EU due to emigration and continuously low fertility rates, therefore there is a need to constantly monitor, evaluate and improve old-age pension system aspects.
5) The analysis of statistical data showed that, in 2016, AROPE rate in Lithuania was more than two times higher than in Poland (37% and 16% respectively). However, this was mostly related to improved employment, educational and housing opportunities for older people in Poland rather than to increased old-age pension benefits. Unfortunately, there is a lack of similar initiatives in Lithuania which could be a highly effective tool in prevention poverty and social exclusion after retirement.
6) Later reforms in both countries were mostly related to the modifications of the II pillar scheme with the intention to improve the adequacy of old-age pension system. By implementing the newest reform in 2019, Lithuanian government aimed to expand this scheme by providing various accumulation and incentive options for workers and by separating Sodra and pension funds. Poland, on the contrary, has abolished II pillar scheme by nationalizing remained contributions and transferring assets to III pillar scheme. It has

also introduced new occupation scheme. Although these reforms were criticized by various pension specialists, it is still difficult to evaluate the effectiveness of these changes as they are very recently implemented, not much research is done and is not clear how many people will choose these programs for their pension accumulation.

7) The empirical analysis conducted in the Master's thesis let to find out how Lithuanian and Polish experts evaluate various aspects of old-age pension system in terms of their adequacy.
8) Moreover, empirical research let to make more conclusions:
   a) the majority of interview participants find the shorter retirement age as well as early retirement schemes negatively affecting old-age pension system adequacy as these both aspects increase poverty as well as gender inequality at the old age. Participants recommendations are retirement age increase and equalization between genders in Poland and abolishment of early retirement schemes in Lithuania. Early retirement schemes can be replaced by occupational pensions schemes, and by various benefits such as unemployment, social assistant, etc.
   b) 13th old-age pensions cannot improve the financial situation of pensioners, instead old-age pensions could increase slowly but constantly until they reach the level when pensioners can live in dignity.
   c) Nationalization of II pillar scheme in Poland reduces peoples trust in the pension scheme. Although now the system can look clearer, abrupt changes can make it more unpredictable and unstable and can reduce people motivation to accumulate more into pension funds.
   d) Termination of Sodra's transfers into II pillar in Lithuania improves transparency and clarity of the pension system as accumulation into pension funds is separated from the state pensions.
   e) All interview participants agree that people should work after retirement age, however only after proper instruments are implemented: older people should work in a healthy environment, working conditions should be flexible, education/reskilling opportunities should be provided. Furthermore, various incentives for the potential employers can improve their motivation to employ older people.
   f) Pension indexation mechanism can increase old-age pension system adequacy if more guarantees in case of economic downturn and additional indicators are added (earnings grow indexation, long-term pension increase program, etc).
   g) Accumulation into pension funds can positively affect adequacy of pensions, however it should be strongly encouraged by the State – life cycle funds should continue to operate,

an information about accumulation should be easily accessed, financial literacy of people improved and also various incentives introduced – higher tax incentives or state subsidies for those with lower salaries.

h) Occupational pension schemes is an effective tool for pension accumulation, however various favorable conditions must be created such as: more active trade unions, clarity of the system, increase of financial awareness of both – employers and employees, proper motivation instruments (benefits, financial guarantees).

i) All interview participants stated that public (I pillar) old-age benefits should always be the main income after retirement, especially for the poorest population. Furthermore, non-contributory benefits (universal) can also improve life after retirement of poorer people and those who were not active in the labour market for particular reasons.

RECOMMENDATIONS

To government of Lithuania and Poland:

- in order to gain the trust of the society, to provide detailed and comprehensible information about pension reforms before and after its implementation (by email/phone massages/post mail in case of major changes), to implement reforms consistently, with sufficient time for preparation of procedures and implementation mechanisms, to involve competent persons in the process of development and implementation of the reform more actively, to consult with local and foreign experts as well as social partners;
- to review, evaluate and redesign indexation mechanism by including more measurements and indicators, in order to progressively reduce the gap between average wages and pensions;
- to continue employer encouragement to hire older people by providing tax incentives;
- to modify taxation systems - to implement lower taxation mechanisms for people with lower income and correspondingly higher taxes for those earning more;
- to increase fertility rates and to reduce emigration by creating various programs: more childcare services/kindergarten systems, additional support for business creation.

To government of Poland:

- to extend and equalize the retirement age for both sexes in order to keep the balance between future adequacy and the sustainability of the pension system.

To government of Lithuania:

- to abolish or modify early retirement schemes, to replace them by unemployment, social assistance, disability allowances;
- to review, expand and promote occupational pensions, by creating more favourable state benefit system for both – employers and employers.

To Ministry of Social Security and Labour of Lithuania:

- to further increase the awareness of pension accumulation participants as well as the spread of information related to the mechanism of the funded pension system, its advantages and risks, the benefits of pillars II and III, other ongoing changes in the field of pension accumulation; to place more emphasis on the rights of accumulation participants and encourage to use them, for example the opportunity to pass on from one to another accumulation company;
- in order to reduce poverty level of older people, to publicize and promote various possibilities related to work after the retirement, to emphasize the advantages of such

possibilities for financial as well as mental health improvement (be useful, spend time meaningfully) more actively.

To employers (private business and public institutions) in Lithuania:

- to provide more flexible and healthy conditions for older workers: part time work, work from home, to organize educational seminars and work with younger employees, where they could improve their skills and to gain new ones.

To Polish and Lithuanian pension accumulation companies:

- more actively raise awareness about the necessity and advantages of independent accumulation in pension funds as well as risk possibilities, by organizing free conferences and seminars, periodically notify people, who already accumulate, about their accumulation performance results, future forecasts, etc.

To Polish and Lithuanian non-governmental organizations and institutions, the media:

- to provide clear, non-misleading and updated information about the changes in the old-age pension system and its situation.

To trade unions of Lithuania:

- to be more involved in representing older employees, to strive that working environment is healthy and pleasant, to guarantee older employee's social well-being.

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SUMMARY

The purpose of research: to analyse old-age pension systems in Lithuania and Poland and to determine their improvement possibilities with regards to adequacy.

Research methods: the analysis of scientific literature, legal documents and statistical data was conducted on the topic, qualitative survey using structured interview method and content analysis of the collected empirical data has been adapted.

Sample of the research: experts of Lithuania and Poland who have scientific experience in the area of old-age pension systems and/or work experience in institutions specializing in the area of old-age pension systems. In total, two persons from Lithuania, and four persons from Poland were interviewed.

Findings of the research: the analysis of scientific literature has disclosed, that before implementing any old-age reform it is necessary to consider both aspects - adequacy and sustainability, as they are inseparable from each other. If sustainability of old-age pension systems is insufficient, it will be impossible to ensure adequate pension in the long run. The Open Method of Coordination can help European Union countries to improve the adequacy of their pension systems by cooperating and sharing their best practice.

Lithuania and Poland have similarities as well as differences in their old-age pension systems. Both of them after first reforms have transited from defined benefit (DB) to defined contribution (DC) model in order to provide to people more possibilities to have higher pension by accumulating more on their own. Whereas both countries experience population aging challenges due to low fertility rates and high emigration, there was a need to periodically review and improve their pensions systems by implementing new reforms. In addition to population aging, due to lack of employment, educational and other initiatives for older people in Lithuania, AROPE rate in 2016 was more than two times higher than in Poland.

Recent reforms of pension system in both countries took place from 2018 to 2019 and are relatively new, therefore it is still quite complicated to evaluate them properly. The main changes happened in the II pillar scheme – Lithuania aimed to strengthen it by creating various accumulation and incentive options for workers and by separating Sodra and pension funds, while Poland has abolished II pillar scheme, nationalized remained contributions and transferred assets to III pillar scheme.

The empirical analysis conducted in the Master's thesis revealed how experts of both countries evaluate various aspects of old-age pension system in terms of its adequacy. Almost all of them speak negatively about the shorter retirement age and early retirement schemes. Some of them think that nationalization of II pillar scheme in Poland lowers peoples trust, while termination of

Sodra's transfers into II pillar in Lithuania improves clarity of the pension system. All of the interview participants confirmed that public old-age benefits should be the main income source after retirement, especially for the poorest population. Work after retirement, accumulation into pension funds, pension indexation mechanisms and occupational pension schemes can positively impact old-age pension systems, however favourable conditions and additional instruments must be created.

Keywords: adequacy of old-age pension system, older age, old-age pension reforms

SANTRAUKA

Tyrimo tikslas: išanalizuoti išanalizuoti senatvės pensijų sistemas Lietuvoje ir Lenkijoje ir nustatyti jų gerinimo galimybes adekvatumo atžvilgiu.

Tyrimo metodai: atlikta mokslinės literatūros, teisinių dokumentų ir statistinių duomenų analizė, pritaikyta kokybinė apklausa naudojant struktūrinio interviu metodą ir surinktų empirinių duomenų turinio analizė.

Tyrimo dalyvių imtis: Lietuvos ir Lenkijos ekspertai, turintys mokslinės patirties senatvės pensijų sistemų srityje ir (arba) darbo patirtį įstaigose, kurios specializuojasi senatvės pensijų sistemų srityje. Iš viso buvo apklausti du asmenys iš Lietuvos ir keturi asmenys iš Lenkijos.

Tyrimo išvados: mokslinės literatūros analizė atskleidė, kad prieš įgyvendinant bet kokią senatvės reformą būtina atsižvelgti į abu aspektus - adekvatumą ir tvarumą, nes jie neatsiejami vienas nuo kito. Jei senatvės pensijų sistemų tvarumas bus nepakankamas, ilgalaikėje perspektyvoje bus neįmanoma užtikrinti tinkamos pensijos. Atvirasis koordinavimo metodas gali padėti Europos Sąjungos šalims pagerinti savo pensijų sistemų adekvatumą bendradarbiaujant ir dalijantis teigiama patirtimi.

Lietuvos ir Lenkijos senatvės pensijų sistemos turi tiek panašumų, tiek skirtumų. Jos abi po pirmųjų reformų perėjo iš nustatytų išmokų (BP) į nustatytų įmokų (DC) modelį, siekiant suteikti žmonėms daugiau galimybių gauti didesnę pensiją daugiau kaupiant savarankiškai. Kadangi abi šalys susiduria su gyventojų senėjimo problema dėl žemo gimstamumo lygio ir didelės emigracijos, joms tenka periodiškai peržiūrėti ir tobulinti savo pensijų sistemas įgyvendinant naujas reformas. Be gyventojų senėjimo, dėl užimtumo, švietimo ir kitų iniciatyvų senesniems žmonėms trūkumo, AROPE rodiklis 2016 m. Lietuvoje buvo daugiau nei du kartus didesnis nei Lenkijoje.

Paskutinės pensijų sistemos reformos abiejose šalyse vyko nuo 2018 iki 2019 metų ir yra gana naujos, todėl jas tinkamai įvertinti vis dar gana sudėtinga. Pagrindiniai pokyčiai įvyko II pakopos schemoje - Lietuva siekė ją sustiprinti sukurdama įvairias darbuotojų kaupimo ir skatinimo galimybes ir atskirdama „Sodrą“ ir pensijų fondus, tuo tarpu Lenkija panaikino II pakopos schemą, nacionalizuodama likusius įnašus ir pervesdamą turtą į III pakopos schemą. .

Magistro darbe atlikta empirinė analizė atskleidė, kaip abiejų šalių ekspertai vertina įvairius senatvės pensijų sistemos aspektus adekvatumo atžvilgiu. Beveik visi jie neigiamai kalba apie trumpesnį pensinį amžių ir ankstyvo išėjimo į pensiją schemas. Kai kurie iš jų mano, kad II pakopos schemos nacionalizavimas Lenkijoje mažina žmonių pasitikėjimą, tuo tarpu „Sodros“ pervedimų į II pakopą nutraukimas Lietuvoje pagerina pensijų sistemos aiškumą. Visi interviu dalyviai patvirtino, kad valstybinės senatvės išmokos turėtų būti pagrindinis pajamų šaltinis išėjus į pensiją, ypač skurdžiausiems gyventojams. Darbas po išėjimo į pensiją, kaupimas pensijų fonduose,

pensijų indeksavimo mechanizmai ir profesinių pensijų schemos gali teigiamai paveikti senatvės pensijų sistemas, tačiau tam reikia palankių sąlygų, bei papildomų priemonių įvedimo.

Raktiniai žodžiai: senatvės pensijų sistemos adekvatumas, vyresnis amžius, senatvės pensijų reformos

ANNEXES

Annex No. 1

Dear Expert (Name),

My name is Liudmila Katinaite and I am a student of Mykolas Romeris University in Vilnius, Lithuania. Currently I work on my Master's thesis, topic "Adequacy of old-age pension systems in Lithuania and Poland: a comparative analysis". I am looking for Polish and Lithuanian experts who would be willing to answer my questions about old-age pension systems in these countries. I am mostly interested in experts' opinions about recent reforms and their recommendations for the improvement of these systems.

Could you please let me know If You would be available for an online interview at your convenience time (skype, zoom or any other convenient app)? Please also note, that if You wish to keep your confidentiality, Your identity will not be exposed in my research.

Thank you for your time and I look forward to hearing from you soon.

Best regards,
Liudmila Katinaite

1) Currently the pensionable age in Lithuania is 63 years for women and 64 years for men and will equal to 65 for both genders by the year of 2026. Poland, in turn, had reversed and brought back the retirement age of 60 for women and 65 for men (after the increase to age of 67 to both genders). What is your opinion about such decisions? What do you think about early retirement schemes? Do you think that earlier retirement age can lead to poverty of retirees and gender gap?

2) Do you think longer working lives of older people should be promoted as well as continuation to work after the pensionable age? If yes, what measures/instruments should be used? What risks this may pose?

3) New system reforms in Poland as well as in Lithuania promote voluntary accumulation in order to have better life after retirement, however they can seem quite complicated for financially uneducated people. Is it possible, that the complexity of reforms can be a burden to accumulate additionally? If yes, what should be done in this case?

4) It is promoted in both countries to accumulate more into pension funds by providing various incentives for workers. However, such promotion contains a risk as there is no guarantee that the value of the investment will increase. What is your opinion on this? Do you think people should still accumulate more personally into pension funds?

5) In your opinion, should the State financially support the participation of individuals in tier II pension fund schemes or not?

6) After recent reform, Lithuania promotes inclusion of people in the second pillar pension scheme by terminating Sodra's (The State Social Insurance Fund Board) transfers to private pension funds. Instead, people who want to accumulate, can transfer 3 % of their salary, and the State will contribute 1.5% of the national average wage. Do you think such changes (independence from State Social Insurance Fund) in the second pillar will be useful and meaningful for future retirees?

7) Poland, in turn, has recently abolished the old-age second pillar - the contributions redirected toward the PAYG scheme (nationalised), while assets transferred to voluntary (III pillar) schemes. Do you think such action will save people's money and improve life of retirees in the future or on the contrary - will lower their trust?

8) Poland has recently introduced a new occupational pension savings scheme, where employers and employees can contribute a particular percentage of their remuneration into various pension funds. What is your opinion on this? Do you think this reform will be successful between employees? Should Lithuania think about similar reform as well?

9) According to European Commission, pension indexation mechanisms in Lithuania and Poland in the long run lead to a decline of the ratio between old-age pensions and average wages. Do you think this is a serious thread for the adequate old-age pensions in the future? If yes, what are possible solutions of this problem?

10) Do you think public old-age benefits should be the main source after retirement? Should be there other instruments involved?

11) What aspects of the old-age pension system in Lithuania and Poland could / should be adjusted / improved in terms of its adequacy?

12) What would be your general opinion about the latest reforms in Lithuania and Poland? Will the system work more efficiently in terms of its adequacy and why?

Annex No. 2

<u>Interview with the participant 1LTU</u>

1) Currently the pensionable age in Lithuania is 63 years for women and 64 years for men and will equal to 65 for both genders by the year of 2026. Poland, in turn, had reversed and brought back the retirement age of 60 for women and 65 for men (after the increase to age of 67 to both genders). What is your opinion about such decisions? What do you think about early retirement schemes? Do you think that earlier retirement age can lead to poverty of retirees and gender gap?

- I think that the Polish decision is wrong and is based on a populist logic rather than long-term sustainability of pensions. Even worse – it legitimizes gender inequality. The possibility of early retirement should be abolished altogether. Until the age of 65, the person must remain in a suitably adapted labour market. If you are disabled and therefore unable to work - then a disability pension should be granted. If you are able to work but cannot find a job - then unemployment insurance measures should be implemented. But there should not be early retirement schemes. The decision to use unemployment insurance measures would not reduce future pensions, while early retirement schemes would reduce it because of actuarial adequacy reasons.

2) Do you think longer working lives of older people should be promoted as well as continuation to work after the pensionable age? If yes, what measures/instruments should be used? What risks this may pose?

-Yes, it is necessary to promote by adapting labour market relations and conditions (part-time employment, combining teamwork with younger workers), as well as by motivating the employer, for example, by not applying the “floor limit” of social security contributions for such employee.

3) New system reforms in Poland as well as in Lithuania promote voluntary accumulation in order to have better life after retirement, however they can seem quite complicated for financially uneducated people. Is it possible, that the complexity of reforms can be a burden to accumulate additionally? If yes, what should be done in this case?

-The complexity of reforms should not be a burden to accumulate. It is not such a difficult thing to save. After all, everyone has larger or smaller accounts in banks, the same would be with pension funds. And it is not necessary to know in detail how the fund invests that money (but information must be provided) – the most important is to follow the results.

4) It is promoted in both countries to accumulate more into pension funds by providing various incentives for workers. However, such promotion contains a risk as there is no guarantee that the value of the investment will increase. What is your opinion on this? Do you think people should still accumulate more personally into pension funds?

-Yes, they should accumulate. Fluctuations in the value of assets are a natural thing, and it must be understood that it cannot be otherwise. If we want periods of rapid and significant growth, there may also be periods of recession. However, the general trend is growth, unless something like “force majeure” happens. In addition, in this respect, Lithuania has made the right decision to restructure accumulation on the basis of life-cycle funds, which protects the savings of people of pre-retirement age from possible significant depreciation.

5) In your opinion, should the State financially support the participation of individuals in tier II pension fund schemes or not?

-The question is debatable, but I still think it should. The funds of public sector (taxpayer) can and must be used for what is in the public interest. Is encouraging the accumulation at the old age a public interest? The answers would be different. What would be the motives? That those funds now being paid will only pay off in the relatively distant future? But the costs of education are the same, however no one is proposing to stop financing the education. That only the part of the population is supported by all taxpayers? However, this is the case with almost all other public spending: education, child money, pensions, and so on. I believe, however, that efforts to support people who think and prepare for their future responsibly, although forward-looking, are still in the public interest.

6) After recent reform, Lithuania promotes inclusion of people in the second pillar pension scheme by terminating Sodra’s (The State Social Insurance Fund Board) transfers to private pension funds. Instead, people who want to accumulate, can transfer 3 % of their salary, and the State will

contribute 1.5% of the national average wage. Do you think such changes (independence from State Social Insurance Fund) in the second pillar will be useful and meaningful for future retirees?

-This "termination" of transfers was one major deception. In fact, the cash flows have not changed. The difference is that earlier the contributions of the second-tier participants were credited as Sodra's income and then immediately deducted as "Sodra's transfer to private pension funds". Now the cash flow is the same, however these contributions are no longer included in Sodra's income, and therefore are not accounted as "transfers to funds". Therefore, the whole reform is only a modification of accounting. Unfortunately, after such reform, Sodra and the current retirees now lost the contributions of those people who did not participate in the second pillar, as all of their contributions remained in Sodra. Now instead of such contributions there will be a zero.

7) Poland, in turn, has recently abolished the old-age second pillar - the contributions redirected toward the PAYG scheme (nationalised), while assets transferred to voluntary (III pillar) schemes. Do you think such action will save people's money and improve life of retirees in the future or on the contrary - will lower their trust?

-Of course, such kinds of changes only undermine confidence in the system.

I have no data on how the Poles choose (or have already chosen): to transfer the funds accumulated by OFE to their ZUS accounts or to convert to IKE (third tier). At least the Lithuanian experience shows that investors are not far behind or surpassed Sodra, perhaps there is a similar situation in Poland: after giving up ZUS, the higher pension received from there will not be much higher or lower than the otherwise possible annuity benefit from IKE. Another issue is that a lump sum payment from IKE can be an irrational form of personal benefit: the amount paid out will soon run out and the will be a need of pension from ZUS, which I understand will be lower because the ZUS personal sub-account did not receive the money given to IKE. Therefore, I do not see any improvement or savings in this regard. Some improvement or savings can be seen in the fact that those 2.92% of the salary that enters the OFE now goes to ZUS, so pensions can be a little higher.

8) Poland has recently introduced a new occupational pension savings scheme, where employers and employees can contribute a particular percentage of their remuneration into various pension funds.

What is your opinion on this? Do you think this reform will be successful between employees? Should Lithuania think about similar reform as well?

-In such way, the reform has silently increased the burden of financing pensions. Currently, neither the employee nor the employer is exempted from the obligation to pay 19.52 percent together for old-age pension insurance. And now an additional amount of at least 2 + 1.5 percent is requested to pay voluntarily to PPK (Pracownicze Plany Kapitalowe) with a fixed contribution from the State. I don't know how it will work here: will the employee want to give another 2 percent over what already has to be paid and whether the employer will not force the employee to give up such accumulation, because in such case he will not have to pay his share either - 1.5 percent. In Lithuania, replacing the second pillar with occupational pensions (and thus unifying the concept of the second pillar with the adopted by the EU) is an idea to consider. By the recent abolition of the employer's contribution and transferring everything to the employee, we have made it much more difficult to form a fund, financed by the employer's contributions. In such case, it would now be necessary to introduce an additional employer contribution, which is quite complicated and "painful". To transfer the states contribution to the employer by reducing the tax burden on him accordingly could be the solution.

9) According to European Commission, pension indexation mechanisms in Lithuania and Poland in the long run lead to a decline of the ratio between old-age pensions and average wages. Do you think this is a serious thread for the adequate old-age pensions in the future? If yes, what are possible solutions of this problem?

-The current indexation mechanism in Lithuania can only catch up with wage growth. However, pensions are now too low in relation to wages, and as a result of such indexation, they will remain so. Therefore, a well-thought-out long-term pension increase program is needed, with the goal of reaching 50%, preferably 60% of replacement rate, followed by strict adherence to the existing indexation mechanism. But I emphasize that a long-term program of action is needed, not a lump sum of 200 Eur, which is just a mockery of pensioners, a demonstration of gentlemen's mercy on contempt for the poor.

10) Do you think public old-age benefits should be the main source after retirement? Should be there other instruments involved?

-The best is diversification: social insurance (PAYG) + occupational (or similar) + savings (accumulative)
However, I believe that first pillar pensions will remain the largest and most significant part of this trio.

11) What aspects of the old-age pension system in Lithuania and Poland could / should be adjusted / improved in terms of its adequacy?

-In Lithuania, I would like more attention to be paid to the individual part of the pension. The current system is too "equalizing" and continues to move in the wrong direction. At least the average pension should be calculated only from points without consideration of the general part, while the lower pensions could be filled with the general (basic) part. This is the case, for example, in Sweden.
As I have already said, there is a need to prepare a long-term program for pension increase (with a clear indication of the sources), which would include a corresponding adjustment of the proportions of individual / general components.
There is also a need to abolish early retirement schemes and replace it with unemployment insurance. Instead of widows' pensions, a higher general share for a single pensioner should be implemented. Furthermore, the “privileged” state pensions should be converted into contributory occupational pensions rather than from beeing paid directly from the budget. In Poland (and Lithuania) “the mockery” with 13^{th} , and then 14^{th} pensions should be terminated.

12) What would be your general opinion about the latest reforms in Lithuania and Poland? Will the system work more efficiently in terms of its adequacy and why?

-Transfers of money from one “pocket” to another, will not help to increase adequacy of pensions. Unfortunately, only such reform as well as payment of charity amount of 200 Eur was created in Lithuania so far, by falsely shouting about the big reforms that have been carried out.
The only real reform that has been done correctly is the introduction of life-cycle funds. In addition, the transfer of the general pension amount to the state budget is the right step, but the place and role of the general part should be reconsidered.

Annex No. 3

Interview with the participant No. 2 - 1PL

1) Currently the pensionable age in Lithuania is 63 years for women and 64 years for men and will equal to 65 for both genders by the year of 2026. Poland, in turn, had reversed and brought back the retirement age of 60 for women and 65 for men (after the increase to age of 67 to both genders). What is your opinion about such decisions? What do you think about early retirement schemes? Do you think that earlier retirement age can lead to poverty of retirees and gender gap?

-As technological progress is reducing demand for labour, pensionable age should be now between 50 and 55 years, but not mandatory, as some workers can work longer, for example university professors, while miners, steel workers, bus drivers, aeroplane pilots etc. are unable to safely and effectively work beyond age of, say 50, maximum 60 years. I am therefore for voluntary early retirement schemes, especially for bureaucrats, i.e. persons in state administration, as they are, in their huge majority, only employed, but do not perform any real, i.e. useful work. If pensions are above poverty level, I do not see how lower retirement age can lead to poverty of retirees and to gender gap. Instead of spending money on arms and police, states such as Lithuania and Poland could spend more on pensions, especially, as in Poland the taxations system is now regressive, so making it progressive, the state could collect enough money to finance its social obligations. I repeat - technological progress increases productivity so it reduces number of jobs, so early retirement and shortening of hours of work are now necessity, both in Lithuania and Poland, where shortage of jobs caused huge emigration.

I quote from Audra Sipavičienė & Vlada Stankūnienė "The social and economic impact of emigration on Lithuania":

"Even according to official data from the Statistics Lithuania (based on the 2011 census), over the past 22 years (1990-2011) 728 700 people emigrated from Lithuania, the equivalent of approximately 20% of the Lithuanian population of 1990s. In addition, population losses due to migration are accelerating: from 7.5% of the resident population (at the beginning of period) in 1990-2000 to 12.9% in 2001-11. Immigration remains low, and has only a symbolic compensatory effect. For the past decade, Lithuania has had the highest negative net migration in the European Union. This situation, sometimes referred to by politicians as 'evacuation', has unfortunately not been effectively contrasted. (...)

Since the beginning of the 1990s, with the advancement of the market economy, new forms of migration emerged. A 'petty trade' migration model first dominated, with short commercial cross-border visits to purchase and sell small volumes of merchandise. Migration turned westward, its geography expanded, long-term migration gave way to different types of temporary or circular migration, and migration was often part of a business strategy. A study carried out in 1993-1996 indicated that during the period in question, the purpose of migration also started changing: from choice of residence to important economic (or even survival) strategy. Migrants went not to the closest countries, but to the countries where they could earn the most (e.g., through informal trading or employment) or where study was likely to provide the greatest return. In those years, over 80% of emigration was unregistered, and the scale of emigration remained high. (...)

The outbreak of the economic crisis of 2009-2012 initiated a new unprecedented wave of emigration, turning migration once again from an expression of ‘free choice/freedom of movement’ to a desperate search for economic opportunities abroad and a survival strategy. In 2010 there was an unprecedented peak – 83 500 Lithuanian inhabitants registered their departure from Lithuania. Such a significant increase in the number of registered emigrants is in all likelihood attributable mainly to the introduction of a statutory duty for all permanent residents of the country to pay compulsory health insurance, a circumstance, which may well have also encouraged emigrants who had failed to register their departure from Lithuania earlier, to do so now. (...)

In addition to economics, other reasons, such as social insecurity, social injustice (‘social serfdom’) or family-related reasons (e.g. family reunion) contribute to increase of emigration flows. (...)

A number of studies and public opinion poll surveys indicate that nearly half of the Lithuanian adult population is considering emigration and would like to move abroad for employment (48.4% in 2012, compared with 37% in 2011, 29% in 2010 and 23% in 2008).

The first and most obvious consequence of mass emigration is a decreasing population. Mass emigration, coupled with very limited immigration and return migration, reduced the Lithuanian population by nearly one sixth over two decades, from 3.7 million residents in 1990 to 3 million in 2011. While natural increase fully or partially compensated for migration losses prior to 1994, since 1995 the population has been decreasing. In the years of economic crisis (2009-11), emigration accounted for approximately 90% of total population decline in Lithuania. (...)

Even though more than 80% of adult emigrants are long term unemployed, the number of unemployed people in Lithuania, as well as unemployment rates, steadily increased between 2007 and 2010. The prevailing explanation is that without emigration unemployment would have been much higher and social tensions greater. In fact, emigrants tend to be resourceful

people, able and willing to work, who shun social benefits. Even if their departure helped to reduce unemployment, the country lost an important segment of the labour force. (...)
Emigration from Lithuania continues to be identified as one of the most urgent national problems, posing demographic as well as labour market problems, yet until recently very little has been done to stop such massive emigration."
So - if there is now serious deficit of jobs in Lithuania and because of it Lithuanians emigrate from their country, there should be lower pensionable age in Lithuania, also to free jobs for younger, usually more productive Lithuanians, who, having a prospect of obtaining employment in their country, will not emigrate, at least not in such high numbers as now. Similar problems I can see in Poland - technological progress and economic collapse, especially the collapse of Polish industry especially the manufacturing sector, due to huge import from China and loss of Russian market, reduced drastically number of real, i.e. productive jobs, so there is no rationale for increasing pensionable age - both in Lithuania and in Poland.

2) Do you think longer working lives of older people should be promoted as well as continuation to work after the pensionable age? If yes, what measures/instruments should be used? What risks this may pose?

-Longer working lives of older people as well as continuation to work after the pensionable age should be promoted, but only in case of productive jobs, definitely not in case of government employees, who in their huge majority only collect salaries and make life of ordinary citizens unnecessary hard. Such bureaucrats should be encouraged to leave their jobs as soon as possible. One should, above all, differentiate between "working" and "been employed" - if someone works, he or she creates new values, while people who are only employed, such as for example the bureaucrats, only consume, frequently non-removable resources, such as energy.

3) New system reforms in Poland as well as in Lithuania promote voluntary accumulation in order to have better life after retirement, however they can seem quite complicated for financially uneducated people. Is it possible, that the complexity of reforms can be a burden to accumulate additionally? If yes, what should be done in this case?

- Yes, the complexity of reforms can be a burden to accumulate additionally and above all, all pension schemes based on financial mechanism such as private retirement funds can provide only money, while pensioners need real goods and real services. Real pensions can be generated only by system created in Germany by Bismarck, i.e. based on solidarity of generations, as the real goods and services demanded by the pensioners can be in practice produced only here and now, not accumulated for the future, especially food, medicines, electrical energy, medical services etc. Private retirement funds can offer only money, but most likely their return on capital is lower than real rate of inflation i.e. CPI. Even if they will pay in year 2050 say 10 thousand of euro per month, it could be below social minimum, as it can be in year 2050 well above this 10 thousand of euro per month.

4) It is promoted in both countries to accumulate more into pension funds by providing various incentives for workers. However, such promotion contains a risk as there is no guarantee that the value of the investment will increase. What is your opinion on this? Do you think people should still accumulate more personally into pension funds?

-As I write above - there is no guarantee that the value of the private investment will increase, as it is very likely that it will decrease, because of inflation and other unpredictable factors. Therefore, I think people should NOT accumulate more personally into private pension funds, as purchasing power of pensions paid by those funds will, most likely, have very low real value, i.e. purchasing power, in the future. Management and owners of such funds is simply interested only in maximising their current profits and are not interested in value, i.e. purchasing power of pensions, they will have to pay their members in the future. Generally, private pension funds are financial pyramids, so they should be legally prohibited to function for being such fraudulent schemes.

5) In your opinion, should the State financially support the participation of individuals in pillar II pension fund schemes or not?

-In my opinion, the State should NOT financially support the participation of individuals in tier II pension fund schemes, as they are, as I wrote above, only financial pyramids.

6) After recent reform, Lithuania promotes inclusion of people in the second pillar pension scheme by terminating Sodra's (The State Social Insurance Fund Board) transfers to private pension funds. Instead, people who want to accumulate, can transfer 3 % of their salary, and the State will contribute 1.5% of the national average wage. Do you think such changes (independence

from State Social Insurance Fund) in the second pillar will be useful and meaningful for future retirees?

-As above - in my opinion such changes in the second pillar will NOT be useful and meaningful for future retirees, as all pension schemes based on financial mechanism such as private retirement funds can provide only money, while pensioners need real goods and real services. Real pensions can be generated only by system created in Germany by Bismarck, i.e. based on solidarity of generations, as the real goods and services demanded by the pensioners can be in practice produced only here and now, not accumulated for the future, especially food, medicines, electrical energy, medical services etc. Private retirement funds can offer only money, but most likely their return on capital is lower than real rate of inflation i.e. CPI. Even if they will pay in year 2050 say 10 thousand of euro per month, it could be below social minimum, as it can be in year 2050 well above this 10 thousand of euro per month.

7) Poland, in turn, has recently abolished the old-age second pillar - the contributions redirected toward the PAYG scheme (nationalised), while assets transferred to voluntary (III pillar) schemes. Do you think such action will save people's money and improve life of retirees in the future or on the contrary - will lower their trust?

-See above - it was a good decision, as the management and the owners of private pension funds are simply interested only in maximising their current profits and are not interested in value, i.e. purchasing power of pensions, they will have to pay their members in the future. Generally, private pension funds are financial pyramids, so they should be legally prohibited to function for being such fraudulent schemes.

8) Poland has recently introduced a new occupational pension savings scheme, where employers and employees can contribute a particular percentage of their remuneration into various pension funds. What is your opinion on this? Do you think this reform will be successful between employees? Should Lithuania think about similar reform as well?

-As above - it is *financial fiction*, as the management and the owners of private pension funds are simply interested only in maximising their current profits and are not interested in value, i.e. purchasing power of pensions, they will have to pay their members in the future. Generally, private pension funds are financial pyramids, so they should be legally prohibited to function for being such fraudulent schemes. Therefore, in my opinion Lithuania should

NOT think about similar reforms.

9) According to European Commission, pension indexation mechanisms in Lithuania and Poland in the long run lead to a decline of the ratio between old-age pensions and average wages. Do you think this is a serious thread for the adequate old-age pensions in the future? If yes, what are possible solutions of this problem?

-I agree with European Commission that pension indexation mechanisms in Lithuania and Poland in the long run lead to a decline of the ratio between old-age pensions and average wages. Therefore, there is need to change taxation system, so it will become progressive, not regressive as it is now. Only by increasing taxes for the rich and by reducing unnecessary expenses, such as on army, navy, air force and police as well as reducing spending on government bureaucracy, the state can find enough money to finance pensions. As productivity grows due to technological progress, future real wages and real pensions should be higher, providing that the surplus created by productive sector (agriculture, mining, and industry, especially manufacturing) will be more justly distributed.

10) Do you think public old-age benefits should be the main source after retirement? Should be there other instruments involved?

-Yes, public old-age benefits should be the main source after retirement. As I wrote above - real pensions can be generated only by system created in Germany by Bismarck, i.e. based on solidarity of generations, as the real goods and services demanded by the pensioners can be in practice produced only here and now, not accumulated for the future, especially food, medicines, electrical energy, medical services etc. Private retirement funds can offer only money, but most likely their return on capital is lower than real rate of inflation i.e. CPI.

11) What aspects of the old-age pension system in Lithuania and Poland could / should be adjusted / improved in terms of its adequacy?

-As I write above - return to the system created in Germany by Bismarck, i.e. based on solidarity of generations, as the real goods and services demanded by the pensioners can be in practice produced only here and now, not accumulated for the future, especially food, medicines, electrical energy, medical services etc. Private retirement funds can offer only money, but most likely their return on capital is lower than real rate of inflation i.e. CPI.

12) What would be your general opinion about the latest reforms in Lithuania and Poland? Will the system work more efficiently in terms of its adequacy and why?

As I wrote above - the real solution of problem with pensions for elderly people can only by the system created in Germany by Bismarck, i.e. based on solidarity of generations.

Annex No. 4

Interview with the participant 2PL

1) Currently the pensionable age in Lithuania is 63 years for women and 64 years for men and will equal to 65 for both genders by the year of 2026. Poland, in turn, had reversed and brought back the retirement age of 60 for women and 65 for men (after the increase to age of 67 to both genders). (1) What is your opinion about such decisions? (2) What do you think about early retirement schemes? (3) Do you think that earlier retirement age can lead to poverty of retirees and gender gap?

-Gradual increase of the age people retire is necessary, and in particular equalization of male and female retirement ages. Reversal of the retirement age reform in Poland happened both as a result of cynical manipulations by populist politicians but also because of the mistakes made by those designing and implementing original reform. Original reform was announced as a surprise and not preceded by the serious negotiations with the trade unions, neither not accompanied by any measures which would facilitate people to accept later retirement, which would change negative attitudes of employers toward employing older workers and strictly and effectively ban ageism, changing situation of elderly at the labour market, introducing large scale life-long learning which increases employability of older people, or introducing measures which would create alternative in terms of both child care and care of elderly and disable – older women often retire as early as possible because their families expect from them taking care of grandchildren and sick and disabled family members.

(2) life expectancy and healthy life expectancy are very differentiated across different groups of people – and generally poorer people live shorter. Also, people start their work and contribution careers at different ages – and generally those with lower education and usually lower career earning start earlier. Uniform retirement ages are thus redistributing form poorer to richer members of the schemes – particularly in defined contribution or strictly earnings-related schemes. One should seek solutions which compensate this. Also, European Code of Social Security and ILO Conventions 102 and 128 require the retirement ages to be adapted to the capacity of different groups of older workers to continue employment.

(3). Yes and no. Yes, in particular in strictly earning related schemes (or DC or NDC or point schemes) - were earlier retirement for women leads to lower pensions, in addition to the fact that their pension are lower anyhow – due to shorter careers and lower earnings. No – as indicated above, not specifically women but all those with earlier start in their careers, lower earnings and poorer health status are victims of uniform retirement ages.

2) Do you think longer working lives of older people should be promoted as well as continuation to work after the pensionable age? If yes, what measures/instruments should be used? What risks this may pose?

-Yes. But it is not just promotion – it is as stated above: measures which would facilitate people to accept later retirement, which would change negative attitudes of employers toward employing older workers and strictly and effectively ban ageism, changing situation of elderly at the labour market, introducing large scale lifelong learning which increases employability of older people, or introducing measures which would create alternative in terms of both child care and care of elderly and disable – older women often retire as early as possible because their families expect from them taking care of grandchildren and sick and disabled family members. Do not see any risks apart from the lack of the will on the side of many stakeholders (governments, employers, husbands etc.) to implement all these policies.

3) New system reforms in Poland as well as in Lithuania promote voluntary accumulation in order to have better life after retirement, however they can seem quite complicated for financially uneducated people. Is it possible, that the complexity of reforms can be a burden to accumulate additionally? If yes, what should be done in this case?

-There is nothing wrong in promotion of additional savings as long as taxpayer money are not used to find it. Those who can save should be saving and the state should provide regulations which make these saving safe. I do not believe much in mass financial education, even countries with a long history of private pensions majority of the members have no knowledge on how it works.

Voluntary savings are accessible only to those who have higher earnings and relatively stable jobs and that is why there should be no tax incentive nor any state subsidies as this means redistribution towards the richer part of the population.

4) It is promoted in both countries to accumulate more into pension funds by providing various incentives for workers. However, such promotion contains a risk as there is no guarantee that the value of the investment will increase. What is your opinion on this? Do you think people should still accumulate more personally into pension funds?

-See above. Those who can, should accumulate and responsibility of the state is to make it as safe as possible through adequate regulatory framework.

5) In your opinion, should the State financially support the participation of individuals in pillar II pension fund schemes or not?

> -No, see above.

6) After recent reform, Lithuania promotes inclusion of people in the second pillar pension scheme by terminating Sodra's (The State Social Insurance Fund Board) transfers to private pension funds. Instead, people who want to accumulate, can transfer 3 % of their salary, and the State will contribute 1.5% of the national average wage. Do you think such changes (independence from State Social Insurance Fund) in the second pillar will be useful and meaningful for future retirees?

> -It is good that part of SODRA's contributions will not be used anymore to feed into the private funded pensions. It is bad, as explained above that, that the state budget will subsidise voluntary contributions of the richer part of the population.

7) Poland, in turn, has recently abolished the old-age second pillar - the contributions redirected toward the PAYG scheme (nationalised), while assets transferred to voluntary (III pillar) schemes. Do you think such action will save people's money and improve life of retirees in the future or on the contrary - will lower their trust?

> -Mandatory second pillar was a mistake from the very beginning. But a mistake was also the whole reform and making NDC the core of the system. On the other hand, what matters in pensions is stability and trust – and the way second pillar was abolished undermined trust in the pension system and the state policies in this area – with very bad consequence for any future reforms. And the problem is that the move has not affected much future pension adequacy – the core of the Polish pension (and its core problem) system is NDC pension scheme, which by design will provide less and less adequate pensions and push more and more older persons into poverty (whatever the retirement age).

8) Poland has recently introduced a new occupational pension savings scheme, where employers and employees can contribute a particular percentage of their remuneration into various pension funds. What is your opinion on this? Do you think this reform will be successful between employees? Should Lithuania think about similar reform as well?

-This reform introduces quasi-mandatory savings. People are subscribed by default, but they can opt out. It is difficult to say how wide it will be in terms of actual membership, that is share of workers effectively subscribed and not opting out. I think it will be minority, those with higher earnings in big companies and with stable jobs. The only group where probably there will be wider participation is civil service and public employment. Until now publicly funded institutions were not allowed to build occupational pensions schemes – now, starting next year or 2022, unless the government changes its mind due to austerity measures, these institutions will be able to form those quasi obligatory new pension funds. This is good news. The bad news is taxpayer financial support to all these.

9) According to European Commission, pension indexation mechanisms in Lithuania and Poland in the long run lead to a decline of the ratio between old-age pensions and average wages. Do you think this is a serious thread for the adequate old-age pensions in the future? If yes, what are possible solutions of this problem?

-Specifically, in Poland there are two factors driving relative values of future pensions down. One is annual indexation of contributory capital in the NDC schemes – it is growing with the growth rate of the sum of wages – in the situation when in the future number on contributors due to demography will be declining, and adjusted value of past contributions will thus grow slower than average earnings driving replacement rates at retirement down. In Sweden it is done with the growth of average earnings, although corrected from time to time by the balancing mechanism. It should be done with average earnings growth. And the same applies to pension indexation. Pensions indexed systematically by the rates lower than average earnings growth pull more and more pensioners into not just relative poverty but also push them into technological exclusion as they are not able to buy new technologies as prices of new technologies tend to grow faster than average CPI.

Pensions should be indexed with the growth of earnings. Balancing pension finances should not be done by manipulations of indexation but by increasing effective retirement age, and/or increasing funding – higher contributions or higher subsidies from tax revenue. Contrary to the situation of voluntary pension schemes, there is here – at least in Europe – no major redistributive problem with subsidising public contributory schemes with the tax revenue.

10) Do you think public old-age benefits should be the main source after retirement? Should be there other instruments involved?

-For people with lower earnings, shorter, interrupted contribution careers (like women) public pensions will be always main source of income.

11) What aspects of the old-age pension system in Lithuania and Poland could / should be adjusted / improved in terms of its adequacy?

In Poland for sure (Lithuania at least keeps redistributive part of the pension calculation formula), there is a need for basic but adequate universal pension for all older residents (so-called zero pillar), so the contributory part is topping-up the basic pension, but basic pension effectively prevents poverty.

12) What would be your general opinion about the latest reforms in Lithuania and Poland? Will the system work more efficiently in terms of its adequacy and why?

-Voluntary pensions will not improve adequacy. Purely earnings-related components of the mandatory pension system (NDC in Poland, points part in Lithuania) will not prevent poverty among significant group of elderly – those whose working careers were relatively short and earnings low. Incomplete indexation worsens the situation. Adequate universal basic pension may help.

Annex No. 5

Interview with the participant 3PL

1) Currently the pensionable age in Lithuania is 63 years for women and 64 years for men and will equal to 65 for both genders by the year of 2026. Poland, in turn, had reversed and brought back the retirement age of 60 for women and 65 for men (after the increase to age of 67 to both genders). What is your opinion about such decisions? What do you think about early retirement schemes? Do you think that earlier retirement age can lead to poverty of retirees and gender gap?

-In my opinion, Poland made a mistake by lowering pensionable age, because if this age becomes lower, consequently retirees will get lower pensions. That in turn will lead to higher poverty level and will definitely not guarantee adequacy in old age, because in DC systems poverty risk is high with lower salaries. As women usually have shorter or fragmented careers because of family obligations, shorter retirement age will also contribute to the gender gap in old age.

Despite that, in Poland, as soon as early retirement schemes were introduced, a lot of people used this possibility. This had a very bad effect on the adequacy of pensions at the old age. From the other side it is quite hard to motivate people to work longer. In DC system if you want to retire early, then contribution rates as well as salaries should be higher. Occupational schemes which were introduced in Poland, where both – workers and employees contribute, can make a positive difference with regards to the pension system adequacy. Otherwise there is a necessity to work longer.

Even though there is a minimum pension in both countries, it is very low and wont guarantee adequacy in the old age. Minimum pension should grow faster than wages.

2) Do you think longer working lives of older people should be promoted as well as continuation to work after the pensionable age? If yes, what measures/instruments should be used? What risks this may pose?

This had to do with the working conditions, those who are already older and wear-out after many years of hard work, longer hours, it is hard to motivate them to work longer.

Continuation after pensionable age should be promoted, but in a way that working conditions are healthy for the older people. Instruments should be used such as training at work, as well as part time work, reskilling, reduction of working hours, less work intensity closer to retirement age. We need to reduce the fiscal pressure.

However, as I mentioned, from one side work after retirement can improve adequacy but from the other side, whose who used to work hard, will not be motivated to work longer. Work after retirement should be flexible where living and working balance can be achieved (where older people can pay more attention o their health or spend more time with their relatives, grandchildren, for example). Unfortunately, until now, the state in both countries did not do much from its side, other than put all the responsibility on people.

3) New system reforms in Poland as well as in Lithuania promote voluntary accumulation in order to have better life after retirement, however they can seem quite complicated for financially uneducated people. Is it possible, that the complexity of reforms can be a burden to accumulate additionally? If yes, what should be done in this case?

- Such reforms will be always complex especially for financially undedicated people, there is nothing can be done. Plus, usually only wealthy and people with higher salaries participate in such schemes who have a spare cash as it is a good additional money to be used after retirement. Such people usually more or less understand the risks. People with low salaries (who are usually less educated), usually cannot afford to accumulate additionally as they spend their small salaries to survive on a daily basis.

In my opinion, an auto enrolment is a good thing to use, as there is a high probability that automatically enrolled people will not leave a scheme. They will just have a choice to opt-out, which is easier than to decide to participate or not.

As I said, we cannot expect regular citizens to be financial educated, so this is not the case. They can go for the default enrolment as they usually cannot compare the options. The system itself has to make such choices (to choose what is less risky to invest according the age of the worker, his salary and so on).

4) It is promoted in both countries to accumulate more into pension funds by providing various incentives for workers. However, such promotion contains a risk as there is no guarantee that the value of the investment will increase. What is your opinion on this? Do you think people should still accumulate more personally into pension funds?

-I am in the position that the contribution rates should be higher instead. Investment into funds are not pensions, as a regular pension is what you have accumulated, and these amounts cannot be lower after retirement (the value of contributions cannot decrease overtime). In Poland many of such schemes do not offer annuity or if they offer it its very expensive. If you invest, the state has to guarantee some kind of protection of the invested funds and it should have an annuity option.. If the fund can not properly protect the savings it should not be done.

5) In your opinion, should the State financially support the participation of individuals in tier II pension fund schemes or not?

-I think it should not support. It's expensive with all the incentives the state provides plus it usually supports those who do not really need that (people with higher salaries). In such way such support may increase inequality at the old age. For example, in Poland, self-employed people get great incentives from the state while less educated people with low salaries pay more taxes. So it's a support from the poor ones to wealthy ones. In the end poor people will sponsor the wealthier ones.

6) After recent reform, Lithuania promotes inclusion of people in the second pillar pension scheme by terminating Sodra's (The State Social Insurance Fund Board) transfers to private pension funds. Instead, people who want to accumulate, can transfer 3 % of their salary, and the State will contribute 1.5% of the national average wage. Do you think such changes (independence from State Social Insurance Fund) in the second pillar will be useful and meaningful for future retirees?

-Everything depends on the level of contribution. Here is the challenge is that you have to start accumulate very early (as it is a DC scheme), you have to contribute continuously and if you salary gets higher it is a good thing to accumulate. However, if you are more than 45 or 50 years old it is not enough to make this investment. If the state offers the annuity, then it's a good thing and also if the State faces the risk, I think it is a good decision.

7) Poland, in turn, has recently abolished the old-age second pillar - the contributions redirected toward the PAYG scheme (nationalised), while assets transferred to voluntary (III pillar) schemes. Do you think such action will save people's money and improve life of retirees in the future or on the contrary - will lower their trust?

-From the perspective of adequacy of pension system, I think it is a good decision. Because if you are able to contribute together with the employer it can be a significant contribution.

However, the problem can arise from insufficient motivation to contribute. We are talking about an additional part of the salary which people might not want to lose. It is still not clear yet what employers think about it. There are huge fines implemented in case if employers push their employees to leave the scheme so this might stop them from doing so.

Although the state contributes a small amount into this program (as an incentive), this can be not enough to motivate workers to contribute more. I think, in order such reforms to be successful, trade unions should be strong like in some other European (Denmark, Sweden, etc,) countries and where is high coverage rate on occupational or individual programs. Unfortunately, in Poland and in Lithuania the quality of social dialogue is very small as well as the coverage of trade unions. This should be improved.

8) Poland has recently introduced a new occupational pension savings scheme, where employers and employees can contribute a particular percentage of their remuneration into various pension funds. What is your opinion on this? Do you think this reform will be successful between employees? Should Lithuania think about similar reform as well?

-As I already mentioned, trade unions should be involved more at the company branch level, then it's a good thing. You need to have some essential factors to guarantee the success in occupation pension schemes. Also, the state incentives should be much higher. This can be advised for Lithuania as well.

9) According to European Commission, pension indexation mechanisms in Lithuania and Poland in the long run lead to a decline of the ratio between old-age pensions and average wages. Do you think this is a serious thread for the adequate old-age pensions in the future? If yes, what are possible solutions of this problem?

Yes, this is true. Because of demographic ageing and shrinking of the labour market, this can be a very big problem, therefore different indicators should be added into indexation. This can improve adequacy to some extent.

10) Do you think public old-age benefits should be the main source after retirement? Should be there other instruments involved?

-The purpose of pension scheme is to guarantee poverty alleviation, consumption smoothing and meeting minimum standards of everyone and the distribution. These goals can be achieved only by the public old-age benefits, there is no other way to do this. Because no one will pay minimum or universal benefits for people, who are not insured. Therefore, the public old-age pension will always be and should be the main one.

11) What aspects of the old-age pension system in Lithuania and Poland could / should be adjusted / improved in terms of its adequacy?

-The problem in both countries is the nature of benefit formula – DC – you get as much as you paid in. Therefore, in order to have better pension, people should work longer (to increase retirement age) but as I mentioned, the environment should be adjusted – in a sense of different options of training or retraining. Also, health system should be improved. There should be universal non-contributory benefit implemented which would be available for everyone (the debate is going to happen in Poland soon with regards to this matter). And on the top on this we can have other instruments, such as PAYG, DC and so on. Accumulation into various pension funds do not solve the problem of the poorest and in the future, this will be a great challenge when people will get benefits which are not adequate. The reforms in the labour market are important in order to have sustainability of pension systems. However, I still think that we should think more about those groups of people which for some reasons cannot participate in the labour market. That is why I believe non-contributory elements should exist.

12) What would be your general opinion about the latest reforms in Lithuania and Poland? Will the system work more efficiently in terms of its adequacy and why?

-Well a decrease of pensionable age in Poland is as disaster as I mentioned that it will lead to lower pension benefits. And already a huge number of workers in Poland have retired earlier. Occupational pensions are a two-sided decision, as it will be problematic in the sense that it will be hard to motivate people to allocate an additional amount of their salary. Therefore, the idea is good, but needs more adjustments, as I mentioned before more active participation of trade unions in such schemes is needed. Also, as I mentioned earlier the problem in Poland of the tax incentives for the self-employed is not a very wise decision, as the state loses big amounts in their budget, while poorer people do not have any incentives.

Annex No. 6

Interview with the participant 4PL

1) Currently the pensionable age in Lithuania is 63 years for women and 64 years for men and will equal to 65 for both genders by the year of 2026. Poland, in turn, had reversed and brought back the retirement age of 60 for women and 65 for men (after the increase to age of 67 to both genders). What is your opinion about such decisions? What do you think about early retirement schemes? Do you think that earlier retirement age can lead to poverty of retirees and gender gap?

- Polish decision to decrease pensionable age was sort of wrong policy decision, because of the demographic aging factor. Furthermore, in about 25-30 years from now, there will be a decline in working age population by 3 million in Poland because of such decision, which is quite a lot. Therefore, Poland should follow Lithuanian reform and increase and equalize pensionable age for both genders.

2) Do you think longer working lives of older people should be promoted as well as continuation to work after the pensionable age? If yes, what measures/instruments should be used? What risks this may pose?

-I think this is unavoidable, though people probably will not be that productive due to their old age. However, the problem of demographic aging factor in the long run will create a problem in providing adequate pensions for those who are already retired. This should be somehow incentivised by the State and is a matter of the discussion. This cannot be escaped.

3) New system reforms in Poland as well as in Lithuania promote voluntary accumulation in order to have better life after retirement, however they can seem quite complicated for financially uneducated people. Is it possible, that the complexity of reforms can be a burden to accumulate additionally? If yes, what should be done in this case?

-I do not have strong views about it. But I think voluntary savings is a positive thing, however a question is how this should be promoted properly because such schemes in both countries are still not that popular. Poland just recently implemented a quasi-obligatory scheme so maybe this may have a good impact on accumulation in the future. As for the complexity, I do not think it should stop from the accumulation as such reforms are naturally quite difficult to understand and the state should provide an easy access to the information about such accumulation.

4) It is promoted in both countries to accumulate more into pension funds by providing various incentives for workers. However, such promotion contains a risk as there is no guarantee that the value of the investment will increase. What is your opinion on this? Do you think people should still accumulate more personally into pension funds?

-Yes, if you accumulate capital in private pension funds it is unavoidable to face some kind of a risk, however both countries offer life cycle funds in order to minimize the risk. However, some kind of risk still be there. Therefore, in DC systems this is unavoidable. From the other side, in DB system it can be also risky in case the system collapses, and the state has to step in and support. Therefore, there is no perfect option as far as I see the issue. If people want to invest into pension funds they should understand and to weigh the possible risks.

5) In your opinion, should the State financially support the participation of individuals in pillar II pension fund schemes or not?

-I think it should not. People should take the responsibility and to accumulate on their own, and as I said there are life cycle funds introduced which can minimize those risks. It is just important to provide clear information for people about it so they know all the possible options.

6) After recent reform, Lithuania promotes inclusion of people in the second pillar pension scheme by terminating Sodra's (The State Social Insurance Fund Board) transfers to private pension funds. Instead, people who want to accumulate, can transfer 3 % of their salary, and the State will contribute 1.5% of the national average wage. Do you think such changes (independence from State Social Insurance Fund) in the second pillar will be useful and meaningful for future retirees?

- I think this is the right decision as it makes the system more clear, additional voluntary accumulation into pension funds should be separated from the state pensions in order to avoid confusion.

7) Poland, in turn, has recently abolished the old-age second pillar - the contributions redirected toward the PAYG scheme (nationalised), while assets transferred to voluntary (III pillar)

schemes. Do you think such action will save people's money and improve life of retirees in the future or on the contrary - will lower their trust?

-Well this reform is very recent, so we will see how people react in the near future. However, a good thing is that the system became clearer. Whether this will increase the confidence to accumulate? The government hopes it will. I think now the situation is clearer, because after this decision it will be a clear division line between mandatory and the voluntary system. So it might be easier to choose how to accumulate and maybe the confidence of people will increase in the long run. However, this is debatable. But in my opinion people will not be very motivated to accumulate more especially those who are far away from the retirement age. Therefore, I doubt they will be greatly interested in such investments.

8) Poland has recently introduced a new occupational pension savings scheme, where employers and employees can contribute a particular percentage of their remuneration into various pension funds. What is your opinion on this? Do you think this reform will be successful between employees? Should Lithuania think about similar reform as well?

-As I mentioned before this reform is quite recent, therefore it is still not clear how many people after automatic enrolment will stay and who will leave. Let us hope it will be successful as in other countries similar schemes are quite popular. Plus, the good thing about this scheme is that employees can withdraw their money at any point, so such rule can stop them from sudden withdrawals. From the employee point of view, I would say it's quite attractive scheme - an alternative source of savings because employee contributions are almost equalized by employer contributions. But of course, employers here play an important role, as they try to offset the cost.

9) According to European Commission, pension indexation mechanisms in Lithuania and Poland in the long run lead to a decline of the ratio between old-age pensions and average wages. Do you think this is a serious thread for the adequate old-age pensions in the future? If yes, what are possible solutions of this problem?

-Yes, it is pretty obvious that the replacement rates in countries with DC systems will go down. As previous DB system was much more generous. Politicians should modify the indexation mechanisms, because according to projected decline in the replacement rates, soon

the system will be similar like in Canada where almost all pensioners receive benefit which is close to a minimum benefit. And this will especially affect women if they retire at 60 years of age (in Poland). So, an increase of pensionable age is mandatory like in Lithuania.

10) Do you think public old-age benefits should be the main source after retirement? Should be there other instruments involved?

- I think public old age benefits will be always the main source after retirement, its unavoidable. Because people will eventually have to stop working because of their age. And occupations plans will be just and additional source in order to get more generous pensions.

11) What aspects of the old-age pension system in Lithuania and Poland could / should be adjusted / improved in terms of its adequacy?

- As I said, the authorities should reconsider their decision on reducing statutory retirement age, because it simply “goes against the gravity” - it is costly, and it creates poverty risk for older age persons. Plus, work after retirement in both countries should be promoted. People should think more responsibly and rationally and understand that work after retirement can be a great protection against poverty.

12) What would be your general opinion about the latest reforms in Lithuania and Poland? Will the system work more efficiently in terms of its adequacy and why?

- Well I am not a fan of an earlier retirement scheme; I think at least the retirement age should be equalized for both genders as it is planned in Lithuania. The abolishment of the second pillar and increasing the role of the third pillar in Poland seems quite logical as it looks less complicated now. Plus, as a mentioned, pension indexation mechanism in both countries should be modified in order to increase the adequacy.

Annex No.7

<u>Interview with the participant 2LTU</u>

1) Currently the pensionable age in Lithuania is 63 years for women and 64 years for men and will equal to 65 for both genders by the year of 2026. Poland, in turn, had reversed and brought back the retirement age of 60 for women and 65 for men (after the increase to age of 67 to both genders). What is your opinion about such decisions? What do you think about early retirement schemes? Do you think that earlier retirement age can lead to poverty of retirees and gender gap?

– I support the idea that the retirement age must be the same for both - men and women. There should be gender equality. However countries which reduce retirement age, usually introduce other additional requirements, such as for example, longer length of work experience for retirement. That is why this is such a populist game. I believe that the pension system for people must be as transparent and clear as possible. So the State here just plays some kind of a game. So to sum up I would say that you need to look at the other parameters. The retirement age must increase as life expectancy increases, but it should not be hidden by other parameters.

With regard to early retirement, I do not think this system is necessary. Because such a system deals with the issue of income replacement (the issue of poverty). If a person has lost his or her job and is not getting it, such a problem must be addressed by unemployment benefits or social assistance payments and not by early retirement. In my opinion, there must be three main parameters: the minimum age to receive a pension, then there must be a length of work experience to receive a full pension. And if the person still works extra, he should have an extra percentage (bonus). If a person has several years left before retirement and is forced to take an early retirement pension because he or she cannot find work, his or her pension is significantly reduced, which will have a bad impact on adequacy. Therefore, I am sceptical about early retirement schemes and think that both countries should follow the example of other countries that have abolished early retirement and introduced other measures instead. The pension must provide pension provision and not address poverty.

2) Do you think longer working lives of older people should be promoted as well as continuation to work after the pensionable age? If yes, what measures/instruments should be used? What risks this may pose?

-It is necessary to encourage (as in Sweden, France), although in the current system if a person works, he gets additional account units (in Lithuania). So his pension is practically increasing, but I think more serious incentive instruments should be introduced, such as tax breaks for working retirees (lower social security contributions or taxes). Such an incentive is important because it is not only stimulating the economy and provides a more dignified source of livelihood, but also collects additional contributions to budgets. There are a lot of tools. The only risk is that public spending will increase, such as additional incentives from the budget, however it will not be significant and will pay off. I am unequivocally positive about such encouragement. Plus in both countries, Poland and Lithuania, pensions are very small (300-400 euros), so the promotion should really be implemented, because people are forced to work.

3) New system reforms in Poland as well as in Lithuania promote voluntary accumulation in order to have better life after retirement, however they can seem quite complicated for financially uneducated people. Is it possible, that the complexity of reforms can be a burden to accumulate additionally? If yes, what should be done in this case?

- Financial ingenuity is very important. When it was introduced that private pension funds become automatically financed by social security contributions, such a model was not very good. Because these systems must be decoupled and should have tax benefits not from sodra but from the state budget (from taxes). I think people need to accumulate on their own, but such systems need to be encouraged by the state. The support must be as it is now, or a tax credit (III pillar) or a subsidy from the state budget. Such systems are essential and necessary. Life cycle funds are part of the question it resolves. The problem in Lithuania is that there is no occupational pension. I appreciate positively this system. The thing that the Sate and not Sodra, partly funds from its budget is positive and the fact that people can contribute from their own pockets is also good. In the future, when there is more money in the budget, more incentives should be made (after some calculations). For example, higher incentives for those who receive lower salary incentives comparing to those with higher salaries.

4) It is promoted in both countries to accumulate more into pension funds by providing various incentives for workers. However, such promotion contains a risk as there is no guarantee that the value of the investment will increase. What is your opinion on this? Do you think people should still accumulate more personally into pension funds?

- It's not coercion it's a human choice. Retirement is essentially a coercive mechanism and it is not possible to escape from it. However as this is not enough, the state has yet to develop other means to generate funds. Ideally, if Lithuania follows the example of Poland and creates occupational pensions. Then everything would be clear to those who work, maybe there would be training, information sharing and so on at the workplace. So it is necessary to increase financial literacy, to clarify that it is a long-term product. A system of three pillars is not perfect however as I said, life cycle funds reduce the risk to a minimum, so this is a positive thing.

5) In your opinion, should the State financially support the participation of individuals in pillar II pension fund schemes or not?

- I don't think you'll run away from it anywhere. Because it supports both – third pillar and occupational pensions system through tax incentives. The second pillar in Lithuania is different comparing to Sweden or France, but public financial incentives are necessary. Otherwise people will not participate in the second pillar. As the incentives of the State ameliorates losses to some extent, so it can become a serious motivation. And as the level of State incentives depends on the state budget, long-term calculations must be made.

6) After recent reform, Lithuania promotes inclusion of people in the second pillar pension scheme by terminating Sodra's (The State Social Insurance Fund Board) transfers to private pension funds. Instead, people who want to accumulate, can transfer 3 % of their salary, and the State will contribute 1.5% of the national average wage. Do you think such changes (independence from State Social Insurance Fund) in the second pillar will be useful and meaningful for future retirees?

- I think this is the right solution. These things must be decoupled for the sake of transparency and clarity of pensions system. And now it's all clear and good that people have been allowed to contribute extra. And in legal terms, in this case it will be more difficult to abolish such pensions for the State, because a person contributes independently from his own funds.

7) Poland, in turn, has recently abolished the old-age second pillar - the contributions redirected toward the PAYG scheme (nationalised), while assets transferred to voluntary (III pillar) schemes. Do you think such action will save people's money and improve life of retirees in the future or on the contrary - will lower their trust?

-If the system was already implemented, it should have worked. Because who will cover the loss of income in this case (eg. administration fee)? It is a purely political decision simply not to participate in this system. On the one hand, it is good that the State made a clear decision.

But on the other hand, in my understanding, such a system did not interfere. In this case, it is necessary to look at social justice - if a person has an agreement with the pension fund and participates for many years, I think it should not be abolished. In the case of Poland, the return of lost income by replacing it with state benefits would solve this problem, as Poland's budget is quite large.

8) Poland has recently introduced a new occupational pension savings scheme, where employers and employees can contribute a particular percentage of their remuneration into various pension funds. What is your opinion on this? Do you think this reform will be successful between employees? Should Lithuania think about similar reform as well?

–This reform theoretically is certainly useful. However, Poland is a large country with many inhabitants and many companies, trade unions are stronger than in Lithuania. It all depends on trade union activity, state guarantees, the number of subsidies and the type of pension system. If Lithuania creates more favorable conditions for state benefits (for example, if the benefits from occupational pensions will be higher than from the third pillar), then so be it. However, there is very little business in Lithuania and a lot of small and medium-sized businesses, so it is difficult to create those trade unions. In addition, Lithuania already has a second pillar where a person can contribute. This may make people reluctant to participate in occupational pension schemes as well. As a result, Poland has abolished that second pillar. Therefore, trade unions in Lithuania must be strengthened and people's awareness and financial literacy must be increased. And there must be better financial guarantees. Or allow second-pillar pensions to be integrated into occupational pension funds so that people can move from one to another. Then maybe the employer would like to contribute too. In such way it could be not only a great investment but accumulation instrument as well. As for this, I think the Polish example is good, they chose the classic option.

9) According to European Commission, pension indexation mechanisms in Lithuania and Poland in the long run lead to a decline of the ratio between old-age pensions and average wages. Do you think this is a serious thread for the adequate old-age pensions in the future? If yes, what are possible solutions of this problem?

-Pension indexation must function because it allows to maintain a certain level of pensions so that they do not depreciate. What to do when the economy is not rising? In such case, pensions will not be indexed according to that formula, as they should be linked to economic growth. In the context of social justice and solidarity, there should be some additional guarantees that a certain percentage must still be indexed, despite the economic slowdown.

10) Do you think public old-age benefits should be the main source after retirement? Should be there other instruments involved?

- As I already mentioned, retirement is essentially a coercive mechanism and it is not possible to escape from it. Therefore, public old-age benefits will be always the main source of income after retirement. However as this is not enough, people must accumulate additionally, and the state must support such accumulations by providing incentives.

11) What aspects of the old-age pension system in Lithuania and Poland could / should be adjusted / improved in terms of its adequacy?

-Currently the elements of new pension reforms need to be monitored and the performance improved. As for Lithuanian, I don't think its pension system is the worst, except that pensions are very small. But it is transparent enough because a person can see how much he has accumulated in all pillars.

The main problem is low pensions, indexation mechanisms need to be improved, and occupational pensions in Lithuania need to be expanded, promoted, and reviewed. Other than that, the system works.

As I said, pensions need to be increased but I do not know if it is good idea to grant 13 pension, I think it would be better to increase pensions a little, to raise a few euros a year to the level where retirees can live in dignity. The more money there is in the budget, the better the economy will perform, the higher the pensions may be. Therefore, emigration must be reduced, the birth rate must be increased, jobs must be created, employment must be increased, and this requires a lot of complex measures - child promotion systems, kindergarten networks and additional support to for business creation, etc. In this way, pensions could be increased, however the main task should be the stability and logic of the pension system. The system must be clear, and all pillars must be integrated with each other. The retirement age must be clearly increased, demographic indicators must be examined, and the condition of pension system must be constantly reviewed.

12) What would be your general opinion about the latest reforms in Lithuania and Poland? Will the system work more efficiently in terms of its adequacy and why?

- it will be possible to say after some time. In the case of Poland, the reform of occupational pensions is a positive thing, the nationalization of the second pillar is a negative thing - it was possible to continue and let this system to operate for those who had already chosen it in the past or to integrate it in some way.

In Lithuania, Sodra contributions do not appear in the second pillar of the system and therefore becomes simpler. I think everything is working well enough, only in the third pillar the state's financial incentives should be reviewed, because they have been cut in the past. Maybe they should be differentiated somehow according to a person's income. I appreciate it positively. Most importantly, the system should not have unnecessary privileges and it should be universal, it should be logical. But it also depends on the economic situation. Special public pensions should be terminated, instead they should function as occupational pensions – a special fund most be created (by a state) for policemen, judges and so on – and a certain share for working in difficult conditions should be paid to such people if the State decides so.

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of Mykolas Romeris University of 20 November 2012

CONFIRMATION OF INDEPENDENCE OF THE WRITTEN WORK

2020 12 10
Vilnius

I, Mykolas Romeris University (hereinafter referred to as the University),

Faculty of Human and Social Studies, Institute of Educational Science and Social Work, Joint Master's study program "Comparative Social Policy and Welfare"

(Faculty / Institute, study programme)

Student Liudmila Katinaite,

(Name, surname)

hereby confirm that this Master's final thesis "Adequacy of old-age pension systems in Lithuania and Poland: Comparative analysis":

1. Has been accomplished independently by me and in good faith;
2. Has never been submitted and defended in any other educational institution in Lithuania or abroad;
3. Is written in accordance with principles of academic writing and being familiar with methodological guidelines for academic papers.

I am aware of the fact that in case of breaching the principle of fair competition — plagiarism — a student can be expelled from the University for the gross breach of academic discipline.

Signature

Liudmila Katinaite
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