

Security mechanisms and risk distribution in occupational pension schemes

A comparison of countries

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Content of the study (synopsis)

The study compares occupational pension schemes in Austria with those in place in following six European countries:

- Denmark, Sweden, Netherlands, Germany, United Kingdom and Belgium.

The study focuses on these and other aspects:

- schemes funded within the company itself (book reserve schemes) or externally (capital funded)
- *defined contribution* or *defined benefit* schemes
- guaranteed minimum yield in defined-contribution schemes
- calculation of pension levels / indexation of entitlements

Key questions

- Do the individual countries' schemes provide a safety net to protect current and future beneficiaries from the risks of capital market slumps?
- Who bears what risk in the occupational pension schemes?
 - Employer/employee/pension fund body
 - Capital market risk/inflation risk/longevity risk.
- In the case of book reserve schemes or defined-benefit schemes where responsibility for funding is borne by the employer, are protection mechanisms in place should the employer become insolvent?
 - If so, what form do these mechanisms take?
- Which of the systems examined could be deemed relatively risky and which relatively secure?
 - Assessment of the Austrian system in that light.

Preliminary remark about the Austrian system

Occupational pension schemes in Austria are predominantly represented through commitments via pension funds (“Pensionskassen”), whereby the *defined contribution* variant through multi-company funds¹ (this variant will be primarily explored hereinafter) is of central significance.

Besides the commitments via pension funds occupational pensions are in particular carried out via book reserve schemes (with setting up provisions within the company). For a long time, the book reserve schemes have been the most widespread method. This, however, changed subsequently to the revision of the Occupational Pension Benefits Act in 1990; since then a large number of book reserve schemes has been converted into the newly established pension funds (whereby *defined benefit* models were frequently changed to *defined contribution*). Since then, occupational pension commitments were almost exclusively made in form of *defined contributions* via pension funds.

A specific insurance product for occupational pension schemes - with the same tax framework right as for pension funds - has only been introduced in 2006 (“corporate collective insurance”). So far, this method has not reached widespread acceptance.

Compared to other countries, which have been examined as part of this study, overall, capital-funded occupational pension plans in Austria (degree of coverage about 15 % of the workforce) are of notably lower significance. The by far most dominating role within Austrian pension schemes is still occupied by the statutory pay-as-you-go pension scheme, which compared to other public systems provides a high level of security. Hence, pension entitlements are significantly less dependent on capital market risks as in many other countries.

Type of pension benefit (*defined contribution/defined benefit*)

In **Austria’s** capital-funded occupational pension schemes, which are detached from the company level, *defined contribution models* are predominant. *Defined benefit* models via pension funds are rare and the tendency indicates that they will decrease even further.

In **The Netherlands** occupational pension schemes are generally detached from companies (no book reserve schemes). These are predominantly *defined benefit* schemes. In some cases schemes are changed to *defined contributions* (in 2005 the share of *defined contributions* was 6 %).

Sweden has *defined benefit* schemes for “older” employees, whereby these systems are closed for employees born in 1979 and earlier. The *defined benefit* model for “older employees” is predominantly implemented as a book reserve scheme; in some cases, however, it is also processed in outsourced form via an insurance agreement. The calculation of the pension income is based on the last salary; the entitlement increases with the number of working years. Employees², who were born in 1979 and after are subject to a new *defined contribution System*, which is detached from companies; the same applies to workers³, where the system had been conceived as a defined contribution scheme right from the start.

Denmark has a *defined contribution* system, however, mainly with deferred annuities, i.e. with a kind of *defined benefit* element. The system has been structured similar to an insurance plan. All contributions are converted into annuities on an annual basis, which provides security for a

¹ Mostly owned by Austrian banks and insurances

² White collar

³ Blue collar

certain minimum value of the future pension income. The annuities, which are annually calculated on the basis of the contributions made, are guaranteed, the total of the annuities makes up the guaranteed share of the overall pension. The overall pension (guarantee value + profit allocation), which is mainly dependent on capital market yields, can therefore not fall below the guaranteed minimum benefit. Book reserve schemes do not exist.

In **Germany**, occupational pension schemes are still largely implemented via book reserve schemes (*defined benefits*). Apart from that, there are various capital funded methods, which have been detached from companies. In most cases these are operated through insurance-type products (direct insurance, pension funds⁴). New German Pension funds, which are subject to fewer restrictions with regard to capital investment, were introduced as a new method some years ago. Compared to other forms of provision, the new pension funds have not yet made a real impact; they are, however, on the increase.

In **Belgium**, occupational pension schemes are generally capital funded and detached from companies (no book reserves schemes). *Defined contribution* schemes are predominant, whereby the employer has to guarantee a minimum rate of return on contributions paid both by the employer and the employee.

In the **United Kingdom**, occupational pension schemes are also detached from companies and capital funded (no book reserve schemes). These are predominantly *defined benefit* schemes (3/4 of the active beneficiaries in the private sector; 100 % in the public sector). As a result of many beneficiaries being confronted with massive losses of their occupational pension entitlements following the capital market crisis around 2002, the Pension Protection Fund (PPF) has been created for these *defined benefit* schemes in case of employer insolvency and shortfall of the capital funding level. New commitments in the private sector of the United Kingdom are mainly provided as *defined contribution* schemes. In 2006, more than half of the beneficiaries with *defined benefit* commitments were part of a scheme, where access has been closed for new employees.

Safety mechanisms in case of insolvency of the employer

The insolvency of an employer can have a huge impact on pension entitlements, in particular in case of non-capital funded book reserve schemes. In the country cross-section examined, apart from Austria book reserve schemes also exist in Sweden and Germany.

As already mentioned above, after the establishment of pension funds in Austria, many book reserve schemes were converted into capital funded pension fund models. The main reason why employees agreed to be transferred to external capital funded schemes was predominantly the decoupling of the entitlements from the situation of the company, which is associated with the detachment. In case of an employer's insolvency the security of pension entitlements from book reserve schemes in Austria only exists on a very low level. A maximum of 24 monthly payments will be made available from the insolvency security fund. The fund is financed by contributions, which have to be made by all employers.

In **Germany** and **Sweden**, non-capital funded book reserve schemes are still playing a significant - although regressive - role. Employers with book reserve schemes are obliged in both countries to participate in a mandatory protective mechanism, which in case of insolvency of a sponsoring company fully and "for life" secures all pension obligations and any vested entitlements. The

⁴ The German pension funds are insurance institutes whose business activities are directed towards occupational pension schemes. They are subject to the provisions of the Insurance Supervision Act and do thereby significantly differ from Austrian pension funds.

companies affected have to pay premiums into the protective system, which depend on the overall amount of the pension obligations. These premiums are not risk based; there is no risk assessment concerning the probability of failure of the employer. Thereby, the collective of employers with book reserve schemes provides a guarantee for the failure of individual employers.

In case of external financing, it is in particular the mandatory capital cover, which serves as a safeguard against the insolvency of an employer. Already acquired pension and vested entitlements are not directly affected by the insolvency of an employer. Shortfalls may, however, occur in case of bad investment results or changes to the actuarial parameters. Depending on the structure of the systems these may be at the expense of the insured (reduction of benefits), the pension funds (guaranteed minimum benefits) and/or the employer (financing responsibility).

With respect to capital funded *defined benefit* systems, the **United Kingdom** has a mandatory protective system against the risk of insolvency of an employer since 2005. The trigger moment for setting up the *Pension Protection Fund* (PPF) was high pension losses as a consequence of the shortfall of capital cover and the insolvency of employers, who were not able to meet their obligations to make up the deficit. All employers with *defined benefit* schemes have to participate in this new safety system and pay premiums for the provision of cover. The contributions to the protective system depend on the risk of the commitment, which is determined by the type of execution, investment strategy, degree of capital funding level and other criteria concerning the employer (economic situation). This is the first such premium, which is risk dependent. The community of employers with *defined benefit* schemes is therefore liable for individual employers who cannot meet their obligations because of insolvency. As the newly created provision of cover only refers to *defined benefit* schemes and due to the fact that additional costs are accrued by the risk premiums to be paid, some companies use this as a further reason to provide new commitments - if at all - only in form of *defined contribution plans* (*defined contribution* schemes are not secured by the PPF and do not entail any premiums).

Current figures of the Pension Protection Fund (UK) show which gigantic extent shortfalls can reach if capital markets collapse. According to this, currently about 90 % of the *defined benefit* systems included in the PPF 7800 Index show a shortfall. The accumulated shortfall of all systems included in this index, which amounts to almost £ 200 billion has almost quadrupled since last year (PPF Report February 2009).

Safety mechanisms in *defined contribution* systems - guaranteed minimum benefits

Guaranteed minimum benefits paid by pension funds do predominantly exist as insurance solutions, which are in particular widespread in Denmark and Sweden. In these models, the paid in contributions are converted into annuities. The payment of annuities is guaranteed by the pension provider (guaranteed minimum benefit). Depending on the results achieved, profits will be allocated in addition to the guarantee provision.

In case of the insolvency of an institute there are normally collective safeguards from the community of insurers. The German Insurance Association for example has created its own absorption solution. The facility is called *Protector* (details can be found on the homepage of the German Insurance Association - www.gdv.de).

Another - although differently conceived - guarantee provided by pension funds exists resp. existed for **Austrian Pension funds**. The original version of the Pension Fund Act obliged the Pension funds to use their equity capital to guarantee a certain minimum yield on the paid in

pension capital. The guarantee value, which refers to the average of the last 5 years, was derived from Austrian federal bonds in accordance with a defined mathematical formula from the secondary market yield. As matters currently stand, this formula results in a value of 1.02 % p.a. (after the deduction of costs). Apart from a certain risk sharing - also in case of pure *defined contribution* schemes - the integration of a guaranteed minimum yield in the Pension Fund Act also pursues the purpose to coerce the funds to invest carefully.

The expectations of the beneficiaries on the minimum yield guarantee were severely disappointed when in 2003 the legislator massively reduced the extent of the guarantee with retroactive effect on all paid in pension capital - just at the time when the guarantee regulation should and could have been applied on a larger scale for the first time! The guarantee was completely withdrawn for the *accrual* phase. The guarantee provision, which the fund would - if need be - pay when the pension starts, was significantly reduced by changing the outstanding guarantee amount to a fictitious annuity and by restricting the guarantee provision to the annual payment of the determined pension shortfall - supplemented by the regulation that this pension shortfall must only be paid until the fund has again reached the minimum yield value.

Parallel to the massive decrease of the guarantee, the legislator stipulated the establishment of a “minimum yield reserve”. The necessity for this resulted from the implementation of the EU Pension Fund Directive, which requires an equity capital of at least 4 % of the funding reserve (in accordance with Austrian law, pension funds must only be furnished with equity capital amounting to 1 %). The funds usually fully charged the beneficiaries with the costs for establishing the minimum yield reserve, which caused further protests.

In 2005, a new amending law enabled the beneficiaries - as an alternative to bearing the costs for establishing the minimum yield reserve - to *opt out* of the still remaining minimum yield guarantee. In order not to have to bear the disproportionately high costs, most agreements were drawn up without the guarantee. Currently only about 20 % of the Pension Fund Agreements are furnished with a minimum yield guarantee (at the 2003 level of the guarantee).

Belgian and German pension funds also provide guaranteed minimum yields; these models, however, allocate the funding risk to the employers.

Germany: In case of commitments over new pension funds, employers are obliged to guarantee the nominal value of the contributions paid (“zero interest”). The guarantee refers to the contribution part used for old-age-pension. Contribution shares, which are used for the risks ‘death’ and ‘invalidity’, are not to be taken into account. The guarantee of a minimum capital stock refers to the end of the *accrual* period. If an employer - due to insolvency- is not able to meet his guarantee obligation, the guarantee obligation will be taken over by the Pensionssicherungsverein auf Gegenseitigkeit (PSVaG) [Mutual Pension Securing Association], which is also responsible for safeguarding the book reserve schemes. Employers are obliged to pay premiums to the PSVaG.

The guaranteed yield in **Belgium** is significantly higher than in Germany or Austria. As in Germany, the guarantee is the responsibility of the employer (in case of sector pension plans the Employer Association of the sector). In case of own contributions by employees, the minimum interest paid is based on the reference target rate for long-term insurance benefits (currently 3.75 % p.a.). The guarantee refers to that part of the employee contributions, which remains after the risk premiums to cover the risks ‘individuality’ and ‘death’ have been deducted. It applies both in *defined benefit* and in *defined contribution* plans. In addition, the *defined contribution* plans include a statutory minimum yield on the contribution of the employer (also after the deduction of the risk premiums to cover the risks ‘individuality’ and ‘death’ prior to starting the pension and the administrative costs). The minimum yield is 0.5 % lower than the yield for

employee contributions, and therefore currently stands at 3.25 % p.a. It is not necessary to fulfil the yield guarantee every year; it refers to the overall contribution period and is only required at the time of the withdrawal of a beneficiary or the termination of the pension plan. If the existing reserves for achieving the guarantee value are not sufficient at the time, the contributory employer is obliged to provide the missing funds. In case of sector pension plans it is the responsibility of the Employer Association of the sector to fulfil the guarantee obligation.

In case of *defined benefit* systems, minimum earnings guarantees do not affect employees in so far as the employer is responsible for fulfilling the *defined benefit*, which means that he has to bear the risk of bad results in the pension fund.

Fluctuation of pension income

Austria: the development over the past years has shown that *defined contribution* schemes via Austrian pension funds are extremely volatile - and that not only in the accrual phase, but also in the phase when benefits are actually received. Depending on the development of the investment results pension incomes may fluctuate quite strongly. After the collapse of the capital markets in 2008, quite a number of pension recipients were confronted with pension decreases of over 20 %.

The calculatory interest rate applied plays an important role in calculating the pension income. At converting the pension capital into a pension, the calculatory interest rate stands for anticipated future investment yields. Another important operand is the higher estimated actuarial surplus, which should express the anticipated average yield expectation (the average indexation of pensions should theoretically be the difference between calculatory interest rate and actuarial surplus).

If the actual result is above the actuarial surplus, the exceeding value will be used to endow the Fluctuation provision⁵.

If the real result is lower than the actuarial surplus, the Fluctuation provision will be dissolved accordingly. If no – or only insufficient - fluctuation provisions have been accumulated the falling short of the calculatory interest rate in bad revenue years fully affects the pension income and results in a relevant decrease of the pension. This mechanism has a particularly negative impact on pension commitments, which at the end of the nineties - on the basis of (relatively) high calculatory interest rates - were converted from originally benefit defined book reserve schemes to *defined contribution* schemes. In these cases, the 2001 and 2002 collapse of the markets already resulted in significant decreases of pensions; now pensions are again hugely reduced.

With regard to the “corporate collective insurance“, which was created in 2006, a falling or strongly fluctuating pension income is not possible because of the minimum interest guaranteed by the insurance provider. As mentioned above, this form of occupational pension benefits so far has found little interest.

Compared countries: Capital market fluctuations in the compared countries have in general a less significant impact on pension incomes than is the case in Austria. This even applies in countries, where - as in Austria - *defined contribution* schemes dominate. The main reason is that these countries mainly offer products, which are similar to insurance (Denmark, and largely also in Sweden and in Germany) or that pension capital is converted - at the transfer to the pension

⁵ Under Austrian Pension Fund Law, the fluctuation provision has been provided as a central instrument to smooth out capital market fluctuations.

phase at the latest - into guaranteed annuities with guaranteed minimum benefit and possible profit allocation (as often seen in Great Britain). In the last mentioned cases, the risk of fluctuations in the capital market yields during the pension phase lies with the pension fund (guaranteed part of the pension benefit).

The situation in countries with a high share of *defined benefit* schemes is different right from the start- be it with external processing and financing responsibility of the employers (The Netherlands, Great Britain) or be it form of book reserve schemes with full security in case of an employer's insolvency (high shares in Germany and in Sweden).

In **Sweden**, at least half of the contributions have to be invested in a secure form of investment (classic life insurance) in the new *defined contribution* pension plan for employees⁶ who were born in 1979 and after (ITP System "new"). With respect to the other half the employee is able to choose his form of investment freely; he can also invest in a classic life insurance or more risky products such as fund-linked pension solutions. The pension plan for workers⁷ (SAF-LO) lets workers choose freely with regard to all contributions, which risk they want to take; they are also able to divide their contributions between products with different risks. If they decide in favour of a "safe" variant they may invest their entire contributions in a classic life insurance, or choose fund products if they are not averse to greater risks. Hence, the opportunity exists to choose a secure form of investment with minimum yield.

In **Denmark**, a large majority of pension commitments applies the principle of deferred annuities. All annual contributions - taking the parameters of this point in time into account - are immediately converted into an annuity; the conversion does not take place only when the pension starts. This represents a certain *defined benefit* element in the *defined contribution* commitment, as one receives a commitment for a guaranteed benefit, which will be paid when the pension starts. The guaranteed overall pension results from the total of individual annuities from the annual contribution shares.

In the **United Kingdom**, the investment risks for *defined contribution* commitments during the accrual phase lie in most cases fully with the beneficiaries. In general, however, an annuity will be purchased at the start of the pension at the latest, whereby the investment risk during the pension phase is taken away of the individual and where pension payments are evened out. The occupational pension schemes have the right to decide which options they offer to their system members (constant pensions, index-linked pensions, with/without provision for surviving dependants, partial pay-out of the capital at the start).

All individuals can choose from the options provided. Each system participant may also choose the option of withdrawing his or her entire capital from the system when the pension starts in order to purchase an annuity from a provider of his or her choice in the insurance market (*open market option*). That way, a person's type of pension can be freely selected.

In **The Netherlands** the determination of the pension income is normally defined in the pension plan (*defined benefit*); in most cases, the pension income is financed to about 75 % out of employer contributions and to 25 % out of employee contributions. The contributions to be paid are variable and dependent on the extent of pension obligations and the results of the capital investment. Over the last years, many plans turned away from a pension income, which is based on the last salary (in most cases 70 %) to a pension, which is based on the average income during a person's entire professional life. Parallel the change was made to variable indexation - in these

⁶ White collar

⁷ Blue collar

cases, the risk of bad investment results does not only affect the employer and active employees (contribution adjustments), but to a certain extent also the entitled beneficiaries (see below indexation). *Defined contribution* plans are not very common.

In **Germany**, more than half of the employees with occupational supplementary provision are covered by book reserve schemes. Direct insurances and pension funds, which operate similar to an insurance company, each roughly represent another quarter. The new pension funds, which are still in their initial phase, are still relatively insignificant. Partly, the employers are responsible for fulfilling the pension-commitment (book reserve schemes), partly, insurance companies are smoothing out capital market fluctuations. The new pension funds include at least a nominal value guarantee for the contributions made, which has to be borne by the employer.

In **Belgium**, a minimum amount of the capital stock at the time when the pension starts can be derived due to the minimum yield on employer and employee contributions during the accrual phase - easy to forecast, at least with regard to a lower threshold value. At the start of the pension, the large majority of beneficiaries chooses the option of having the saved capital paid out (made possible by the legislator and tax-wise relatively favourable). They can freely choose how to use this capital. Beneficiaries must have the option of converting their capital into annuities. The problem of fluctuating pensions is therefore also not system intrinsic in *defined contribution* plans.

Indexation / Inflation adjustment

Most of the countries examined do not have a mandatory indexation of pension payments, whereby normally indexations are carried out in *defined benefit* Plans. Concerning the *defined contribution* plans, a possible indexation is dependent on the results achieved, the calculation parameters and the existing reserves.

Austria does not have a mandatory indexation. In case of *defined contribution* plans via pension funds it is even possible that pensions are reduced nominally. A concrete adjustment is mainly dependent on the following factors: investment result, actuarial result, provision/writing back of the fluctuation provision, applied calculatory interest rate. The more cautiously the calculatory interest rate has been chosen, the greater is the likelihood that a positive adjustment will be made resp. that at least nominal reductions can be avoided.

Following the collapse of the capital markets in 2001/2002, many pension plans in **The Netherlands** applied changes to the indexation rules. Instead of the previous linkage to the development of the salaries, a variable indexation is now applied in most cases - mainly dependent on the results of the capital investment. In contrast to before, the risk of negative results in the funds does no longer exclusively affect the contributing employer and the active employee (increase of contribution rates); due to the impact on indexation this change now also affects the receivers of pension payments. The decision whether and to what extent indexations have to be carried out, must be made by the pension funds in accordance with the financing situation.

In **Germany** an obligation for employers with to book reserve schemes exists to balance the interests of pension recipients for indexation with the employer's own economic situation every three years. If the economic situation of a company allows it, an indexation has to be carried out. However, only guidelines are provided for the value of the indexation; there are no mandatory requirements.

The **United Kingdom** *defined benefit* plans contain mandatory indexation regulations. Pension payments - provided they were accrued after 1997 - have to be adjusted to price increases each

year (however at max. 2.5% p.a.). During the period up to receiving benefits, vested entitlements have to grow in the same way as consumer prices (max. 5 % p.a.).

In **Sweden**, the insurance company (*Alecta*), which is in charge of the commitment when the scheme is outsourced, decides in the *defined benefit* white collar industry-wide pension scheme (ITP), whether and to what extent indexations are carried out. Companies with book reserve schemes are subsequently obliged to follow the increases granted by the insurance company to the same amount. Since the introduction of the ITP-system, indexations have been adjusted each year.

Denmark does not have a statutory guarantee for an indexation. The nominal pension is adjusted (indexed) in accordance with the result achieved. Adjustments are equally carried out for pension paid and vested entitlements.

Belgium does not have indexation regulations; they are not common.

Investment - Calculation parameter

Most pension funds apply the *Prudent Man Principle*; the institutions are basically only required to act “prudently”. Apart from a few not very strict restrictions, which are imposed by the EU Pension Funds Directive, do quantitative limits for investments hardly exist. The Directive prohibits national legislators to impose stricter quantitative limits (for example, an investment in shares of up to 70 % must be allowed, if no guarantee exists).

Discount rates are increasingly moving away from fixed values and towards basing them on parameters of the predominant market situation. This results in a more volatile assessment. *Asset Liability Management* studies for calculating discount rates are increasingly used.

In **Denmark**, the rate of interest, on which the rate of interest for calculating the annuities is based, has to be set cautiously (*prudently*). In traditional contracts it applies to the entire term. It cannot be higher than the maximum technical rate of interest for life insurances, which is determined by the Danish Financial Supervisory Authority (currently 1.5 % p.a.).

In **Sweden**, the interest rate for insurance solutions may be maximal 2.75 % p.a.

In **Germany**, the book reserve schemes are based on an actuarial interest yield of 6 % under the actuarial consideration of the agreed benefit (calculation of book reserves for pension provision). Regarding pension funds and direct insurance, reserves will be measured according to the cash value of future benefits and future contributions at a calculatory interest rate of 2.25 %. In the pension funds, interest rates for paying annuities are dependent on the pension plan.

In **Austria**, the pension fund models include calculatory interest rates of up to 6.5 %. Since 01.01.2004, the financial market supervision only permits maximal calculatory interest rates of 3.5 % and maximal actuarial surpluses of 5.5 % for newly concluded *defined contribution*-schemes. As the calculatory interest rates applied are in many cases (significantly) higher than the results achieved in the last years, pension reductions are on the increase.

Responsibility of the state

An explicit obligation of the state in form of a contingent liability in case of problems with an occupational pension scheme does not exist in any of the countries examined. The state in general provides the supervision of the Institutes for Retirement Provision and has in its capacity as legislator created legal framework conditions, which contain certain protective mechanisms. Protective mechanisms, however, were due to events abolished again, as has been demonstrated by the example of Austria, whereby due to the reduction of the minimum earnings guarantee in

2003 the shareholders of the pension funds, however, not the entitled beneficiaries were protected.

The case is different in the **United Kingdom**. There, after massive problems with the capital covered second pillar-pension and under strong public pressure, a rescue operation was started by the state, which closed - with taxpayers' money - enormous funding gaps in the pension systems. Due to the creation of the so called *Financial Assistance Schemes* (FAS), the pension entitlements of a large number of aggrieved occupational pension recipients were at least partly secured.

The action taken by the British government has to be seen against the background that it had for years promoted an opt out (possible in Great Britain) from a section of the public pension system. The intention was to limit the cost of public sector pensions and to reduce the responsibility of the state. In the end, however, the total costs for the state were even higher. The *Opting Out* from the state pension was used on a large scale (not least because it was "rewarded" by reducing social security contributions and offering tax incentives). The rescue operation, which followed the collapse of the capital markets in 2001/2002 subsequently cost the taxpayer a lot of money. (Previously achieved) profits were privatised; the losses were socialised.

Such an intervention of the state in occupational pension entitlements can also be assumed in other countries being confronted with strong crisis-like developments, in particularly then, when a state specifically reduces its public old age pension scheme and starts to shift the risks of old age pensions to its citizens (who are frequently not able to recognize or correctly evaluate these risks).

In contrast to the current situation, such implied costs for tackling cases caused by crises have to be taken into account when the costs for private and public pension schemes are compared. The same applies to promotions/incentives for private and occupational pension plans (premiums, tax concessions, etc), which are financed with public funds.

Synopsis – distribution of risk: a cross-country comparison

The following are key features of the Austrian defined-contribution scheme operated via external multi-company pension funds ("Pensionskassen"):

- Capital investment risks and actuarial risks are borne exclusively by the current and future beneficiaries (no guaranteed minimum yield on paid-in contributions⁸, no guaranteed minimum benefits as in the insurance products available in some countries).
- Other than paying the premiums, employers are not bound by any further obligations (no funding responsibility in the case of deficient cover, as under the Dutch and UK *defined-benefit* systems, and no guaranteed minimum return on the contributions paid as in Belgium and in German pension funds).

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Following the 2003 and 2005 amendments to the pension fund law, around 80% of current and future beneficiaries have opted out of the minimum guarantee remaining the wake of the 2003 reform.

The main systems in place in the other countries compared in this study are (i) *defined-benefit* schemes (via book reserve schemes or benefits provided via external pension providers where responsibility for funding is borne by the employer) or (ii) *defined-contribution* schemes similar to insurance (with a guaranteed minimum payout). In some cases, *defined-contribution* schemes are also in place in which the employer must guarantee a certain minimum value of the pension capital. Schemes based solely on *defined contributions*, where all risks – even during the pension payout period – are borne by current and future beneficiaries are virtually non-existent in any of the other countries studied.

In **Denmark**, the normal system is that paid-in contributions are routinely⁹ converted into guaranteed annuities. This means that the pension has a guaranteed minimum value, and has the advantage that changes in life expectancy, discount rates etc. do not have a sudden impact on the full capital amount at the moment of conversion into annuities, but only on new annual premiums.

In **Germany**, there are still a high number of book reserve schemes. Insurance schemes predominate wherever pension provision has been outsourced. Employers who select a pension fund are pledged to guarantee the nominal value of the paid-in contributions.¹⁰

In **Sweden**, insurance plays a major role. Sometimes, such schemes are mandatory (at least 50 % of contributions from younger white collar workers) or come as standard when no riskier investment option has actively been selected (blue collar workers). "Older" white collar workers enjoy *defined benefits*, which, in the case of big companies, are largely paid directly by the companies themselves (book reserve schemes). In smaller companies, insurance firms are in many cases used to process the scheme.

In the **United Kingdom**, a majority of beneficiaries of an occupational pension plan are members of a defined-benefit scheme, with an obligation on employers to make additional payments when there is insufficient capital cover. Pension capital in *defined contribution* schemes is as a rule converted into an annuity at the pension start date (at the latest), thus guaranteeing a minimum pension throughout the payout period. Beneficiaries have the opportunity to purchase an annuity of their choice on the free insurance market.

In **Belgium**, employers are, during the active work-life of the beneficiary, required to guarantee a (relatively high) minimum yield on paid-in contributions. At the pension start date, beneficiaries of defined- contribution plans can choose between a lump-sum settlement and the payment of an annuity.

In the **Netherlands**, more than 90% of all occupational pensions are based on *defined benefits*. The risk of pension funds posting negative results is, in such cases, borne primarily by employers (through increased contributions) but also by the working employees who generally pay around a

⁹ On a yearly basis

¹⁰ „Zero return guarantee“

quarter of the contributions. As a result of the switch to variable indexing in many pension plans over the past few years, the risk is – in a very limited way compared with Austria – also shared by current and future beneficiaries.

Even in the build-up period of the pension claims, employees in the countries under review do not bear a high share of the risk (greater importance of defined-benefit schemes where responsibility for funding is borne by the employer, insurance products, guaranteed minimum yields by the employer in the case of *defined contributions*).

The much higher risk (comparatively speaking) borne by Austrian employees and pensioners becomes even clearer when considering the pension payout phase. Aside from the *defined-benefit* schemes that are markedly more important in some countries, *defined-contribution* schemes generally also involve elements similar to insurance, thereby levelling out capital market fluctuations. At the pension start date at the latest, the accumulated pension capital is generally converted into annuities, thus guaranteeing a minimum payout from that point onwards. In some scenarios, people are free to choose their own pension arrangements (regular payouts, indexation, provision for surviving dependents, a one-off lump-sum payment from part of the capital).

Pensioners' legitimate desire for regular payments is thus much better served in the other countries compared in this study than in Austria, where schemes are largely based on *defined contributions* via pension funds and where capital-market and actuarial risks are borne by beneficiaries alone even during the pension payout period.

The author

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Gerald Klec, in his capacity as labour representative, was a member of the supervisory board and the Advisory Board on Ethics of VBV- Mitarbeitervorsorgekasse AG (concepts for the sustainable investment of pension provisions) as well as a substitute member of the Board of Association of the Main Association of Austrian Security Institutions.

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Additional literature

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