



Network for Studies on Pensions, Aging and Retirement

Lessons from the Swedish occupational pension system

*Lans Bovenberg
Ryenne Cox
Stefan Lundbergh*

NETSPAR INDUSTRY SERIES

DESIGN 45



The background of the cover features a series of thin, light grey lines that curve and flow across the page, creating a sense of movement and depth. These lines are most prominent on the left side and bottom, where they form a dense, overlapping pattern that tapers towards the right.

Lans Bovenberg, Ryanne Cox and Stefan Lundbergh

Lessons from the Swedish occupational pension system

DESIGN PAPER 45

NETSPAR INDUSTRY PAPER SERIES

Design Papers, part of the Industry Paper Series, discuss the design of a component of a pension system or product. A Netspar Design Paper analyzes the objective of a component and the possibilities for improving its efficacy. These papers are easily accessible for industry specialists who are responsible for designing the component being discussed. Design Papers are published by Netspar both digitally, on its website, and in print.

Colophon

November 2015

Editorial Board

Rob Alessie – University of Groningen
Roel Beetsma (Chairman) – University of Amsterdam
Iwan van den Berg – AEGON Nederland
Bart Boon – Achmea
Kees Goudswaard – Leiden University
Winfried Hallerbach – Robeco Nederland
Ingeborg Hoogendijk – Ministry of Finance
Martijn Hoogeweegen – Nationale Nederlanden
Arjen Hussem – PGGM
Alwin Oerlemans – APG
Maarten van Rooij – De Nederlandsche Bank
Martin van der Schans – Ortec
Peter Schotman – Maastricht University
Hans Schumacher – Tilburg University
Peter Wijn – APG

Design

B-more Design

Lay-out

Bladvulling, Tilburg

Printing

Prisma Print, Tilburg University

Editors

Frans Kooymans
Netspar

Design Papers are publications by Netspar. No reproduction of any part of this publication may take place without permission of the authors.

INHOUD

<i>1. Introduction</i>	7
<i>2. The Swedish pension system – an overview</i>	9
<i>3. Institutional setting of the second pillar</i>	15
<i>4. Moving from DB to DC</i>	17
<i>5. Collective DC in Sweden – the traditional life product</i>	23
<i>6. Lessons learned: strengths and weaknesses of the Swedish system</i>	30
<i>7. Practical implications for the Dutch discussions</i>	42
<i>Literature</i>	43

Affiliations

Lans Bovenberg – Tilburg University

Ryanne Cox – De Nederlandsche Bank

Stefan Lundbergh – Cardano

Acknowledgements

This paper is based on observations from a study tour by Lans Bovenberg (Tilburg University), Ryanne Cox (previously Centraal Planbureau, currently De Nederlandsche Bank) and Stefan Lundbergh (Cardano) to Stockholm in March 2014. The purpose of this tour was to gain a better understanding of how the Swedish second pension pillar works, in particular regarding mutual life insurance companies. The authors thank Steve Hardwick, Marcus Karlsson and Fredrik Ehn at Milliman Stockholm for their input and comments on the Swedish pension system. The authors furthermore thank the Netspar Editorial Board, Marcel Lever (CPB), Ruben Laros and Manuel Garcia-Huitrón (APG) and Karen Anderson (University of Southampton) for their comments. Any remaining misinterpretations and errors are the responsibility of the authors.

LESSONS FROM THE SWEDISH OCCUPATIONAL PENSION SYSTEM

1. Introduction

This paper sets out to investigate what the Netherlands can learn from the Swedish experience in designing occupational pensions. What are 'best practices' that can be of interest in the current Dutch debate? What are the pitfalls to be avoided? As part of the current effort in the Netherlands to create a more sustainable pension system with more tailor-made solutions, the Swedish collectively insured occupational pensions may provide useful insights.

Why Sweden? Sweden and the Netherlands have similar economic, political and cultural characteristics. Both countries are small open economies, both feature high standards of living and a relatively generous welfare state. With regard to pensions, both the national government (as provider of public pensions) and the social partners (as designer of occupational pension plans) play important, although somewhat different roles. In Sweden, earnings-related pensions are to a large extent organized via the state-run first pillar. In the Netherlands, earnings-related pensions are provided via occupational pensions in the second pillar. Whereas the occupational pensions in both countries are largely the result of collective bargaining, the Swedish second pillar provides more freedom of choice for individual participants than the Dutch system does.

This paper focuses on occupational pensions in both countries. In order to put the design of the second pillar into proper context, the paper also briefly discusses the organization of the Swedish first- and third pillars. The paper is structured as follows. Section 2 provides a brief description of and background to the Swedish pension system. Sections 3 through 5 expand on our observations of the Swedish second pillar and the mechanics of collectively insured pension products. Section 6 contains the lessons – both positive and negative – that the Netherlands can learn from the way Swedish occupational pensions are organized. Section 7 discusses the relevance of these lessons for the present pension debate in the Netherlands.

2. The Swedish pension system – an overview

The current Swedish pension system is the result of drastic reforms in the state pension system in the mid-1990s and a shift from defined benefit (DB) to defined contribution (DC) pensions in the second pillar during the 2000s. The resulting pension for a new entrant to the Swedish labor market is a combined state pension and occupational pension, which are both organized as DC pensions.

First pillar

The state pension consists of three parts.

The main component is the *income pension*, which is an earnings-related, pay-as-you-go DC solution, also known as 'notional defined contribution' (NDC). The income pension effectively operates as an individual DC pension, in the sense that the pensions are administered in individual accounts and the benefits are directly linked to the contributions paid using a notional balance sheet. Unlike a funded individual DC plan, the individual accounts change by a notional (instead of a realized) rate of return. Pensions are administered in individual accounts, which contain non-tradable claims on future contributions (as a fraction of the total salary sum) that are valued on the basis of observable, but non-financial, parameters.¹ The resulting pension balance is, at retirement, converted into a lifelong benefit on the basis of the life expectancy at the time of the recipient's retirement, using a fixed interest rate of 1.6%.

1 See Orange Report 2013, p. 14. Since the parameters can be objectively observed, there is little scope to tamper with the subjective assumptions, for instance to prevent an unpopular reduction of the income pension.

The income pension is partly funded with financial reserves in the form of buffer funds that are used to dampen short-term fluctuations. To a large extent, the buffer funds are a buffer for demographic changes, built up by the baby boomer generation in order to keep the income pension generation neutral. The buffer funds therefore act as a way to diversify the risks in this pay-as-you-go system and pre-fund demographic changes.

The annual indexation is targeted at the wage inflation but may be lower (and even negative) under adverse economic conditions in order to maintain the intergenerational balance. This annual 'rebalancing mechanism' means that the value of contribution assets plus the value of the financial assets in the buffer funds is compared with the notional liabilities. For details on the methodology, see the Orange Report 2013. If overall liabilities exceed overall assets (for instance, as a result of a fall in the total Swedish salary sum, an unexpected increase in longevity for the retired population or a negative investment performance of the buffer funds), all benefits will be lowered immediately to re-establish the balance between assets and liabilities. This has happened three times since the reform in the mid-1990s.² Benefits have increased through the indexation (notional rate of return) in other years.

The second component of the first pillar is the *premium pension*, which is organized as a funded, individual DC solution but with a lifelong pay-out phase. The premium pension is simply a funded, individual DC scheme operating in the first pillar. Participants can personally choose how to invest their contributions, with more than 850 mutual funds to choose from. A state-run life-cycle fund is available as default for those that do not want to decide for

² Cuts were applied in 2010, 2011 and 2014 of 1.4%, 2.7% and 1.1% respectively. See Orange Report 2013.

themselves. The individual pension capital grows in line with the returns generated by the selected mutual funds. Unlike the rights in the NDC system, the premium pension is a funded system and based on objective market prices. At retirement, individual pension assets are converted into a lifelong participating annuity with a minimum guaranteed income or a variable annuity, with benefits based on an annual annuity divisor calculated with an assumed return of 3%.³

Finally, there is a means-tested *guarantee pension*, available for citizens with insufficient earnings-related state pension income.

The income pension and the premium pension are financed from contributions of 16% and 2.5%, respectively, on top of wage income. For the self-employed, participation in the income and premium pensions is mandatory. The contribution percentages in the first pillar are fixed and are paid by the employer as part of the mandatory social security contribution. The guarantee pension is paid by the state. The first pillar contains explicit redistribution of income from high to very low income earners. On income above the annual income ceiling of 424,500 Swedish krona (approximately €45,000) in 2014, the employer still pays contributions but the employee accumulates no further rights. These additional contributions are used to finance the earnings-related pension, in a way that favors lower income earners. Also, in this way additional benefits are financed, such as the accrual of pension credits for maternity leave. As a result, the Swedish earnings-related state pension does not require any outside financing. The guarantee pension is, however, financed separately from the state budget.

3 See Orange Report 2013, p. 101.

Second pillar

The second pension pillar consists of occupational pension plans negotiated in collective labor agreements (see Box 1 for descriptions of the most commonly used occupational pension products). The *traditional life pension product*, which is described in some detail further in this paper, is organized as a collectively insured DC product, which provides the participants with minimum return guarantees. In recent years, second pillar pensions have increasingly offered the possibility of investing contributions in *unit-linked pension products* as well. Unit-linked products usually offer more choice for the participants, for instance regarding the investment mix and the insurance aspect. Unit-linked products typically do not offer any financial guarantees. In Sweden, there is no legal requirement to buy a lifelong nominal annuity at retirement.

Compared to the Dutch second pillar, Swedish occupational pension plans offer a wider range of individual choice: participants can usually choose their pension provider, the type of pension product (traditional or unit-linked), the term of the benefit (i.e. a fixed term or a lifetime benefit), and the insurance aspect. The social partners design the choice architecture within which participants can choose.

Third pillar

The size of the tax-deductible contributions for individual pension savings in the third pillar has declined over the years. For 2015, the level of deductible contributions amounts to 1,800 Swedish krona (approximately €190) per year; it is expected to go down to zero in 2016.

The self-employed, who do not have access to the occupational pension in the second pillar, can save for their pension in the

Box 1: Traditional life and unit-linked pension products

Traditional Life

The traditional life pension is a classic insurance product, typically structured as a pension product that provides a retirement income on the basis of a minimum guaranteed annual return, with the potential of a higher return. For each contribution the member buys a lifetime income, starting at retirement. While also traditional pension products are available that provide a retirement income for a fixed term instead of a lifetime income, this paper focuses on the lifetime income solution.

The traditional life pension product therefore offers a guaranteed minimum retirement income that may be higher depending on the actual investment returns. The provider (the insurance company) is responsible for asset management; the participant does not make any investment decisions. The participant runs a credit risk on the provider. In Sweden, many of the larger providers of traditional life products are mutual insurance companies. Hence, instead of shareholders, the member collective is the residual risk bearer. In the event of insolvency, accrued pensions are uniformly reduced. This solution is close to the TIAA product in the US and not very different from the Dutch collective DC.

Unit-linked

The Swedish unit-linked product is a classic DC solution where the individual member invests contributions in 'units' of a mutual fund. The value of these units changes in line with the value of the mutual fund. Most providers offer an open architecture that includes funds from different asset managers. A life-cycle path is typically offered as the default choice. There are usually no guarantees attached to unit-linked products: the participant bears full responsibility for the investment choices and the outcome. At retirement, the participant converts the accumulated units into a pay-out solution, which may be a lifetime annuity (i.e. moving to the traditional life product) or an income for a fixed term, with a five year-minimum in line with the applicable fiscal framework. Typically, the providers of unit-linked products are life insurance companies (independent or bank-owned). This solution is very similar to the 401(k) in the US and the individual DC products offered by PPIs in the Netherlands.

third pillar, in addition to the earnings-related pensions that they accrue in the first pillar. Almost all pension providers are active in the second pillar, third pillar and the savings market with similar products.

In Sweden, third pillar pension income accounts for approximately 5% of total pensions that are paid.⁴

4 Presentation by Ole Settergren (Swedish Pensions Agency) at the Rotman ICPM Discussion Forum in Paris on 2 June 2014.

3. Institutional setting of the second pillar

Swedish second pillar pensions are the result of collective agreements between the Swedish employer organizations and the trade unions. In essence, there are four large collective agreements:

- 1) the private sector, white collar agreement (ITP);
- 2) the private sector, blue collar agreement (SAF-L0);
- 3) the public sector, civil servants agreement (PA-03); and
- 4) the public sector, municipalities agreement (KAP-KL/AKAP-KL).

Companies that fall under a collective agreement are required by law to offer their employees a pension plan. Employers that do not fall under any collective agreement, for instance small- or medium-sized employers, are not obliged to offer their employees a pension plan, but these companies typically follow the pension arrangements in the collective agreement for their sector on a voluntary basis. As a result, some 90% of employers offer their employees an occupational pension plan. For employees, participation is compulsory if their employer offers an occupational pension plan.

Under the collective agreements, employees are offered a pension product through a life insurance company. These insurance companies can be either commercial (with external shareholders) or mutual (not-for-profit). Mutual insurance companies do not have external shareholders and are owned instead by the policyholders. The policyholders are therefore the residual risk bearers of the company: profits will ultimately be converted into bonus payments to the policyholders, but the reverse applies in case of losses. Providers of unit-linked insurance are typically mutual or commercial life insurance companies. Some mutual life insurance companies, such as Alecta, are owned by the social

partners. Alecta acts as the default provider for ITP, the white-collar workers collective DC scheme. Other large life insurance providers include Skandia (client-owned), Folksam (controlled by the unions), AMF (owned by the social partners) and SPP (commercial, owned by Storebrand).

The role of the social partners

The social partners decide which life insurance companies can offer pension products to the members of a collective agreement. Also, they centrally negotiate the terms and conditions for these pension products. The social partners therefore exert considerable influence on Swedish occupational pensions. This structure potentially creates agency issues: the social partners are in charge of the procurement but also control some of the life insurance companies competing for business.

The central procurement focuses on low costs. As a result, the costs that insurance companies charge for pension products are very low. By way of illustration, the life insurance companies that offer a traditional pension product for the DC component of the white-collar collective agreement (ITP₁) currently charge participants between 13 and 29 basis points of assets under management.⁵ On the other hand, the focus on cost appears to lessen attention for other qualities of the pension product, such as the stability of the benefits paid, service quality and innovation.

Employers who do not fall under the collective agreements must negotiate their fee structure with a benefits consultant and/or a life insurance company. In that case, the fee structure tends to be significantly higher than under the collective agreement.

5 These are total fees charged by the providers of traditional pension products, per April 2015; see www.collectum.se. In addition to this fee, Collectum charges an administration fee of 1% of contributions.

4. Moving from DB to DC

Until 1998 (for the blue-collar agreement: SAF-L0) and 2007 (for the white-collar agreement: ITP), collective agreements consisted of defined benefit (DB) pensions, offering guaranteed and, in principle, inflation-linked benefits. From these years onward, only DC pensions have been offered to new participants. For ITP, participants born before 1979 continue to accrue pensions in the DB agreement so long as they stay with the same employer, whereas other participants received the option to either stay in the DB or move to the DC agreement.

DB arrangements

The DB agreements were administered via three vehicles:

1. A book reserve scheme, with mandatory external credit insurance and administered by a central administration provider (for ITP, Collectum is the administration vehicle). Typically, companies combine this with a "*pensionsstiftelse*": a ring-fenced, off-balance sheet foundation for assets backing the liabilities.
2. A "*pensionskassa*", a small insurance company for a specific group. Companies may set up a *pensionskassa* to insure the DB pensions of their employees and thereby remove the liability from their balance sheet. This set-up cannot be used by companies linked to one of the large collective agreements. In any case, the *pensionskassa* structure cannot be chosen anymore and only few are left in Sweden at the moment.
3. A life insurance policy that provides nominal benefit guarantees and (often) conditional inflation adjustments⁶. For employers connected to ITP, the only life insurer that can be used for DB is Alecta.

The choice of vehicle for a DB plan was made by the employer, at the company level. Typically, small- and mid-sized companies bought a life insurance policy, while large companies typically chose a book reserve scheme combined with a *pensionsstiftelse*. It was also quite common for companies to have more than one vehicle (e.g. for different groups of employees).

As mentioned above, the dedicated life insurance companies (for ITP: Alecta) are typically owned by the social partners, and are non-profit organizations. Decisions on conditional indexation are therefore made (directly or indirectly) by the social partners, who tend to represent various interests, in the following pecking order: (1) inflation adjustment for active members; (2) inflation adjustment on annuity payments; and (3) inflation adjustment to paid-up pensions for deferred members (former participants who have not yet reached retirement age).

The old DB agreements suffered from a non-transparent definition of the promised pension. Whereas the agreements were generally expected to pay an inflation-linked income, they were formally organized as a nominal guarantee product with bonus potential. In practice, the DB agreements were therefore not very different from a traditional life DC agreement. As a result, the changeover from a DB to a DC agreement did not have a major effect on the participants.

6 Note that there is no formal link to consumer prices. The conditional inflation adjustments are contingent on the financial strength of Alecta and are decided by the board. Inflation adjustment can be granted to part of the portfolio, e.g. to active members only. For employers that follow ITP and have not bought a life insurance policy, the minimum inflation adjustment is the one applied by Alecta.

DC arrangements

The current collective agreements stipulate that new employees are offered a DC pension plan. These DC plans are structured as follows.

The level of the contributions is determined as part of the collective labor agreement and could therefore differ between labor agreements. In practice however, all (main) collective agreements however apply the same contribution structure, which consists of contribution rates of 4.5% of income up to the ceiling of 424,500 Swedish krona (approximately €45,000) in 2014 and 30% above this threshold.

The collective agreements each operate central administration agencies, which are controlled by the social partners. These agencies select and negotiate the conditions for the providers of both traditional and unit-linked products. These administration agencies might be viewed as the intermediary between members and providers. Every collective agreement has its own administration agency, such as Collectum for the white-collar agreement (ITP) and Fora for the blue-collar agreement (SAF-L0). In addition to procurement and the administration of the choices made by the participants, these agencies design the choice architecture for the collective agreement, organize the collection of the contributions from members and distribute the contributions to the chosen providers.

By designing the choice architecture, the social partners also impact the way the contributions are invested. In the case of ITP's DC agreement ('ITP1'), it is mandatory that at least 50% of participants' contributions are invested in a traditional pension product. The remaining 50% of contributions can be invested in either traditional or unit-linked products.⁷ In the blue-collar agreement

⁷ See www.collectum.se.

(SAF-L0), there is no requirement to invest a certain percentage of contributions in a traditional pension product, and the complete contribution sum may be invested in unit-linked insurance products if the member so wishes.

The participant can choose the provider and the allocation of contributions to traditional life and unit-linked products for the part of the contributions that can be freely allocated. Currently, ITP1 offers four choices for a traditional pension product and five choices for unit-linked insurance.⁸ Through the central agencies, the social partners have selected a default solution, typically a traditional product provided by a low-cost provider controlled by the social partners.

Participants who make an active choice typically base their choice of provider on brand recognition, i.e. based on marketing and on whether the provider is already used for other financial services. For instance, some unit-linked insurance products are provided by financial institutions linked to the largest banks, with which participants may already hold accounts. As the employee has legal transfer rights, the banks often cross-sell their pension product as part of the mortgage negotiation process: "If you move your pension to us, you will receive a lower interest rate on your mortgage". Nevertheless, some two-thirds of participants end up with the default provider.⁹

In the pay-out phase of traditional and unit-linked pension products, the individual can select both the pay-out product and the provider. To benefit from the advantageous tax treatment, the accrued pension assets or rights need to be converted into

⁸ As per April 2015; see www.collectum.se.

⁹ Figures for the IPT1 agreement show for November 2014 that 71% of contributions were invested in the default option. See www.collectum.se and Cox and Lever (2015).

an annuity with a minimum term of five years.¹⁰ Most common are life-long annuities and fixed-term annuities of twenty years. Also a fixed pay-out period of ten years is possible, irrespective of whether the annuitant survives (so-called family benefits). In the case of limited-term annuities, no longevity insurance is provided. Those who outlive their fixed-term annuities will see their retirement income drop to the level of the state pension, which is paid for life. The guarantee pension provides an additional safeguard if the combined income and premium pension fall below the threshold for the means-tested pension.

Legal transfer rights

For accrued rights built up in DC agreements from 1 July 2007 onwards, participants have recently been granted a legal right to transfer any accrued benefits during the accumulation phase.¹¹ This means that participants, at any point in time before the pay-out phase, can move their accumulated pension savings to another provider belonging to the pre-selected providers for the collective agreement. If a participant exercises his/her transfer right in a traditional life pension product, the transfer value is not based on market valuation. In addition, the insurance company charges an administration fee for processing the transfer. For more details on the valuation methods for the traditional pension products, see Section 5.

In theory, the 'exit' option can be a useful disciplinary device that can improve the transparency of the sector: participants can vote with their feet when they are not satisfied. In practice, the number of transfers that takes place is low due to behavioral

10 The minimum five-year term is a requirement for the normal pension tax privilege.

11 *En ny reglering för tjänstepensionsföretag*, SOU 2014:57 p. 738.

reasons, such as inertia among participants and lack of understanding of the benefits that might be obtained from switching. Also, the right to transfer provides an incentive to brokers, anxious to attract business for commission purposes. Finally, since the transfer rights apply only to pension rights accrued from 2007 onwards, the benefits from a potential transfer tend to be relatively small. Redistribution among pension policies tends to be particularly high on older, pre-2007 policies, as will be discussed below.

5. Collective DC in Sweden – the traditional life product

The traditional life insurance product offers benefits with a guaranteed minimum retirement income and a bonus potential that depends on the investment returns over time. In its original set-up, this pension product pays a lifetime benefit. In insurance language, this product is often referred to as a ‘participating deferred annuity’. This type of product is not specific for Sweden; similar products are, for example, provided by ATP in Denmark and TIAA-CREF in the United States.

The traditional pension product works as follows. In return for their contributions, participants receive rights that represent a future pension income, backed by the balance sheet of the insurance company. The liability side of the balance sheet consists of ‘hard’ and ‘soft’ pension rights, both at the level of the individual participant and of the collective. Transfer rights and pension payments are based on the individual (‘hard’ and ‘soft’) rights. The life insurance company selects the (collective) asset composition that backs the rights. By definition, the individual has no freedom of choice about the asset mix.

For each contribution, the participant receives a claim to a guaranteed future pension income, based on the interest rate and longevity assumptions at the time of the contribution. The accumulated guaranteed future income stream for a participant is the sum of all these claims: a ‘fixed nominal deferred annuity’ that is either lifelong or fixed term.¹² This deferred income could be considered a participant’s hard pension rights. These rights are accounted for at market value and supervised under a risk-

¹² Some traditional life pension products do not offer lifetime payments anymore. Instead, they offer fixed-term payments, for instance for a 20-year term.

based regulatory and solvency framework, similar to the proposed Solvency II.¹³

In addition to the guaranteed pension income, traditional pension products offer a 'bonus potential' that is based on the financial position of the insurance company. The insurance company distributes surpluses to the participants (expressed as an indexation or revaluation percentage) by means of a bonus rate or 'allocated surplus'. This surplus could be considered a participant's soft pension rights. These soft rights are therefore not guaranteed and may be reduced: if the provider incurs a loss, the deficit (or 'negative bonus') is charged to the participants in the same way as a surplus.¹⁴ At retirement, the soft pension rights – the same as the hard rights – are converted into income.

In addition, there is a residual between the insurance company's total assets and the sum of the soft and hard pension rights. This can be viewed as collective reserves. Such collective reserves can be used to smooth the impact of minor shocks on participants. The collective reserves belong to the insurance company. Ultimately the board of the insurance company determines when and how these collective reserves will be distributed to the members. The collective reserves can be negative, in which case the soft pension rights can be reduced.

To summarize, the traditional life product could be considered as a (deferred) nominal annuity with a profit-sharing arrangement. The collective buffer is intended to smooth shocks and reduces the volatility of pension payments.

13 See Finansinspektionen, <http://www.fi.se/Rapportering/Trafikljuset/Methodik-och-underlag/>.

14 This approach is different from both TIAA-CREF (in the US) and ATP (in Denmark), where the bonus rate is also guaranteed ('hard') once it has been allocated to the participant.

If the product were to be designed today, the traditional life pension product would probably not look the way it does now. Most likely, the guaranteed pension income (the deferred nominal annuity) and the profit sharing would be unbundled and treated as two separate contracts that are implemented in a collective vehicle. In this way, communication challenges and intergenerational effects, which currently arise, would be avoided.

Combination of book and market valuation

One of the challenges for the Swedish traditional life insurance industry is that the design for the current bundled product is based on 'book valuation' of the liabilities, while the regulatory framework for the deferred nominal annuity is based on 'market valuation'. This creates an internal conflict in the bundled product between two contradictory health measures published by the traditional insurance companies: the solvency ratio and the consolidation ratio.

The *solvency ratio* is calculated as total assets divided by the value of the guaranteed (hard) rights. In the solvency measure, the hard rights are valued using market interest rates and mortality tables approved by the regulator (Finansinspektionen). The solvency measure is specified and monitored by the regulator. The objective is to ensure customer protection and to make sure that there is enough capital to honor the hard pension rights in case of financial distress of the insurance company. On average, solvency ratios of Swedish mutual life insurance companies are high, usually over 150%.¹⁵ These high solvency ratios are in line with the fact that only the hard pension rights are involved.

15 A recent informal survey of the main insurance companies, based on company website data for 2015, shows solvency ratios ranging from 154% (Folksam) to 209% (AMF).

The enforcement of the solvency regulation is strict, and the consequences of low funding (or even underfunding) are severe. Indeed, companies with low very funding ratios (e.g. 108%) were prevented from taking on new business. This contrasts with Dutch pension funds, which allow for recovery periods of up to ten years in the event of insufficient funding.¹⁶

The *consolidation ratio* is a tool for managing benefits and distributing the surplus over policyholders; it is not used for supervisory purposes. The consolidation ratio is calculated as total assets divided by the Retrospective Reserve (RR). The RR is calculated on the basis of book valuation (actuarial interest rate¹⁷) and represents the accrued capital allocated to the policyholders. It therefore includes both the hard and soft pension rights but excludes the collective reserves. The expected retirement income resulting from the RR is the 'prognosis amount', which is calculated by applying an annuity factor to the RR, taking into account changes in (macro) longevity and in actuarial interest rate. The prognosis amount is therefore an indication of the participant's future pension income resulting from the accrued hard and soft rights, and is communicated to the participants.

During retirement, the benefits paid are the higher of the prognosis amount or the nominally guaranteed income. The solvency regulation covers only the insurance provider, not the individual contracts. This means that an individual contract can be underfunded (i.e., the contract may technically have negative soft pension rights), but this is not a regulatory problem so long as

16 Under the new financial assessment framework (*nieuw financieel toetsingskader*, nFTK), underfunded pension funds need to submit a recovery plan with a maximum term of ten years. For transition purposes, recovery plans submitted in 2015 will be able to use a maximum term of twelve years; when submitted in 2016, the maximum term is eleven years.

17 The actuarial discount rate is set by the company and is implicitly based on the return assumptions of the insurance company.

the insurance company is solvent. Indeed, companies can remain solvent by using capital from contracts with surpluses (i.e., positive soft rights) to cover contracts with deficits.

Counterintuitive communication

The challenge with mixing market and book valuations of liabilities is that the participants will get counterintuitive information and that the management board has difficulties managing the business risk and financial risk of the traditional life insurance company.

The two financial health measures, solvency and consolidation, exhibit different sensitivities to movements in market interest rates. For the asset side of the balance sheet, changes in market interest rates are always fully reflected in the price of the financial assets. The consolidation ratio is based on the book value of the liabilities, applying an actuarial discount rate, which makes the consolidation ratio slow to adapt to changes in market interest rates. For the solvency ratio, on the other hand, changes in market rates are immediately taken into account. A typical reaction is that, when market interest rates fall, the solvency ratio goes down while the consolidation ratio goes up.

This focus on asset returns may give rise to counterintuitive communication to participants. If interest rates decline, the value of the insurance company's assets is likely to increase. However, as a result of a fall in interest rates, the value of the guaranteed rights will increase more than the assets, due to the long duration of the liabilities. As a consequence, the collective reserves may turn negative, and the soft pension rights of participants may thus need to be cut. This makes the product difficult to understand for participants. On the one hand, the insurance company proudly announces a good year with a high return on assets. On

the other hand, the insurance company may reduce pensions in payment.

Intergenerational effects

The combination of market and book valuation may also result in intergenerational redistribution. The gains are shared equally among the participants, but as a result of the breaking point between market and book valuation, the downside is not shared equally. In practice, this means that older clients (who typically have more 'soft' pension rights) provide the risk capital for younger clients (who have fewer 'soft' pension rights). Young and old benefit equally from the upside, but in case of adverse investment results the older generation incurs a larger part of the downside. Traditional life companies sometimes dub this feature 'the generational model'.

In the past, traditional pension products guaranteed interest rates of around 4%. The actual market interest rates at the time were, however, significantly higher, around 12%. The economic value of the guarantee provided was therefore very limited. As a result, these old pension policies resulted in a high proportion of soft pension rights for the insured. For contributions paid into the system' today, return guarantees are more in line with actual interest rates. As a result, the guarantee *does* have a substantial option value for new contributions, since the accumulated actual return may at any moment be below the guaranteed return. In that case, younger participants would receive compensation from the insurance company, effectively financed by the older generations. Traditional pension products therefore typically give rise to redistribution from old to young generations: the old have soft pension rights that are cut when the hard rights of all generations need to be honored. Summarizing, the value of the pension

product for different participants depends highly on the moment when they entered the system and on the level of the guarantee rate they received (*vis-à-vis* the actual interest rates at the time).

Generation effects may also originate from the solvency ratios of insurance companies: providers with many new participants (where guaranteed interest rates are close to actual rates) are likely to have lower solvency ratios. Since a participant has the right to transfer to another insurance company, differences in solvency between insurance companies can be expected to be somewhat neutralized, although this may take decades before taking effect.

6. Lessons learned: strengths and weaknesses of the Swedish system

Comparing the Dutch and Swedish pension systems

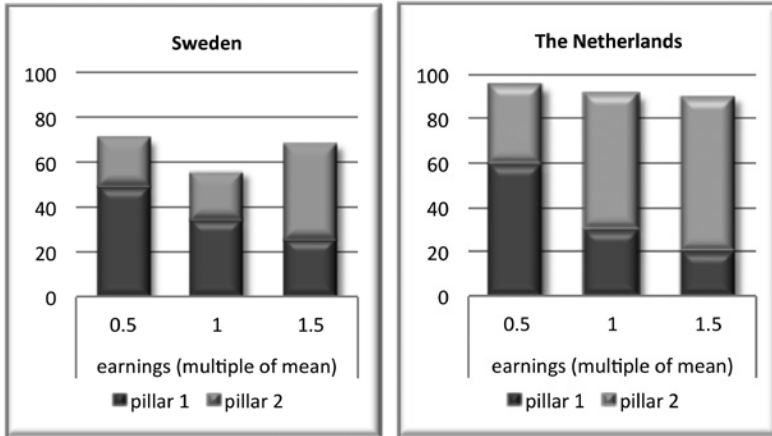
The Swedish pension reforms stand out in international comparisons since they constitute a transition to DC solutions with collective elements in both the first- and second pillars. This makes Sweden an interesting case study for pension design questions. To determine the relevance of the Swedish second pillar for the Dutch context, it is necessary to consider how the two pension systems compare.

The first and second pillars play different roles in Sweden and in the Netherlands. As we can see in Figures 6.1 and 6.2, the average replacement rate of the Swedish first- and second pillars (i.e., the replacement rate resulting from *mandatory* pension savings) is currently lower than in the Netherlands. The gross replacement rate of a person with an average income is 56% in Sweden, and 91% in the Netherlands.¹⁸ What should be taken into account is that the Swedish system is not yet as mature as the Dutch system, given that the full effects of the pension reforms will only become visible in the years to come.

Furthermore, the proportion of first pillar income is, for all income classes, higher in Sweden than in the Netherlands. For Swedish average income earners, second pillar income represents 39% of the income resulting from mandatory pension saving, whereas for the Netherlands the corresponding number is 67%. For low and high income levels, the relative difference between the two countries is smaller. In Sweden the replacement rate from the second pillar is significantly higher for higher income earners than for middle and lower income earners, illustrating that

¹⁸ Figures taken from OECD (2013).

Figure 6.1 and 6.2: Gross replacement rates in Sweden and the Netherlands from the 1st and 2nd pillar, for different income levels.



Figures are based on data from OECD (2013)

Swedish occupational pensions are particularly relevant for the higher income earners.

Contrary to the Dutch first pillar, a large part of pension income from the Swedish first pillar is earnings-related: some 84% of individuals receiving first pillar income fully covered by income and premium pension, while the rest has some additional payments from the guarantee pension.¹⁹

These different relative sizes of the pension pillars in Sweden and the Netherlands give an indication of the different roles they play. In Sweden, the (earnings-related) first pillar is the main retirement income for the average employee and the self-employed, while the guarantee pension acts as a safety net to avoid poverty among retirees. In the Netherlands, the universal

¹⁹ See Settergren (2014).

state pension (AOW) represents a basic income for all citizens. In Sweden, occupational pensions act as a top-up income for higher incomes; in the Netherlands the second pillar is essential in supplying most people with an adequate replacement rate. These different roles should be considered when evaluating the Swedish pension design.

Furthermore, it is relevant to take into account that:

- The Swedish first pillar is DC-based, and pensions in payment can be reduced on account of the automatic balancing mechanism. It is not a stable inflation-linked retirement income like AOW in the Netherlands.
- All retirement income from the Swedish first pillar is paid for life: the income pension, the premium pension and the guarantee pension. For Swedish second pillar pensions, there is no requirement to offer lifetime benefits and to share longevity risk, as is the case in the Netherlands.
- The Dutch pension funds are regulated as IORPs and are less subject to strict solvency regulations compared to Swedish pension providers, which are regulated as insurance companies.

Lessons learned

What is the relevance of the Swedish experience in organizing occupational pensions? We will focus our discussion on four specific areas: (1) the role of social partners, market solutions, and freedom of choice; (2) transparency and ownership rights; (3) the pay-out phase; and (4) the transition from DB to DC. For each area, we discuss the strengths, weaknesses and lessons that may be of interest for the debate in the Netherlands.

#1: Role of social partners, market solutions and freedom of choice

The social partners (employers' and workers' representatives) play an important role in both the Netherlands and Sweden. In Sweden, however, the social partners have assumed a different role in the way they look after their respective members' interests. Unlike in the Netherlands, where the social partners often are responsible for negotiating the pensions agreement and are directly involved in the management of pension funds (as trustees in pension fund boards), in Sweden the social partners also fulfill a more pronounced role in the procurement of pension products and the design of the choice architecture. In addition, Swedish social partners own some of the insurance companies that provide pension products.

Strengths

- Through central procurement of pension products, the social partners facilitate low-cost execution of the collective agreements. They centrally organize the administration of the pensions (collection of contributions, choosing where and how to invest contributions) and negotiate conditions with pension providers. As a result, administration and asset management costs are typically low.
- Participants have considerable freedom of choice (they can choose provider, composition of assets, insurance in/exclusion, pay-out policy) and can adapt their pension solution to their individual needs.
- The central administration and election agencies, which are owned by the social partners, protect participants against the behavioral pitfalls of freedom of choice. They organize the

choice architecture and set default options (for provider, type of pension product, investment policy, and annuity).

- Participants have the legal right to transfer their accrued pension rights. This creates pressure on the pension insurance industry and stimulates competition among providers: participants who are not satisfied can vote with their feet.

Weaknesses

- The governance structure of the Swedish central election agencies creates some agency issues. Social partners own and govern the election centers, as well as some of the insurance companies.
- The social partners may not have the knowledge or skills (or the willingness to pay for these skills) that are required to adequately perform the tasks of the election agencies and life insurance companies. As a result, the governance of the election agencies is almost exclusively driven by cost considerations. Meanwhile, innovation in pension products is limited.
- The possibility of choosing is not exercised on a wide scale. When participants exercise choice, it is often for non-rational considerations activated by marketing or branding.
- The transfer rights are not frequently exercised, due to behavioral reasons or lack of understanding of pension products. Therefore, their effectiveness as a tool to stimulate innovation and competition is limited.
- The multiplicity of stakeholders means that no one is really responsible for the system or has the political power to take the lead in reform. Also vested interests of stakeholders discourage adaptability.

Lessons learned

The Swedish example demonstrates that introduction of choice in a DC environment is compatible with an important role for the social partners. In particular, by adopting a central role in designing the choice architecture and organizing the procurement of pension products, social partners facilitate individual choice, while providing safeguards for those who are not willing or able to choose themselves. They also ensure a cost-effective pension provision.

#2: Transparency and ownership rights

The ownership rights of individual unit-linked solutions are, by definition, clearly defined in both countries. The Swedish mutual insurance product is collective and was developed long before the introduction of modern accounting standards. This hybrid product is difficult to value because of its bundled nature. Due to opaque ownership rights, it faces problems of intergenerational transfers that are comparable to those of the Dutch pension fund industry. In the Swedish case, transfers tend to be from old to young. In particular, old Swedish pension policies provide the risk capital for new policies, without receiving any form of compensation.

Strengths

- In the traditional, collectively insured pension products, the individual ownership rights relating to the guaranteed, 'hard' pensions rights are clearly defined.
- Solvency regulations ensure that insurers keep adequate buffers to guarantee 'hard' pension rights.
- The soft pension rights in the Swedish traditional pension products are a way to allocate a large part of the buffers in the system to the participants, with some form of ownership rights.

When transferring capital to another provider, the participant can move the allocated 'hard' *and* 'soft' pension rights. In the Netherlands, where ownership rights are not individualized, only the nominal rights can be transferred when an employee changes from one pension fund to another.²⁰

Weaknesses

- The valuation of 'soft' pension rights is based on book value accounting, whereas the valuation of 'hard' rights is based on market value accounting. The lack of market valuation of 'soft' rights leads to transfers between old and new members.
- Pay-out policies for the collective insurance buffers are fully discretionary and not governed by complete contracts. The decision on bonus payments (increases or decreases of the 'soft' pension rights) is made by the board of the insurance company. This process is not transparent.²¹
- The collective reserves belong to the insurance company. No transfer rights apply to collective reserves.

Lessons learned:

With its distinction between 'hard' and 'soft' pension rights, ownership rights in Sweden are more clearly defined than in the Netherlands. Nevertheless, there is a mismatch between the historical business model, which is based on book valuation,

²⁰ This leads in particular to an unfair situation for participants of pension plans with low accrual rates and a high indexation ambition, as is the case in the Dutch pension schemes for general practitioners. Also, transfer of accrued rights to another pension fund is possible only under specific conditions.

²¹ No public statements are made about what fairness means, how bonus rates are set for different generations, why an insurer remains open for new business, etc. Furthermore, it seems that the governance of mutual insurers is such that these issues are not addressed internally either.

and the principles of market valuation, on which the regulatory framework relies.

This experience suggests that, in the Dutch debate, it would be more constructive to explore a business model that is based on market valuation and transparency rather than trying to amend the current pension fund business model based on book valuation. In this respect, it seems preferable to unbundle the various components of the pension product (asset management, insurance, and pay-out functions) and value these components in a transparent fashion. The combination of unbundling and market valuation allows for more transparency and tailor-made solutions.²²

Another Swedish lesson is that it is possible to implement a pension fund-like solution in a DC setting through a mutual insurance vehicle. In the Dutch case, this direction could be worthwhile exploring since the industry-wide pension funds have, in principle, become mutual insurance companies as all risks are borne chiefly by the participants. This is also the case for many corporate pension funds, where the employer has bought out the sponsor guarantee.

#3: The pay-out phase

Compared to the Dutch situation, Sweden has a more liberal view on annuitization in the second pillar. This allows for more flexibility in the pay-out phase. To enjoy the tax benefits of retirement savings, a minimum payment term of five years is prescribed. Another difference is that commission-based distribution via independent financial advisors is not yet banned in Sweden. In the Netherlands, this market practice was abandoned in 2014.

²² See also Bovenberg and Nijman (2015).

Strengths

- A more liberal view on annuities allows individuals to create different pay-out profiles, where participants have the option of choosing a pay-out term that better fits their personal preferences and profile.
- A large part of the population selects lifetime annuities through the traditional life product, but a growing part is now choosing a fixed-term product. The latter is especially common in unit-linked products.

Weaknesses

- Increasingly, Independent Financial Advisors²³ urge individuals to withdraw their second pillar pension after the minimum five-year period and then invest the capital in structured products, which involve opaque fee structures and generous sales commissions.
- Once capital has been withdrawn, it no longer falls under the second pillar agreements and collectively negotiated fee structures.
- There is no assurance that the individual fully understands the impact of different options when selecting a pay-out product. In the premium pension (first pillar), the form that the individual must fill in at retirement was different during a period of one and a half years. During that period, people made significantly different choices, purely driven by the design of the form²⁴.

²³ As of yet, Sweden has not introduced a ban on commission payments. Such a ban was introduced in the UK on 31 December 2012 and in the Netherlands on 1 January 2014.

²⁴ Engström, S. (2013), *Vägval för premiepensionen*, p. 34.

Lessons learned

In Sweden, the short minimum withdrawal period should be viewed in the context of the overall retirement income. For the average Swedish worker, the second pillar pension represents a smaller part of the total retirement income compared to the Netherlands. For most workers, the main part of retirement income consists of the lifelong, earnings-related first pillar income.

Some flexibility in structuring the pay-out phase – e.g., not being forced to buy a lifetime nominal annuity – could be beneficial in the Netherlands. The introduction of new legislation, allowing participants to incur investment risk in the decumulation phase²⁵, is a step in the right direction. In this proposal, investment flexibility is combined with pooling of (micro-)longevity risk and therefore guarantees a lifelong, variable income. Since international experience suggests that the vast majority of participants in a pension product tend to follow the default choices or their advisors' recommendations, it may be expected that few participants will in fact make use of increased flexibility in the pay-out phase.

The Swedish example shows that consumer behavior can be exploited in a negative way by market forces. For instance, allowing for a very short (e.g. five years) withdrawal period can lead to misselling problems. Indeed, there is reason to doubt that individuals have sufficient interest and/or knowledge to deal with increased flexibility in the pay-out phase.

25 Ministry of Social Affairs and Employment (SZW), Hoofdlijnennota "Optimaliserend wettelijk kader voor premieovereenkomsten", 19 December 2014, and Ministry of Social Affairs and Employment (SZW), "Concept wetvoorstel variabele pensioenuitkering", 9 July 2015.

#4: Transition from DB to DC

The Swedish transition process from DB to DC pensions was similar to that for corporate pension funds in the UK. The old DB solutions were typically closed to new contributions. New contributions were allocated to insured DC products, such as the traditional life products. Often members did not perceive this as a major change, since the new guaranteed DC product had similarities with the old DB product, as discussed in Section 4.

Strengths

- Past accrued entitlements of participants are not affected by changes in the pension contracts.

Weaknesses

- It takes a very long time to complete the transition in full.
- The traditional life product in DC still needs redesigning (see lesson #2) to ensure more transparent ownership rights and eliminate *ex ante* transfers.

Lessons learned

An important lesson from Sweden is that, in transitioning from DB to DC, the underlying issues in the current DB solution to be resolved first, instead of being allowed to recur in the new system.

The Dutch pension system has almost gone through a full transition from DB to (collective) DC. Few employers provide guarantees anymore, there is a cap on the contribution level, and pensions in payment can be reduced. Effectively, all risks are therefore borne by the participants. This means that Dutch DB contracts ('*uitkeringsovereenkomsten*') presently constitute a very complex form of DC. If and when the Dutch system transitions to

some form of DC contracts with individual ownership rights, the transition phase will require careful design.

7. Practical implications for the Dutch discussions

The Swedish system has its merits and its flaws. Moreover, Swedish occupational pensions should be viewed in conjunction with the first pension pillar and, indeed, their wider cultural and historical setting. Nevertheless, the Swedish system has a number of features that should be considered in the discussion on the future of the Dutch pension system.

The Swedish experience demonstrates that there are alternative ways to solve the challenges of occupational pensions. In a collective and paternalistic society it is possible:

- to allow freedom of choice without moving to an Anglo-Saxon, market-driven model;
- for the social partners to maintain a central role as the architect of occupational pensions while outsourcing the implementation;
- to offer a collective model with (nominal) guarantees in a DC framework;
- for the participants to benefit from limited market competition;
- to have a flexible solution that meets the needs of workers with modern career paths.

The Swedish experience shows that modernizing the Dutch system is possible, but it also shows several obstacles on the way. Exactly how the future solution should be envisioned is a matter of public debate.

Literature

- Bovenberg, L., and Th. Nijman, 2015, Personal Pensions with Risk Sharing – Affordable, Adequate and Stable Private Pensions in Europe, Netspar Discussion Paper 03/2015-005, www.netspar.nl.
- Cox, R. and M. Lever, 2015, Internationale vergelijking van pensioenstelsels: Denemarken, Zweden, Chili en Australië, CPB Notitie, www.cpb.nl, Den Haag.
- Engström, S., 2013, Vägval för premiepensionen, Departementsserie 2013:35, Swedish Government.
- Ministry of Social Affairs and Employment (SZW), 2014, Hoofdpijnennota “Optimalisering wettelijk kader premieovereenkomsten”, 19 December 2014.
- Ministry of Social Affairs and Employment (SZW), 2015, “Concept wetsvoorstel variabele pensioenuitkering”, 9 July 2015.
- OECD, 2013, Pensions at a Glance 2013: OECD and G20 Indicators, OECD Publishing, www.oecd.org.
- Settergren, O., 2014, Swedish Pillar Integration: a mix or mess of principles?, presentation at the Rotman ICPM Discussion Forum, Paris, 2 June 2014.
- SOU 2014:57, *En ny reglering för tjänstepensionsföretag*, Swedish Government.
- Swedish Pensions Agency, 2014, Orange Report – Annual Report of the Swedish Pension System 2013, Swedish Pensions Agency, Stockholm; see www.pensionsmyndigheten.se.

OVERZICHT UITGAVEN IN DE DESIGN PAPER SERIE

- 1 Naar een nieuw pensioencontract (2011)
Lans Bovenberg en Casper van Ewijk
- 2 Langlevensrisico in collectieve pensioencontracten (2011)
Anja De Waegenaere, Alexander Paulis en Job Stigter
- 3 Bouwstenen voor nieuwe pensioencontracten en uitdagingen voor het toezicht daarop (2011)
Theo Nijman en Lans Bovenberg
- 4 European supervision of pension funds: purpose, scope and design (2011)
Niels Kortleve, Wilfried Mulder and Antoon Pelsser
- 5 Regulating pensions: Why the European Union matters (2011)
Ton van den Brink, Hans van Meerten and Sybe de Vries
- 6 The design of European supervision of pension funds (2012)
Dirk Broeders, Niels Kortleve, Antoon Pelsser and Jan-Willem Wijckmans
- 7 Hoe gevoelig is de uittredeleeftijd voor veranderingen in het pensioenstelsel? (2012)
Didier Fouarge, Andries de Grip en Raymond Montizaan
- 8 De inkomensverdeling en levensverwachting van ouderen (2012)
Marike Knoef, Rob Alessie en Adriaan Kalwij
- 9 Marktconsistente waardering van zachte pensioenrechten (2012)
Theo Nijman en Bas Werker
- 10 De RAM in het nieuwe pensioenakkoord (2012)
Frank de Jong en Peter Schotman
- 11 The longevity risk of the Dutch Actuarial Association's projection model (2012)
Frederik Peters, Wilma Nusselder and Johan Mackenbach
- 12 Het koppelen van pensioenleeftijd en pensioenaanspraken aan de levensverwachting (2012)
Anja De Waegenaere, Bertrand Melenberg en Tim Boonen
- 13 Impliciete en expliciete leeftijdsdifferentiatie in pensioencontracten (2013)
Roel Mehlkopf, Jan Bonenkamp, Casper van Ewijk, Harry ter Rele en Ed Westerhout
- 14 Hoofdlijnen Pensioenakkoord, juridisch begrepen (2013)
Mark Heemskerk, Bas de Jong en René Maatman
- 15 Different people, different choices: The influence of visual stimuli in communication on pension choice (2013)
Elisabeth Brüggem, Ingrid Rohde and Mijke van den Broeke
- 16 Herverdeling door pensioenregelingen (2013)
Jan Bonenkamp, Wilma Nusselder, Johan Mackenbach, Frederik Peters en Harry ter Rele
- 17 Guarantees and habit formation in pension schemes: A critical analysis of the floor-leverage rule (2013)
Frank de Jong and Yang Zhou

- 18 The holistic balance sheet as a building block in pension fund supervision (2013)
Erwin Fransen, Niels Kortleve, Hans Schumacher, Hans Staring and Jan-Willem Wijckmans
- 19 Collective pension schemes and individual choice (2013)
Jules van Binsbergen, Dirk Broeders, Myrthe de Jong and Ralph Koijen
- 20 Building a distribution builder: Design considerations for financial investment and pension decisions (2013)
Bas Donkers, Carlos Lourenço, Daniel Goldstein and Benedict Dellaert
- 21 Escalerende garantietoezeggingen: een alternatief voor het StAr RAM-contract (2013)
Servaas van Bilsen, Roger Laeven en Theo Nijman
- 22 A reporting standard for defined contribution pension plans (2013)
Kees de Vaan, Daniele Fano, Herialt Mens and Giovanna Nicodano
- 23 Op naar actieve pensioenconsumenten: Inhoudelijke kenmerken en randvoorwaarden van effectieve pensioencommunicatie (2013)
Niels Kortleve, Guido Verbaal en Charlotte Kuiper
- 24 Naar een nieuw deelnemergericht UPO (2013)
Charlotte Kuiper, Arthur van Soest en Cees Dert
- 25 Measuring retirement savings adequacy; developing a multi-pillar approach in the Netherlands (2013)
MARIKE KNOEF, Jim Been, Rob Alessie, Koen Caminada, Kees Goudswaard, and Adriaan Kalwij
- 26 Illiquiditeit voor pensioenfondsen en verzekeraars: Rendement versus risico (2014)
Joost Driessen
- 27 De doorsneesystematiek in aanvullende pensioenregelingen: effecten, alternatieven en transitiepaden (2014)
Jan Bonenkamp, RYANNE COX en Marcel Lever
- 28 EIOPA: bevoegdheden en rechtsbescherming (2014)
Ivor Witte
- 29 Een institutionele beleggersblik op de Nederlandse woningmarkt (2013)
Dirk Brounen en Ronald Mahieu
- 30 Verzekeraar en het reële pensioencontract (2014)
Jolanda van den Brink, Erik Lutjens en Ivor Witte
- 31 Pensioen, consumptiebehoeften en ouderenzorg (2014)
MARIKE KNOEF, Arjen Hussem, Arjan Soede en Jochem de Bresser
- 32 Habit formation: implications for pension plans (2014)
Frank de Jong and Yang Zhou
- 33 Het Algemeen pensioenfonds en de taakafbakening (2014)
Ivor Witte
- 34 Intergenerational Risk Trading (2014)
Jiajia Cui and Eduard Ponds
- 35 Beëindiging van de doorsneesystematiek: juridisch navigeren naar alternatieven (2015)
Dick Boeijen, Mark Heemskerk en René Maatman
- 36 Purchasing an annuity: now or later? The role of interest rates (2015)
Thijs Markwat, Roderick Molenaar and Juan Carlos Rodriguez
- 37 Entrepreneurs without wealth? An overview of their portfolio using different data sources for the Netherlands (2015)
Mauro Mastrogiacomo, Yue Li and Rik Dillingh

- 38 The psychology and economics of reverse mortgage attitudes. Evidence from the Netherlands (2015)
Rik Dillingh, Henriëtte Prast, Mariacristina Rossi and Cesira Urzi Brancati
- 39 Keuzevrijheid in de uittreedleeftijd (2015)
Arthur van Soest
- 40 Afschaffing doorsneesystematiek: verkenning van varianten (2015)
Jan Bonenkamp en Marcel Lever
- 41 Nederlandse pensioenopbouw in internationaal perspectief (2015)
Marika Knoef, Kees Goudswaard, Jim Been en Koen Caminada
- 42 Intergenerationele risicodeling in collectieve en individuele pensioencontracten (2015)
Jan Bonenkamp, Peter Broer en Ed Westerhout
- 43 Inflation Experiences of Retirees (2015)
Adriaan Kalwij, Rob Alessie, Jonathan Gardner and Ashik Anwar Ali
- 44 Financial fairness and conditional indexation (2015)
Torsten Kleinow and Hans Schumacher
- 45 Lessons from the Swedish occupational pension system (2015)
Lans Bovenberg, Rianne Cox and Stefan Lundbergh



Lessons from the Swedish occupational pension system

This paper by Lans Bovenberg (TilU), Rianne Cox (DNB) and Stefan Lundbergh (Cardano) sets out to investigate what the Netherlands can learn from the Swedish experience in designing occupational pensions. What are 'best practices' that can be of interest in the current Dutch debate? What are the pitfalls to be avoided? As part of the current quest in the Netherlands to create a more sustainable pension system with more tailor-made solutions, the Swedish collectively insured occupational pensions may provide useful insights.

This is a publication of:

Netspar

P.O. Box 90153

5000 LE Tilburg

the Netherlands

Phone +31 13 466 2109

E-mail info@netspar.nl

www.netspar.nl

November 2015