Social and Provision Models of Pension Insurance and Savings

Sociální a správní modely důchodového pojištění a spoření

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Abstract

The social models (welfare regimes) typology makes it possible to understand the basic pension scheme concepts, key role of social policy in this regard, determined on the basis of public choice. However, pension provision systems also play a significant role in practice; provision model of a pension pillar or tier may considerably affect the results of application of the relevant social model. Analyses confirm the failure of annuity markets – not even government regulation could successfully reduce annuity costs to a sustainable level in any country, comparable to the provision of public pensions. Therefore, the private sector can only offer pensions savings, moreover with crucial government regulation. Occupational schemes converge to either mandatory or quasi-mandatory schemes throughout the world, or transform to workplace pensions as a new provision model that represents a soft compulsion neoliberal system in combination with auto-enrolment.

In addition to analyzing social and provision models from the general perspective, with key emphasis on representative countries' experience, the paper concentrates on individual pillars of the Czech pension system that have recently undergone a number of reforms, usually resulting in no improvement in their efficiency. All pension pillars in the Czech Republic are thus in need of a major reform.

Keywords

retirement pension, welfare regimes, pension savings, occupational pensions, administration, annuity markets, financial intermediaries

Abstrakt

Typologie sociálních modelů umožňuje porozumět základním koncepcím penzijních systémů, klíčové úloze sociální politiky v tomto směru, o níž rozhoduje veřejná volba. Podstatnou roli v praxi ale hrají i správní systémy poskytování penzí; správní model v penzijním pilíři či jeho složce může podstatně ovlivnit výsledky aplikace příslušného sociálního modelu. Analýzy potvrzují selhání anuitních trhů, ani státní regulace zatím v žádné zemi nesnížila náklady anuit na únosnou míru, srovnatelnou s poskytováním veřejných penzí. Soukromý sektor tak může nabídnout pouze penzijní spoření, a to ještě se zásadní státní regulací. Zaměstnanecké penze ve světě směřují buď k povinnému či kvazipovinnému systému, nebo k transformaci na penze spojené s pracovními místy (workplace pensions) jako novému správnímu modelu penzí, který v kombinaci s automatickým zahrnutím do systému (auto-enrolment) představuje "jemně" povinný neoliberální systém.

Vedle analýzy sociálních a správních modelů penzí v obecné rovině, se zásadním důrazem na zkušenosti reprezentativních zemí, se příspěvek koncentruje i na pilíře českého penzijního systému, které prodělaly v posledních letech řadu reforem, jež ale po většině nevedly ke zvýšení jeho efektivnosti. Zásadní reformu vyžadují všechny české penzijní pilíře.

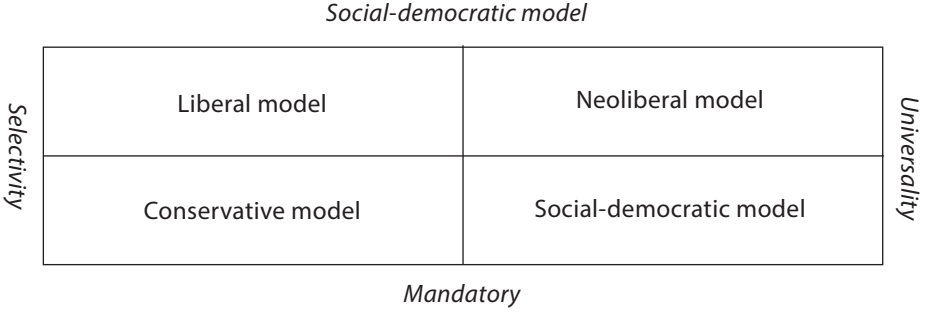
Klíčová slova
starobní penze, sociální modely, důchodové spoření, zaměstnanecké penze, správa, anuitní trhy, finanční zprostředkovatelé

JEL Codes
H55, G22, J26, H53

Introduction
Many different pension savings / insurance systems have formed throughout the world, resulting from the historic social and economic policy development in the respective countries. It is possible to trace several characteristic systems that may be considered the application of the basic social models or welfare regimes, as appropriate, as defined by Esping-Andersen (1990). Therefore, we distinguish liberal, conservative, and social-democratic social models. The pension model range is also completed with a neoliberal social model that has evolved, using the typology of Bovenberg and Ewijk (2012), while adhering to the terminology of Esping-Andersen. We rely on the fact that the selection of one of the social models results from public choice in terms of the modern public policy. Ideally, each pension system should thus stem from one of the aforementioned social models.

The objective of this paper is to elaborate a typology of the contemporary decisive provision pension savings / insurance models and to describe their ties to the given social models. An impetus for this paper has been the discussion on the so-called second pension pillar in the Czech Republic both prior to and after the implementation thereof, as these discussions have disclosed fundamental differences even between the proposed private pension savings concepts. Current discussions on the third pension pillar in the Czech Republic have also disclosed key differences within the pillar in its existing form, associated with different provision models being applied. The issues relating to the second and the third pillars greatly overlap and coincide. Therefore, we aim to make at least some contribution to the given pillars' reform in our country.

Figure 1: Typology of social models



Source: Own elaboration, inspiration from Bovenberg and Ewijk (2012)

1 Social Models

Each pension model features "its" social-political concept that has been evolving with the development of economy and of the entire society. At this point, we focus on the key pension model characteristics and their transformations in typical countries, also taking into account the principle parameters of such systems.

1.1 Liberal Social Model

As logic dictates, the standard liberal social model is very simple, because it refuses any significant government interventions in the social area – and consequently does not comprise public pensions, promote occupational pensions, or motivate people to arrange personal pensions. In principle, classical liberals do not feel the need to occupy their mind with the issues relating to pension security. After all, old-age itself is not detrimental. Under this model, only general means-tested pecuniary benefits are acceptable, if they are provided to all municipality residents incapacitated for work, or benefits in kind (food, accommodation or other services), as appropriate. The classic liberal pension model does not currently exist in any OECD country.

The modern liberal model already recognizes special means-tested old-age pensions; it is not viewed as social assistance benefits, but instead as a public expenditure program of the government (i.e. not municipalities). An example of the means-tested old-age pension is the "Age Pension" in Australia that provides – together with means-tested supplements and rent assistance – income exceeding the poverty at risk line used in the EU (60% of the income median) even to the poorest senior citizens! Such significant means-tested old-age pensions cannot be found in any other country. However, several advanced countries feature considerable universal (flat-rate) old-age pensions that is viewed as a sign of the modern liberal pension social model. An exemplary universal pension is the "Superannuation" in New Zealand, tax-financed and providing income exceeding the OECD poverty line (50% of the income median). Similar universal benefits are not paid out in other social situations in New Zealand. From this perspective, "NZ Super" may be viewed as a special "basic income" – solely for seniors; basic income projects are designed as benefits for all people (Van Parijs, 2004).

In literature, the modern liberal social model is most frequently associated with the liberal Beveridge or the 1942 Beveridge Committee Report that became the basis of the British post-war social policy. The Beveridge model relies on the existence of universal benefits, at the social minimum, provided in case of old-age, disability, illness, unemployment, maternity, etc., supplemented by social assistance system and financed through universal (not earnings-related) national insurance contributions. The amount of benefits should have been identical for all main loss of income situations: unemployment, disability, and old-age. The overall system was declared as a plan of insurance – providing benefits in return for contributions, up to the accepted social minimum level, as a right, without any means-testing – i.e. individuals can further build on this (Beveridge, 1942). According to Beveridge, the primary social security method was private insurance. Beveridge advocated the "tripartite" financing of the national insurance – In addition to contributions by

both employees and employers, there were supposed to be significant contributions of the government – by reason of the redistribution from the rich to the poor. Employers' contributions were substantiated, among others, by the companies' interest in the social security of employees (Seely, 2013). The system of the "national insurance" universal benefits was implemented in 1948. Universal pensions were at 15 to 20% of national average wage. The national insurance contributions were designed and paid collectively for the entire national insurance, without distinguishing national insurance branches.

The Beveridge model may be viewed as a modern liberal model, mainly in reference to the existence of flat-rate pensions and other universal benefits. However, the post-war level of these benefits was relatively low, in any case compared to the current universal pension level – not only in New Zealand. This alone co-generated pressure on the establishment of other pension pillars. The development of the British pension system was significantly controversial during the following decades; however, let us limit our deliberations to the reform currently under way in this context. The British "basic state pension" will be relatively increased in 2016, to about 25% of the average nationwide wage – as part of a pension reform that is to simplify existing state pensions and supplements thereto.

Flat-rate pensions have existed in a number of other countries. They represent the basic alternative of today's solidary pension pillars, in combination with housing benefits, for example. Other pension pillars were formed in the course of practical applications in liberal countries; however, they cannot be considered a part of the modern liberal model. These other pillars apply a complete range of products and concepts, originating from different social models: public insurance pensions, occupational schemes – voluntary, mandatory, and quasi-mandatory – as well as personal and workplace pensions with hard or soft compulsion.

The pension systems in the following countries tend to be described as Beveridgean pension systems: Australia, Canada, Denmark, Ireland, Japan, Netherlands, New Zealand, Switzerland, United Kingdom, and United States (Conde-Ruiz and González, 2014). This is a relatively extensive interpretation of the "Beveridgean" model, with the existence of a significant solidary pension pillar being the key factor. The list also shows Switzerland and the United States that feature earnings-related public pensions, officially described as insurance; however, with prevailing solidarity principle. With this approach, the list should also include the Czech Republic.

Today, the modern liberal model is substantially modified – due to the existence of a range of "subsidiary" pension pillars. Nevertheless, the core of the model – i.e. significant solidary pension pillar – remains and has even been gaining ground. Hujo (2014) states that one of the two significant trends in pension reform after the Second World War is the rapid growth of universal noncontributory pension programs as the preferred public policy tool for alleviating poverty among older populations in both developing and transition countries.

1.2 Conservative Social Model

The conservative (corporatist) pension model is another important social model that includes a wide range of models (concepts) for individual social groups. The social stratifica-

tion is fundamentally reflected in these individual concepts or models, as appropriate – as well as in different methods of funding.

The first social group, which received privilege old-age security, included civil servants. The increasing number of basically poor clerical classes within civil service – instead of previous noblemen, materially secured by revenue from their respective estates – results in the need of their security at old-age as well as in other cases of loss of civil income. State security is formed during the period of stabilization of absolutistic monarchies. Conceptually, this system is part of the civil service relations of such officials; this was also reflected in the name of these pensions: they were referred to as, for example, retirement compensation (Ruhegeld), not as pension. This tradition has survived in German, for example: civil servants get "Pension", while the same officials in the private sector collect "Rente". These are public expenditure programs funded from the government budget, without employees' contributions (on a model basis). Following the Second World War, these expenditure programs were converging, to a certain point, with other pension systems in relevant countries. However, privileges in the relative amount of civil servants' pensions remained – otherwise, these separate systems would no longer make any sense. As of today, 13 (of 25) OECD countries feature separate pension systems for civil servants, 12 countries have an integrated system – similarly as all post-communist economies (Whitehouse, 2014). Nowadays, it is necessary to take into account the fact (among others) that civil service is no longer a lifelong employment. Civil servants' pensions may thus consist of two components, for example: pension paid out to civil servants (e.g. 2% of annual pay in the United States) and pension paid out to private sector employees (e.g. strongly solidary system in the United States) or to public sector employee (not at a civil servant position). In a "conservative" Germany (per model), the annual civil servant pension rate went down to 1.79375%, with maximum of 71.75% of the last salary after 40 years.

The most significant conservative pension model is the segmented social pension insurance. Its origination is associated with the German Chancellor Bismarck and the Blue-Collar Pension Insurance Act, effective from 1891. Conservative policy was also applied in respect of elite employees within the private sector; after all, it is not a coincidence that these schemes were established much earlier in many countries (including the Czech Republic) than the pension schemes for the working class. It is not just about the commencement date, but also about the construction and amount of benefits. For example, widows of these elite employees had to be eligible for unconditional widow's pension for the sole reason that – due to their status – they could not make their living through their own work. These approaches are still being applied in a number of developed countries, though in a reduced form, and are typical not only for pensions, but also for the relevant social model as a whole, typically (fittingly) referred to as a conservative model. It covers an attempt to conserve/preserve the entire, significantly socially differentiated model. This model is usually implemented through social insurance, typically segmented according to social groups or even individual professions. At the same time, the segmentation may also reflect the specifics of individual professions, e.g. their physical or other difficulty (miners, ballet, etc.).

Occupational pension schemes came into existence in a similar manner. Originally, there were efforts to apply "loyalty" dimension of this type of pensions as well. Following the

Second World War, occupational pensions significantly expanded in many countries, up to nearly nationwide fully funded schemes. Exceptionally; however, there are occupational schemes with book reserves only – for example, this is the most frequent funding method of occupational pensions in Germany. Tax deductions and similar constructions were crucial for the development of occupational schemes in individual countries. Today, a lot of emphasis is put on the transferability of such arising pension claims. This is best accommodated by fully-funded occupational pension schemes.

One extreme example can be found in the Netherlands, with more than 90% of employees taking part in occupational pension schemes on the basis of collective bargaining agreements – for this reason, this system tends to be referred to as quasi-mandatory. It is a fully-funded scheme, usually with relatively high replacement ratio at 70% of income. In addition to this, the Netherlands has universal pensions at the level of 30% of average nationwide wage. In 2012, the total net replacement ratio (on a model basis) – for both pillars – amounted to 104% for employees with median income! (OECD, 2013). Occupational pension schemes of all types contribute to the pension security segmentation, particular on a voluntary basis; this is how the trade unions' policy is often shaped. At the same time; however, these schemes allow adaption of pension schemes to specific workings conditions of individual branches or sectors. In terms of the social models, it is about the pension scheme degree – i.e. whether it is basically universal or segmented. Specifics may also be taken into account within a universal scheme, in the form of its superstructure.

Bismarck was at the birth of the blue-collar social insurance scheme, as one of the conservative social model segments. As a principle, the pension schemes of this type are separated from the government budget; they are funded from pension insurance premium, paid equally by employees and employers. This funding is in line with the ideology that was at the birth of the scheme. It was also associated with fully-funded plans and pension calculation on the basis of insurance period and last salary. In more than 100 years of its existence, the "Bismarckian" scheme has been subject to many changes. In Germany as well as other countries with comparable systems, two primary social pension insurance schemes – i.e. blue-collar and white-collar schemes – have been integrated. The integration processes have also made the subsiding of fully-funded schemes possible. In Germany, the basic social pension insurance scheme currently comprises more than 85% of wage-earners. Additional 9% are civil servants, with their separate pension scheme. Some self-employed individuals take part in the social pension insurance, others have their special social insurance scheme, and some are taking part in the voluntary "Rürup" pension. Separate systems are also available for farmers, miners, railway workers, and sailors. Overall, we can distinguish about 10 different systems. Therefore, segmentation – so typical for the conservative pension model – still persists. Austria, on the other hand, that had featured a similar pension scheme, consolidated all schemes as of 2005, converting to a universal social pension insurance scheme managed by a single pension institution.

Means-tested pensions often complement conservative pension schemes, usually not really robust, at the level of social assistance benefits.

The "Bismarckian" schemes tend to be perceived as schemes with earnings-related pensions in many specialized papers, as a counterpart to "Beveridge" schemes. In this regard,

Bismarckian pension systems tend to include the following countries: Austria, Belgium, Finland, France, Germany, Greece, Italy, Luxembourg, Norway, Portugal, Spain, and Sweden (Conde-Ruiz and González, 2014). The problem is that some of the aforementioned countries also feature significant solidary insurance pillars. From this shallow perspective, Bismarckian countries could also include the Czech Republic – if for nothing else than just for the fact that "pension insurance" is the primary pension pillar in the Czech Republic.

1.3 Social-democratic Social Model

A social-democratic social model tends to be characterized by the dominance of universal benefits. In this regard, this social model is very often referred to as a universal model. Universal (flat-rate) pensions, as the basic pillar of the social-democratic regime, would actually be in line with this characteristic. This had originally been the case in countries with social-democratic orientation. In this regard, we could formulate the classic social-democratic model as a model utilizing universal pensions with higher pension level in relation to average nationwide wage or median income, as appropriate.

The modern social-democratic policy largely focuses on the middle class. After all, modern social schemes in advanced countries basically provide for the needs of poor population groups, particularly in old-age. They usually differ in the form and degree of using more or less graduated social assistance benefits. In case it was the priority or objective (as appropriate) of the social-democratic policy to provide workers with higher than basic universal old-age security, it was only possible through earnings-related pensions. Goals of the social democracy electorate will most easily be enforced (on a model basis) through uniform, universal social insurance. In practice, this translates into increase of pensions under blue-collar schemes to the level of their white-collar counterparts. However, the key component of modern social-democratic pension schemes is also a robust solidary pillar – in contrast to the conservative pension model.

In 1913, Sweden introduced two-tier public pensions: means-tested basic pension for all residents and supplementary pension that was determined by insureds' contributions. The 1945 reform replaced the two pensions with a universal state pension (folkspension). Housing benefits were introduced in areas with higher costs of living (Palme and Svensson, 1999). High-level universal pensions may be viewed as an original social-democratic pension model.

In 1959, implementation of mandatory supplementary old-age insurance – as proposed by blue-collar unions and the social-democratic party – was passed by a referendum vote in Sweden. As of 1960, the „general supplementary pension" (ATP) became the essential pension pillar, providing rather generous pensions to population 65 years and over. The pension calculation was associated with an amount of national universal pensions. ATP contributions were paid by employers, at 13% of wage in 1994, without any limit to earnings. Nine years later, the system was supplemented by tested supplementary pensions.

The Swedish pension reform, implemented as from 1999, mainly significantly modernized the universal social old-age insurance by implementing an NDC (notional defined contribution) product, referred to as "income pension" (inkomstpension), with the system being

completed with a robust "guarantee pension" that increases low (and zero) NDC pensions. Therefore, the Swedish modernization of the social-democratic regime consists partly in more emphasis on universal social insurance, and partly in implementing automatisms for adapting pensions to demographic and economic developments. Sweden still has a system of quasi-mandatory occupational pensions – in excess of the social-democratic pension model, whereas a (mandatory) fully-funded universal social insurance scheme has been introduced, with individual investments possible, referred to as "premium pension" (premiepension).

The modern social-democratic pension model may particularly be characterized as a mix of universal social insurance and solidary pensions, either universal or tested to income from social pension insurance. On a model basis, the universal social pension insurance premiums are paid by employers. In principle, the senior housing benefit is also in line with the model. The existence of quasi-mandatory occupational pensions reflects the situation on the labor market that must be respected by social-democratic parties, as union members are mostly voters of these parties.

1.4 Neoliberal Social Model

The neoliberal model relies on the fact that the private sector should provide anything it can – as it is more effective, yet in principle. Therefore, the operating universe of the public sector is only reduced to solidary pensions. The Chilean pension reform, carried out since 1981, became a template for this pension theory and policy. "The Chilean pension model is a comprehensive alternative to the social collectivism initiated by … Bismarck at the end of the 19th century, which was the model for the welfare states of the 20th century. By cutting the link between individual contributions and benefits – that is between effort and reward – and by entrusting governments not only with the responsibility but also with the management of these complex programs, the Bismarckian pay-as-you-go pension system turned out to be the central pillar of the welfare state, in which the possibility of winning elections by buying votes with other people's money – even with the money of other generations – led to an inflation of social entitlements, and thus to gigantic unfunded, and hidden, state liabilities" (Piñera, 2001, p. 3). Factually, we must point out to our liberals, among others, that Bismarck is not associated with pay-as-you-go public pension schemes in any way. Moreover, it is not true that the Bismarckian government managed 41 self-governing institutions of mandatory blue-collar pension insurance. Other than that, Piñera's Chilean pension model represented a "world pension revolution" – as Piñera himself put it.

The Chilean, neoliberal pension model refuses contributions by employers – stating that pensions represent employees' personal claims. The Chilean government replaced existing employers' contributions with higher gross wages, while preserving the same net wages. Contributions to old-age pensions amount to 10% of wage; in addition to this, people may pay up to 10% of wage on their own. Moreover, people pay contributions to disability and survivor pensions, as well as overhead fees, determined by a wage percentage. All these payments represent pension funds' revenue; these funds purchase disability and survivor insurance from life insurance companies. After completing the savings phase, clients may select the following: purchase of old-age (or family) annuities from a life insur-

ance company; regular withdrawals of funds from their personal pension fund accounts; or the combination of the aforementioned alternatives. From 2009 the employers pay a (partial) contribution to disability pensions in the amount of 1.49% from wages in average.

Experience with the Chilean pension reform, as interpreted by its authors, were taken over by the World Bank and elaborated in its fundamental publication in 1994, which became the textbook of neoliberal pension theory and policy (James et al., 1994). This "new pension orthodoxy" requires radical detachment of solidary elements within the "first", public pillar. The newly designed "second" pillar should serve solely as a private fund-based system, built on the equivalency principle. The theory characterizes the pillar as mandatory private savings; however, in Chile, such savings are only mandatory for young employees, coming to the market for the first time. Others could enroll voluntarily; however, without the possibility to return to their previous social pension insurance scheme; this was the so-called opt-out – I.e. one of the forms of soft compulsion. Therefore, the original neoliberal pension model comprises two characteristic pillars: private pension savings or insurance (with hard or soft compulsion) and some of the solidary pillar forms (universal pensions, means-tested pensions, or government guaranteed minimum pension from the private pillar).

Partial reforms of the Chilean pension model have been taking place almost continuously since 1981 – the original system relied on self-regulation of the private sector (free market), whereas the government had gradually come to realize the need for implementing and reinforcing regulation. Major concentration has taken place within the pension fund sector; originally, 27 companies had been established, with only 6 companies currently remaining.

Esping-Andersen (1996) revealed the economics of the neoliberal pension model very soon after the release of the World Bank's "new pension orthodoxy": "Chile´s shift to a private individual retirement account system has necessitated huge public subsidies and, hence, the net effect is a de facto subsidization of private welfare. Also, operating costs appear to be prohibitively high. … The principal advantage of the system is that it is financially solvent, and that its huge savings help capital markets" [p. 22]. The relative financial solvency of the neoliberal systems is mainly due to the transfer of the investment risk to the clients of the defined contribution systems.

In practice, the generation of substantial (additional) public debts during the privatization of public pension schemes based on the 1994 World Bank concept led to the fact that the privatization was only reduced to partial privatization. This practice was, (particularly) in Poland, elaborated in the form of a theory, according to which it is optimal to perform the privatization from 50%, under the motto "Security through Diversity". It has been implemented – literally – in Slovakia only. Other countries, nearly all post-communist countries, were "more modest": they detached lower funds from the government budget, with a plan for their gradual increase. With "assistance" of the economic crisis, contribution rates under the private savings pillar were also being reduced, even with annulment of the pillar. In the Czech Republic, private pension savings on the basis of an opt-out were implemented as of 2013, the scheme should be terminated in 2016 or 2017. The "diversified" neoliberal pension model consists of two pension or savings pillars, one being a public (mandatory)

and the other one being private (soft or hard compulsion), and of a solidary pillar. The highly solidary Czech public "pension insurance" was not divided into a solidary pillar and an insurance pillar during the great pension reform as of 2013. Voluntary private pension savings or insurance represents another pension pillar in all modern pension models.

Individual pension social models have their own systemic logic that may either be recognized or not recognized; however, in principle, this logic cannot be scientifically defended or rebuffed, due to high degree of generality of all social model concepts. Nevertheless, our analyses have revealed that it makes sense to distinguish four basic pension social models: liberal, conservative, social-democratic, and neoliberal. Also remarkable is the structuring of individual pension models – emphasis placed on individual pension pillars. Expert activities of the World Bank were beneficial in this regard, as the World Bank attaches major importance to the conceptual "purity" of public pension pillars: they should be either purely insurance or saving (equivalence principle), or consistently solidary (social solidarity principle). The overall social and economic development in OECD and EU countries has resulted in a significant role of solidary pillars: they are included not only in the liberal regime, but also in the social-democratic and liberal models; a solidary pension pillar is also gaining ground within the conservative model. Therefore, these pension social models mainly differ – from a practical point of view – by the emphasis they place on earnings-related pensions and the form thereof: the liberal model could get by without them; however, one or another savings / insurance pillar is already used in practice of virtually all relevant countries. The neoliberal model envisages a private savings or pension pillar on the hard or soft compulsion basis. The social-democratic model accentuates universal social insurance and respects quasi-mandatory pensions. The conservative model is less and less resisting the trend towards universal social insurance and promotes occupational and personal pensions of different nature. The key lesson we should learn is the need to divide the existing Czech "pension insurance" to a solidary pillar and an insurance pillar, while rigorously analyzing other pillars. Each model pension pillar is also associated with a corresponding funding system, with significant impact on, among others, the labor cost level.

2 Provision Models

Each pension social model is associated with a different mix of the public and private sectors as well as different forms of products that are reflected in resulting annuities or pension savings. In this regard, costs and margins of pension institutions (as well as participants and contribution payers) represent an important factor; at this point, we will limit our deliberations to insurance and savings products and pillars. In the subsequent analysis, we will primarily distinguish two ultimate provision models: the public pension provision model and the traditional private life insurance provision model.

2.1 Public Pension Provision Model

Pensions and pension savings provided by public social administration are usually mandatory. (Voluntary pension insurance for some insured groups is irrelevant for our analysis.) The costs of public pension institutions roughly amount to 1% of the sum of expenditure

on pensions and on administration. In case this pension pillar uses funds, the costs of such funds' administration should also be taken into account. From the technical perspective, and consequently from the cost perspective, the most convenient solution is for public pension funds to invest in government bonds, as is the case of the basic public pension system in the United States – asset management costs are negligible; however, the government bond yields – and consequently the capital revenues of the given pension system – are also very low in this case. Pension insurance / savings funds may also be invested in financial markets – either directly by a public insurance company (e.g. in the Swedish NDC scheme) or by private financial institutions based on a tender (e.g. TSP in the United States or NEST in the United Kingdom). The average administration fees for NDC reserve funds in Sweden were as follows in 2013: 0.08% (operating costs), 0.07% (fixed management fees), 0.03% (performance-based fees), and 0.02% (transaction costs) – i.e. 0.2% of assets in total. NDC clients do not (directly) pay these reserve funds administration fees. In 2013, clients were charged a fee of 0.03% on their NDC account balances; this administrative fee corresponds to the relevant costs. At the same time, fees of 1% on insurance premiums would correspond to 0.04% of assets (Ehnsson, 2014).

In Sweden, "Premium Pension" has been used as a third tier of national pensions since 2000; globally, it is passed off as the "second" pension pillar according to the World Bank classification. It is a mandatory scheme with personal accounts that are managed by a national pension institution in line with clients' instructions; contributions amount to 2.5% of wage. At the end of 2013, clients could choose one of 850 pension funds managed by 104 different companies; the management is anonymous ("blind accounts") – these companies are not familiar with their "clients'" names. Most of new participants use funds of the national pension institution, also due to the existence of a default fund that collects funds of passive clients. (Under the original concept, there had been efforts to provide fund-related information to all clients to ensure their qualified investments; however, this approach was abandoned after several years and the national default fund is used instead that absorbs over 90% of all clients; however, more than 50% of all today's clients are in private funds, with significant "contribution" of participant inflow during the first concept operation.) The national pension institution is an exclusive provider of pensions under this scheme; it is possible to select different annuity alternatives: single or joint annuities, standard guaranteed annuity with profit sharing (bonuses) or variable annuity (a unit-linked product) – in two different versions. Average fees of the scheme amounted to 0.41% of assets per year in 2013, including management fee at 0.10% and average fee paid to individual funds at 0.31% of assets (Ehnsson, 2014). The "price" paid for the use of private funds and higher flexibility (freedom of choice) is the reduction of resulting pensions by about 9% – compared to about 1% under a full social administration system.

In principle, the public pension provision model is fully functional. Efforts aimed at privatizing public pensions were motivated by aspirations to change the social model – i.e. to convert to the neoliberal model. In many countries, practical experience with neoliberal reforms has not only resulted in stronger public pension pillars (e.g. solidary pillar in Chile), but also in the use of public insurance companies within the "second" pillar according to the World Bank classification. This is not just about low administration costs

of large public pension institutions, but also about respecting the behavior of the given system's participants.

2.2 Life Insurance Provision Model

Pension insurance is one of the life insurance branches – for example, according to the classification used in the EU for the purpose of forming a common insurance market. From the technical point of view, life insurance has been fully mastered long ago; actuarial mathematics has its undeniable place in life and pension insurance. In spite of all efforts to ensure actuarial-mathematical equivalency and application of demography to project mortality tables, the insurance premium calculations also involve exogenous variables – parameters such as reductions and surcharges – that considerably affect the "calculated" level of insurance premium and the insurance premium amount in each specific case. The resulting insurance premiums offered to clients are, in principle, market premiums, although it cannot be negotiated much in practice with insurance companies.

Specialized literature talks about the failure of annuity markets. On the most general level, such failure results from information asymmetry between a seller and a buyer of annuities and from the associated adverse selection on the part of a client. In this case, information asymmetry tends to be interpreted as follows: annuities are more likely purchased by those who live longer. "Adverse selection within annuity markets is given by the logical reasoning that it is very careless to purchase lifelong annuity if we subjectively do not expect high life expectancy" (Cipra, 2012). This factor itself does not necessarily represent a market failure – it depends on whether it is an empirically significant phenomenon that would justify the provision of pensions by the government, for example (Rosen and Gayer, 2010). Introduction of public pensions may lead to "crowding out" of private pensions. In addition to this – or actually mainly for this, as appropriate – the pension market failures in a wider sense (i.e. pension markets are not used) result from the behavior of prospective clients, e.g. myopia, where people prefer their life today and tomorrow, with only minor attention given to old-age security. Moreover, many clients generally do not trust financial institutions and the financial market as a whole.

The entire insurance market is characterized by severe bilateral information deficiency, with negative financial impact on both parties to an insurance transaction (Ducháčková, Daňhel et al., 2012). The pension insurance market, and thereby basically the entire life insurance market, is far from an ideal market. Most people have aversion to risk, let alone to longevity risk, the coverage of which is (should be) the main purpose of pension insurance. While social pension insurance or even universal pensions cover this risk ideally – old-age pensions are drawn for the rest of one's life – other aspects and interests (or lack thereof) of prospective clients are reflected in their approach to private pension or life insurance. Naturally, all this on condition that such private insurance is voluntary. (Mandatory insurance or mandatory annuitization of mandatory savings, as appropriate, represents a separate issue.) Pension insurance markets also vary considerably across individual countries.

Under (relatively) liberal conditions, private pension markets have not been really successful. In New Zealand, not one insurance company currently offers annuities. Annuities

are only used in the residual occupational pension market. This is rather interesting in the light of the fact that there were 9 annuity providers in New Zealand in 1993, down to three in 2003, with only one annuity provider left in 2009 – this provider only arranged 17 annuities with clients 65 years and over (St John, 2009). The "cause" of this annuity market collapse in New Zealand apparently was their liberal pension policy in the period from 1988 to 2006, barring direct or indirect government subsidies of any pensions!

Pension insurance sold by life insurance companies is usually constructed and sold similarly as other life insurance segments. This also applies to the Czech Republic. Almost no data are available on this insurance segment in the Czech Republic. The Czech Insurance Association does not publish anything, and neither does the Ministry of Finance. The Czech National Bank states that premiums written for "pension insurance" amounted to CZK 1.8 bn. in 2013, i.e. 2.5% of total life insurance premiums (ČNB, 2014). More detailed data are not published. The significance of pension insurance is basically marginal; moreover, we can assume that the relevant insurance policies include provisions on the possibility of one-off settlement instead of pensions (capital option) at the end of the period of regular insurance premium payments. It is safe to assume that clients commonly take advantage of this option.

The aforementioned information on pension insurance only relates to conventional pension insurance that meets characteristics of a defined benefit product, with a fixed annuity amount negotiated (with potential bonuses on the top of it). Unit-linked pension insurance is not classified as a life insurance branch in the EU; it is only a unit-linked life insurance component. In a typical case, this product may also be terminated with a one-off settlement in the Czech Republic. There is nothing more written about it. Analysts may only compare product simulations. The following conclusion may roughly be drawn based on such simulations: unit-linked pension insurance is not significant on its own – comparisons are made for "general" unit-linked life insurance with other domestic products.

The standard private life insurance provision model is associated with a wide product portfolio of individual life insurance branches and types, which are difficult to navigate for clients. In addition to this, there is the aforementioned underestimation of importance of most life insurance plans. In the given situation, the sale of most life insurance plans requires qualified, broad-spectrum consulting – i.e. the solution consists in standard sales force networks, remunerated through commissions. This provides ground for mis-selling with a view to get commission at virtually any price. It is not a coincidence that there were extensive mis-selling campaigns in the 1980s and 1990s – after implementing the possibility of double opt-out – originally, a universal social pension insurance (SERPS) was implemented with potential replacement with occupational scheme in the relevant company, whereas the Cabinet of Thatcher then motivated employees of opt-out of occupational schemes into a personal pensions pillar. The second opt-out was not beneficial for many employees; nevertheless, dealers were very successful in mis-selling personal pensions.

Commissions can also work their magic in our country – the client "re-coverage" is a widely known mis-selling practice; it consists in the fact that an adviser convinces clients to withdraw from an older life insurance policy and take out new, allegedly more beneficial life insurance policy. All this is motivated solely by (another) commission gaining. Clients are significantly damaged, because the surrender value is a fraction of the premiums paid

(for insurance coverage with significant investment component); insurance companies actually charge all acquisition costs to clients, even with a surcharge for contract violation. A similar campaign, in a less drastic form, was organized directly by a leading Czech life insurance company; the objective was to replace insurance product relatively beneficial for clients with considerably worse product (i.e. more beneficial for the insurance company).

The key significance of a distribution network for life insurance sales is in practice also reflected in the fact that the ownership or contractual arrangement of such networks represents a major barrier to entry into the life insurance market. Similarly important is clients' inertia – e.g. decision-making processes on annuitization of savings in the United Kingdom. This leads to high concentration of the life insurance market in many not only relatively small countries. All this is reflected in high margins of life insurance companies.

Consumer protection organizations are, at least partially, successful in the life insurance sector of the Western world. This has actually led to a recent ban on the provision of commissions by insurance companies in UK; naturally, independent advisers may give advice to clients for a fee – (directly) paid by clients. Moreover, there have been long-term efforts aimed at standardizing basic life insurance products in UK so that clients can effectively compare them. It is the comparability of products that represents the major problem, not only for average clients. It is actually a fact that insurance companies intentionally design their products to ensure they are not basically comparable; on a general level, this is the case in most sectors of the economy; however, life insurance products are very difficult to compare due to their very nature.

In 2014, the Czech Ministry of Finance suddenly reacted to the misuse of unit-linked life insurance for tax optimization of earnings through employers' contributions to private life insurance – the amendment to the Income Tax Act newly excluded unit-linked life insurance from the definition of "private life insurance" (authorized to with income tax base deduction as well as similar deductions from the social/health insurance assessment base in case of employers' contributions). The Czech Insurance Association successfully prevented the amendment; a parliamentary proposal for an amendment correction replaced this exclusion with a ban to withdraw one's savings in the course of the insurance term and claim government support. Moreover, insurance companies reacted by introducing "self-regulation" measures aimed at promoting transparency of unit-linked life insurance plans sold. This "self-regulation" also included the following two indicators:

- Standardized cost indicator in the form of a pie-chart informs clients about the percentage of premiums paid to risk premium, insurer's costs, and investments in funds.

- Synthetic TER (total expense ratio or ongoing charges, as appropriate) represents annual rate of costs of an investment fund in relation to the current assets.

Insurance companies now show such indicators within extensive pre-contractual information for clients. For example, Česká pojišťovna specifies 12 investment funds for the "My life" insurance, with TER ranging from 0.08 to 3.19%, whereas two of the featured funds of ČP Invest (fund of funds) also show "synthetic TER" in the amount of 2.14% and 2.21%, all data are for 2013. The relevant table also contains information that the maximum manage-

ment fees for the said funds amount to 3%, as well as information on the current fee for individual funds, ranging from 0 to 3% (ČP, 2014).

The self-regulation measures of insurance companies are certainly welcome; however, the important thing here is whether costs and fees go down. The synthetic TER, as approached by Czech insurance companies, covers only funds' costs, but does not contain insurers' costs or margins included in gross premiums, let alone standard surcharges in actuarial background data of annuities. The said TERs do not include annuity phase costs, which are estimated at extra 0.25 to 0.5% of assets per year during the savings phase (D'Addio et al., 2009). On the other hand, there are not very many pensions paid out under unit-linked life insurance; therefore, the annuity phase costs only have minor importance under this insurance.

TER is the most frequently used indicator of investment funds' costs (cost-to-revenue ratio). It does not include all funds' costs or margins. Blake (2014) actually states that about 80% to 85% costs are hidden costs. According to him, hidden cash costs include: bid-ask spread, transactions costs in underlying funds, undisclosed revenue; hidden non-cash costs then include: market impact, information leakage, market exposure, missed trade opportunity or market timing costs, delay costs. The whole area of assessing costs is very extensive, exceeding the scope of this paper. We should also add that TER of 1.5% to 2.5%, with all costs included, is considered to be an average value within the life insurance sector. The impact of such TER on the resulting amount of savings after 40 years is the reduction of the entire pension pot by 30% to 50%. This is a lot, but it also documents the dominance of choice from many life insurance products, with expensive distribution, within the competitive environment prevailing in Western Europe.

The private life insurance provision model is not suited to support arrangement of mass private pension insurance; this model corresponds to life insurance sales, customized to individuals and families – with reservations, as there are trends aimed at reducing overhead within this life insurance segment as well. Elsewhere competition between private providers is assumed to reduce charges. As charges are opaque, competition generally proves an ineffective instrument to control costs. Pensions, particularly personal pensions, are not bought off the shelf, but are actively sold. How a product is marketed shapes what consumer hears and the choice she makes. UK now relies more on caps than competition to keep charges in check (Casey, Whiteside, 2014). These facts should also be reflected in the Czech government policy with regard to "private life insurance".

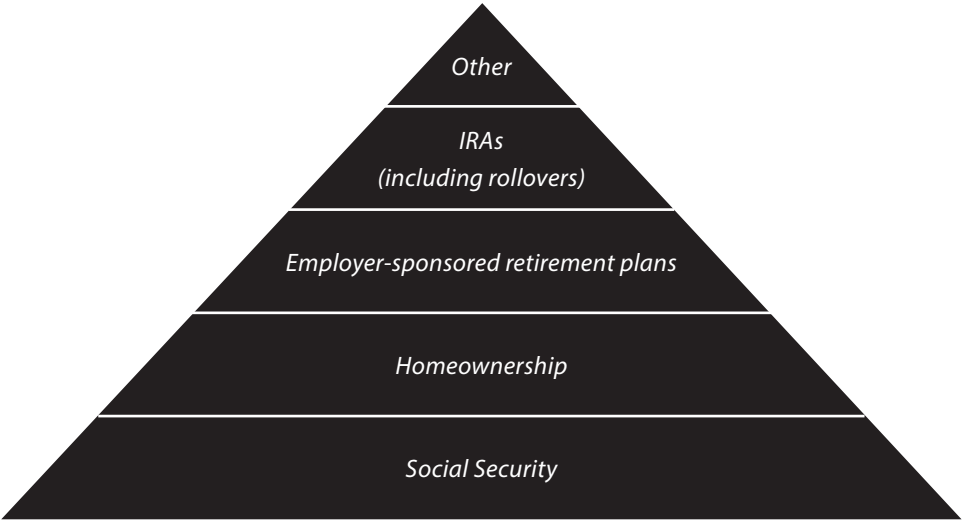
2.3 Occupational Pension Provision Model

Occupational pensions have evolved in many advanced countries after the Second World War. (Or thanks to the Second World War, if you like, in the United States – as a byproduct of wartime wage regulation – as company benefits were not subject to such regulation … and labor force was scarce during the war conjuncture.) Liberals refused occupational pensions as ineffective paternalism. On the other hand, conservatives agreed with them, due to their emphasis on "performance" rather than social stratification. Communists annulled occupational pensions, because they contradicted central planning as well as the

Leninist ideology of social benefits at the level of full wage, only to introduce occupation categories as a preference of manual and risky labor within otherwise uniform pension security – as it was already clear that the Leninist social insurance program could not be supported by the economy. Our liberal Klaus enforced the annulment of occupation categories and, as a form of compensation, permitted employers' contributions to supplementary pension insurance, operated by private companies. The social-democratic social model combines two universal pension pillars: uniform social insurance and universal pensions or income-tested pensions, with another means-tested benefit in both cases. By default (or at least historically), the social-democratic policy is also supported by unions and vice versa, which leads to the support of occupational pensions, particularly through collective bargaining agreements of higher and nationwide type.

The application of different social models has resulted in differently significant occupational pensions in different countries. For example, in the United States, employer-sponsored retirement plans are considered a third layer in a five-layer pyramid – after "Social Security" (public pillar for the private sector) and homeownership, followed by individual retirement accounts (including rollovers) and other assets – see Figure 2. While the importance of each layer differs by household, together they have enabled recent generations of retirees, on average, to maintain their standard of living in retirement (ICI, 2014).

Figure 2: US Retirement Resource Pyramid



Source: ICI (2014).

Occupational pensions, in their initial and basic form, are managed by foundations or trust funds in the interest of clients – i.e. fund members or employees, as appropriate.

Employers act as sponsors, responsible for the scheme funding. This does not rule out employees' contributions, which may actually be a precondition to employers' contributions (e.g. in the form of matching contributions); these schemes also use auto-enrolment etc. Even the product – specific terms and conditions for claiming pensions – is subject to an agreement. Defined benefit pensions were typical, fully-funded (on a model basis), similarly as original social pension insurance schemes. Therefore, it was not possible to select products or providers within a single occupational scheme. This was in fact a collective pension insurance managed by a nonprofit organization.

Occupational schemes exist in different sizes and – also for this reason – they tend to use outsourcing: for asset investments and standard fund administration. A nonprofit institution is thus limited to custody (board members are custodians), resulting not only in scale economies, but also in potential conflict of interest with administrators and investors. Nonprofit institutions operate within a more or less perfect competition environment and their overhead costs, also reflected in the amount of pensions and other benefits, are very differentiated, mainly due to the volume of assets under management.

The standard occupational pension provision model does not need sales force, since participants recruit solely from the given company's employees or branch / sector, as appropriate. In some developed countries, this model overcame competition of other employee security schemes (e.g. in Germany), in other countries it became significantly consolidated in the form of nationwide schemes resembling social insurance (e.g. in Finland), while in Switzerland and Australia, occupational pensions simply became mandatory. In the course of the process, there were significant product changes in most countries that affect the contents of occupational pensions and consequently their administration: this concerns the replacement of defined benefit (DB) schemes by defined contribution (DC) schemes. In theory, the transformation of DB systems to DC systems would not have to be associated with an provision model change: after all, original social old-age insurance systems have been DB schemes, whereas DC system is used for modern social old-age insurance, specifically NDC (notional DC) – "solely" the (actuary) technique changes. However, if we "reverse" the basic "technical" component of the scheme, it actually changes the participants' approach or utilization, as appropriate.

In DB occupational schemes, the key portion of the financial risk is borne by employers, whereas employers "only" make contributions in DC occupational schemes – and investments risks are borne by clients. In case the critical risk is borne by clients, it is systemically logical that they should be able to choose a pension fund, in which "their" pension savings are invested: collective pension schemes have thus been transforming into individual retirement accounts (IRA) – either arranged by employers or not – which represent personal pension savings / insurance, i.e. an entirely different provision model.

The transition from a DB to a DC system in occupational schemes is associated with the advantage in the form of simple transferability of savings from one employer to another; the need of such transferability is given by the modern labor market itself. Significant pension funds cannot be built on the hypothesis of lifelong employment with a single employer; furthermore, it is at least impractical to claim pension benefits from several employers, drawing on "partial" old-age pensions from all or most employers during retirement. All

this regardless of the fact that each occupational pension scheme has its own "technical minimums" for pension claims to arise.

In the Netherlands, DB occupational pensions continue to be absolutely dominant – comprising about 90% of participants of this pension pillar. These products automatically involve lifelong pensions – not only in the Netherlands. On the other hand, DC systems rigorously separate the savings phase (investments) and (potential) annuity payment phase: pension savings are cumulated within a client's personal account; once a retirement age is reached, clients apply for their account balance annuitization. Occupational pensions have historically been "associated" with annuity payments; this situation continues in the Netherlands – DC system participants must receive lifelong pensions.

In other countries, the rule of pension claims/savings annuitization has been "breached". Not all savings have to be annuitized in Switzerland that has had mandatory occupational pensions since 1985. In the United Kingdom, the following situation remains as of early 2015: annuitization is mandatory within existing voluntary occupational pensions (however, soft compulsion is being introduced), whereas clients are entitled to lump sum benefit in the amount of 25% of their savings – tax-free, as an incentive for these pensions. In Australia, voluntary occupational pensions were transformed into mandatory pensions as of 1992, without the annuitization obligation – and the annuitization rate is very low (about 10%). As of 2005, a major change occurred in Australia: "Superannuation" participants may change their provider (occupational pension "Super fund") and deposit their pension savings to retirement savings account with a number of financial institutions (banks, life insurance companies, etc.); this has resulted in the establishment of hundreds of thousands of small "pension funds" managed by financial institutions.

The major involvement of private financial institutions within existing occupational pensions considerably modifies these schemes and consequently the given country's entire pension system. In the United Kingdom, many fundamental reformatory changes were adopted, with a view to increase transparency, lower administrative and other costs, etc.; occupational pensions have been transforming into "workplace pensions" – with soft compulsion (auto-enrolment), low-cost national pension company NEST (competing with private companies as well as occupational funds), and annulment of the annuitization obligation. The reason for this consists in high costs of private providers of pension savings and annuities, as well as mis-selling on the part of dealers. Basic services should newly be provided by employers, including the use of a default fund and the possibility to use NEST. Products should be simple – the system is only reduced to "pension" savings, annuities are "given up" (regulation is not introduced, NEST will not provide pensions). Workplace pensions represent a "solution" in the area of provision of occupational pensions on the basis of soft compulsion – however, it is already a different model.

2.4 Mandatory Private Savings Provision Model

The model of mandatory private pension savings, in its general form, has been promoted by the World Bank (James et al., 1994). The area of annuity markets has only gained ground after the commencement of public pension privatization in selected countries. Privatization supporters stated after ten years: "the annuity industry is minuscule in most countries.

But in countries that have instituted mandatory retirement savings plan, it is growing rapidly. …Preliminary findings suggest that the cost of annuities is lower than might be expected" (James, Vittas, 2000, pp. 1, 3).

SPC EC / OECD studies indicate the pay-out phase overhead in advanced countries from 0.25% to 0.5% of assets per year during the savings phase – additionally (SPC, 2008), (D'Addio et al., 2009). "The current situation, in terms of consumer detriment, is stark:

- Each annual cohort of pensioners loses in total around £500 million – £1 billion in lifetime income. This will treble as schemes mature and auto-enrolment is phased in.
- The figure represents 5-10 per cent of the annual amount consumers spend on annuities.
- An estimated 20 per cent of this loss is transferred to the government and the taxpayer through reduced tax revenues and the increased demand for means-tested retirement benefits" (Harrison, 2012, p. 9).

Annuity markets greatly depend on government regulation and support. "An understated feature of the annuity market at present is that there is a clear 'default' option, for contract-based DC members in particular, which exploits member inertia in a similar way to auto-enrolment, but with potentially detrimental results. About six providers dominate both the scheme and annuity markets. Their retention of DC customers at retirement, who take the internal annuity offered, varies considerably. One major provider, which the report could not name, has a retention rate of 86 per cent, which, coincidentally, is the about the same percentage of members that use the default accumulation fund" (Harrison, 2012). The same problem is mentioned and quantified in a book issued by the UK Parliament as follows: „The industry is failing pension scheme members when they convert their pension funds into annuities. Purchasing an annuity from a provider other than the one which holds an individual's fund could increase their retirement income by as much as 20% to 40%. However many people are unaware that they have the option to shop around for an annuity" (Parliament, 2013).

The UK Government decided to eliminate all annuity-related problems through a point-blank liberal measure: by introducing "freedom and choice in pensions" – while annulling the annuitization obligation for DC pension pots. As of April 2015, each participant of a DC workplace pension scheme may withdraw all funds in the form of a lump-sum payment – once turning 55 (this age will gradually increase as of 2028 to 57). In official words, these "individuals will have the freedom to make the decisions that suit their own circumstances". This "simplification" will also be associated with the taxation system simplification. The response to the government's proposals has been overwhelmingly positive. Nevertheless, experts of the London-based Pensions Institute were horrified: „It took two years of detailed work by the Pensions Commission to create a political consensus for auto-enrolment, and this was followed by seven years of preparation before auto-enrolment was introduced. The ending of private-sector pensions in the UK was introduced overnight without any consultation or any apparent examination of the evidence or the potential consequences. It could turn out to be a completely reckless policy change. How can this be avoided? It is essential that the decumulation stage of a DC scheme is institutionalised

in the same way that auto-enrolment has institutionalised the accumulation stage and taken it out of the high-charge world of retail accumulation products, such as personal pensions. In a similar way, economies of scale and more efficient risk sharing need to be exploited in the decumulation phase to enable good value drawdown products to be designed. We urgently need to move away from retail decumulation products like individual drawdown and retail annuities. An appropriate decumulation product that can be integrated into auto-enrolment might be described as one that:

- Benefits from institutional design, governance, and pricing.
- Delivers a reasonably reliable income stream (i.e. with minimal fluctuations).
- Maintains the purchasing power of the fund.
- Offers the flexibility to purchase a life annuity at any time (or at regular predetermined intervals to hedge interest rate and longevity risk).
- Is simple to understand, transparent and low-cost.
- Requires minimal consumer engagement.
- Benefits from a low-cost delivery system (Blake, 2014, pp. 12-13).

However, there is no experience in the world with a system as proposed by Harrison and Blake. In case such solution is relatively simple, certainly these experts would just "write it" The United Kingdom has the largest annuity market in Europe; the market responded to the announcement concerning the annulment of the mandatory annuitization in new workplace pensions through reduction of annuity rates. A globally known solution to the problem is an establishment of a national pension insurance institution – as is the case in Sweden – but this would probably be too much "hot" for the United Kingdom. However, the experts could have tried proposing a solution that involves the national pension company NEST, they could have also used the former SERPS scheme in their arguments: The principle was that everyone would receive a SERPS pension of 25% of their earnings above a "lower earning limit" (approximating to the amount of the Basic State Pension, a flat-rate pension). However, the UK Government used a moment of surprise, introducing a "liberal" proposal that includes the annulment of the annuitization obligation and simplification of pension taxation. We can assume that the annuity market in Great Britain will gradually decline significantly – even to a tenth of the current situation, in line with the Australian scenario.

The mandatory pension savings model, without mandatory annuitization, has a significantly lower quality in terms of the pension theory and policy – it does not cover the longevity risk; Harrison and Blake are absolutely right in this regard. It is actually not about pensions, as it "only" concerns savings or investments, as appropriate. Once clients reach retirement age, they gain access to a substantial amount of money – to their pension pot. This solution is beneficial for many clients – some of them repay their debts, others will "count" on shorter length of their life (lump-sum payment is more beneficial for them), some will use the pot as a general reserve, with some amount potentially left for children as bequest. It is always important to consider other pension pillars existing in the given country – and their robustness. The final decision is a matter of public choice.

The mandatory pension savings provision model is strongly affected by government regulation. It may be – currently only theoretically – minimum, as was originally the case in

Chile (as of 1981). It had resulted in a wild market, with full-fledged private pension companies operating therein. Today, only six providers remain of the former tens. The government regulates their margins by assigning new clients to a company that commits to the lowest and constant fee (percentage of wage) for the period of 2 years. World Bank experts believe the model of open competition for allocating new contributors to be suboptimal (Schwarz et al., 2014). A national pension company has recently been formed in Chile.

World Bank experts state that, in post-communist countries, the relatively high costs of the mandatory funded systems are explained by the emphasis on individual selection, by provision of costly and misplaced guarantees and by an industrial organization of the pension fund industry that facilitates oligopoly behavior. Pension fund management companies in the region are typically hybrids between account management (record keeping) and portfolio management (asset management). Account management is a business with scale economies and therefore there is not much room for competition. Full separation between the asset management and account management businesses, with centralized account management and competition in portfolio management, is a way of introducing efficiency to both functions. Swedish blind accounts are efficient in lowering the barriers to potential entry of new competitors, which in turn helps reduce fees (Schwarz et al., 2014). Government regulation of mandatory pension savings everywhere has been converging to the use of default funds and life-cycle strategies, with the caps on fees being commonly set.

The mandatory private pension savings model was originally designed for market conditions without substantial government regulations. Mainly the annuity market failed to prove successful in practice, leading some countries to exclude it from the model – e.g. under heading of freedom and choice in pensions – with other countries not implementing the mandatory annuitization of "pension" savings at all; public annuity provision is also a model solution. The substantial need for government regulation is also felt in the first, accumulation phase of these schemes. It is often recommended – with a view to reduce overhead or margins – to apply a public account management or so-called blind accounts, as appropriate. The mandatory private pension savings model has thus been substantially limited by government regulation, also leading to market deformations.

2.5 Voluntary Private Savings Provision Model

An alternative to the mandatory private pension savings is the voluntary savings with government support. Without such government support, we cannot assume a massive participation within the system. The management of such system is also crucial – depending on products (with government support) and institutional arrangements (which institutions feature government-supported products).

From the product perspective, life insurance would be optimal; however, it would have to be significantly regulated by the government – to ensure the system is beneficial for clients. Products should be profitable for clients even without the government support. The government support should ensure client inflow and promote the product benefits for clients. But the private life insurance provision model is not a solution, as already demonstrated above. The provision of annuities would have to be taken over by the state – and

this measure is difficult to combine with voluntary insurance. An unqualified attempt was the original regulation of the Czech "supplementary pension insurance with state contribution"; in this case, pension funds should have used statistical mortality tables – the theory does not permit this. The 1994 product was designed as pension insurance; to this day, lifelong pensions are being accentuated in the wording of the relevant act as the principal solution, "lump-sum settlement" may be provided "instead of pensions". However, the practical situation is very different – hardly anyone opts for pensions instead of lump sum benefits. After the mandatory annuitization of savings under Riester pensions was annulled in Germany as of 2014, it is undeniable that voluntary pension insurance cannot form part of a mass voluntary pension product.

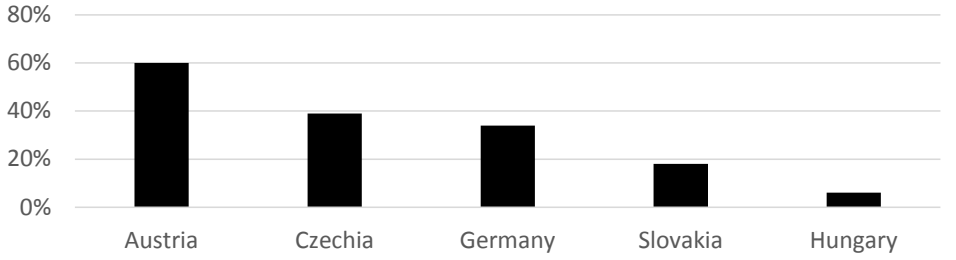
Individual pension savings may be provided by several institutions: banks, mutual funds, and insurance companies or, alternatively, by a single specialized institution (pension company). Competition of several types of institutions exists in Germany and Austria, for example, with insurance companies dominating the market. There is also a trend towards combined products, such as the combination of pension and contractual (Bauspar) savings (Germany: Wohn-Riester) or possibility to (partially) settle a mortgage loan or invoice for home purchase from pension savings. The purpose is similar in case of possible overhead in case disability occurs or simply pay-outs after 10, 12 or 15 years (so-called merit pension / benefit under the Czech supplementary pension insurance).

Under the current situation in the Czech Republic, it would be possible to merge supplementary pension insurance and Bauspar savings – both products are general saving products: under Bauspar savings, clients receive a 10% government contribution from their own contributions simply for making such contributions for the period of 6 years ("vesting period"); under supplementary pension insurance (and new "supplementary pension savings"), the vesting period is 5 years – regular contributions must be made until the statutory retirement age minus 5 years. With regard to supplementary pension insurance, clients may withdraw one half of their savings after 15 years (merit pension or lump sum settlement instead of such pension, as appropriate), provided they selected this option when taking out the policy (this option being free of charge). It was possible to contract supplementary pension insurance until 2012; as of 2013, it has been closed within a "transformation fund", with possibility to make contributions for valid policies. At the end of 2014, there were 4.6 million participants to the supplementary pension insurance. Together with the new supplementary pension savings, pension companies had 4.8 million clients and the government paid out state contributions of CZK 6.9 bn. in 2013.

The Bauspar savings product originated in Germany, as a form of mutual assistance (association) of individuals interested in financing residential housing in a specific location, in the period after the First World War when housing was scarce. Savers are assigned an assessment number, thereby creating a loan waiting list. Today, the significance of such product is only marginal, unless (however) it is subsidized by the government. This is still the case in Germany and Austria; after 1990, this product – with government contributions – was exported to several post-communist countries, with parent private Bauspar savings banks generating high dividends through significantly higher fees (or a fee, as appropriate, for the contract conclusion – usually in the amount of 1% of the "target amount", i.e. even more than double the amount of potential savings) than in Austria, for example. The

relatively highest Bauspar savings coverage is in Austria, with about 60% of the entire population benefiting from the product (5.3 million contracts at the end of 2014) – also see Figure 3.

Figure 3: Bauspar Savings Prevalence in 2013 (per cent of population with contracts)



Source: Wruuck (2014).

In Austria, the government contribution amounts to 1.5% of participants' contributions, with interest returns being exempt from taxes. In the Czech Republic, the government contribution amounts to 10% of participants' contributions, with taxation of interest. Possible elimination of the Bauspar savings contribution is solely a political issue: at the end of 2014, there were 3.8 million contracts in the Czech Republic, with the government subsidies amounting to CZK 4.8 bn. In Slovakia, the government contribution rate has declined third year in a row – it amounts to 5.5% of participants' contributions in 2015; however, the maximum absolute amount of annual support per contract remains the same (66.39 EUR), i.e. less than the Czech maximum of CZK 2,000.

Since the beginning, the Czech supplementary pension insurance has basically been a banking product, if we look apart from the right (in fact insignificant) to claim lifelong annuities. The only difference from standard savings products is the fact that the interest rate is determined at the year end, based on the performance of (today's transformation) fund. From a technical perspective, the supplementary pension insurance in the Czech Republic may be considered a universal life insurance, with fees being charged from an (CZK) account and annual valuation (interest rate) being credited. Under universal life insurance plans, additional "fees" (risk premiums) are usually charged for arranged risk insurance; Czech pension funds did not take advantage of this in the past – they could have sold DB disability pensions; however, the government discriminated this pension / benefit by the fact that no state contribution was made in respect to individual pension contributions. Not even after the 2013 reform can pension companies charge their clients' personal accounts with "fees for operating supplementary pension insurance through a transformed fund"; pension companies charge this fee in respect of the transformed fund's assets. The maximum fee shall be determined as:

a) 0.6% of average annual balance of the transformed fund; and
b) 15% of profit reported in the transformed fund's financial report.

At the beginning of 2015, Bezděk proposed an overall increase of the aforementioned fees – due to declining yields of 10Y government bonds and guarantee of non-negative annual nominal returns for supplementary pension insurance clients. This guarantee is generally considered as problem (Schwarz et al., 2014); however, it does not mean we should settle for a simple solution detrimental to clients. Each simple savings product must be beneficial for clients, even without a government subsidy. In case the private sector cannot achieve this through its provision model, it is primarily the private sector's problem. It is obvious the aforementioned fees would be sufficient for a national pension institution. Generally speaking, we could discuss a potential supplementary pension insurance reform to a supplementary pension savings scheme, e.g. through a transfer of funds to mandatory conservative fund with maximum fee of 0.4% of assets plus 10% of any valuation. We should remind the fact that the British national pension company NEST is "fine" with 0.3% of assets plus 1.8% of client contributions (contribution charge is expected to end once the set up costs have been met), i.e. roughly 0.5% of assets in total. The "second" pension pillar in the Czech Republic is associated with maximum fees of 0.3% to 0.6% of assets, based on the pension fund risk rate plus (with the exception of government bond pension fund) 10% of any valuation.

The pension theory and policy findings do not suggest that governments should – in any way whatsoever – subsidize private pension saving schemes. After all, the private pension savings are indirectly subsidized by the fact that financial services are currently exempt from value-added tax payments in the EU. Many countries tax these services by an alternative tax, collected in Denmark, for example, in the amount of 10.9% of financial sector payroll. The VAT exemption for the financial sector could be abolished. The existing Danish payroll tax could be extended according to one of four financial activities tax (FAT) models. (Nielsen and Hjerrild, 2013). FAT as a compensation for VAT in the financial sector should be introduced in the Czech Republic, irrespectively of other private pension savings reforms.

Government support of voluntary private pension savings complies with the conservative social model, in the form of "deferred income tax", with insurance premiums/savings contributions deducted from an income tax base and resulting pensions or lump-sum benefits fully subject to income tax. This tax treatment of voluntary private pension savings is an analogy to the social insurance premium treatment, equally paid by employees (being deducted from an income tax base) and employers (not being taxed as employees' earnings). It is a tax treatment regime referred to as EET: the first letter (E = exempt) describes the insurance premium tax regime; the second letter (E) indicates the tax regime applicable to capital returns, whereas the third letter (T = taxed) specifies the tax regime for any benefits paid out.

The liberal and the social-democratic social models are not interested in subsidizing or promoting, as appropriate, voluntary private pension savings; this is ideally associated with TTE or ETT tax regimes, as appropriate. Furthermore, the parallel with social insurance does not exist here: social insurance does not exist within the liberal model and the social-democratic model features universal social insurance financed through employers' contributions (with ETT tax regime in case of a fully funded scheme).

The results are significant in the neoliberal social model: existence of private insurance or savings as the key pension pillar. The World Bank declared mandatory private pension savings (James et. al., 1994) as the factual system base ("second" pillar), whereas voluntary pension savings should act as the third pension pillar. The reality (of neoliberal type) was mostly different: the second pillar was not associated with hard compulsion, but "only" soft compulsion – so that no one (e.g. poor individuals) could make excuses that they "have" to take part in savings even though they do not have the money or simply do not want to do so, e.g. for ideological reasons. Several soft compulsion methods are used: opt-out, auto-enrolment and matching contributions, including government contributions. In case a soft compulsion method is applied, voluntary pension savings product (in its pure form) no longer makes systemic sense, because it may be reduced to savings in excess of the soft compulsion system – this is absolutely clear in practice in case of government contributions – participants receive government contributions even for their contributions over the specified rate (e.g. 3% of wage). This is also the case in the Czech Republic: government contributions are paid in respect of supplementary pension insurance with participants' monthly contributions of CZK 300 to 1,000.

The Czech system of the supplementary pension insurance, supplementary pension savings, and private life insurance meets the basic specific "parameters" of the neoliberal soft compulsion system: the number of participants exceeds the number of payers within the basic public "pension insurance", with government support being intensively used. Therefore, it is actually a "second" pension pillar, whereas the key problem is the fragmentation and, consequently, considerable lack of concept of this second pillar. Instead of a single government support system or single pension savings tax treatment regime, as appropriate, we have several systems: one for supplementary pension insurance and subsidiary pension savings with participants' contributions, another one for private life insurance paid by insureds, and a third one for employers' contributions under supplementary pension insurance, supplementary pension savings and private life insurance. This is an absurd system that must be united, disregarding the fact that we should follow a uniform concept of the entire pension system – select one of the social models and reform the government support system accordingly. Since our "pension insurance" is de facto a conglomerate of flat-rate pension and universal social pension insurance, the basic model alternative should be the elimination of any state support of the supplementary pension insurance, supplementary pension savings, private life insurance, as well as Bauspar savings. This list could also include government support of mortgage loans and loans under the Bauspar savings scheme.

In case our voters or political parties, as appropriate, still wish to operate government subsidies of the mentioned financial products, it would be advisable to not only newly and uniformly formulate such state support, but to reduce it to a new simple, and basically uniform, pension savings product, in combination with existing Bauspar savings and existing government support of mortgage loans and loans under the building savings scheme that would be beneficial for clients even without the state support, even with prevailing low interest rates. For this purpose, we could also use the infrastructure and products of today's second pension pillar in the Czech Republic that is to be annulled.

Voluntary private pension savings products cease to make separate sense under hard or soft compulsion pension schemes, as it is reduced to mere increase of contributions of participants (or third parties – employers, for example) over the mandatory or basic extent. In other systems, the form and tax treatment of the voluntary private pension savings should correspond to the relevant social model. Private pension savings provision models should correspond to the social model selected in the given country. Significant deviations from these models result in high administration and other costs that are financed by clients and government contributions.

Conclusions

Each social model uses at least two pension pillars and their form tends to be determined by the general characteristic of the given model as well as the specifics of pension market functioning within the given system or country, including the government regulation system and the rent-seeking rate on the part of the pension sector. The liberal pension model is very simple in terms of its administration – the solidary pillar is part of the public administration, whereas this provision model is associated with very low costs, representing major benchmark for other provision models. The liberal model, in its standard form, assumes smooth functioning of financial institutions, particularly of life insurance companies that provide private pension insurance.

In principle, the public pension provision model is fully functional. Efforts aimed at privatizing social insurance pensions were motivated by aspirations to change the social model, to convert to the neoliberal model. In many countries, practical experience with neoliberal reforms has not only resulted in stronger solidary pension pillars, but also in the use of public insurance companies within the "second" pillar. This is not just about low administration costs of large public pension institutions, but also about respecting the behavior of the given system's participants.

The standard life insurance provision model offers fulfillment of all insurance needs of individuals and families, based on their individual needs. However, practical applications are associated with major problems in the form of market failures. This is most apparent in annuity markets that are marginal in a number of countries. Distribution networks represent a major barrier to entry into the life insurance market of a country. The government support of life insurance products under these conditions is mainly a rent-seeking instrument. Government regulation could prove beneficial in this regard, e.g. in the form of ban on commissions provided by life insurance companies, government support reduced to simple and low-cost saving products, etc.; however, this leads to an entirely different provision model.

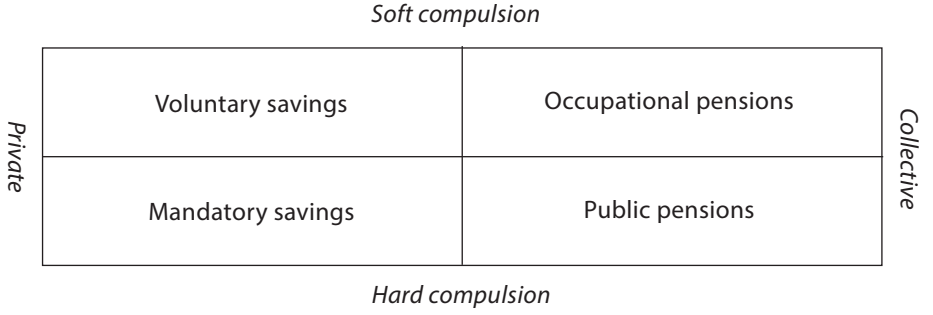
Occupational pensions have gained ground in most Western countries, particularly with the conservative social model. Under a standard occupational pension provision model, employers act as sponsors and guarantors of defined benefit pensions, managed by a board in the interest of employees. This provision model has been substantially modified in more countries by outsourcing investments and management to the private financial sector, converting to a defined contribution pension savings, and transformation to workplace pensions, with employers paying contributions and providing basic information to

employees, who can opt for external pension savings providers. These transformations may ultimately lead to soft compulsion personal pensions, foreseen by the neoliberal social model. Intensive government regulation may also comprise a low-cost national pension company. In several countries with higher level collective bargaining, the most occupational schemes are quasi-mandatory; this concept is close to the social-democratic social model, with low-cost provision system.

The mandatory private pension savings provision model was constructed for the main pillar of the neoliberal pension model. Various soft compulsion methods prevailed in the practice of the relevant countries: opt-out, auto-enrolment, matching contributions by employers, and government support. This provision model also envisages further intensive government regulation, aimed at reducing otherwise high costs and margins of private pension companies.

Voluntary private pension savings and insurance products without any government support comply with the liberal and the social-democratic social models. With regard to the existence of the life insurance provision model, only low-cost personal pension savings with government support has its own separate design significance for most wage earners, i.e. consequently a soft compulsion system. The Czech system of parallel existence of supplementary pension insurance, supplementary pension savings, private life insurance, and Bauspar savings is a chaotic and nontransparent soft compulsion system that enables substantial rent-seeking by the financial sector.

Figure 4: Typology of provision models



Source: Own elaboration

We have distinguished four main provision models of pension insurance and savings: two of them are collective pension schemes, providing annuities (if large enough): public and occupational pensions. The other two are basically private pension savings only, due to failure of private annuity markets. Public pensions and mandatory private pension savings rely on the hard compulsion, of course. Occupational pensions and voluntary private pension savings typically use soft compulsion methods, to get an important coverage. See our simplified typology of provision models in Figure 4.

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References

BEVERIDGE, W. (1942) *Social Insurance and Allied Services*. London: HMSO.
BLAKE, D. (2014) *On the Disclosure of the Costs of Investment Management*. Discussion Paper PI-1407. London: Pensions Institute, Cass Business School. Available at: http://www.pensions-institute.org/workingpapers/wp1407.pdf [Access 2015-03-15].
BLAKE, D. (2014) *The consequences of not having to buy an annuity.* Discussion Paper PI-1409. London: The Pensions Institute, 2014. Available at: http://www.pensions-institute.org/workingpapers/wp1409.pdf [Access 2015-03-15].
BOVENBERG, L. and C. van EWIJK (2012) *The Future of Multi-Pillar Pension Systems.* CESifo DICE Report, vol. 10, no. 4, pp. 16-20. Munich: Ifo Institute. Available at: https://www.cesifo-group.de/de/ifoHome/publications/docbase/details.html?docId=19073289 [Access 15 March 2015].
CASEY, B. and N. WHITESIDE (2014) *Untangling the pensions web we´ve woven*. Parliamentary Brief. Available at: http://www2.warwick.ac.uk/fac/soc/sociology/staff/academicstaff/n_whiteside/whiteside_webwoven.pdf [Access 15 March 2015].
CIPRA, T. (2012) *Penze: Kvantitativní přístup*. Praha: Ekopress.
CONDE-RUIZ, J. I. and C. I. GONZALEZ (2014) *From Bismarck to Beveridge: The Other Pension Reform in Spain.* Banco de Espana Working Paper No. 1417. Madrid: Banco de Espana. Available at: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2469659 [Access 15 March 2015].
ČP (2014) Předsmluvní informace k životnímu pojištění Můj život. Platnost od 1. 1. 2014. Available at: http://www.ceskapojistovna.cz/documents/10262/50021/muj-zivot-pp.pdf [Access 15 March 2015].
ČNB (2014) Zpráva o výkonu dohledu nad finančním trhem v roce 2013. Praha: ČNB. Available at: http://www.cnb.cz/miranda2/export/sites/www.cnb.cz/cs/dohled_financni_trh/souhrnne_informace_fin_trhy/zpravy_o_vykonu_dohledu/download/dnft_2013_cz.pdf [Access 15 March 2015].
D'ADDIO, A. C., J. SEISDEDOS and E. R. WHITEHOUSE (2009) *Investment Risk and Pensions: Measuring Uncertainty in Returns*. OECD Social, Employment and Migration Working Papers, No. 70. Paris: OECD Publishing. Available from: http://www.oecd-ilibrary.org/docserver/download/5ksgq0zb31xx.pdf?expires=1388514160&id=id&accname=guest&checksum=227CD7F92663DD9531446B11F4D85B32 [Access 15 March 2015].
DUCHÁČKOVÁ, E., J. DAŇHEL et al. (2012) *Pojistné trhy. Změny v postavení pojišťovnictví v globální éře*. Praha: Professional Publishing.
EHNSSON, G. (ed.) (2014) *Orange report*. Annual Report of the Swedish Pension System 2013. Stockholm: Swedish Pensions Agency. http://secure.pensionsmyndigheten.se/download/18.5b66e3d21466213d95937aa5/1404712314199/Orange+Report+2013+english.pdf [Access 15 March 2015].
ESPING-ANDERSEN, G. (1990) *The Three Worlds of Welfare Capitalism.* Cambridge: Polity Press & Princeton: Princeton University Press.

ESPING-ANDERSEN, G. (1996) After the Golden Age? Welfare State Dilemmas in a Global Economy. In: ESPING-ANDERSEN, G. (ed.) (1996) *Welfare States in Transition: National Adaptations in Global Economies*. London: SAGE Publications.
HARRISON, D. (2012) *Treating DC members fairly in retirement?* London: NAPF and Pensions Institute. http://pensions-institute.org/reports/TreatingDCMembersFairly.pdf. [Access 15 March 2015].
HUJO, K. (2014) *Reforming Pensions in Developing and Transition Countries.* New York: United Nations. http://www.palgraveconnect.com/pc/doifinder/10.1057/9781137396112.0001 [Access 15 March 2015].
ICI (2014) 2014 *Investment Company Fact Book*. *A Review of Trends and Activities in the U.S. Investment Company Industry*. 54th edition. Washington: Investment Company Institute. http://www.ici.org/pdf/2014_factbook.pdf [Access 15 March 2015].
JAMES, E. et al. (1994) *Averting the Old Age Crisis. Policies to Protect the Old and Promote Growth.* New York: Oxford University Press.
JAMES, E. and D. VITTAS (2000) *Annuity Markets in Comparative Perspective: Do Consumers Get Their Money's Worth?* Policy Research Paper 2493. Development Research Group. New York: The World Bank. http://elibrary.worldbank.org/doi/pdf/10.1596/1813-9450-2493 [Access 15 March 2015].
NIELSEN, H. M. and B. HJERRILD (2013) *Taxation of the Financial Sector in Denmark.* Stockholm: Nordisk Skattevidenskabeligt Forskningsrad. https://www.djoef-forlag.dk/sites/ntj/files/2013/2013_10.pdf [Access 15 March 2015].
OECD (2013) *Pensions at a Glance 2013. OECD and G20 Indicators.* Paris: OECD Publishing.
OSBORNE, G. (2014) *Freedom and Choice in Pensions: Government Response to the Consultation*. London: HM Treasury. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/332714/pensions_response_online.pdf [Access 15 March 2015].
PALME, M. and I. SVENSSON (1999) Social Security, Occupational Pensions, and Retirement in Sweden. In: GRUBER, J., WISE, D. A. (eds.) (1999) *Social Security and Retirement around the World*. National Bureau of Economic Research. University of Chicago Press. http://papers.nber.org/books/grub99-1 [Access 15 March 2015].
PARLIAMENT (2013) *Improving Governance and Best Practice in Workplace Pensions.* Vol. 1. House of Commons: Work and Pensions Committee. London: The Stationery Office. https://books.google.cz/books?id=0gghhXjqSUkC&pg=PA25&lpg=PA25&dq=Treating+DC+Members+Fairly+in+Retirement&source=bl&ots=vzEOPURNDV&sig=_TENUzKAasT6My0rFXGkp8vYJQQ&hl=cs&sa=X&ei=-4D5VODEKoe8ygPV6oKwBQ&ved=0CFQQ6AEwBw#v=onepage&q=Treating%20DC%20Members%20Fairly%20in%20Retirement&f=false [Access 15 March 2015].
PIÑERA, J. (2001) *Liberating Workers. The World Pension Revolution.* Cato´s Letter No. 15. Washington: Cato Institute. http://www.cato.org/sites/cato.org/files/pubs/pdf/cl-15.pdf [Access 15 March 2015].
ROSEN, H. S. and T. GAYER (2008) *Public Finance.* 8th edition. Boston: McGraw-Hill, Irwin.
SEELY, A. (2013) National Insurance contributions: an introduction. House of Commons Library. http://www.parliament.uk/briefing-papers/sn04517.pdf [Access 15 March 2015].
SCHWARZ, A., O. S. ARIAS et al. (2014) *The Inverting Pyramid. Pension Systems Facing Demographic Challenges in Europe and Central Asia.* Washington: The World Bank.
SPC (2008) *Privately Managed Funded Pension Provision and Their Contribution to Adequate and Sustainable Pensions.* Report by the Social Protection Committee. http://ec.europa.eu/employment_social/spsi/docs/social_protection/ [Access 15 March 2015].

St JOHN, S. (2009) *The annuities market in New Zealand.* Report prepared for the Ministry of Economic Development. The University of Auckland. Retirement Policy and Research Centre. http://docs.business.auckland.ac.nz/Doc/The-annuities-market-in-New-Zealand-prepared-for-the-Ministry-of-Economic-Development.pdf [Access 15 March 2015].
VAN PARIJS, P. (2004) Basic Income: A Simple and Powerful Idea for the Twenty-first Century. *Politics and Society*, Vol. 32, No. 1.
WHITEHOUSE, E. (2014) *Civil service pension schemes. Options for reform*. World Bank Core Course on Pensions. Presentation. Washington: The World Bank. http://www.worldbank.org/content/dam/Worldbank/Event/pensions/3.%20Whitehouse_Civil%20servants%20DC%202014.pdf [Access 15 March 2015].
WRUUCK, P. (2014) *Bausparen*: *Prevalence in Europe*. https://www.dbresearch.com/PROD/DBR_INTERNET_EN-PROD/PROD0000000000346084/Bausparen%3A+Prevalence+in+Europe.PDF [Access 15 March 2015].

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