

Analysis of the standardized Pan European  
Personal Pension (PEPP) product and its  
impact in four European countries: the  
Netherlands, Estonia, Finland and Hungary

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## **Deliverable D4.6**

### **Working paper with policy recommendations on private saving plans**

#### **Summary of activity**

##### **Background**

Older people differ in terms of pension and labour incomes, financial wealth, household composition, social networks, housing, health and human capital. Policymakers require in-depth knowledge about groups of people that are not well prepared for retirement, so that they can target these groups in their social policies (e.g. pensions, welfare, long-term care, housing) and alleviate potential adverse welfare effects of policy reforms (such as pension reforms). In this connection, pension systems are intimately related to labour markets and the health status of the population.

##### **Aim**

EIOPA has recently proposed to introduce standardized Pan European Personal Pension products (PEPPs) that would be available in the accumulation phase, jointly with national personal pension plans. The research project explores the potential for such private saving programmes and private and public insurances to improve old-age incomes and avoid poverty risks in old age of various heterogeneous individuals.

##### **Achievements**

This paper analyses the PEPPs from the perspective of the academic literature and proposes to categorize product characteristics, both in the accumulation phase as in the decumulation phase. The paper explores the option to use the concept of Personal Pensions with Risk sharing that was proposed by Bovenberg and Nijman (2015) to incorporate design features of the decumulation phase in the PEPP itself. The paper

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concludes with a comparison of the PEPP proposal with existing regulation in four European countries and a discussion of the potential impact of the PEPP proposal on PPP provision these countries

**Deviations**

*The planned completion date for this proposal was August 2015. Due to some administrative issues and the timing of PEPP consultation by EIOPA this date was adjusted.*

**Additional information**

*There is no additional information.*

**Date completed**

*November 2015, M 33.*

# **Analysis of the standardized Pan European Personal Pension (PEPP) product and its impact in four European countries: the Netherlands, Estonia, Finland and Hungary<sup>1</sup>.**

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## **Abstract**

EIOPA has recently proposed to introduce standardized pan European personal pension products (PEPPs) that would be available in the accumulation phase, jointly with national personal pension plans. This paper analyzes the PEPPs from the perspective of the academic literature and proposes to use the PPR concept of Bovenberg and Nijman (2015) to categorize product characteristics, both in the accumulation phase as in the decumulation phase. The PPR concept can also be used to incorporate design features of the decumulation phase in the PEPP itself. A first important lesson to be learned from the academic literature is that the aim of stable income provision requires a framework where future asset returns are hedged rather than the asset only approach underlying the PEPPs. Whereas EIOPA proposes to allow switching between PEPPs only infrequently, the literature suggests that liquidity concerns are not a very convincing reason to restrict switching. Switching costs could be linked to the degree of liquidity of the portfolio. A better motivation for restriction on switching seems to be that investors might well put too much focus on recent investment performance as a predictor of future performance. As far as information disclosure is concerned more attention is recommended to the impact of biometric risks. More attention is also recommended for tax issues, because current tax provisions for national PPPs seem to be rooted in characteristics of the decumulation phase that can be avoided in the second regime. The paper concludes with a discussion of the potential impact of the PEPP proposal on PPP provision in four European countries.

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## 1. Introduction

The European Commission has proposed to develop an EU framework for Personal Pension Plans. The commission has motivated this by three groups of reasons: PPPs can contribute to multi-pillar diversification (in particular in countries where second pillar pensions are underdeveloped), they can address consumer protection issues and information asymmetry and they can improve cross-border activity through improved transparency and comparability of PPPs. In February 2015 the European Commission issued a Green Paper on Capital Market Union and incentives to supply funding for long term investments (EU (2015)) that explicitly refers to the potential of introducing a standardized personal pension product, 'for example through a pan European regime'. EIOPA (2015) published a consultation document with specific proposals on how to implement such a product, which was referred to as a Pan European Personal Pension (PEPP) product. This paper summarizes and analyzes elements of this proposal, extends it and discusses the implications of introducing this legislation for four European countries.

Section 2 of this paper summarizes and analyzes the PEPP proposal. A main flaw is that they only refer to the accumulation phase, whereas many people worry about the lack of rules of thumb, guidelines or legislation for the decumulation of DC/PPP plans. In Section 3 we therefore extend the PEPP proposal building in particular on Bovenberg and Nijman's proposal (2015) to consider Personal Pensions with Risk Sharing. In the Netherlands the government has recently proposed to introduce such PPR plans as a new and innovative way to construct attractive personal pension plans. Section 4 discusses the implications of PEPP or PPR products for five European countries, comparing them to existing regulation on consumer protection and information for the accumulation and decumulation of DC pension products in these countries. Section 5 concludes.

## 2. The proposed Pan European Personal Pension<sup>2</sup>

### 2.1 Introduction

Personal Pension Products are personal retirement savings products and therefore share unique characteristics that clearly distinguish them from other financial products. EIOPA (2015) argues that in principle one should not be able to cash these products prematurely<sup>3</sup> which gives the products an inherent long term character and the products should provide a stable income level during retirement. How to deal with longevity risk (both of the individual and changes in overall life expectancy) and inflation that can erode the purchasing power of pension income are important design features of Personal Pension Plans. These issues are not considered in the PEPP proposal.

The long term character of Personal Pension Products and the sizable sums that can be invested make it even more important than for other financial products to assure adequate consumer protection and information. This issue is extensively considered in the PEPP proposal. EIOPA envisages the PEPP as a

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<sup>2</sup> This Section is based on EIOPA (2015) and frequently quotes that document literally.

<sup>3</sup> Beshears et al (2015) compare the existing regulation on early withdrawal in a number of countries and provide arguments in favor and opposed to providing opportunities for early withdrawal.

highly standardized product with respect to consumer protection rules and product characteristics in order to set a high minimum standard for product quality and to encourage the take-up of the PEPP.

Currently national rules for existing PPPs differ widely within the EU. The essence of a Pan European product as PEPP is that one is not restricted by the existing national rules. In order to be able to introduce a PEPP that is reasonably standardized, a balance has to be struck between national rules that will be respected and rules that will be standardized at the EU level. EIOPA (2015) lists a number of issues where one could standardize at the EU level:

- a. Investment rules
- b. Encashing PPP funds before retirement
- c. Caps on costs and charges
- d. Minimum return guarantees
- e. Retirement age
- f. Decumulation strategies
- g. Mandatory advise

In later sections though two other important issues are referred to where standardization is proposed:

- h. Switching between PEPP and 'national' PPP providers
- i. Information disclosure

EIOPA (2015) proposes to standardize the first topic (regulation on investment rules) at the EU level. One has not reached a decision as to whether to standardize how to discourage workers from cashing retirement wealth prematurely. In most countries this is already strongly discouraged by fiscal penalties, therefore separate EU rules might not be needed. EIOPA (2015) argues that it is neither needed nor appropriate to standardize on issues c to g. We see an asymmetry in the argument that restrictions on investment rules during the accumulation phase have to be standardized across the EU (issue a) whereas no standardization at all is targeted for during the decumulation phase (issue f). Likewise (b versus f) we see an asymmetry in the argument to strongly restrict cashing PPP funds before retirement and while simultaneously falling back to purely national rules that could allow full spending as of the day of retirement. Both asymmetries relate to the policy choice by EIOPA to envisage that the decumulation options in PEPP plans will not be standardized at EU level. This might very much harm the primary policy objectives of transparent consumer products that offer stable income levels during retirement. In Section 3 we return to this issue and discuss a proposal for a common framework for the accumulation and decumulation phase rather than treating them disjoint as seems to be in the case in the PEPP proposal.

## **2.2 Investment rules**

The intended standardization of the investment rules calls for the use of a limited number of default investment options and the presence of a de-risking strategy, at least for the default option. Consumer protection would be stimulated if the investment options that are offered and their labeling are comparable between different PEPPs in different countries. It is unclear whether this is intended. Moreover the EIOPA document provides little guidance on the crucial question how much more risk would have to be taken in the life cycle strategies at young ages than at later ages. Unless this is added, this makes the plea for life cycle strategies easy to satisfy with almost constant life cycle exposures.

The choice to limit the number of investment options in PEPP products and to select one of them as the default seems to be well supported by the recent academic literature which shows that consumers have difficulties in choosing from many alternatives (see e.g. Huberman and Jiang (2006)) and tend to select default strategies selected by trusted parties. On the other hand though it has been argued (See Laibson and List (2015)) that restricting people's choice and too heavy handed paternalism has a bad track record. In recent years behavioral policy recommendations have tilted towards nudges, which recommend or facilitate certain behavior without removing options or the freedom to choose (Thaler and Sunstein (2008)).

As for the de-risking argument it is quite important to note that the asset-only approach that seems to be advocated can contradict the preference for a stable and predictable income. De-risking, i.e. gradual reduction of exposure to equity markets, is natural and proposed by most academic models. The key assumption typically is that labor income is far less risky than equity investments (see e.g. Merton (1969), see Benzoni et al (2007) for a model that argues the opposite). This life cycle investing is incorporated in many DC products around the globe. The requirement that the goal should be to have (expected) investment returns that outweigh (expected) inflation<sup>4</sup> might however well be at odds with adequate risk taking according to the standard academic models, unless bonds linked to local inflation are traded (which is not the case for most EU countries).

In the models where interest rates and inflation can fluctuate, de-risking the investment portfolio in an asset only sense can be at odds with the preference for stable income. Investment strategies for pension products are not to be designed as in an asset only approach to find an optimal (distribution of the uncertainty in) pension capital but as acknowledged by the commission should target for optimal pension income, i.e. should be based on asset and liabilities considerations. As shown e.g. by Campbell and Viceira (2001) and Brennan and Xia (2002) a preference for stable nominal income implies hedge interest rates risk close to retirement. De-risking nominal pension income implies deliberately taking interest risk rather than de-risking pension capital when looked upon from an asset only perspective. This point is strikingly clear if the pension income has to be a nominal guarantee and has lead e.g. in the Netherlands to consumer protection recommendations to hedge interest rate risks towards the end of the life cycle to mitigate the conversion risk between the accumulation and decumulation. The argument is not restricted to the case of nominal guarantees though, similar arguments hold if the pension income is to be stable but not necessarily riskless either in nominal or in real terms (see e.g. Bovenberg and Nijman (2015)).

EIOPA envisages that on top of life cycle strategies, other investment strategies will be allowed, the list of strategies consists of

1. Life cycle strategies
2. Strategies that contain adequate return guarantees
3. Balanced funds with a static asset allocation across the life cycle, provided the volatility is moderate (say 25% equity exposure)
4. A long term collective investment vehicle where smoothing of shocks is applied

The second option, return guarantees, can of course effectively reduce asset only risks at later ages, but (as also emphasized by EIOPA) require adequate solvency regulation to assure that the pension

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<sup>4</sup> EIOPA (2015), p. 22

provider can also meet its obligations. The balanced fund option is surprising as it seems to be far from optimal compared to the life cycle strategy (see Bovenberg et al (2007) for estimates of the efficiency loss of suboptimal investment strategies). The fourth option is likewise surprising because smoothing of shocks in the accumulation phase of an actuarially fair investment hardly generates more stable retirement income as is evident from the replicating investment strategy that generates the same returns (see Nijman et al (2013)). Smoothing of shocks is important in the decumulation phase and enables substantial risk taking also in the decumulation phase, by arranging that the volatility in the year to year changes in pension income are much smaller than those in pension capital. The current PEPP proposal though does not address the decumulation phase.

### **2.3 Switching between PEPP and 'national' PPP providers**

EIOPA envisages that PEPP holders will sometimes want to switch providers for a variety of reasons, for example because one prefers other investment strategies, other cost structures or because the personal circumstances of the individual. This calls for an option to switch providers without incurring additional charges and EIOPA proposes that such an option would be available periodically. If policy holders want to switch between these windows of opportunity this should be possible but charges are allowed. The main argument that is put forward for not allowing switches at all times against minimal costs is that the assets that are attractive for saving for retirement are relatively illiquid. Less liquid assets can be attractive for the PPP holder because many illiquid assets pay a liquidity premium (see e.g. Driessen and De Jong (2013) and (2015)). Increased supply of funding for long term investments is also one of the policy objectives behind the PEPP initiative, as explained in the introduction. Nevertheless standard retirement portfolios also contain large exposure to standard liquid bond and stock portfolios and to other assets that can at least be sold within days at low transaction costs. This calls for regulation that the charges that can be imposed for switching within the windows of opportunity should be clearly related to the illiquidity of the portfolio. A very different possible motivation to put restrictions on switches between providers is that both anecdotal evidence and the literature suggests that individuals pay too much attention to recent performance (often even without reference to a benchmark for the specific asset class) as a predictor of future performance. If this is the case, administrative as well as transactions costs can be saved by restricting the choice options.

The requirement that PEPP holders should be able to switch providers raises the question how much capital is to be transferred. While this is straightforward in case of just exposures to underlying liquid mutual funds as will primarily be the case in the life cycle and balanced fund options, the market value of the pension rights is less easy to determine in case of the second and fourth investment options, i.e. return guarantees or collective vehicles. For the collective vehicles the market value depends on past investment shocks which are not yet fully incorporated through the smoothing mechanism. If intergenerational risk sharing is allowed this complicates actuarially fair valuation even further. Actuarially unfair valuation (e.g. by simply discount current accruals by the risk free term structure) would create incentives to switch to increase the market value of the entitlement.

The option to switch between national PPPs and PEPPs (as well as the initial option to choose between the existing national regime for PPPs and the pan European regime for PEPPs) raises issues as to what extent policy holders can avoid local legislation by switching. This is less of an issue in the accumulation phase than it is in the decumulation phase, where the differences between countries are much more

sizable, which is probably why the PEPP rules refer to the accumulation phase only. Nevertheless, e.g. requirements to manage conversion risks in the accumulation phase can be avoided by using PEPPs. Similarly, it would be possible to e.g. enjoy tax reliefs that are based in national legislation also on the requirement of lifelong income streams without bequests, but subsequently avoid these restrictions on the decumulation phase by switching to (living in) another country. This could be an important example of the risk of regulatory arbitrage between the national regimes and the 2<sup>nd</sup> regime that is acknowledged by EIOPA.

#### **2.4 Information disclosure and consumer protection**

EIOPA rightly puts a lot of emphasis on adequate information disclosure, transparency and consumer protection. EIOPA (2015) even contains a very useful summary of the academic literature on the impact that people's cognitive and behavioural biases should have for appropriate design of PEPPs (Annex 2). The standards to be set are linked to the Key Information Document (KID) for Packaged Retail and Insurance-based Investment Products (PRIIPs) that have been developed for a much broader range of products with the other ESA's.

A concern could be whether these standards can be sufficiently tuned to the distinguishing character of the product, the need for stable income. The emphasis on realized net returns this framing as an asset only product could be misleading as argued in section 2.2. As acknowledged by EIOPA risk information is essential in comparing PEPPs. The proposal to use the PRIIPs KID as a starting point with its graphical risk indicator might be counterproductive because risk in pension incomes are to be explained, not risks in pension capital. Emphasizing pension income also avoids the need to explain in life cycle strategies that short term risk can be larger because the risk rating measure focusses on the risk to maturity (p. 27).

The PRIIPs KID does not address important risk factors such as inflation risk and longevity risk (the risk of outliving your assets). These risks are key though and should ideally be incorporated building on standardized modelling assumptions.

EIOPA (2015) sales through internet quite strongly and assumes that adequate consumer protection and advice can be provided with much less human interaction than is currently the case. While this is a challenging option, evidence that the assumption is valid for now seems to be lacking in the academic literature.

The proposed PEPPs will have no prescribed biometric risk covers. EIOPA prefers to enable all asset managers and not just insurers and IORPs to offer PEPPs and does not prefer to force biometric risk covers on participants. This implies that PEPPs with and without specific biometric risk covers will be provided. PEPPs that do not generate a bequest upon death during the accumulation phase will generate additional biometric returns on top of the investment returns. The information disclosure should enlighten this, for example by separately reporting these to return categories in periodic performance overviews and explaining whether or not the wealth in the PEPP is bequestable. Partner and children pensions in case of death during the accumulation phase are another important example of biometric risk covers that could be incorporated in the PEPP. Here as well the risks for dependents of premature death should be adequately disclosed periodically. Ideally of course it should be possible to integrate such information with that on other income sources that the dependents might have, including their own PEPPs and national PPPs.

### 3. Extensions to the decumulation phase using Personal Pensions with Risk Sharing

The PEPP proposals refer to the accumulation phase only. The academic literature argues (see e.g. Brown et al (2008), Peijnenburg et al (2015) and the references cited there) that adequate design of the decumulation is at least equally important. Bovenberg and Nijman (2015) propose a new type of pension: the Personal Pension with Risk sharing (PPR). By unbundling and valuing the investment, (dis)saving, insurance and risk-sharing functions of pensions, PPRs allow risk management and (dis)saving to be customized to the specific features of heterogeneous individuals. The PPR concept can also be used to categorize how the investment and decumulation strategies in different pension products deal with the variety of relevant risk factors that determine pension income, including equity risk, (nominal) interest rate risk, inflation risk, and biometric risks such as micro (individual) and macro (life expectancy) longevity risk. Micro longevity risk e.g. can be fully insured like in annuities or the longevity risks can be fully on the participant. The latter has the advantage that heirs receive a bequest but substantially raises the cost of assuring a pension income for a fixed number of years and requires the agent to save in order to not outlive his assets or be forced to live on first pillar basic income. The PPR concept accommodates both cases and this unbundling of risk factors clarifies the nature of alternative investment products. Likewise can pension income be guaranteed (life long, or for a fixed number of years) by taking appropriate exposures to interest rate risks. Income guarantees can be unbundled from micro-longevity insurance.

The PPR extends PPPs to the decumulation phase because capital is not converted to annuities. If micro longevity risk is insured, biometric returns are added to the financial returns as can also be the case in the accumulation phase as discussed in the previous section<sup>5</sup>. This allows PPP holders to switch providers even in the decumulation phase, while EIOPA refers to switching providers only in PEPPs and only in the accumulation phase. Because capital is not converted credit risks on pension providers can be avoided.

The PPR, thinking in terms of a capital to be decumulated, forces one to think in terms of flexible pay-out function. The goal of providing an income stream in retirement implies that asset-liability management (ALM) is conducted at the level of the household balance sheet instead of that of the insurer. Bovenberg and Nijman (2015) argue how a desired risk-profile of pension income feeds back to adequate investment strategies in the decumulation phase, but also in the accumulation phase. A formal analysis of this “consumption frame” for PPRs can be found in Van Bilsen (2015).

Adequate ALM aimed at stable income streams implies that all policyholders feature their own so-called hedging portfolio. This portfolio hedges the impact of interest-rate fluctuations, expected inflation and possibly other risk factors on the cost of providing their pay-out ambition. In addition, each policyholder has a return portfolio. This portfolio trades off, on the one hand, the volatility of income streams due to traded risk factors and, on the other hand, the risk premia on these factors. If individuals exhibit habit formation or money illusion, shocks in the return portfolio should be absorbed

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<sup>5</sup> Note that the biometric returns in the decumulation phase can be quite substantial, as a survival rate of 90% corresponds to a biometric return of 11% upon survival.

gradually in consumption. In this way, individuals can earn risk premia while at the same time limiting year-on-year volatility in consumption.

Section 3 of Bovenberg and Nijman (2015) compares PPR with insurance of micro longevity risk to alternative decumulation strategies such as guaranteed DB pensions, drawdown products without longevity insurance, variable annuities without smoothing and variable annuities with smoothing and dynamic investment strategies. All these options can be incorporated in the PEPPs proposed by EIOPA.

## **4. PEPPs in four European countries**

### **4.1 Introduction**

The impact of the proposed new second regime that allows PEPPs can differ quite significantly between European countries. In this section we briefly outline the importance of Personal Pensions in four European countries, the Netherlands, Finland, Estonia and Hungary. As discussed in Sections 2 and 3 important elements in the evaluation of the proposed PEPP legislation are the lack of a link between accumulation phase and decumulation phase, the ban on early withdrawal, the intended option to switch between providers and the attention for consumer protection. We therefore relate these proposals explicitly to the current local legislation in these four countries.

### **4.2 PPPs in the Netherlands**

In the Netherlands Personal Pension Plans (PPPs) are offered in the third pillar. Because of the mandatory participation in second pillar arrangements for almost all employees, these PPPs with voluntary participation are particularly important for the self-employed. The taxation of voluntary pension insurance is based on EET taxation, which means that these schemes have a tax-favoured status relative to many other forms of savings.

Pensions Plans in the second pillar can either be Defined Contribution (DC) or Defined Benefit (DB). The DB products seem to satisfy the criteria for collective investment vehicles with smoothing of shocks proposed for PEPPs. Participation in these DB products is mandatory for employees of a firm that offers them and hardly any choice with respect to investment strategies or switching to other providers is provided. Participation in DC products is mandatory for employees of firms who selected these PPPs and is the dominant option in the third pillar for self-employed and for others that want to (or should be encouraged/nudged to) save for retirement. Many different DC products are offered which moreover usually contain further options for choice.

Under current legislation in the Netherlands second pillar DC pensions have to be converted<sup>6</sup> to a lifelong nominally guaranteed pension income. This has important implications for the investment strategy. For new products (offered after 2009) the supervisor request life cycling investment to reduce equity risk as well as adequate exposure to interest rate risks to manage conversion risks. The currently low interest rates have given rise to disappointing pension incomes in older DC products as interest rates were not adequately hedged. Temporarily conversion to nominally guaranteed annuities can be postponed, hoping for increased interest rates. Apart from the emphasis on managing income risks

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<sup>6</sup> In the third pillar variable annuities are allowed but hardly ever selected.

rather than asset only risk in capital the Dutch legislation seems well in line with the standards for investment rules proposed by EIOPA.

In July 2015 the Dutch government proposed a regulatory change to allow investment risk in the decumulation phase. In line with the academic literature (e.g. Merton ()) the government argues that some exposure to equity risk can be quite attractive during retirement. The government proposal is closely related to the PPR concept outlined in Section 3. In line with the Dutch tradition pension income has to be lifelong, individual longevity life risk is to be insured and pensions do not generate bequests. Macro longevity risks (the impact increases in life expectancy) can be imposed on the participants, consequently these products can also be offered by financial institutions that are not allowed to take biometric risks.

In the Dutch national PPPs, under current legislation, it is hardly possible to switch from one PPP to another. The presence of such a standardized feature in PEPPs could therefore have a substantial impact also on the existing market. Cashing in pension capital before retirement is excluded, apart from very small amounts where cashing is allowed to save administration costs.

The Dutch consumer disclosure regulation is well in line with EIOPA's proposals and even more so if proposed changes are implemented. The Dutch government has already announced that risk information on the purchasing power of the lifelong income stream will be provided to participants. Discussions are still going on the exact modelling to be used and the best way to communicate with participants. The emphasis that the PEPP proposal puts on average investment performance in the accumulation phase might interfere with the emphasis in the Netherlands on communicating expected pension income rather than pension capital.

The most important advantages of PEPPs would probably be the enhanced transferability and transparency of the product for mobile workers. While this is an important policy objective this is not the group of workers where pension adequacy is most problematic (Knoef et al (2015)). Self employed are much more at risk but for them the PEPP does not seem to have major advantages as many PPP products are already offered.

### **4.3 PPPs in Finland**

In Finland, the role of Personal Pension Plans (PPP) is limited. The main reason for this is that the compulsory pension system is quite comprehensive and does not include mandatory PPPs. Its main part is an earnings-related pension scheme which covers all workers. There is no ceiling on pensionable earnings or the pension benefit. In addition to the earnings-related pension system, there is a national pension and a so called guarantee pension that offer basic coverage for those with low lifetime earnings.

Even though the earnings-related pension scheme is partially funded, with the funds being managed by private pension companies, it is fully standardized in the sense that individuals have no choice over contribution rates, investment strategies, or the insurance aspects of the benefits. The Finnish earnings-related pension scheme is best understood as belonging to the first-pillar.

While there are no mandatory PPPs, there is a market for voluntary PPPs. Some of these plans are referred to as individual voluntary pension insurance and they are provided by life insurance companies only. The taxation of voluntary pension insurance is based on EET taxation, which means that these schemes have a tax-favoured status relative to many other forms of savings.<sup>7</sup> Early withdrawal of accumulated capital is allowed only in special circumstances (e.g. long-term unemployment or divorce)<sup>8</sup>. Typically, consumers choose between different mutual funds offered in the contract. Clearly defined life-cycle investment strategies are uncommon.

The Finnish consumer disclosure regulation requires the closure of information regarding total fees in a standardized way as well as certain minimum information regarding expected investment returns and risks. Inflation and longevity risk are not addressed by the current regulation.

According to Harju (2013), in 2002-2006 about 9 percent of the working-age population saved in these voluntary plans. The mean annual contributions to the plans were relatively low, only about 1700 €. Moreover, the inflow of new participants is currently very small. This could be due to the fact that the tax treatment of these plans used to be more favourable than what it is currently.

In 2010, the government allowed banks and other financial institutions to provide long-term savings plans that are subject to the same tax treatment and withdrawal restrictions as the voluntary pension insurance plans. So these plans are in effect another form of PPPs. The popularity of these plans has been very limited as well.

The long-term savings plans have no insurance component. In particular, they do not provide the kind of insurance against (idiosyncratic) lifetime uncertainty that annuities are supposed to provide. However, the insurance element is usually very limited also in the case of individual voluntary pension insurance. The reason is that the standard products offered by the insurance companies include a relatively short pay-out phase. Moreover, if a policyholder dies during the pay-out phase, his or her beneficiary usually receives all the remaining savings as a death benefit. This implies that the policyholders do not benefit from the “biometric return”. The market for “life annuities”, that would provide lifelong pension income, is virtually inexistent in Finland. It is therefore difficult for individuals to complement their mandatory pension insurance efficiently with private insurance against longevity risk.

One potential advantage of PEPPs would be to increase the transferability of PPPs from one provider to another. It is currently difficult, if not impossible, for a consumer to change the provider of a voluntary pension insurance plan. As for the long-term savings plans, the current legislation already

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<sup>7</sup> The upper limit of deduction is 5000 euros a year. The contributions are deducted from capital income. If the total amount of contributions is higher than the total amount of capital income, the taxpayer is entitled to apply for a separate investment income deficit from his or her labour taxes.

<sup>8</sup> As stated before no consensus has been reached yet how to discourage early cashing in of benefits in PEPPs

stipulates that the consumers have the right to switch from one provider to another. A common EU framework for personal pensions should also enlarge the market for PPP products in Finland.

Arguably, however, the main shortcoming in the Finnish market is the lack of private financial products providing insurance against lifetime uncertainty. As the PEPP proposal does not refer to the decumulation phase, it is not clear it would help filling this gap in the market.

#### 4.4 PPPs in Estonia

In Estonia, personal pension plans consist of compulsory and voluntary defined contribution (DC) pension schemes. The compulsory fully funded pension scheme started in July 2002 and it is mandatory for all who were born in 1983 and later. People who were born before 1983 could also join the scheme, without any option to later withdrawal, until 2010. Employed people divert a portion of contributions from the statutory PAYG scheme into private funds and add additional contributions. The total contribution rate is 6 percent of gross wages – the employee pays 2 percent from the gross wage and the employer another 4 percent (as part of the 20 percent pension insurance contribution). The total amount of pension benefits depends on total contributions over the working career and yields of pension funds. The taxation of compulsory funded pension scheme is based on EET taxation.

In 1998, supplementary voluntary DC private pension schemes were introduced, participation in which can take a form of pension insurance policies offered by licensed private insurance companies or units of pension funds managed by private asset managers. A person can choose which amount he/she pays every month to the pension fund and may stop paying contribution in any time. Contributions to several funds or for several insurance contracts can be made simultaneously. Employers can also pay contributions for employee to the voluntary pension scheme from the year 2012. So far only around 0.3% of the employees receive additional contributions by employers. The taxation of voluntary pension schemes is based on EET taxation up to a certain amount of contributions. It means that voluntary insurance schemes have a tax-favoured status relative to other forms of savings.

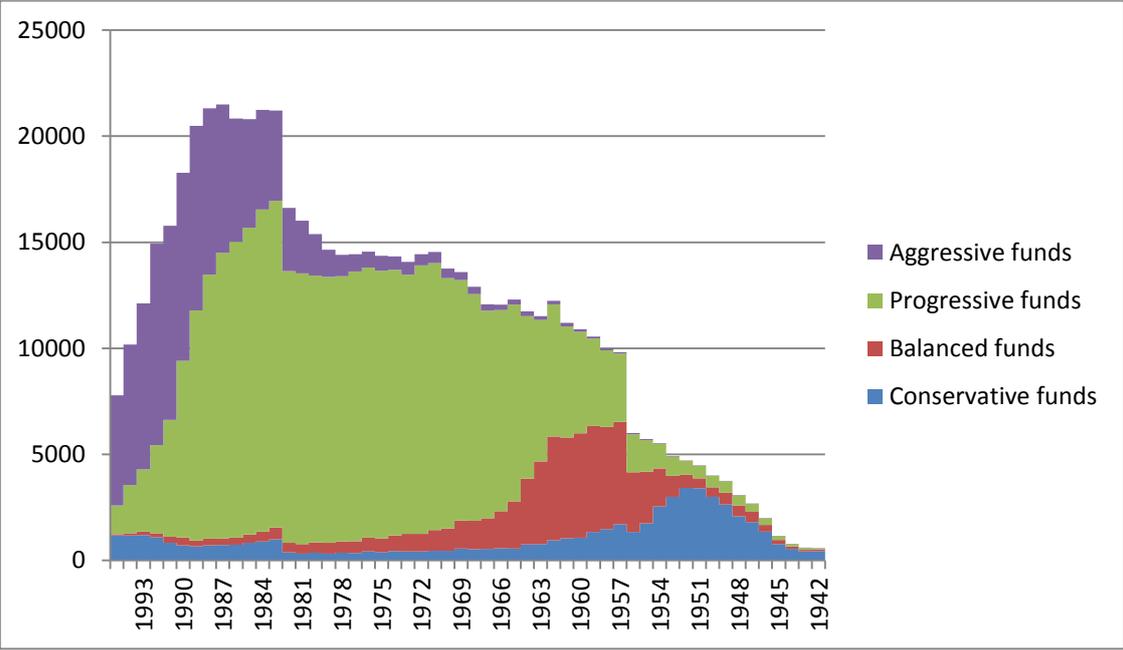
Compulsory pension funds may have four different investment strategies during the accumulation phase. Conservative funds do not invest into stocks; balanced funds invest up to 25% to stocks; progressive funds invest up to 50% to stocks and aggressive funds invest up to 75% to stocks. In the accumulation phase there is no automatic investment strategy that would adjust the risk level to the age of contributors, but investors themselves can shift both existing and new investments between pension funds with different investment strategies. Pension fund managers must offer a conservative pension fund<sup>9</sup>.

Current data (see figure 1) suggest that when people approach retirement they shift to pension funds with lower exposure to investment risk. Younger people, on the contrary, are willing to take higher investment risks by choosing the most aggressive pension funds.

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<sup>9</sup> Investment Funds Act. (2013) (<https://www.riigiteataja.ee/en/eli/510082015002/consolide>)

Figure 1: People who have joined the compulsory funded pension scheme by investment strategy and birth year, 31.12.2014



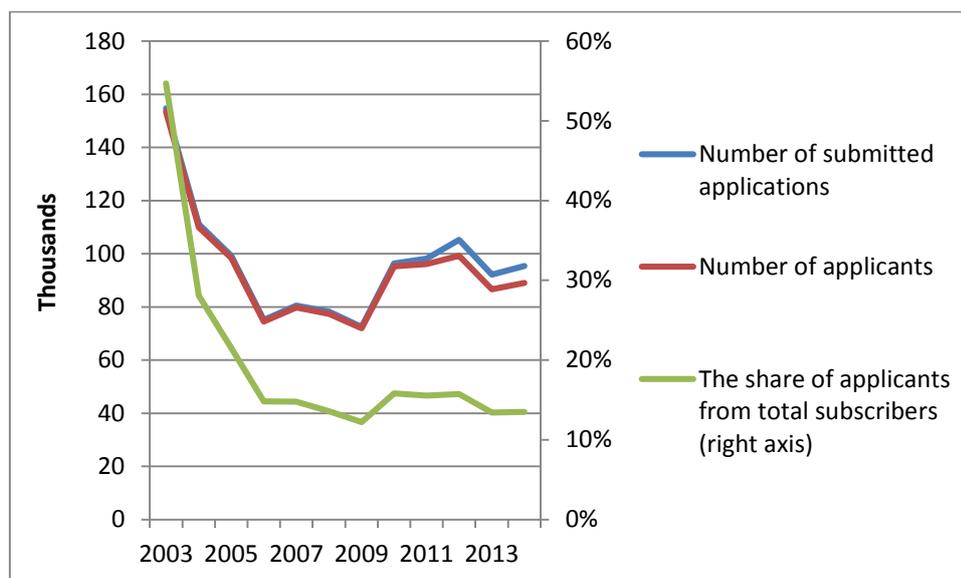
Source: Riikliku vanaduspensionini..., Authors calculations

A person can change all his/her pension fund units to another fund manager's pension fund up to three times a year<sup>10</sup>, but this may cost him/her up to 1% of the assets. For people who have 5 years or less to the retirement age this change is free of charge. Change of funds within one pension fund manager may be free of charge. Additional new contributions can be allocated to a new pension fund continuously, and there are no extra costs associated with it. (Until 2011, the change of contributions to another pension fund was allowed only once a year.)

When the compulsory funded pension scheme was introduced, many people changed their contributions to another fund, but over time it stabilized. About 15% of contributors change their contributions to another pension fund at least once a year. The proportion increased slightly after more flexible rules were introduced in 2011 (see figure 2).

<sup>10</sup> This seems more frequent than what the PEPP regulation has in mind

Figure 2. Number of applicants and submitted applications for changing compulsory funded pension scheme fund



Source: Pensionikeskus, Authors calculations

Around 665 000 people participate in the II pillar in beginning of the year 2015 that is around 83% of people in age 20–64 in Estonia (see table 1). Around 95% from all subscribers have pension units and each year about two thirds contribute actively (have employment income)<sup>11</sup>.

Table 1: Estonian compulsory pension funds strategy, value and nominal growth rate, 1.1.2015

Risk strategy	Actively contributors (as %)	Value, million euros (as % from GDP)	Annual nominal growth
Conservative funds – 0% to stocks	46,904 (7.4%)	185.8 (0.9%)	2.9%
Balanced funds – up to 25% to stocks	68,414 (10.8%)	299.2 (1.5%)	3.1%
Progressive funds - up to 50% to stocks	401,682 (63.5%)	1,524.6 (7.6%)	4.5%
Aggressive funds - up to 75% to stocks	115,107 (18.2%)	186.4 (0.9%)	5.5%
<b>TOTAL</b>	<b>632,107</b>	<b>2,196.0 (11.0%)</b>	<b>4.0%</b>

Source: Riikliku vanaduspensionini..., Authors calculations

Investment fund managers have to publish regularly the statement of investments, both on their own website but also on the Estonian pension system website<sup>12</sup>. There is another website (<http://www.minuraha.ee/pension>) that provides detailed information on all three pillars of the

<sup>11</sup> Riikliku vanaduspensionini, kohustusliku kogumispensionini ja vabatahtliku kogumispensionini statistika. 2015, Ministry of Finance of the Republic of Estonia  
 . [[http://www.pensionikeskus.ee/files/dokumentid/kogumispensionini\\_statistika\\_012015.pdf](http://www.pensionikeskus.ee/files/dokumentid/kogumispensionini_statistika_012015.pdf)]

<sup>12</sup> Pensionikeskus. Mandatory pension funds. (<http://www.pensionikeskus.ee/en/ii-pillar/funds/mandatory-pension-funds/>)

Estonian pension system and helps consumers to make educated choices, by comparing their investment strategies, fees, and links to historical performance.

There are strict rules how investments of pension funds are protected. Pension fund managers have to separate own and unit-holder assets. If some kind of loss is due to the management fund, this has to be repaid either by the fund manager or by the Guarantee Fund if the management fund does not have enough resources.

A unit-holder is entitled to mandatory funded pension payment only when the person has reached the age of old-age pension. There is no other possibility to access pension assets before pensionable age<sup>13</sup>. At retirement compulsory pension fund units must be transferred to life-time nominally guaranteed annuities. The level on nominally guaranteed income stream offered by life insurance companies depends on their expectations on developments of the interest rates and life-expectancy. The insurer bears fully the investment risk related to the pension contract. The legislation allows policyholders and the insurers to agree upon the increase of pension payments (e.g. inflation-indexed annuities), but these are not offered currently in the Estonian financial market. In addition to agreed income stream, the insurer is obliged to distribute at least 50% of the technical profit of the pension contracts of each financial year between the policyholders of pension contracts and the beneficiaries increasing all the future pension payments in the following year.

Conversion to nominally guaranteed annuities can be postponed by unit-holders, hoping for increased interest rates and increased value of pension assets. By the end of 2014, 31% of unit-holders who had right to pension annuities have postponed the conversion. If the total assets are very small, which they still are, alternative withdrawals are possible, such as a single payment (35% of cases by the end of 2014) or regular payments from the pension fund (50% of cases by the end of 2014). If the total assets are very large, a combination of annuities and periodic withdrawals are allowed.

In case the person dies before pensionable age, the accumulated funds are inheritable. The inherited pension units may be transferred to the successor's pension account or cashed out, which has happened in about 90% of cases in 2012-2014.

It is also possible to make annuity contract with a guarantee period (right now it is possible to choose between 0 to 19 years). Pension payments will be made to the successor until the end on guarantee period. People also have opportunity to make joint pension contracts. Then in case of the death of the policyholder the rights arising from his or her pension contract will transfer to the insured person.

While the compulsory funded pension scheme has some flexibility in the accumulation phase, it is quite rigid in the decumulation phase. This is often regarded as the most serious problem of the compulsory funded pension scheme. As future pension payments would be annuities then risks are on the shoulders of the insurance companies because investment companies have to bear both the longevity and insurance risk (Funded Pension Act 2014). High risks are one of the reasons why there are only three insurance companies who offer life-time annuities for the funded pension scheme.

On the other hand, there is much flexibility in the voluntary pension scheme both in the accumulation and decumulation phase. The popularity of the voluntary pension scheme is still limited with about 43

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<sup>13</sup> However, pension assets can be accessed before retirement age in voluntary funded pension (III pillar) but then there is difference in taxation.

thousand contributors (about 6% of working age population) and about 64 thousand contracts in the form of life insurances in the end of 2014. In addition, more than half of the participants have withdrawn their pension assets already before the age of 55, effectively reducing the role of the voluntary pension scheme in insuring income stream in old-age.

Going over from Estonian PPP to PEPP or establish PEPP separately would be advantageous for Estonian mobile workers in Europe, who would like to collect their pension assets to one investment fund. It would probably restrict the options to switch between providers up to three times a year which seems excessive. The PEPP would not solve the decumulation rigidities. In addition, the PEPP might be good as a default option for a life-cycle investment strategy. Finally, the Pan-European system might increase competition and hence lower management fees of current Estonian pension funds.

#### **4.5 PPPs in Hungary**

In Hungary, asset-based income plays a marginal role in financing consumption of the currently old. Calculations by Gál and Törzsök (2015) reveal an overwhelming dependence of old age consumption on public transfers. In 2012, public cash transfers, mostly pensions, made up about three quarters of net income of the 59 years old and older cohorts (59 is the average age of leaving the labour market and the average age of per capita consumption exceeding per capita labour income). The rest, another one quarter was labor income. Asset-based revenues represented a mere 1.1 percent. Any effort to increase the share of asset income in old age revenues has to start from a low base.

There are four main forms of pre-funding for income replacement in old age. Between them they hold assets of about 6.5 percent of GDP. As shown below, all four are dormant or nascent and underdeveloped, especially in the pay-out phase. Pre-funding for old-age is insufficient and currently the financial sector is prepared only to collect funds and pay out lump-sums but not annuities.

##### *Mandatory private pension funds*

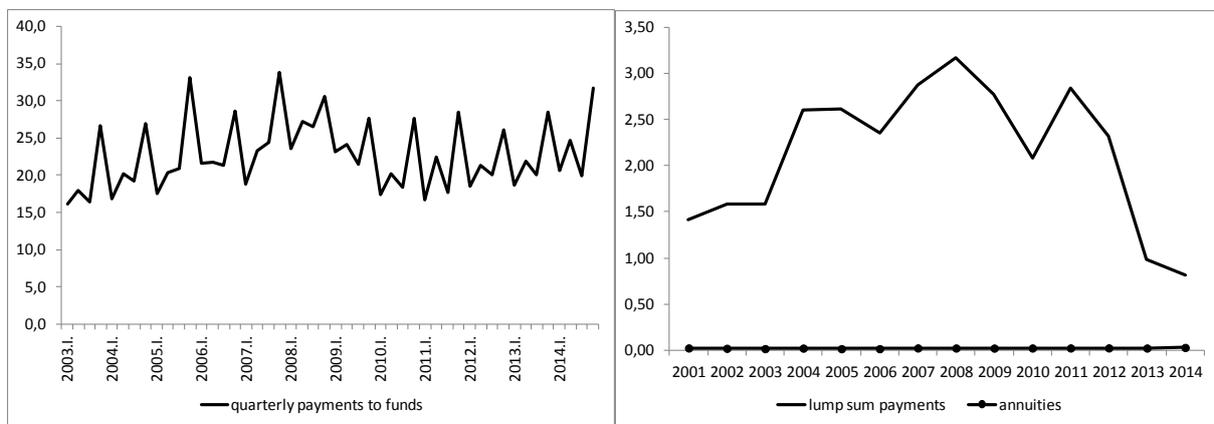
In 1998, the national pension system, based on the pay-as-you-go principle and characterized by nearly universal coverage, was extended with a privately managed, mandatory, pre-funded scheme. The reform created a mixed system. Members paid part of their mandatory contributions to a fund of their choice; the rest was sent to the first pillar. In exchange they gave up part of their future claims in the pay-as-you-go scheme. New entrants to the labor market were obliged to join the mixed system; people with established accruals could choose. By June 2011 the number of fund members reached 3.1 million, about three quarters of the labor force; reserves grew up to an amount equivalent of about 12.5 percent of GDP. This build-up of reserves rapidly reversed. The government that was elected in 2010 created conditions that made 97 percent of members of the mixed system return to full pay-as-you-go. These conditions included the restoration of accruals in the first pillar which went lost at the time of opting out to the mixed scheme. By September 2011 the number of members of the mixed system dropped to 0.1 million; this number has further decreased to 0.06 million since then. A recently enacted regulation will likely further diminish or potentially eliminate the remaining funds.

All in all, this pre-funding experiment can be considered a closed chapter in the history of Hungarian public pensions.

### Voluntary supplementary pension funds

Voluntary supplementary pension funds represent the most developed form of the sector. They opened in 1994 and although they could attract 1.2 million members (down from 1.4 million in 2007) the value of assets per member is a meager HUF0.9 million, less than €3,000. Even this amount is to a large extent foregone public revenue. Unlike the now defunct mandatory funds, voluntary funds collect after-tax income. Up to 20% the membership fee can be deducted from the personal income tax. The ceiling of this deduction is HUF150,000 (somewhat below €500). The left panel of Figure 1 shows a strong quarterly cycle: usually about one third of annual payments are transferred to the funds in the last quarter.

Figure 3: Voluntary funds: revenues (left panel, billion HUF) and pay-outs (right panel, % of old-age benefits)



Source: National Bank of Hungary.

The property rights structure resembles mutual savings associations. Members are not clients but co-owners of the fund holding non-tradable property rights. This could lead to managerial control over the funds, which is counteracted by strict regulation. Among the long-term saving instruments voluntary pension funds are the most closely monitored institutions as far as the accumulation phase is considered. However, this does not extend to the process of benefit payments, which has hardly started. Voluntary funds pay almost exclusively lump sum amounts to their members. The annuities paid in 2014 made up to about 0.03 percent of old age pensions in the pay-as-you-go scheme (see the right panel of Figure 3).

Prior to reaching retirement age reserves can be taken up only under prohibitive taxes (all tax deductions returned and topped with a 20% penalty; in addition, the amount taken up is subject to income tax [16%] and health contribution [27%]). After a 10-year waiting period this burden is eased. Yields can be taken up and tax deductions are not to be paid back any longer. From the second year after the waiting period ended the tax burden is also gradually exempted, 10 percentage points each year, resulting in full tax exemption after 20 years.

### Pension pre-funding account (*Nyugdíj előtakarékossági számla, NYESZ*)

The pension pre-funding account (NYESZ by its Hungarian acronym) was legislated in 2005. It is a special-purpose securities account, which offers more freedom to the client in terms of depositing and

portfolio decisions than the voluntary funds. It is supported by the same 20% tax deduction, although its upper ceiling is lower, HUF100,000-130,000 (€320-420), depending on the expected year of retirement. By the end of 2013 it attracted only 160,000 clients. Savings per contract are about HUF3.5 million (about €11,300).

NYESZs are still in the phase of accumulation and the way these savings will be turned into annuities is unspecified.

NYESZ-savings are costly to take up before retirement and a minimal accumulation period of 10 years. Yields become subject to income tax (16%) and health contribution (27%) in case of retirement but an accumulation period shorter than 10 years. If the 10-year rule is violated and the account owner does not retire at the time of take-up the taxes mentioned are levied and all tax deductions, topped up by 20% penalty, have to be paid back.

### *Special-purpose life insurance*

Special pension-purpose life insurances can be sold since last year. By the end of 2014 insurance companies opened about 70,000 contracts in the value of HUF222,000 (€720) on the average. As in all other forms annuitization of the accumulating assets is not properly developed.

Surrender value can be accessed after three years but the 20% penalty on tax deductions holds here and a 22% interest tax applies, which gradually decreases to 0% after 6 years.

### *Consumer protection*

The less than one-and-a-half decade while mandatory private pension funds (MPPFs) were active was a test of consumer protection. At the time of the great reversal MPPFs were made to cash out real returns to former fund members. In the end, the total amount of real returns were a meager Ft233 billion, which the MPPFs made on an assets gradually growing up to Ft2,945 billion in the course of 13 years. The poor returns were a result of several reasons, some, however, were direct consequence of weak protection of consumer rights. Shortly after the 1998 reform was implemented Augusztinovic et al (2002) found two types of MPPFs: funds, which selected their asset managers in the market and other funds, which belonged to large financial institutions, such as savings banks or insurance companies. While there was no significant difference between the gross market returns of the two types, net returns of the latter type were considerably poorer. Asset management fees in the first group were far lower than the management fees charged by insider asset manager companies in the background of the funds in the second group.

## **5. Conclusions**

In this paper we summarized and analyzed EIOPA's proposal for Pan European Pension Products (PEPPs). The PEPP proposal only considers the accumulation phase of Personal Pension Products which is an important limitation. Moreover adequate design of e.g. the investment strategy in the accumulation phase seems hardly possible without knowledge of the decumulation options that will be available. The Personal Pensions with Risk Sharing (PPR) contracts that are currently at the heart of the policy debate in the Netherlands seem to offer options to integrate the accumulation and

decumulation phase as well as structure the decumulation phase without having to harmonize, e.g. because some countries insist on insurance of longevity risk while others allow lump sum payments.

EIOPA's proposal also contains new guidelines for the option to switch between providers and to access pension capital as well as new rules for consumer protection. Section 4 compared the proposed rules for PEPPs to existing products in four European countries. As often in Europe, local regulations are very different between countries.

The adequate motivation for restrictions on switching between providers seems not to be in liquidity costs but rather to be that investors might well put too much focus on recent investment performance as a predictor of future performance. The issue is clearly linked to the difference in options to access pension capital in the different countries. As far as information disclosure is concerned more attention is recommended to the impact of biometric risks which is again very different in different countries. Whereas in some cases pension capital is inherited in case of death during the accumulation phase by the heirs as a death benefit, in other cases the capital is added to the collective pool to keep lifelong benefits affordable. More attention is also recommended for tax issues, because current tax provisions for national PPPs seem to be rooted in characteristics of the decumulation phase that can be avoided in the second regime.

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