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OLD-AGE PENSION REFORM IN ESTONIA ON THE BASIS OF THE WORLD BANK'S MULTI-PILLAR APPROACH

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Abstract

The current literature about old-age pensions can be characterised by the numerous analyses of pension system reforms in developed countries as well as in developing ones. Although the radical change in economic and social values during the process of transition from command economy to market economy offers many special cases for economists as well as social scientists, only some of them have analysed the developments of pension systems in Central and Eastern European countries. Therefore, the purpose of the present paper is to analyse the adjustments in publicly managed pillar as well the implementation of the funded component of pensions in Estonia, described by previous analyses in general as successful reforms in comparison with the other transition countries.

Firstly, in the working paper the aims and the design of the pension system as well as main factors determining pension reform are studied on a theoretical basis. Next, the general overview of the reforms and more specific assessment of the changes in publicly managed scheme and the implementation of

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the funded scheme in Estonia are given. Finally, the challenges of the multi-pillar pension scheme in Estonia are described and in order to cope successfully with these challenges, some suggestions are made. The study explains that the undervaluation of the social dimension in comparison with the economic one has taken place during the transition period. The pension reform has to some extent ensured the financial sustainability of the pension system, but not fulfilled the two other objectives defined in 2001 by the European Council in Göteborg as a basis of sustainability of the pension system – to guarantee safe and adequate pensions and to respond to the changing needs of society and individuals. The present old-age pensioners (as well as the pensioners in the future) are directly placed at the risk of poverty and the opportunities of elderly people to participate in the societal life are very limited in comparison to the active population. The changes in publicly managed scheme as well as the implementation of the mandatory funded system (II pillar) and supplementary funded system (III pillar) during the period 1997–2002 have not been successful in avoiding potential demographic and macroeconomic risks in the near future.

Keywords: pension reform, transition economies, multi-pillar approach.

CONTENTS

INTRODUCTION

For transition countries the integration to the world economy has been mainly interpreted to be positive in the sense that trade volume of the Central and Eastern European (CEE) countries has been increased and trade relations have been expanded during the transition period. Despite it, the most valuable component of integration is certainly the opportunity to learn from other countries' experiences as well as to be familiar with the statements of world-known experts. The current literature about pension reform includes many examples of pension reforms in developed countries (US, Germany, United Kingdom etc.) and in developing countries (Chile, Argentina, Bolivia etc.). Many controversial opinions have been expressed in academic discussions concerning the multi-pillar approach to the old-age pension system (developed by the World Bank). Therefore, the discussion about the implications of very dynamic reforms in Estonian old-age pension system could be based both on theoretical foundations and practical experiences.

To understand and evaluate the pension reform, the relationship between all reform motives, the vehicles implemented and challenges faced by the pension system in the nearest future must be derived. Therefore, the aim of the present paper is to offer an analysis and assessment of the old-age pension reform in Estonia. The paper focuses on the following aspects:

- the analysis of the economic aspects of the purpose and design of the old-age pension systems in the social security framework;
- the analysis of the logic behind the "pension crisis" phenomenon and the possible means of how to avoid the appearance of the crisis;

- the study of the problems, which were expected to be solved in the result of the pension reform;
- the evaluation of the reforms implemented in Estonian old-age pension system.

As a result of the analysis some remarks are offered to cope with the potential future challenges.

Authors would like to stress the necessity of analysing the pension reform in transition countries as a very special case – although the reform methods are generally similar in developed as well as transition countries, the motives and outcomes may differ in many ways since transition countries are facing specific problems. As a main difference, in comparison to the European Union member states, the very low level of providing social security as well as the decrease in the appraisement of the solidarity principle in an individual's value system during the last 10 years should be mentioned in Estonia. Despite the remarkable progress in economic sphere Estonia has not followed the trends in the social dimension of the European integration in the light of the Council Recommendations No. 92/441/EEC[3] and No. 92/442/EEC[4] considering solidarity as a fundamental obligation in the developed society. As a result, instead of guaranteeing solidary provision for the elderly, the low level of social security provisions and liberal tax policy have supported country's economic competitiveness, but at the same time forced social exclusion and inadequate increase in living standard of old-age pensioners in comparison to the active population.

[3] See Council Recommendation No. 92/441/EEC "on common criteria concerning sufficient resources and social assistance in social protection systems" (on 24 June 1992).

[4] See Council Recommendation No. 92/442/EEC "on the convergence of social protection objectives and policies" (of 27 July 1992).

1. The Theoretical Approach to Old-Age Pension Systems

1.1. Assessing the aims and the design of the old-age pension system

Defining the goals of pension system one should primarily understand the development and characteristics of discussion on the concept of social security, which is more versatile nowadays than it has ever been before. According to the common understanding social security is described as coverage against disability and the inability to work due to old age (e.g. described by Myles 1995:446). New approaches have expanded the essence of social security. For example, Holzmann and Jorgensen (see Holzmann, Jorgensen 2000) describe the Social Risk Management approach consisting of three strategies (risk prevention, risk mitigation and risk coping strategy) and different subjects involved (e.g. individuals, households, government, international organisations, etc.) with the purpose to minimize the risks for the individual and to prevent poverty. Barr and Coulter (see Barr and Coulter 1990:274–276) define three strategic aims of social security:

- *income support*, including poverty relief, protection of living standards and redistribution an individual's income through across his/her lifetime;
- *reduction of* class, racial and sexual *inequalities*;
- *social integration*, in a way that benefits permit social participation without stigma.

Thus, the aim of an old-age pension system should nowadays be described as a combination of maintenance of the living standard, reduction of inequalities and promotion of social inclusion for the elderly or for those unable to work rather than mere provision of a minimum level of social security throughout redistribution function.

When evaluating the old-age pension system one should therefore certainly consider objective factors (like the poverty risk and the living standard of elderly people) as well as subjective criteria (e.g. assessment of the situation of elderly people by themselves, their participation in self-help organizations etc.). More precisely, maintenance of living standard definitely presumes the existence of a definition of the level of pensions which is considered adequate. Minimum is determined by the level of entitlement to general social assistance (under specific conditions the programme pays benefits to people of all income groups) with the purpose to avoid poverty. Benefits should certainly be partially determined by the individual's contributions to the system, some measure of salary or the number of the years during which the contributions were paid, and partly by the specificity of jobs, etc. At the same time, resource allocation and policy orientation determine the maximum amount of redistributed resources. In this context, as stipulated by Kirner et al. (see Kirner et al. 2000), "it is often forgotten in the debate on modernizing the welfare state that a cheap welfare policy is not necessarily a good welfare policy".

When assessing the design of the old-age pension schemes, one can combine different approaches depending on the manner in which the pensions are financed or the criteria according which the benefits are paid (Schwarz and Demirguc-Kunt 1999:3). On the basis of the manner in which the pensions are financed, pay-as-you-go and full funding systems can be discerned (see e.g. Feldstein and Liebman 2001; Averting… 1994:8; Feldstein 2001:2; Schimmelpfennig 2002:5; Schwarz, Demirguc-Kunt 1999:3):

- In pay-as-you-go (PAYG) pension system the cost of pension outlays is borne by today's workers through contributions or taxes (mainly the payroll tax set at a level that finances current pensions). Under PAYG schemes, the benefits are generally based on the years of employment and on the individual's average lifetime level of earnings.
- Under full funding, current worker's contributions are accumulated in pension funds and invested. Thus, the bene-

fits are related to the worker's individual savings plus the interest accrued on them. Although the investment-based system is combining several advantages (like elimination of early retirement incentives, or avoidance of the risks of political control), for example, the individuals contributing to the system are directly faced by the risks of bad investment and economic performance.

Pension systems can be distinguished also by the criteria according which the benefits are paid (see e.g. Averting… 1994:84; Schwarz, Demirguc-Kunt 1999:3):

- In defined benefit schemes, benefits are determined by the years of employment and usually also by the measure of the salary over some period (e.g. the final three years, the lifetime average etc.). Thus, pension formula is defined in advance and the rest of society is faced by the risk that the life expectancy increases or the economic performance changes for the worse. The revenues of the system are not certain, since they depend on e. g. demographic changes, labour market dynamics, the rate of wage growth..
- In defined contribution scheme people save for their own old age. Future pension benefits are determined by the amount of the contributions paid into the fund and the size of the investment return each year. In this case workers face the risks of future rates of return, duration of working and retirement period and future annual benefits. All risks are borne by the individual in the form of higher or lower pensions.

Defined benefit plans can be financed either through PAYG schemes or funded schemes (see Table 1), defined contribution plans are by definition always fully funded (Schwarz and Demirguc-Kunt 1999:4). In practice, so-called "notional defined contribution plans" have been classified as unfunded defined contribution plans, since those pension schemes credit individuals' accounts with the taxes that they/their employers pay and then accumulate these amounts with an implicit rate of

Table 1

Different approaches to the design of the old-age pension schemes

	Unfunded	**Funded**
Defined contribution	"Notional defined contribution plans". E.g. Sweden, Italy, Poland, Latvia.	Employees have individual investment accounts to which they/their employer make periodic deposits. When the individuals reach retirement age, they receive annuity payments that reflect the value of the assets in their accounts (the original contribution plus the accumulated investment return). E.g. most private pension plans in US.
Defined benefit	The cost of pension outlays is borne by today's workers through contributions or taxes. Individual's benefits are related to the past earnings of the individual or the number of years that an individual has been with the company. Additional benefits could be paid under some specific criteria (children etc.). E.g. US Social Security Program, pension schemes in post-USSR.	Companies accumulate funds in pension accounts (which are legally separated from the companies' other assets) and pay benefits to retirees that reflect the number of years that an employee has been with the company and the level of the employee's earnings in his/her pre-retirement years. Reaching retirement age, the employee will receive the benefits that are independent of the actual investment performance of the assets that have been set aside for this purpose. The company is responsible for providing the funds to meet these benefits. E.g. many older US corporate pension plans.

Source: authors' table on the basis of Feldstein 2001:5–6; Schwarz and Demirguc-Kunt 1999:4.

interest. Since there are no real investments, the implicit rate of investment is just a "notional" amount. When individuals reach retirement age, they can draw an annuity based on this accumulation, reflecting the notional rate of interest (see e.g. Feldstein and Liebman 2001:7; Disney 1999:7). The authors of the present article have followed this classification, since in the case of notional defined contribution plans individual's final benefit is derived from the basis of the total resources accumulated in the individual's account.

Although PAYG schemes are mainly interpreted as publicly managed systems and funded schemes as privately managed schemes, one should certainly be aware that in partially funded PAYG schemes as well as full funded systems reserves can be managed publicly as well as privately (see Schwarz and Demirguc-Kunt 1999:4).

Considering the current literature on pension systems, mainly the public PAYG pension programmes have been strongly criticised. The authors would like to stress following issues. Firstly, the authors agree that the PAYG schemes may cause reduction in productive economic activity through their impact on the labour market. As stipulated by Holzmann (see e.g. Holzmann 1999:5), in the case of weak relationship between contributions and benefits, the contributions in the form of payroll tax could diminish the employee's motivation to work, encourage early retirement and generate informal labour market activities.

Secondly, in a public PAYG system, the pension savings accumulated by individuals are not invested. One of the main opinions expressed in the current literature is therefore that funded pension schemes increase national savings in comparison with the PAYG system. The authors of the article disagree with the statement, since in practice no fundamental evidence exists that funded programmes could lead to a increase in national savings rates. Using the example of Chile, it is estimated that due to the pension reform national saving rate increased even about 5.5% annually (Schmidt-Hebbel 1999), but it is suggested that this

tendency could be primarily the outcome of the fiscal policy aimed at generating surpluses and creating incentives for the re-investment of profits by private firms (Uthoff 1999). Therefore, if higher savings are a general national goal, the funded component may help to achieve the goal, but it cannot be the only mechanism. As an example from transition countries, many local experts have affirmed that the implementation of the funded component in the Estonian old-age pension system has changed people's savings behaviour, generating additional incentives and interest to invest in capital markets (see Funded pension system… 2003). But the timeframe is too short (1.5 years) to derive on this basis fundamental conclusions about the dynamics of the behavioural model of the individuals. Very strong incentives generated by the state making the funded system attractive to the individuals should be considered at first.

Academic discussion on the principles and implications of developing old-age pension schemes started already in the 1950–1960s. In the 1990s there appeared a practical need for reforms in the social sphere in developed countries as well as in developing countries. A new dimension of the discussion has opened up with the multi-pillar approach to old-age pension system. Although the funded component was introduced during the pension reform in Chile in 1981 (see Diamond 1993:3–4), the World Bank introduced in 1994 the three-pillar approach as the opportunity for developed countries to mitigate the budgetary implications of ageing of the population as well as for developing countries and transition countries to generate new resources for promoting the social sphere (see Averting… 1994:238–239). The first pillar, based on the PAYG principle, is representing solidary income redistribution toward the people outside the labour force to co-insure against substantial decrease in living standard and to avoid poverty. The aim of the second, a fully funded and mostly privately managed pillar is to link benefits closely to contributions through income-smoothing function and to boost capital accumulation and financial market development. And, finally, voluntary personal and occupational

saving plans are providing additional protection for people who want more.

As stipulated in "Averting the Old Age Crisis", this multi-pillar system reduces the exposure of workers to political, investment and country-specific risks and generates better-targeted re-distributions, more productive savings and lower social costs (*Ibid*: 239). Simultaneously, since pension benefits are to a large extent related to the individual's earnings (in the second and third pillar, as well as mostly in the first pillar), the multi-pillar system is also representing the undervaluation of inter-generational and intra-generational solidarity principle. All risks and economic disadvantages of PAYG and funded schemes combined in the multi-pillar model should also be considered. Firstly, the outcome of the mixed tier is ambiguous since both schemes involve macroeconomic, demographic as well as political risks. For example, several authors' (see Brooks 2000 in Schimmelpfennig 2002; Barr 2002:5–7) have pointed out that funding also suffers from the adverse effects of a demographic shock because asset prices fall as their relative supply increases. According to Disney (see Disney 1998:4), in funded schemes the impact of the ageing of population on the global asset values depends on the future path that other countries take in *their* pension arrangements and the extent to which portfolios are globally diversified. Barr (see Barr 2002:5) stresses that political risks affect all pension schemes as well depending on the effectiveness of the government.

Secondly, according to Barr (see Barr 2002:5) private funded schemes face further risks, like:

- management risk through incompetence or fraud, which imperfectly informed consumers generally cannot monitor effectively;
- investment risk, since pension accumulations held in the stock market are vulnerable to market fluctuations;
- annuities market risk, since for a given pension accumulation, the value of an annuity depends on remaining life expectancy and on the rate of return expected over those years.

Thirdly, according to Disney (see Disney 1998) the multi-pillar pension programme could become too complicated, as in the case of the United Kingdom where individuals should divide their contributions in the second tier mandatory provision between a public pension benefit, a company-provided occupational pension or an individual retirement saving account.

Fourthly, as stipulated by many authors (see e.g. Augusztinovics 2002:25), since the multi-pillar approach is focused more on promoting savings, better provision of old-age security should be considered as a "secondary argument" in this case. The fact that pension funds have become institutional players with leading roles on international financial markets – e.g. in 1998 the British funds accounted for one-third of market capitalization in London, and American funds accounted for one-quarter to one-third of market capitalization in New York (Reynaud 1998:36) – reflects a direct link of pensions to the world of finance.

Although theoretically, promotion of savings through implementation of the funded component could generate economic growth and expand capital markets, in practice Central and Eastern European transition economies represent a special case. In comparison with the European developed countries with the functioning stock markets, the CEE countries stock market (especially Estonian stock market) are more likely unable to guarantee stable economic development perspectives in next 40–50 years. The majority of resources accumulated in Estonian pension funds is invested in government bonds in Lithuania, the Netherlands, France and Austria (see Sormunen 2003). Investment of resources in European stock markets would help to overcome the problem of investment alternatives, but it is hard to presume promotion of economic growth in CEE countries.

Finally, even more fundamental problems have been highlighted in criticizing the multi-pillar approach (see Barr 2002:26) – although "the rational policy design starts by agreeing objectives and then discusses instruments for achieving them,

the categorization in the World Bank's approach starts from instruments rather than objectives". Therefore, the countries implementing multi-pillar pension schemes should consider very carefully all the risks related to the changes in the understanding and evaluating the solidarity principle.

1.2. The Theoretical Approach to the "Pension Crisis" Phenomenon

The "pension crisis" phenomenon is mainly described as a financial burden to the PAYG system due to the ageing of population. Considering practical developments, many authors have pointed out that especially in the European Union member states the ageing of the population has already in 1990s decreased the financial sustainability of the pension schemes implemented. During the 1990s, the old age dependency ratio (proportion of inhabitants of retirement age to those of working age) has increased rapidly in Germany and Italy (see Abramovici 2003:7). For example, in 1996 in Greece the expenditure in the framework of the first, publicly managed pillar exceeded the pillar's revenues in the amount of 255.5 million euro (van Vugt; Peet 2000:91). Italy, Germany and France have also had serious financial problems already in the late 1990s. According to Prewo (see Prewo 2002), those European countries with strong reliance on PAYG systems – e.g. Germany (85 percent of pensions are provided by the PAYG system) as well as France, Italy and Belgium – will be hardest hit by the demographic crisis as countries relying on occupational schemes – e.g. Great Britain and the Netherlands (respectively about 25 and 40 percent of pensions are funded by occupational schemes). The "pension crisis" will be even more deepened due to the modest economic growth figures in so-called "core" countries of the European integration at present and according to some pessimistic predictions also in the nearest future.

Theoretically, according to Feldstein (see Feldstein 2001:2), the increase in number of retirees relative to the number in the

labour force due to the ageing of the population is generating not a temporary or transition problem, but a permanent concern about the financial sustainability of the pension scheme. A main argument illustrating the mechanism of "pension crisis" in the PAYG system and the reason for the reform is derived from pension economics where the relationship between tax receipts and benefits can be presented as follows (Feldstein and Liebman 2001; Legros 2001:27–28):

(Number of Persons in the Labour Force) · (Average Wage) · (Tax Rate) = (Number of Retirees) · (Average Benefit per Retiree).

Or, in another presentation:

(Number of Retirees / Number in the Labour Force) = (Tax Rate) · (Average Wage / Average Benefit per Retiree).

If the pension benefits will be only financed from the revenues gained from the taxation of the labour force (see the formula above), the pressure on the public finances due to the ageing of the population could be balanced by increasing payroll taxes, reducing replacement rates (the ration of average pensions to average wages), changing pension indexation formulas (e.g. more weight to inflation), rising the pensionable age etc. These so-called "minor adjustments" (see Table 2) – like increasing the pensionable age – are acceptable in the situation, where they are in accordance with the life expectancy, the quality of life, the demand in labour market etc.

Changes in demography have definitely a direct influence on sustainability of a pension system. Firstly described by Paul Samuelson in 1958, inter-generational transfer provides each generation with an implicit rate of return equal to the rate of population growth (a rate that Samuelson labelled the biological rate of interest) (see Samuelson 1958 in Feldstein and Liebman 2001:15). Thus, demographic trends should be considered in both determining the amount of pension benefits to the individuals contributed to the system and defining the financial sources of the pension scheme.

Table 2

Some "minor" reform measures within the first pillar

Type of the measure	Concrete measure
Changes in eligibility criteria	• Altering the pensionable age • Altering the service years required to qualify for a pension
Changes in contribution structure	• Changes in coverage or contribution base • Changes in financial sources
Changes in benefit structure	• Changing the benefit formula or the pension base • Changes in minimum pensions • Indexation • Changing the payment form
Changes in administration	• Changes in the acceptability of the institutions administrating the system • Changes in investment policy

Source: Schwarz and Demirguc-Kunt 1999:3–8; Schimmelpfennig 2002:5.

Labour market dynamics (especially number of persons in labour force), taxation policy (as well as tax collecting capability) and the level of the benefits should be considered as well in adjusting the pension system to the changing circumstances. Some of these aspects have been highlighted by the World Bank as well, determining the reasons for the pension reform in transition economies, "… as national income dropped in the Eastern European economies during the 1980-s, they had the per capita income and tax-collecting capabilities of middle-income countries but the old age demography and spending of high-income countries " (Averting… 1994:42).

The impact of other factors should not be underestimated. For example, as stressed by Augusztinovic (Augusztinovic 2002), migration across the countries as an external condition for pension reform design should be considered. Madrid (Madrid 2000)

stresses in this case the problems related to administrative efficiency. According to Reynaud (Reynaud 1998:35), globalisation of economy can be considered one of the reasons for inducing pension reforms as well. This statement is strongly related to the dynamics of innovation and technological changes. As stipulated by Schmähl (Schmähl 1999) – in addition to universal incentives, there also exist local factors playing an important role in pension reforms which may vary significantly among different countries.

The changes in the demographic situation as well as the dynamics of the labour market should be considered as the two key factors. The larger the dependency ratio on a situation of ageing population, the greater the need for re-organization of the pension system *ceteris paribus*. At the same time, the strategic aims of social security enable the authors' of the present article to broaden the discussion about the so-called pension crisis phenomenon. We would like to stress the possibility of adjusting the PAYG system with the changing circumstances through external resources. Since the social security system, based on the solidarity principle, is reflecting the responsibility of the whole society in guaranteeing people outside the labour force the high living standard, other tax revenues (besides taxation of the labour force) should be considered as well in financing the PAYG-schemes. Since nowadays production is more oriented to capital intensity, the revenues gained from the taxation of capital should also be used. This suggestion is presented proceeding from the Estonian tax policy which offers investment subsidies for obtaining capital and imposes high taxes on labour force. Several local experts (see Kurik et al. 2002:43) have stressed that although tax burden from the taxes on labour force in Estonia is at the average level in comparison to the OECD countries, underdeveloped capital markets as well as low income level and living standard are generating serious problems for the employees. Kurro (see Kurro 2001) has stressed that undervaluation of human capital will generate incentives for inefficient production strategies. The authors would also like to point out the unbalance related to the responsiveness of

different social classes to implementation of the solidarity principle. In general, since reduction of poverty should be the main purpose of the whole society and not only of labour force, at least some pension components (so-called "base share") should be financed from the other tax revenues. The worsening of the living standard of one generation (e.g. elderly people) to benefit of the other generations (like future pensioners) is not reflecting the assurance of the harmony between generations, and should therefore not considered as a form of social justice.

Finally, the public finances could be balanced through so-called "major" reforms as well involving the implementation of the funded component. But in this case, the "pension crisis" analysis should not be purely focused on the PAYG system. As stipulated by McMorrow and Roeger (McMorrow and Roeger 2002), "…ageing of the population will affect both pension systems, PAYG as well as funded systems, in a number of different ways including:

- It creates the need to offset the effects of shrinking labour forces and growing dependency ratios (the ratio of old-age pensioners to the total population) on social security contributions and on pension fund contribution rates through a combination of mutually reinforced labour market and pension system reforms.
- The effects of "greying" populations on economic growth and, consequently, on the rates of the return of both systems should be considered very carefully.
- Policy makers will also have to address the budgetary implications of ageing and the need for a fair system of inter-generation burden sharing;
- This will require re-assessment of the fundamental life choices at the individual level regarding the time to be spent on working and the living standard one aspires to when retired.

In conclusion, the incentives to implement the multi-pillar approach should not be uniquely derived from the necessity of adjusting current PAYG systems with the changing circum-

stances. The "minor adjustments" and external financing sources should be considered as alternatives. The aims of the funded system and PAYG scheme differ radically in determining the living standard of elderly people considering both the evaluation of the solidarity principle and coping with the risks involved. The main dilemma is, can the multi-pillar approach offer a balanced strategy to cope with the risks involved or not.

2. Assessment of the pension reform measures in Estonia during the period 1997–2002

2.1. General background of the implementation of the Multi-Pillar Pension Scheme in Estonia

Estonia has implemented so-called "attractive way-out" reforming of the pension system as described by Siebert (see Siebert 2002:13), or systematic changes as described by McMorrow and Roeger (see McMorrow and Roeger 2002). Very intensive discussions about the adequacy and sustainability of the pension system in the 1990s were mainly created by several subjective factors (see Einasto et al. 2001):

- Expectations of the society concerning avoiding negative impact of the hyperinflation (160% during the first two months of 1992) prior to Estonia's monetary reform (June 1992) on pensions. The dynamics in pension benefits reflect only very moderate increase in pensions in comparison to the inflation.
- Expectations of the society to reform the PAYG pension system implemented in Soviet Union which was too much focusing on the inter-generational redistribution.
- Preliminary stages in reforming the pensions in Estonia (e.g. the State Allowances Act implemented in 1993) have

been considered as a temporary adjustment measures responding to the changes in economic situation.

Pension reform was implemented by the Estonian government, in general following the ideas of so-called Social Darwinism described in the right and new right ideologies[5]. A Social Insurance Reform Committee (composed of the ministers of Finance and Social Affairs as well as local and international experts) has delivered the "Concept paper of the Pension Reform" to reorganise the pension system into a pension scheme based on three pillars, which was approved by the Government in June 1997 (Oorn 2004:61). In January 1999, a new version of the Act of Social Contribution was completed. In April 2000, the Act of State Allowances was substituted for by the State Pension Insurance Act implementing the regulative legislation of the first pillar. The Act of State Pension Insurance was revised in December 2001, composing the pension benefits of the first pillar of the main component (pension payable to anyone qualifying for a pension according to service years) and two work-related amounts (so-called the length-of employment component reflecting individual's service years before the 1999 and the income component[6], calculated as the ratio of the sum of the social tax paid on the salary of the individual to the social tax paid on the average salary of the state since the 1999.

[5] Social Darwinism suggests that social and economic success depend on the fitness of individuals and groups to survive in the world of competitive industrial society. Recent writings from the so-called new right have modified this concept, stressing the individuals as paramount judges of their own welfare and market as a key mechanism for regulating the system. The state should have substantially reduced role (see Manning 1999:73).

[6] Sometimes referred also as an insurance component, but according to the authors' opinion this expression is not reflecting the differences between the length-of-employment component and the income component. Conceptually both components are following insurance principle.

Voluntary funded pension schemes were created already in August 1998 with the Act of Pension Funds. Due to several shortcomings in implementing the provisions, a new version of the Act of Pension Funds, covering both voluntary and mandatory pension funds, was introduced in October 2001. The second, mandatory tier was scheduled to start functioning from 1 July 2002, however some delay has occurred in practice due to the insufficient legal basis. Concerning the transition to a funded system in the second pillar, the transition has been compulsory for the new and younger workers born after 1983 as well as for new entrants, but voluntary for the persons born before 1983 (Pension Centre…; Eesti Majanduse Teataja 2002).

Several international as well as local experts have assessed pension reform in Estonia as one of the most successful in Europe, stressing mainly the proportion of people joining the funded pension pillar of the total population in 1.5 years (see Põld 2003) – approximately 61 percent of the employed people have joined the second, mandatory pillar from July 2002 to October 2003 (authors' calculations based on Raesaar 2003). The following issues have been mentioned:

- the new trend in the investment behaviour of the Estonian people – although there is no historical background neither high living standards to support long-term savings in Estonia, during the period 2002–2003 the investments by individuals into investment funds doubled in terms of money as well as number of investors becoming fund unit holders (Funded pension system… 2003);
- the innovative "tax financed" part of the transition – people in the labour force joining the second pillar have to pay an extra two percent of payroll tax which will be combined with the additional four percent of regular contribution rate diverted to the second pillar (Lindeman 2004:13);
- administrative capability of the institutions related to the implementation of the funded component (the Tax Board, the Central Registrar for Securities etc.) in comparison to the other Baltic states (Lindeman 2004:12) and Central and Eastern European countries (Oorn 2002);

- the broader diversification of investment risk in comparison to the other transition countries, since in Estonia pension accumulations can be invested in international capital markets without limits (Oorn 2002).

The assessment of the pension reform in Estonia only on the basis of the proportion of people joining the mandatory funded system could actually lead to the wrong conclusions. As a matter of fact, by the end-March 2004 about 39 percent of the working-age population and 61 percent of the employed people (i.e. 359,000 people) have joined the mandatory funded pension scheme (see Raesaar 2003). For example, it is more than in Latvia, where despite the implementation of the funded schemes already since the 1998 the number of people joining the funded system reached only 327 000 (i.e. 27% of the working-age population) (authors' calculations based on Ronk 2003 and The World…).

One should certainly take into account strong incentives created by the state to join the funded system in Estonia. For example, in the second tier a working person saves for his/her pension, paying 2% of the gross salary to the pension fund. In addition to these 2%, the state adds 4% out of the current social tax that has been paid by the employee. Therefore, 6% of the person's income is transferred to the pension account of the person, while the person has paid only 2%. In Latvia the contribution rate is nowadays also 2% of the gross salary, but will increase over a ten year period (e.g. 4% in 2007, 8% in 2008, 9% in 2009 and 10% in 2010 (Whitehouse 2004:34). In Lithuania, the initial contribution rate 2,5% of the gross salary will be increased by one percent a year to an eventual amount of 5.5 percent in 2007 and thereafter (see Lindeman 2004:11). There are no state incentives in Latvia and Lithuania.

Strong incentives have been also related to the voluntary funded system, like (see Oorn 2004:80):

- contributions (premiums paid on the basis of pension insurance policy or sums paid to purchase units of a private

pension fund) are deductible from taxable income, with the income tax up to 15% of total annual income;
- benefits paid on the basis of a private pension insurance policy or from redemption of the units of a pension fund are subject to a lower 10% income tax rate, instead of the normal 26%;
- benefits paid regularly lifelong, on the basis of defined-benefit type pension insurance policy in equal or increasing amounts, are not taxable.

Despite the strong incentives, people have acceded to the voluntary funded schemes quite passively – nowadays only about 60,000 people (approximately 6 percent of the working-age population and 10 percent of the employed people) have joined the voluntary private pension funds.

When assessing the pension reform in Estonia, in general the contradiction between the right and new right ideologies implemented and the needs of the society has not been mentioned. Therefore, in assessing the effectiveness of the vehicles used in Estonia during the pension reform in 1997–2002, one should understand the problems, which were expected to be solved in the result of the pension reform. Firstly, the authors of the present article would like to highlight the *low level of expenditures on pensions in GDP as well as the low purchasing power of pension benefits in Estonia*. Although according to the Dixon's study estimating the global ranking of national social security systems (see Dixon 2000:119–121) Estonia had one of the high-ranked social security systems amongst CEE countries (see also Appendix 1), the level of pension expenditures as a share of GDP has been very low in the mid-1990s (approximately 7%) despite the economic progress during the transition period (see also Figure 1) in comparison to the average level in European Union (13%)(see Kubitza 2004:2).

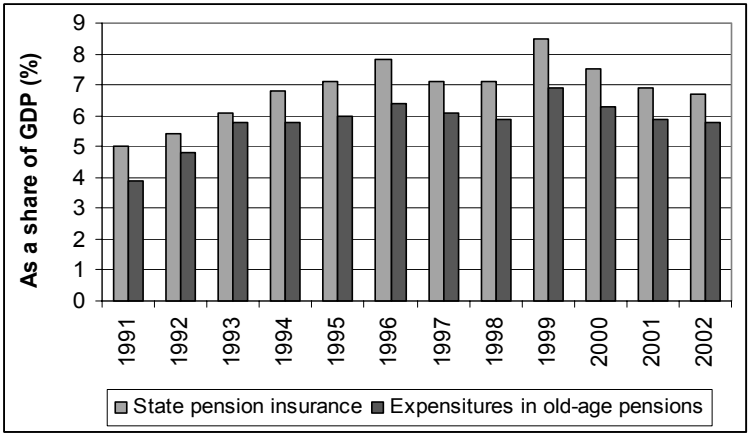

Figure 1. The dynamics in expenditures on pensions as well as old-age pensions (as percentage of GDP) in Estonia in 1991–2002.

Source: Ministry of Social… 2002;Ministry of Social… 2003:56.

Considering the changes in old-age pensions and in wages, the level of the average old-age pension as a percentage of average gross wages and net wages have steadily been very low (see Figure 2). The predominant majority of people have received a pension at the very low rate in the 1990s, mainly less than the minimum level fixed in the European Social Insurance Codex. Thus, the level of expenditure on old-age pensions (as % of GDP) should increase to follow the social values typical to the member states of the European Union.

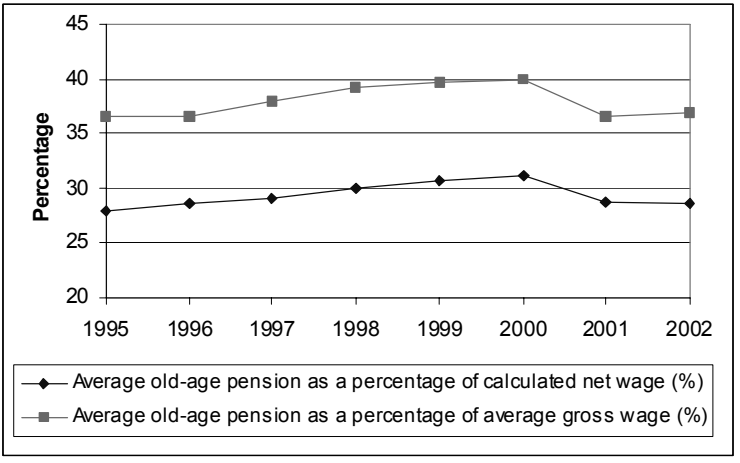

Figure 2. The dynamics in the level of average old-age pension as a share of wages (in %) in Estonia in 1995–2002.

Source: Ministry of Social… 2003:12.

Although according to the analysis by Tiit et al. (see Tiit et al. 2004:8) the relative poverty risk of people aged 65 and over is lower in Estonia in comparison to the other member states of the EU (due to the homogeneity of the income distribution of elderly people in Estonia), the Ministry of Social Affairs of Estonia has estimated that 20 percent of the pensioners living alone live below poverty line and 50 percent in poverty risk (Ministry of Social… 2001). The low level of the living standard of elderly people is reflected also by the fact that according to the opinion poll by the Statistical Office of Estonia (see Leibkondade elujärg 2002) concerning the ability of households to cope economically, the situation is very critical or they can cope only feebly for 78 percent of the inquired households of people aged 60 and over and living alone, and for 56 percent of the inquired households including two pensioners. Thus, the main focus of the pension reform should be addressed on the vehicles oriented to reducing the poverty at a rate exceeding output growth, which – as stipulated by Arrau and Schmidt-

Hebbel (see Arrau and Schmidt-Hebbel 1995), should "be a policy objective in every society". At the same time, along with the economic shortage elderly are facing also serious problems related to their state of health, psychological conditions, informational barriers etc. (see Uibu 1999). Therefore, pension reform should also be related to the improvement of the quality of work and the quality of life of the society as well as the dissemination of the information about the active senior policy.

Secondly, the authors of the present article would also like to stress the *lack of coherence between Estonian pension system and the dynamics in economic and social situation.* According to the common understanding that countries with higher *per capita* GDP level should offer more extensive social security standards, the very low level of expenditure on old-age pensions in Estonia (in comparison to the European Union member states) has been sometimes presented by the politicians as "an inevitable matter of fact". Undoubtedly, it is obvious that concerning the relative amount of resources the economy is generating (as GDP per capita) there is no reason to compare resources available in Estonia with those in highly-developed EU member states like Germany, France, Luxembourg and Nordic countries. But the insufficient financing of the Estonian pension system is reflected also by the fact, that even less-developed countries among the EU member states (like Portugal, Greece and Spain as countries using a traditional-rudimentary collectivistic model of social policy as well as other transition countries like Hungary, Poland and Slovenia) are using higher shares of GDP to support the social development of the society (see Kubitza 2004:2).

Considering the share of people aged 60 and over of the total population of the country, in Estonia the level of expenditure on old-age pensions (% of the GDP relatively per 1% of people aged 60 and over) can be to some extent compared to Ireland – a liberal individualistic country, where the social dimension is less supported by the state amongst the EU member states (see Figure 3). At the same time, the population of Ireland is the

"youngest" in Europe. In addition to that, two important issues must be taken into account in the case of Ireland. Firstly, according to the liberal individualistic social policy model in general, only a minimum level of social guarantees is offered by the state, and secondly, in the field of social protection there exists up till now a principle of the custody of large families or septs for their members. Since in Estonia the old-age pensioners live generally separately from their children, it should be the primary obligation of the state to pay more attention to guaranteeing sustainable level of income for the elderly people.

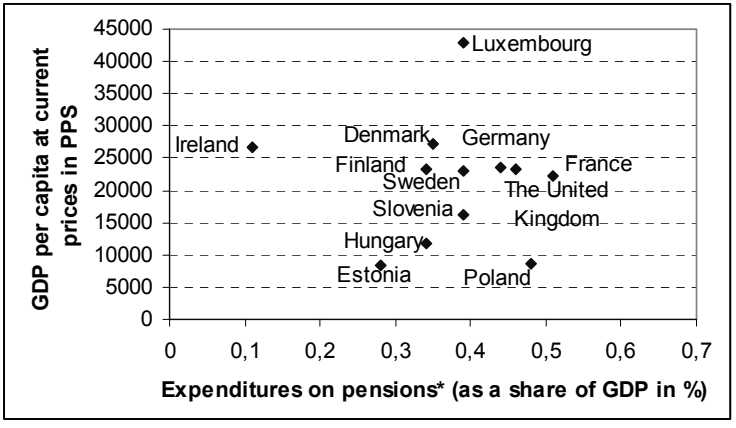

Figure 3. The comparison of the level of GDP per capita and expenditures on old-age pensions in the EU member states in 2001.

* – respectively considering the number of people aged 60 and over (% of GDP relatively per 1% of people 60 and over).
Source: composed by authors' on the basis of sources Abramovici 2002; First Estimates… 2002; The GDP of… 2003.

In conclusion, when trying to evaluate the tendencies in social development of Estonian society, it can be inferred that in general the social dimension is not valuated to the same extent as the economic one and the interests of people actively

employed have been opposed to the interests of the elderly people. As a result, the "solidarity" of the pension system has decreased and the income differences in society have steadily increased. While at the beginning of the transition the pension systems of the CEE countries were estimated to be horizontally efficient (guaranteeing benefits to everyone who needs them), but vertically inefficient (not guaranteeing benefits to only those who need them) (Heinrich 1997), then in the case of Estonia the low level of pension expenditure during the transition process has raised questions about the horizontal inefficiency.

When developing the national pension strategies, in Estonia the question about the financial sustainability of Estonian pension system in the nearest future has been arisen. According to the analysis by Tiit et al. (see Tiit et al. 2004:63) the revenues of the state pension insurance have steadily exceeded the expenditures of the system since 1995. In 2003, the surplus of the balance of the state pension insurance amounts approximately 1.4 percent of the GDP (1.6 thousand million Estonian kroons). The pension index formulated very conservatively will directly led to the increasing poverty among the today's pensioners and the undervaluation of solidarity principle. The projections of the state pension expenditures in the future (see Tiit et al. 2004:68) forecast the decrease in state pension expenditures to the level of 6 percent of the GDP in the medium-term perspective (by 2020) and 4 percent of the GDP in the long-term perspective (by 2060). At the same time, the projected dynamics of the revenues of the first pillar reflect only modest decrease, reaching the level of 6.8 percent of the GDP by the year 2020 and 6.3 percent of the GDP by 2040. Since pension benefits in the framework of the second pillar will be paid out (with some exceptions) only after 2009 and even then the level of benefits will be only very modest (due to the very short contribution period), the state pension insurance should be considered as the one and only mechanism avoiding poverty risk among elderly in next 15–20 years perspective. Under these circumstances, the accumulation of the resources, collected to finance the first pillar, as a pension system reserve is certainly not justified.

Estonia is also responsible for the obligation to reach the minimum level of pension benefits fixed in the European Social Insurance Codex. Serious difficulties will occur even in the situation, where all the resources accumulated in the state financed pillar will be paid out, since the increase of the proportion of employed persons' joining the second, mandatory funded pillar is steadily lessening the share of the revenues of the GDP, and therefore also the replacement rates of the pensions. Until 2006 the minimum level of pension benefits fixed in the European Social Insurance Codex will be reached in virtue of the increase of pension benefits from the resources accumulated as reserves on the basis of political decisions outside the framework of the implemented three-pillar pension system model.

2.2. Changes in publicly managed pension scheme during the pension reform in Estonia

Although pension reform in Estonia is sometimes considered as a "home grown" product (see Lindeman 2004:12), it was highly influenced by the World Bank (e.g. see Pension Reform Policy… 2001). An international seminar was organized in Estonia in 1999 including World Bank staff and other pension experts, where specific design issues of the Estonian pension system were discussed (see the materials of the seminar The Evolution of … 2001). One of the leading experts of the World Bank, Robert Holzmann, has also recommended the pension reform to proceed on two tracks: (i) reforming the coverage criteria, raising retirement ages, and revising the benefits of the current PAYG scheme, and (ii) adopting defined-contribution fully-funded privately-managed systems (Holzmann 1994:2–5).

In the present article authors would like to analyse the short term perspective of the changes in publicly managed old-age schemes: changing eligibility criteria, contribution structure, benefit structure and administration.

Concerning the changes in eligibility criteria, increasing the pensionable age has been implemented in Estonia. Some other new EU member states (like Latvia, Lithuania, Hungary and Czech Republic) (see Schwarz and Demirguc-Kunt 1999:23) as well as the EU member states (Belgium in 1997, Germany in 1999, Greece and Portugal in 1993, Italy during the period 1995–1997, Finland during the period 1993–1996 and United Kingdom in 1995) (see Abramovici 2003:6) have used the same vehicle. Considering the low level of the retirement age at the beginning of the transition period (statutory age of 60 for men and 55 for women), the gradual increase in the statutory age up to 63 by 2016 and the equalization of the retirement age for men and women seems to be a reasonable solution. At the same time, one should certainly consider the dynamics of the life expectancy in Estonia (see Figure 4). Without any remarkable changes, the average life expectancy in Estonia has been about 70 years since 1996, which is almost ten years lower than the life expectancy in European Union (respectively, 78 years as a average, 75 years for males and 81 years for females in 2000) (see The Social Situation… 2003:18). Thus, it is somewhat controversial to increase the pensionable age in Estonia to the level of well-developed EU member states with high life expectancy when the life expectancy is so low in Estonia. We can also talk about the inequality within the same generation – although both males and females have contributed to the system to the same extent, the pension benefits will be mainly used by females.

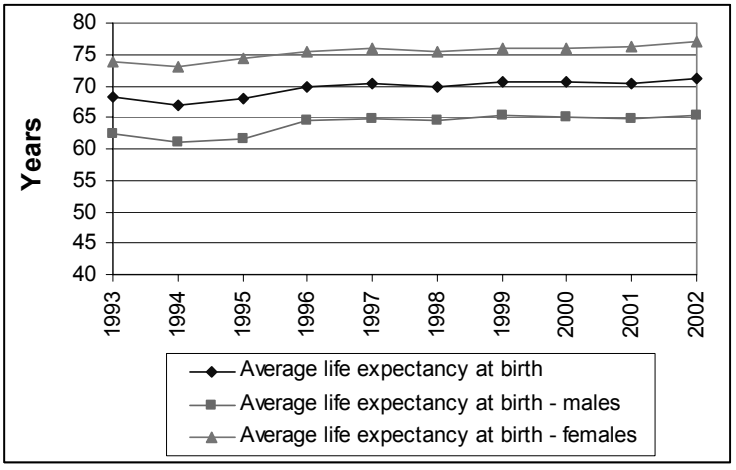

Figure 4. The average life expectancy at birth and the life expectancy of males and females during the period 1993–2002 in Estonia.

Source: Social Sector in Figures 2003:12; Ministry of Social… 2002.

Based on the data of the demographic situation in Estonia in 2001, it can be estimated, that without increasing the retirement age the number of old-age pensioners would increase about 30 percent (respectively 389,000 people instead of present 300,000 old-age pensioners). Considering the total expenditure on old-age pensions, it means retrenchment in the amount of 1.69 thousand million Estonian kroons per year (the dimension of the expenditure on old-age pensions must have been respectively about 7.39 thousand million Estonian kroons instead of 5.7 billion Estonian kroons at present) (authors' calculations based on the sources Estonian Statistical Office. Demographics… and Estonian Statistical Office. State…). At the same time, in comparison with the cost retrenchment also the potential impact on the labour market should be considered. Different opinions about the relationship between the altering retirement age and the dynamics in labour market have been expressed. For example, in so-called full-equilibrium models the decrease in

retirement age is not directly resulted in the decrease in unemployment rates (see Blanchet and Legros 2002:122–123). Naturally, it does not mean that the increase in retirement age would not increase the unemployment rate, but it could be interpreted as a reason why some EU member states with relatively high unemployment rates have been quite reluctant to increase retirement age. Some recent tentatives by the Austrian and French governments to increase the retirement age or to increase the service years required to qualify for a pension have been strongly opposed by the public in May 2003 as well (see France's Pension… 2003; The Battle… 2003).

The experts' of the World Bank recommend, that Estonia should consider additional increase in retirement age (see Pension Reform Policy… 2001:6). In comparison with an average unemployment level in the European Union (8.2 percent in 2000) unemployment has been very high in Estonia (13.8 percent) (Estonian Statistical Office. Economy… 2002; The social… 2002). According to the opinion poll approximately 10 percent of the people aged 65 and over are working, thereat 2 percent of the elderly people inquired have a full-time job. Additionally 6 percent of the elderly people inquired would like to work, but they can not find an appropriate job (Tulva, Kiis 2001:10). Thus, considering the relatively pessimistic perspective of elderly people to find a job mainly due to the lack of info technological, informational etc. skills as well as the present labour demand strategy preferring mainly young people, the additional increase in pensionable age is not justified. The effective retirement age in Estonia has been estimated to be 60 years (instead of 63) confirms the statement above (see Pension Reform Policy… 2001:13).

Concerning the changes in contribution structure, the state pension in Estonia is paid out of the social tax. Employers pay 33% of the salary of each employee for social tax, 13% whereof is for health insurance and 20% is for the pensions of current pensioners. There are two kinds of state pensions: the pensions that depend on the work contribution (the old-age pension, the

pension for incapacity of work and the survivor's pension) and the national pension (i.e. minimum pension to those persons who are not entitled to the pension depending on the work contribution, if they have lived in Estonia for at least five years before applying for the pension) (Pension Centre). Since January 1999 the self-employed people have been obliged to contribute to the social system as well as the state has found additional resources to pay social contributions for the persons in military service, who have registered themselves as unemployed or who stay home with children under 3 years. Therefore, in the short-term perspective the contribution base has been broadened, but in the long-term perspective this has broadened the benefit obligations as well. Thus, the financial outcome of such an adjustment measure is unclear.

Concerning the changes in benefit structure the impact of the measures implemented seems to be of decisive importance. In Estonia, the so-called "the length-of-employment component" and "the insurance component" have been added to the so-called "main component" (fixed by the Parliament every year during the validation of the estimates; at present 577.33 Estonian kroons). "The length-of employment component" consists of the service years (years of employment and years deemed equal to employment) of the pensioner until December 31, 1998 multiplied with the monetary value of the service year (the monetary value of one year of employment in a monthly pension was 34.04 Estonian kroons in Septmeber 1, 2004). "The income component" is determined by the amount of social tax paid on the salary of the pensioner since January 1, 1999. The total amount of social tax contributions paid by a worker is calculated on the basis of the sum of annual contributions of pension insurance (the ratio of the social tax paid on the person's salary during the calendar year to the social tax paid on the average salary in the national economy. If social tax is paid on the average salary, the annual factor is 1.0 (Pension Centre). Every April 1 the value of the pensions are re-calculated – multiplied by the arithmetical mean of the annual growth rate of the consumer price index and the annual growth rate of the sum

of the pension contributions collected in the framework of the social tax contributions.

Thus, the "length-of-employment component" and especially, "the income component" are already presenting the funded component in the framework of the first pillar. The proportion of the length-of-employment component is by the way decreasing and the proportion of the insurance component is increasing step-by-step in the state pension benefit structure. "The main component" – the only share in the framework of the first pillar following the solidarity principle – has in general not increased to the same extent as the average old-age pension (see Figure 5). The latest change in "the main component" in July 1, 2003 has improved the situation to some extent – "the main component is nowadays 577.33 Estonian kroons and its proportion in the average state pension has increased in 2003.

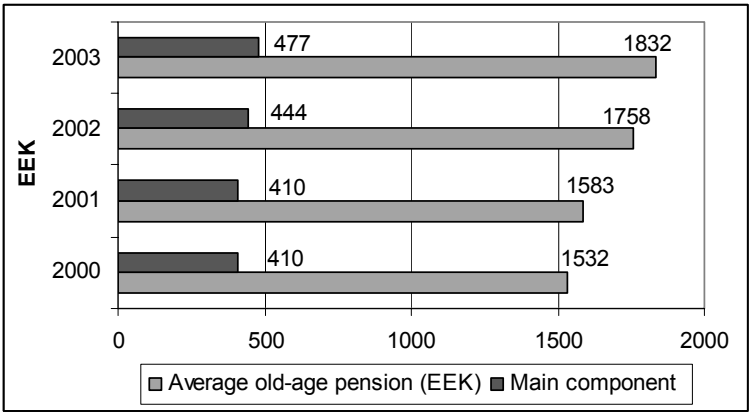

Figure 5. The changes in the average old-age pension and "the main component" of the first pillar in 2000–2003 in Estonia.

Source: Ministry of Social… 2003:12, 53.

In general, as stipulated by many authors the indexation represents a "realistic" pension reform measure (see Siebert 2002:13)

guaranteeing the coherence of the pension system with the economic performance of the country. At the same time, the result of the indexation depends directly on the indexation coefficient as well as base level of pensions for indexation. Some European Union member states have used the indexation on prices – for example, France in 1993 and Germany in 1999 (see Abramovici 2003:6). Using the dynamics of the consumer price index and the wages has been one of the reform suggestions of the World Bank expert group (see Pension Reform Policy… 2001). As a result of the indexation, the pensions in Estonia have increased about 8.4 percent in 2002 (Pedak 2002:17). Since in 2002 the consumer price index has increased in comparison to the average level in 2001 about 3.6 percent, the pensioners' standard of living could be estimated to improve. At the same time, the consumer price index has increased very rapidly in commodity groups covering the majority of the pensioners' expenses (in housing and healthcare 8.2 percent and 8.3 percent respectively) (Estonian Statistical Office. Economy…). The average monthly disposable income in pensioner's household is only to a very small extent exceeding the monthly subsistence minimum already since 1998 (see Ministry of Social… 2003:13,16). Thus, no remarkable improvement of living standard could be perceived in the case of old-age pensioners' in Estonia due to the indexation. The dynamics in average wages is reflecting more rapid increases as the average pension level, causing the weakening of the position of elderly people in the society.

Thus, the formula of the indexation should be discussed. The proportion of wages and therefore, the share of the social tax contributions in GDP is steadily decreasing (see Table 3). As a result, the financial base of the pension resources is weakening. The impact is stronger because of the financing mechanisms of the mandatory funded system. The contributions of the employed persons' joining the mandatory funded system to finance the PAYG-scheme will decrease by 20% due to the so-called "tax financed" part of the transition (see chapter 2.1). The indexation formula implemented allows to disburse only about 50–

75% of the growth of the resources accumulated in pension scheme at the moment. Revising of the pension benefit formula as well as indexation principles should be considered with the view of generating coherence between the economic and social situation and avoiding poverty.

Table 3

The dynamics of GDP (at the current prices) and wages in Estonia during the period 1996–2001

	1996	**1997**	**1998**	**1999**	**2000**	**2001**
GDP (million EEK)	52422,8	64044,7	73537,9	76327,1	87235,5	96570,7
incl. wages (million EEK)	21250,7	25433,2	28432,9	31096,0	33042,9	35925,0
The share of wages in GDP (%)	40,54	39,71	38,66	40,74	37,87	37,20

Source: Estonian Statistical Office. Economy… 2002; authors' calculations.

Analysing the changes in administration, the Tax Board collects social insurance contributions as well as other direct taxes in Estonia. Statistical information will be collected and managed by the State Pension Insurance Register, which provides the basis for reconsidering the pension indexation system.

3. The sustainability and adequacy of the pension system in Estonia in the near future

3.1. Estonia coping with the common challenges in Europe

In early 2003 the OECD study on Baltic labour market and social policies raised the question, whether introduction of the funded components in the three Baltic countries has been necessary, highlighting, for example, such arguments like:

(i) even if shift from a PAYG to a funded system can help to increase national savings, it does not justify such a reform;

(ii) it is hard to achieve efficient capital market development in small capital markets such as Baltic countries.

But the central question is how effective the multi-pillar approach could be in coping with the challenges described as common concerns in Europe – the ageing of the population, the labour market deficiencies, the lack of competitiveness in the world economy, the maintenance of high level of social security benefits, the migration etc.

Many challenges, especially for the budgetary and labour policies as well as for economic performance and social cohesion are posed by an aging population. The population pyramid shows the percentage of Estonia's total population by five year age groups, separately for males and females (see Figure 6). In general, the population distribution in Estonia is similar to the other European Union member states, where the total population is equally distributed among the age cohorts. In this context, in general the demographic situation in Europe and in Estonia looks similar.

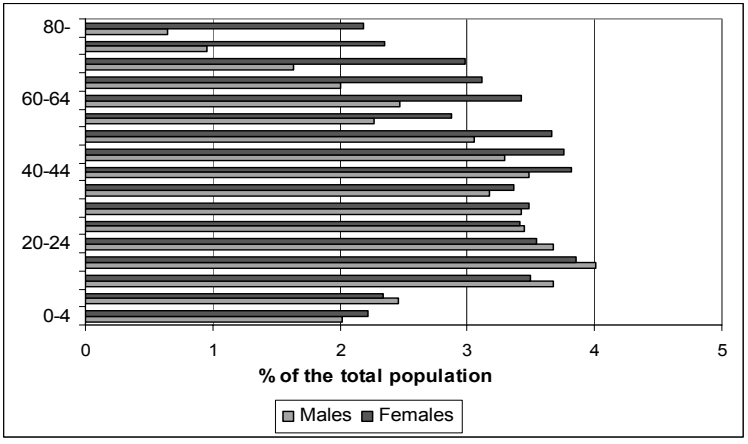

Figure 6. Estonia's population structure in 2003 (percentage of the total population by age and sex).

Source: authors' calculations based on Statistical Office of Estonia… 2003.

Only some differences should be notified. The proportion of the age groups 15–19 and 20–24 is more extensive in Estonia (mainly over 3.5% and even 4.01% for males in the age group 15–19) in comparison to the other EU members (in general approximately 3% or even less). In Austria, Italy and Germany the age groups 30–34 and 35–39 are dominating, in Finland, France and Sweden the proportion of the age groups 45–49 and 50–54 of the total population is the highest. Estonia's population distribution is mainly similar to the distribution in Spain, where age group 25–29 is dominating. The old-age dependency ratio (population aged 65 and over as a percentage of the working age population aged 15–64) has been in Estonia one of the lowest among the EU member states observed (see Figure 7). The population is ageing in the nearest future in Estonia as well, but the changes will be as steady as in the other EU member states.

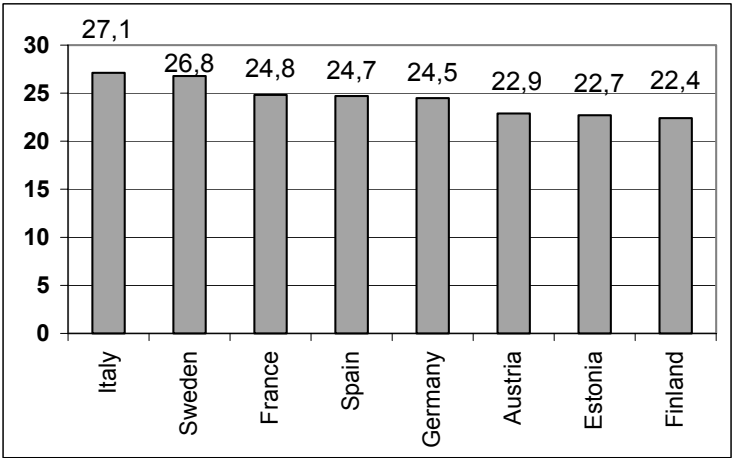

Figure 7. The old-age dependency ratio in selected EU member states in 2001.
Source: The social portrait … 2003; Statistical Office of Estonia… 2003.

The level of total fertility rate (the average number of live-born children per woman during her life time) has in Estonia recovered from the low level in 1998 (1.28), but it is not yet reaching the highest level in 1993 (1.37 in 2002 in comparison to the 1.45 in 1993) (see Ministry of Social… 2003:8). It is not enough to reproduce the population. Thus, the ageing of population should be considered as a process that will continue in the future. According to the Ministry of Social Affairs of Estonia in 2003 about 32.1 percent of the total population (or 435,377 people) has been in the pre-retirement age of 40–64 years (almost 1.5 times more as the total number of current pensioners) (Ministry of Social… 2003:6). Taking into account generally stable mortality rates, the number of old-age pensioners is not changing rapidly in next 20 years.

Because of the cyclical developments in birth rates – the decrease in fertility rates in 1990s – is generating some financial problems of the pension system in the 2010s when this gene-

ration is entering the labour market. The level of the new labour supply will stay in general at low level. The proportion of pensioners to the total population will increase from 16 percent in 2000 to 21 percent in 2020 and 28 percent in 2050 (see Demographic… 2001:4; Legros 2001:24). According to the estimations (see Tulva, Kiis 2001:2), the proportion of elderly people in total population is expected to rise to the level of 25 percent of total population of Estonia by 2030. At the same time, since in Estonia the total expenditures on pensions as a share of the GDP is approximately 50% lower than in the EU member states, substantial problems concerning the financing of the pension scheme could not be predicted..

Many authors have pointed out that funded pensions will face similar demographic problems to PAYG schemes because of the shortage in output and the only difference is that with funding the process is less direct and less transparent (see Barr 2002, McGillivray 2000; Augusztinovic 2002:26). Although some simulations suggest that the long-run positive effect of a PAYG-FF pension reform of growth may be sizeable (Corsetti 1994), the indirect gain from the shifting to individual accounts through generating additional savings and thereby economic growth is uncertain (see Orszag and Stiglitz 1999:12; Arrau and Schmidt-Hebbel 1995:5).

The labour market dynamics is of high importance, determining the characteristics of the pension system. Trends in labour market should be discussed in broader context. The dynamics in employment is a key issue achieving the general aim of the European Union to make the Union the most dynamic, competitive, sustainable, knowledge-based economy, enjoying full employment and social cohesion by 2010 as well. Through the high level of employment the country's ability to provide its citizens with high and rising standards of livings will be granted. The future perspectives of the economic and social development of transition countries are on a large scale also related to the dynamics in labour market, since labour market was

mostly influenced by the transition process from the command economy to the market economy.

The transition process has caused critical trends in employment in Estonia, reflecting rapid decrease in the employment rates especially at the beginning of the 1990s (see Figure 8). In general, the total employment rate is lower in Estonia in comparison with the earlier EU member states (see Figure 9) as well as some new member states joining the EU in 2004 (like Czech Republic and Slovenia). It makes a long way to go for Estonia to achieve one of the Lisbon's sub-objectives – increase in the employment rate to an average of 70 percent by 2010. The Estonian tax policy offering investment subsidies for obtaining capital and imposing high taxes on labour force should be revised in this context.

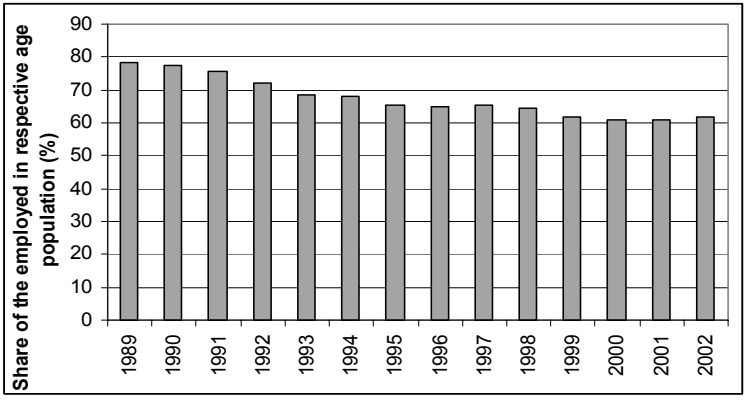

Figure 8. The changes in employment rates in Estonia during the period 1989–2002.

Source: Statistical Office of Estonia… 2003.

Remarkably, Estonia is the only country from the new EU member states actually already fulfilling one of the Lisbon's sub-objectives – to achieve the employment rate 50% for elderly people. It could partially be induced by the circum-

stance, that elderly people will gain the old-age pension benefits also in case they are working. But it could also be related to the issue that older people are afraid to lose their jobs, since after retirement they are directly faced with the poverty risks. Thus, again the question will arise, how effective could the multi-pillar approach be in guaranteeing high rates of return in the future. One should consider the fact that the macroeconomic, demographic as well as political risks for revenue shortfall are borne by the individual in the case of funded system. Many internal as well as external shocks (like negative output shocks, hyper inflation, bankruptcy of several financial institutions etc.) during the transition process has generated the insecurity of individuals.

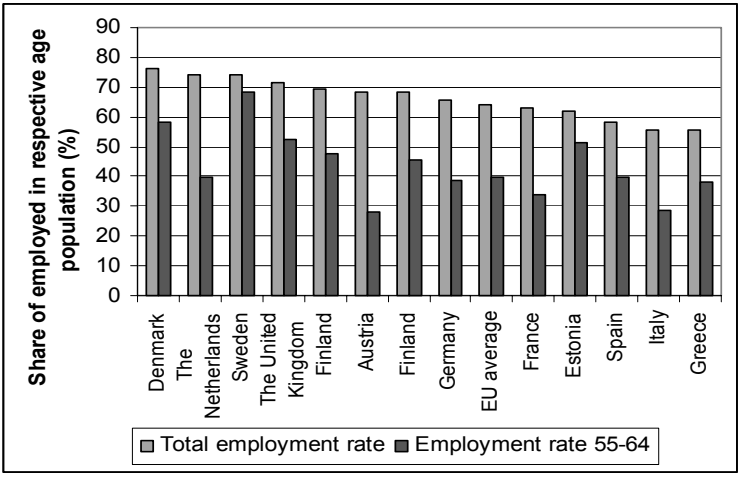

Figure 9. The employment indicators in selected EU member states in 2002.

Source: The social portrait… 2003:129;131; Statistical Office of Estonia… 2003.

The migration across the countries is imposing new challenges to the Estonian pension system in the nearest future. According to the basic economic theory of migration, people would move to wherever their marginal productivity was highest. Thus, the

migration from the CEE countries to the EU is expected after the implementation of the free movement of people within the EU. At the same time, in the case of Estonia only some analyses discuss the size of potential migration flows to the EU (see Paas et al. 2003; Heikkilä et al. 2004). Although the size of migration flows from Estonia to the EU is expected to be not significant in the near future (e.g. from Estonia to Finland approximately 4 000–5 000 migrants annually according to Heikkilä 2004; or 10 000–14 000 from Estonia to the EU during the first four or five years after the enlargement), one should consider the fact that according to the recent opinion polls (see SaarPoll 2003, in Kallaste, Philips 2004:207,209), approximately 32 percent of the people interviewed would certainly or with the high probability go to work in EU countries. Mainly the workers aged 25–44 and students prefer to migrate. Thus, the challenge of the migration of people at the working age or just entering the labour market in Estonia is highly crucial and it should not be regulated only by the migration policy, but by the labour and social policy as well.

3.2. Modernizing Estonian Social Model?

In conclusion, the future challenges of the pension reform in Estonia are mainly related to the decrease in intergenerational and intragenerational solidarity principle. Nowadays, the variety of pension benefits level in Estonia is remarkably smaller than in the other EU member states, indicating substantial solidary redistribution from the individuals with high-income to the persons with low-income. Since the level of pension benefits in next 20–30 years in the framework of the second pillar is determined by the total amount of the earnings person has received during his/her lifetime and the income differences are remarkably higher in Estonia in comparison to the average level of the EU, also the variety of the pension benefits in the second pillar is substantially higher in Estonia. Due to the so-called "income component" the pension benefits of the first pillar are also more and more determined by the level of earnings.

According to the previous analysis of the pension reform in Estonia, it is hard to expect that the multi-pillar approach and the implementation of the funded component is the solution to fulfil the multidimensional aims of the old-age pension schemes (like contemporaneous maintenance of the living standard, reduction of inequalities and promotion of social inclusion for the elderly or for those unable to work etc.) as well as to generate the adequacy and sustainability of the pension systems. In the case of Estonia, the adjustments in the publicly managed pillar as well as the implementation of the funded component have not fulfilled the expectations related to the pension reform (to increase the purchasing power of pension benefits in comparison to the wages and to decrease the poverty risk and to avoid potential external and internal shocks).

The authors make some suggestions in order to diminish the potential risks endangering the adequacy and sustainability of the pension system in Estonia in the near future.

Firstly, we would like to stress the main idea of the Social Policy Agenda presented by the European Commission in June 2000, offering a strategy of modernizing the European Social Model[7] to achieve the Lisbon goal – to strengthen the role of the social policy as a productive factor through the combination of economic, social and employment policy. In this context social transfers covering pensions and social security do not only contribute to balance and redistribute incomes throughout lifetimes and across social groups, but also support better quality in employment, with consequent economic benefits. Sustained economic growth with low inflation, fiscal co-ordination and

[7] Described by the Solidar as two distinctive characteristics of the European welfare states: (i) a common commitment to social justice with a commitment to full employment, universal access to health care and education, adequate social insurance for sickness, disability, unemployment and old age, and resources of social assistance to prevent poverty and reduce social exclusion; (ii) the recognition that social justice can contribute to economic efficiency and progress.

sound public finances are crucial for increasing employment and social cohesion. Well-targeted social protection is essential for adapting the economy to change and providing with efficient and well-trained labour force. High quality education and training, which is accessible to all, strengthens social inclusion and competitiveness. Raising the employment rate will underpin the sustainability of the financing of social protection systems. Social cohesion prevents and minimizes the underuse of human resources. Such a management of the interdependence of policies should lead to a "policy mix", which will sustain economic and social progress (see Social Policy Agenda 2000:6–7). In the light of the undervaluation of the social dimension in the comparison with the economic one in Estonia, this approach about the social policy as a productive factor should be disseminated more broadly in the society. Additionally, one should consider different economic as well as employment policy measures to support the sustainability of the pension system, like improving the quality of living and working conditions, increasing the productivity, changing the tax policy, promoting social inclusion.

Secondly, more attention should be paid to the concept of active ageing in Estonia, referring to the capacity of elderly people to lead productive life in society and the economy. This means that people can make flexible choices in the way they spend time over life. These choices are often constrained in ways that harm both individuals and society, e.g.:

- related to health-sickness or invalidity preventing people from working or enjoying leisure,
- physical, such as the lack of wheel chair ramps in buildings,
- related to the public policies that have not kept up with changes in demography, families and employment. Educational arrangements that are aimed only at young people rather than lifelong learning are an example. Social and labour market programming that encourage early retirement is another.

Active ageing reforms are those that strengthen support for citizens in making lifetime choices. Examples of the former are the removal of incentives to early retirement that are embedded in social programmes. Examples of the latter are lifelong learning and medical interventions that help people maintain autonomy as they grow older.

CONCLUSIONS

The purpose of the present article was to analyse the Estonian old-age pension reform, discuss the motives of the pension reform, the measures implemented, the challenges faced by the multi-pillar pension model in the near future and making some conceptual remarks about modernizing the social security concept in Estonia.

Analysis allowed to draw the following conclusions.

- The pension reform has been implemented very rapidly and radically in Estonia. Substantial state subsidies to funded schemes (in comparison to the other Baltic States) have indicated people to join the mandatory funded pension pillar (– in the second tier a working person saves for his/her pension, paying 2% of the gross salary to the pension fund and in addition to these 2%, the state adds 4% out of the current social tax that has been paid by the employee). The development of the voluntary funded tier has been relatively modest.
- The countries implementing multi-pillar pension schemes should consider very carefully all the risks related to the changes in the understanding the solidarity principle. As in Estonia economic growth has been preferred to social development, the present old-age pensioners as well as the pensioners in the future will be directly placed at the risk of poverty.
- The multi-pillar approach can not uniformly guarantee the financial sustainability of the pension scheme because it involves all the risks and disadvantages (macroeconomic, demographic as well as political risks) characteristic of the PAYG system and of the funded schemes.

- Private funded schemes face further risks, like management risk, investment risk and annuities market risk.

The level of the average old-age pension as a percentage of average gross wages and net wages has been very low in the 1990s and the predominant majority of people is receiving a pension at the very low rate. Approximately 20 percent of the pensioners living alone are living below poverty line and 50 percent in poverty risk. Thus, the main focus of the pension reform should be addressed on the vehicles oriented to reducing the poverty, not focusing on increasing the savings etc.

The measures implemented during the pension reform are not offering long-term solutions to guarantee the sustainability and the adequacy of the pension system. Increasing the retirement age some effects of the cost retrenchment have occurred, but considering the pessimistic perspective of people in pre-retirement age to find a job mainly due to the lack of info technological, informational etc. skills as well as the present labour demand strategy preferring mainly young people. The financial resources retrenched increasing retirement age could be simultaneously paid out as unemployment benefits or employment subsidies. No remarkable improvement could be noticed in the living standard of old-age pensioners' in Estonia due to the changes in the pension benefits components and the indexation during the next 20 years. Since the aim of the funded component is to promote economic growth, the multi-pillar approach implemented is not offering solutions.

The ageing of the population, the labour market deficiencies, the lack of competitiveness in the world economy, the migration etc., demographic pressure could be assumed in Estonia in the near future but it will probably be somewhat smoothened in comparison to the other EU member states, described as a rapidly aging societies. Since funded pensions will face similar demographic problems to PAYG schemes because of the shortage in output and the only difference is that with funding the process is less direct and less transparent, the multi-pillar

approach will not be the solution to the ageing of the population. Considering the dynamics in labour market, it makes a long way to go for Estonia to achieve one of the Lisbon's sub-objectives (increase in the employment rate to an average of 70 percent by 2010). The Estonian tax policy offering investment subsidies for obtaining capital and imposing high taxes on labour force should be revised in this context. The challenge of the migration of people at the working age or just entering the labour market in Estonia is highly crucial. It should not be regulated only by the migration policy, but by the labour and social policy as well.

To diminish the potential risks endangering the adequacy and the sustainability of the pension system in Estonia in the near future, the importance of the main idea of the Social Policy Agenda presented by the European Commission should be disseminated in the Estonian society more broadly. The Social Policy Agenda offers a strategy of modernizing the European Social Model – to strengthen the role of the social policy as a productive factor through the combination of economic, social and employment policy. More attention should also be paid to the concept of active ageing in Estonia, referring to the capacity of elderly people to lead productive lives in society, and to the economy.

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KOKKUVÕTE

Eesti pensionisüsteemi reform maailmapanga poolt välja töötatud kolmesambalise mudeli alusel

Eesti sotsiaalsfäärisiseloomustavad nii madalad sotsiaalse kaitse kulutused, madalad asendusmäärad, vaesusriski süvenemine eakate hulgas kui ka eakate ees seisvad tervislikud, psühholoogilised, informatsioonilised, liikumisvõimega seonduvad probleemid. Need iseloomustavad eakate sotsiaalset tõrjutust ühiskonnas. Siirdeprotsessi vältel levinud uus-parempoolne mõtteviis on viinud selleni, et vanuripoliitikat tunnistatakse pigem ressursside raiskajana kui "tootliku" tegurina. Euroopa Liidu liikmeksolek eeldab sellise suhtumise muutmist Eesti ühiskonnas.

Vanuripoliitikal on riigi arengu jätkusuutlikkuse kindlustamisel oluline osa, sest ühest küljest on vanuripoliitika puhul tegemist sotsiaalpoliitika ühe suurema ja majanduslikult kulukama valdkonnaga, teisest küljest iseloomustab suhtumine eakatesse kogu ühiskonna küpsust ja eetilisust.

Autorite hinnangul ei ole senised meetmed Eesti pensionisüsteemi ümberkorraldamisel jätkusuutlikkuse tagamise eesmärki täitnud. Pensionireform ei ole järginud ühiskonna ootusi, mis on eelkõige seotud eakate elustandardi tõstmisega riigi majandusliku arenguga määratud tasemele. Lähima paarikümne aasta jooksul halvendab pensionireform eakate elujärge veelgi, sest II pensionisambaga ühinenud isikud maksavad I samba katteks senisest ühe viiendiku vähem. Väljamaksed kohustusliku pensionikindlustuse II sambast hakkavad mõjutama aga alles järgmise pensionäride põlvkonna sissetulekuid. Samuti suunab

pensioniindeksi valem väljamaksmiseks üksnes ca 50–75% pensionikassa juurdekasvust. Oluliselt vähendab Eesti vanuripoliitika jätkusuutlikkust ka põlvkonnasisese solidaarsuse vähenemine uues pensionisüsteemis, mille tõttu madalapalgalised töötajad hakkavad saama ainult füüsilist eksistentsi tagavat rahvapensioni.

Mitmesambaline pensionisüsteem ei paku lahendust ka Eesti arengu jätkusuutlikkust ohustavale tõsisele demograafilisele väljakutsele – rahvastiku vananemisele. Eestis rakendatud pensionisüsteem ei taga lähima paarikümne aasta jooksul (s.t. tervele pensionäride põlvkonnale) sissetulekut isegi mitte Euroopa Sotsiaalkindlustuskoodeksiga määratud miinimumtasemel. Pikemas perspektiivis toimub pensionite oluline diferentseerumine ja suureneb vaesuses või vaesuspiiril elavate pensionäride osatähtsus.

Eesti vanuripoliitika jätkusuutlikkuse tagamiseks tuleb muuta suhtumist sotsiaalsfääri ja majanduse vahekorda. Sotsiaalse heaolu tagamine vanuritele ei ole pelgalt tulude ümberjaotus generatsioonide ja sotsiaalsete gruppide vahel, vaid ka vahend majanduse dünaamilisemaks muutmiseks tööjõu kvaliteeti ja tööviljakust tõstva sotsiaalse stabiilsuse suurendamise kaudu.

Appendix 1

Global social security rankings in European Union member states and CEE candidate countries in 1995

Country	Ranking
Sweden	2
France	3
Denmark	4
Finland	7
Austria	8
Spain	9
Germany	10
Belgium	12
Luxembourg	14
Portugal	15
Poland	22
Ireland	23
Italy	23
Estonia	25
Slovak Republic	26
Czech Republic	31
Greece	33
Netherlands	33
United Kingdom	37
Hungary	41
Latvia	44
Slovenia	52
Lithuania	86

Source: Dixon, J. A global ranking of national social security systems. International Social Security Review, 2000, Vol. 53, No.1,