NAPF

Securing the future of pensions

October 2008

UK Pensions Regulation Compared

A study of pensions regulation in several OECD countries prepared by John Ashcroft for the National Association of Pension Funds.

NAPF Research Report

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Contents

	Page
Key Findings	3
Introduction	11
Design Rules	13
Benefit Security	21
Governance	31
Conclusions	42
Appendix 1: Pensions Terminology	44
Appendix 2: Summary of the Private Pension Systems in the Countries Surveyed	46
Appendix 3: Supporting Tables	52

1. Key Findings

Introduction

This report compares key elements of the UK regulatory framework for private pensions with those in five other OECD countries which have large private pension sectors: Australia, Germany, Ireland, the Netherlands and the USA. Drawing on a comparative analysis of the regulation in each country of design rules, benefit security, and governance, the report aims to identify those aspects of UK regulation that are significantly heavier or lighter than elsewhere. It is hoped that the analysis will help promote informed discussion on how the regulatory framework in the UK should evolve in the future.

Overview

Overall, a complex picture emerges with the results varying depending on whether DB or DC pensions and trust-based or contract-based pensions are compared. While UK pension regulation for trust-based DB schemes is, on balance, somewhat higher than that of other countries especially if the typically small size of UK schemes is taken into account, the regulation of trust-based DC pensions is in the middle of the range of regulatory approaches. As for the regulation of UK workplace contract-based DC arrangements, this appears a little lighter than in other countries, in particular with regard to design rules and the lack of formal governance obligations. However, contract-based schemes are subject to extensive point-of-sale and Treating Customers Fairly requirements.

An analysis of the design rules, benefit security and governance requirements across the countries studied reveals the following conclusions:

Design Rules

DB Schemes

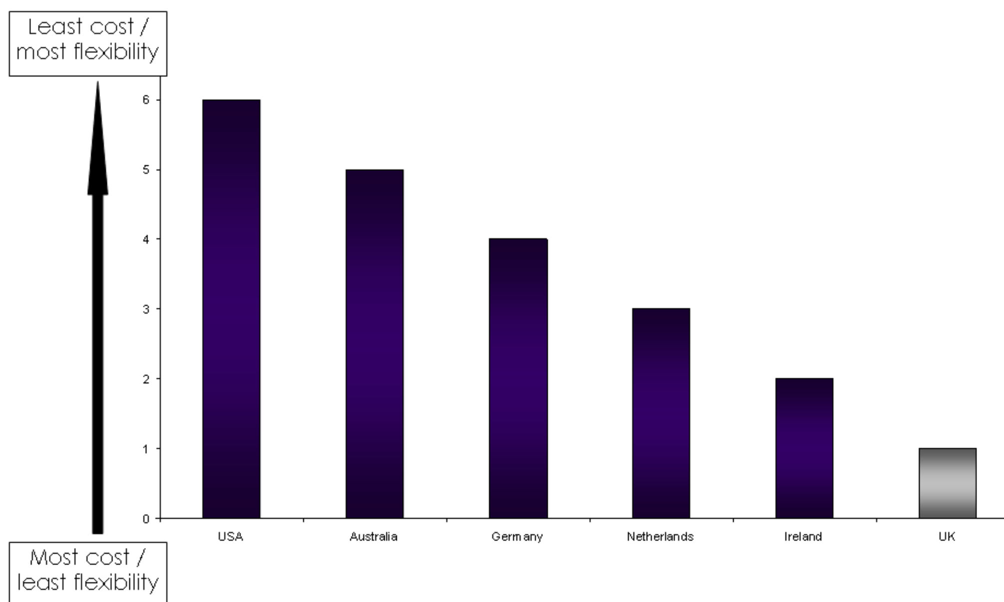
The UK's requirements for the mandatory indexation of deferred pensions and of pensions in payment are out of step with international practice. Of the countries studied, only Ireland requires indexation of deferred pensions (revaluation), while Germany and the Netherlands only require indexation in so far as it is affordable. (Crucially, no reserving for indexation is required unless there is a specific promise to do so.) No revaluation or indexation requirements apply in the other countries.

DB indexation – Mandatory / Conditional / None

	Revaluation	Indexation
Australia		
Germany		C
Ireland	M	
Netherlands	C	C
UK	M	M
USA		

Other elements of DB regulation in the UK are also more prescriptive than in several other countries studied, e.g. the UK's rule on vesting (3 months rather than 5 years in Germany or 5-7 years in the USA) and the absence of the power unilaterally to transfer members with small balances out of the scheme that exists in Ireland, the Netherlands and Australia. The restrictions on altering accrued rights are similar to those elsewhere.

DB design rules – flexibility and cost



DC Schemes

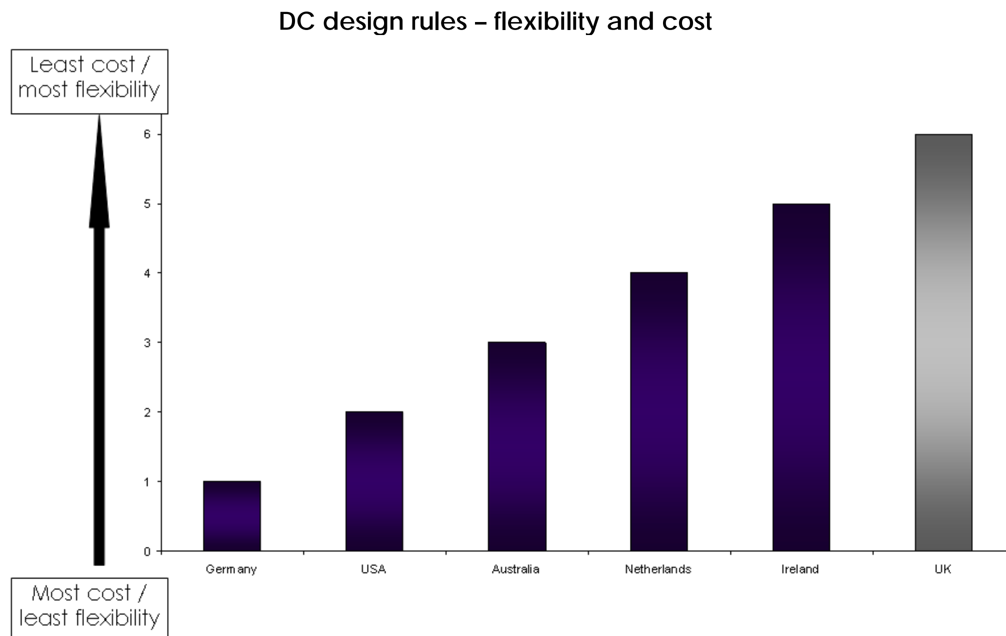
The countries studied fall into two categories, those like the UK, Ireland and the USA, that take a 'liberal approach' where they allow DC schemes to operate with few constraints on pension design, and others, such as Germany, the Netherlands and Australia, where they must either provide a guarantee, or target a certain level of benefits or keep fees within certain limits. It is true, however, that all the 'liberal approach' countries, make provision for an optional regulated pension product, which includes elements such as a specified mandatory default fund and,

sometimes, charge caps. Both of these elements apply in the case of the UK's stakeholder pension and Ireland's Personal Retirement Savings Account.

The UK's rules on the payout phase, which involve the provision of a life-long income for at least 75% of the fund, are more flexible than those in the other European countries, but more restrictive than the rules in the USA and Australia.

Looking across the countries studied, the most striking element is the degree to which the fiduciary responsibility of the employer and scheme varies, with none applying to contract-based schemes in Ireland or for group personal pensions in the UK while, in normal circumstances, they would apply in the Netherlands, USA and Australia.

DC design rules – flexibility and cost



Benefit Security

DB Schemes

The countries studied use three different regulatory approaches to securing members' benefits:

- 'employer protection' where the sponsor underwrites the liabilities backed up by a pension guarantee scheme (used for German book reserve schemes).
- 'funding protection' where the scheme is funded at or close to termination level, thereby placing minimal reliance on the sponsor (used

for Collective DC schemes in the Netherlands and for German funded schemes).

- 'combined employer and funding protection', where the liabilities are funded but the sponsor is the ultimate guarantor (used in Australia, Ireland, the UK and the USA).

The UK's approach to the funding requirement (100% of liabilities) is typical of the countries surveyed, although Ireland and Australia have a generally stricter definition of liabilities and, at the other extreme, the USA and German book reserve schemes apply weaker ones. Only in the Netherlands and German funded schemes, where additional buffers are added, is the requirement higher than 100%.

The employer in the UK is expected to meet the full termination cost of benefits in the event of insolvency or scheme closure. Of the countries studied here, only the USA and the entirely unfunded German book reserve schemes use such a high standard. Similarly, only the UK, the USA and Germany have a guarantee scheme.

On the other hand, if a scheme does fall into deficit, the UK's period for correction is in the middle of the regulatory range and makes some allowance for affordability. While for German funded schemes recovery must be immediate, in the Netherlands it must be within 3 years, in Ireland 3 to 10 years, in Australia 5 years, and in the UK the deficit must be made good as soon as possible and, if later than 10 years, it will trigger particular regulatory scrutiny. However, in the USA, the requirement is 7 years whilst for German book reserves there is no such requirement. Access to surpluses is generally more restricted in the UK than in Australia and Ireland.

DB benefit security

	UK	Ire	Aus	USA	Ge (BR)	Ge (PF)	NI
Archetype	Combined	Combined	Combined	Combined	Employer	Funding	Funding
Employer guarantees up to what level?	Buy-out	Implicitly to Full Funding	Full Funding	Buy-out	Buy-out	Paying premiums required	Paying premiums required
Guarantee scheme	✓	×	×	✓	✓	✓ (low risk)	×
Formulaic funding standard?	-	✓	-	✓	✓	✓	✓
Funding discount rate	Scheme specific - average just below IAS19	Buy-out for pensioners formula for others, 4.5-7.25%	Part buy-out, part actuarial best estimates	Approx IAS19	6%, being strengthened to IAS19	Risk free rate	Risk free rate
Full funding?	100%	100%	100%	100%	Funding not needed	104.5%	105%
Solvency margins	×	×	×	×	×	✓	✓
Transfer values	Below funding level – best estimates	Same as funding level	Same as funding level	No regulation	Same as funding level	Same as technical provisions	Same as funding level
Recovery period (years)	10 year trigger	3 - 10 years	5 (some benefits only)	7 years	No requirement	Immediate (<100%) or 3(<104.5%)	3 years

(dark purple)	Strictest
(light blue)	Average
(white)	Least strict

Governance

Within the countries surveyed, there are three broad approaches to the provision of pension schemes:

- 'Direct employer provision', where the employer directly provides the pension and is subject to certain corporate governance requirements and some aspects of pensions regulation. This is the approach used in Germany for book reserve schemes.
- 'Employer sponsored trust or pension company' where the entity has one purpose, which is to provide employee benefits on behalf of one or more sponsoring employers with a primary fiduciary duty to members. This approach is used in trust-based schemes in the UK and Ireland.

- 'Financial services providers', via the employer, which are commercial companies that contract directly with members and may, or may not, place the management of the scheme under a manager or board with a fiduciary duty to members.

Trust-Based Schemes

All the countries studied place core fiduciary duties on the trustees or managers, eg duties to the beneficiaries, requirements to obtain expert advice, and to manage conflicts of interest. The main differences arise with regard to licensing, member representation, the qualifications of fiduciaries, and risk management. The requirements on professionalism are most stringent in Australia, Germany and the Netherlands. The nature of regulation in the UK, Ireland and the USA is, perhaps, a little more general.

Trust-based governance arrangements

	UK	Ire	Aus	Ger	Nl	USA
Licensing	×	×	✓	✓	×	×
Member representation	One third	50% (on request)	50%	Extensive	50%	× (50% for a few)[1]
Trustee qualifications	All trustees to have TKU	Collective TKU	Extensive comp-etence	Sufficient theoretical and practical experience	Expertise related to scheme operation	None explicit
Risk management	Regulatory recommendation	Little explicit	Extensive	Extensive	Extensive	None explicit

Colour	Meaning
(dark purple)	Strictest
(light blue)	Average
(white)	Least strict

However, schemes in the UK, Ireland and the USA are much smaller than in the other group, meaning that governance requirements can be more onerous. The UK has over 48,000 schemes with less than 100 members. Even if only those schemes with more than 100 members are considered, the average scheme size is only 2,600, a quarter of that in Germany and a tenth of that in Australia. There are also differences within this second group, for example, Trustee Knowledge and Understanding requirements apply to all trustees in the UK, whereas in Ireland only one trustee or their adviser must meet the requirement. Similarly, in the USA, there is no explicit requirement beyond a general 'prudent person' obligation.

[1] 50% member representation is required for collectively bargained schemes

Governance regulation in trust-based schemes (DB and DC): costs to the scheme

Cost	Trust-based schemes only	Average membership of scheme
1. Low	USA	2,500
2.	Ireland	2,400
3.	**UK**	**2,600**
4.	Australia	27,400
5.	Netherlands	10,500
6. High	Germany (funded)	7,000

NB. The UK figures relate to the average scheme size for schemes with 100 members or more. There are an additional 48,390 pension schemes with less than 100 members.

Contract-Based Schemes

The governance requirements for contract-based schemes are those in the regulatory licence of the commercial provider concerned. These require senior managers to be fit and proper persons and appropriate risk management to be in place. On the other hand, the legislative frameworks for contract-based schemes do not in themselves provide for representation of members, nor do the managers of the scheme have a primary duty to the members. In addition, there is no explicit fiduciary duty on the part of the provider or the employer.

However, in most of the countries studied, additional regulations apply to contract-based pensions to make them more like trust-based schemes, eg the retail public offer schemes in Australia are subject to pensions law and contract-based pensions in the Netherlands place a fiduciary responsibility on both the employer and the provider. Similarly, in the USA, strict requirements are placed on the employer if they provide a contract-based scheme without accepting a fiduciary responsibility.

Only group personal pensions in the UK and Retirement Annuity Accounts in Ireland are not subject to an overlay of pensions governance regulation. However, UK contract-based schemes are subject to extensive point-of-sale and Treating Customers Fairly requirements. In addition, the UK, Ireland and the USA, do all set governance requirements (eg mandatory default funds, suitability of investment requirements)for certain optional 'regulated products' such as stakeholder pensions in the UK and Personal Retirement Savings Accounts in Ireland.

Insights

The report identifies a number of important regulatory issues which require further analysis and, potentially, regulatory reform:

- **DB inflation proofing**: The mandatory inflation proofing in the UK of the benefits both of deferred members and of pensioners is out of step with regulation elsewhere and makes the DB promise far more expensive than in other countries with comparable levels of benefit security. Removal of the requirement would bring UK regulation into line with regulation in most other OECD countries.

- **DB employer covenant regulation**: The UK has unparalleled regulation of the DB employer covenant when compared to the regulatory regimes used elsewhere. While it can be argued that it plays an important role in ensuring the security of member benefits within the UK regime, it is an outlier in terms of international practice. If mandatory indexation were to be removed, it would be easier to apply higher funding levels which, in turn, would reduce the need for such strong regulation of the covenant.

- **DB and DC governance requirements**: The UK requirements for governance in trust-based schemes are high and are only exceeded in countries where most pension schemes are very large. The UK applies fairly high standards to all its mainly small schemes. Consideration should be given as to whether the UK's approach is sufficiently proportionate. One solution might be to make regulation more proportionate to scheme size. Another approach to reducing employer costs – but within a trust-based framework - would be a consolidation of pension provision, as has occurred in Australia and the Netherlands.

- **DC contract-based provision:** The UK regulation of contract-based schemes, especially group personal pensions, is out of line with the regulation of contract-based DC schemes in most other countries. In particular, in other countries either an explicit fiduciary responsibility is placed on the employer or the provider or product rules are applied to ensure suitability. This suggests that it may be worth reviewing the requirements in this area, perhaps by requiring the use of a default fund (as will anyway be required for auto-enrolment schemes from 2012) and the introduction of additional governance obligations, such as the use of management committees or a requirement on the employer periodically to review the scheme offered to ensure that it meets member needs.

2. Introduction

Employer enthusiasm for providing benefits in the form of pensions is likely to be conditioned by the effort and cost involved, whether it be direct costs or costs that are ultimately passed onto the pension scheme. The greater the perceived obstacles in the way of providing a pension, the more employers will be inclined to find some other way of remunerating staff. Where, as in the UK, employer contributions to a private pension scheme are voluntary, the flexibility and cost of providing private pensions is likely to affect the overall level of provision, and hence the benefit to society at large.

The regulation of private pensions is essential if they are to flourish. All OECD countries set a regulatory framework to minimise and mitigate risk in pensions. The key question is whether such regulation is proportionate to those risks. As these risks are universal, comparing UK regulation with that of other countries with similarly well-developed private pension arrangements can provide insights into the strengths and weaknesses of UK regulation.

This report compares the regulatory regimes for private sector employer-sponsored pensions in the UK with that of several other OECD countries where employer sponsored pension provision is significant. The countries examined are:

- Australia
- Ireland
- Germany
- The Netherlands
- The USA

Three key elements of the regulatory framework have been assessed:

- design rules;
- benefit security; and
- governance.

Some broad conclusions are drawn as to how the UK compares in terms of flexibility for the sponsor and, so far as they can be estimated, the overall cost of provision. The paper then concludes with a comparative overview of the regulatory frameworks.

The approach in making these comparisons has been to draw on published sources from the relevant regulatory authorities, legislation and academic and expert commentaries. Where published information is unclear input has also been

sought from relevant experts[2]. It should be emphasised that this is not an exhaustive review of regulatory systems or private pensions provision in the countries concerned. Rather it focuses on the aspects of the framework that are likely to have the biggest impact on the plan sponsor. It also concentrates on the regulatory system as it applies to medium and large pension schemes and does not cover the different rules that may apply to the very smallest schemes, for example, those with less than 10 members.

[2] Thanks go in particular to Maria Huntelmann of BaFin, Patrick O'Sullivan of the Pensions Board and Colin Pugh, independent consultant.

3. Design rules

All the countries in the survey have some DB provision. They also all have DC schemes, although in the case of Germany they must be under-pinned by a guaranteed rate of return and in Australia member balances are also subject to some protection. Schemes that combine DB and DC features (hybrids) are generally permissible in all the countries and are significant in Australia, Germany, the USA and the Netherlands.

Rules that apply to both DB and DC schemes

The most significant rule that applied to both DB and DC schemes is the requirement on the employer to make a contribution to their employees' pension. Employers in Australia are required to contribute at least 9% to the pension scheme of (nearly) every employee. Pensions provision is also mandatory in the Netherlands for industries where the majority of employers have opted to provide a pension. Employers in the UK and Ireland must provide access to a pension but do not have to contribute. (This position will change in the UK after 2012 when the employer will be required to pay 3% of band earnings if the employee does not choose opt-out of provision.)

The generic rules of pension design, in particular, requirements on vesting, transfers and decumulation, in the other countries studied are fairly similar (see Table 1, Appendix 3). All the countries require that the benefits of members, once vested, are preserved in the scheme until they leave the scheme, although the point at which vesting applies varies significantly, with the USA (5-7 years) and Germany (5 years and aged 30 plus) having much lighter requirements than those in the UK, where a transfer of the accumulated employer and employee contribution can be made to another pension after only three months of employment.

In all countries except the USA (DB and some DC schemes) and German book reserve schemes members are entitled to transfer out of the scheme – but only Australia entitles members to transfer out most of their balance while still accruing benefits to the scheme. In Ireland, the Netherlands and the US, in limited circumstances, schemes can require members to transfer out small balances from an ongoing scheme. UK regulation does not allow employers to unilaterally transfer members' pension rights or fund out of the scheme.

At retirement, Australia and the USA allow pay-out of a 100% lump sum or roll-over into the pension scheme or other savings products[3], while the EU countries studied

[3] Indeed, the USA also allows members to cash out their 401k balances when changing employment, albeit with a tax penalty.

tend to require life annuities or scheme pensions payment, a more liberal approach is allowed in the UK and Ireland[4].

DB rules

All the countries in the survey permit DB pension schemes (although in Australia and the US they must have at least 50 members to be allowed to make new accrual). Table 1 summarises the key differences in relation to indexation of deferred member rights (revaluation) and to pensions in payment (detailed in Table 2). The biggest constraints on product design relate to the provision of revaluation to deferred members (UK and Ireland) and indexation to retired members (UK only). While in Germany there is a legal requirement to consider indexation of pensions in payment every three years this need only be provided if affordable at the time and hence need not be reserved for. The German approach can therefore, like the Netherlands, be best characterised as one of conditional indexation. Additionally, Dutch legislation requires that the extent of any revaluation be the same as that for indexation.

Table 1. DB indexation compared

	Revaluation	Indexation
Australia		
Germany		C
Ireland	M	
Netherlands	C	C
UK	M	M
USA		

All the countries in the survey stipulate that the changes to scheme design may not reduce accrued benefits, except Ireland where such changes can be made in "very exceptional circumstances" and the Netherlands where accrued benefits can be reduced if funding falls below a particular level[5]. The UK and Australia allow more flexibility than Germany and the USA in allowing accrued benefits to be reduced with member consent or to be changed if an actuary certifies that the benefits are not materially reduced. But, more significantly, in the countries without mandatory revaluation (as in the UK and Ireland) only the benefit accrued to date is protected, and not the prospective impact of future salary increases or revaluation of deferred benefits. This means that the eventual cost to the employer associated with accrued final salary provision can effectively be

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[4] Both the UK and Ireland allow tax free lump sums for a proportion of the accrued benefits (25% in the UK, a more complex formula in Ireland) and also allow regulated income draw-down products for all (UK) or some (Ireland) members. Moving in the other direction, the USA has recently legislated to prevent lump sums being given where the scheme is in serious deficit.

[5] In the Netherlands reductions in benefits have to be made good should scheme funding improve.

reduced by compulsorily transferring active members into a cash balance plan (USA)[6] or changing new accrual to DC (as in Australia).

The only other significant difference is that employers in Ireland must offer DB members an arrangement for making additional voluntary employee contributions.

DC rules

All the countries studied allow a form of DC provision to operate. However in some countries they must provide a guarantee, in others they must aim to target a certain level of benefits, while in others the Government prescribes an optional "safeharbour" or universal product. The countries surveyed can be categorised in the following way:

- **Liberal approach**: The UK, Ireland and the USA allow any form of DC design. However, all have also developed an optional regulated product design which is intended to be used in certain circumstances. These are stakeholder pensions in the UK, standard Personal Retirement Savings Accounts in Ireland and safe harbour 401k plans in the USA (Table 2).

- **Mandatory regulated products**: Germany requires that there should be no erosion of the nominal capital sum and regulates for schemes proving a higher level of guarantee, while Australia requires that administrative expenses do not exceed investment income for balances of under Aus$1,000. In the Netherlands, in sectors where the schemes are mandatory, only "collective DC" arrangements (where the scheme has to be funded to target a level of pension equivalent to that applying to DB schemes) are effectively allowed. (Only where pension provision is not mandatory in the Netherlands are employers allowed to offer pure DC as we understand it in the UK.)

[6] A report in 2000 by the General Accounting Office suggested that US employers generally protect the value of benefits by allowing members either to choose which formula applies at retirement or retaining the final salary benefit in a separate section of the plan, so the financial benefit may be more theoretical than real. It does, however, facilitate the move to a cash balance plan.

Table 2. Optional regulated DC product designs

UK	**Stakeholder pension** ▪ Simple contract-based default pension scheme to be offered by employers with five or more employees and no other pension provision ▪ It also serves as a simple retail personal pension and has increasingly been provided by employers in place of or alongside existing provision. ▪ There is a charge cap of 1.5% of fund value, falling to 1% after 10 years, and a default fund with life-styling is mandatory. The responsible manager at the provider has fiduciary responsibilities, along with some specific regulation of disclosure and investment.
Ireland	**Personal Retirement Savings Account (PRSA)** ▪ Contract-based default provision for employers required (since 2003) to make pensions provision. ▪ It must also be offered by employers who do not offer any other form of additional voluntary contribution arrangement on top of their DB scheme. ▪ There must be a default fund in which investments are limited to pooled funds, with certification by an actuary as to its appropriateness (which appears to have been largely interpreted as a requirement for life-styling). There is a charge cap of 5% of contributions and 1% per annum of fund value.
USA	**Safe-harbour 401k plan** ▪ Only scheme available to employers wishing to auto-enrol into a scheme without falling foul of any contrary State-level legislation or incurring fiduciary liability for investment performance. ▪ It requires that there should be a default fund of one of three designs, effectively diversified funds with life-styling (including target retirement date funds) or aiming for a balance between capital preservation and long-term appreciation. ▪ Members may only be enrolled into the default after being given the option of fund choice and financial education. Investment in the employer is prohibited.

There are, in addition, some distinctive country specific regulations as set out in Table 3 below (for more detail see a separate Table 3 in Appendix 3). In essence, constraints exist in most of the countries that are not found in the UK. In particular, in addition to restrictions referred to in the previous paragraph on mandatory regulated products, there are limitations on the tax deductibility of contributions in Ireland and the USA. In the latter case, it depends on the type of scheme. Fiduciary responsibilities apply in Australia and the USA unless the scheme meets specified conditions (relating respectively to protection of the capital sum and size of employer/employer promotion), and to all DC schemes in the Netherlands.

However, it is also true that UK contract-based DC schemes are subject to a different range of constraints, notably the application of extensive point of sale and Treating Customers Fairly requirements by the Financial Services Authority. And there are circumstances in which DC schemes in other countries have greater flexibility, for example schemes in Australia and the USA can provide some additional flexibility to members by enabling them to access their funds pre-retirement in certain circumstances.

Table 3. Key country-specific regulations on design rules relating to DC schemes

	Constraints	Additional flexibility
UK	Employers must contribute to trust-based schemes.	Employers free to choose between trust-based, a stakeholder pension, and contract-based DC without fiduciary responsibilities.
Australia	Employer must offer choice of schemes. Fees may not reduce fund balances less than $1,000 (about £470). Contract-based schemes must guarantee the capital sum.	Can release accrued balances in defined cases of hardship
Germany	Provisions for indexation of pensions in payment apply, but because of the affordability test do not need to be reserved for and simply place a greater onus on schemes to distribute profits to members. Must offer guaranteed return of 0-2.25% a year – hence pure DC impossible.	
Ireland	Tax-deductibility of DC contributions limited. Trust-based (but not contract-based) DC schemes must receive a 'significant' (undefined) employer contribution	
Netherlands	Pure DC unavailable in industries with mandatory pensions participation. Even then, contribution rates are grouped into 5 and 10 year bands.	
USA	Employees must contribute to 401k schemes and get no tax relief on contributions to other types of scheme. Tax-deductibility of DC contributions is limited. Non-discrimination requirements limit the accrual relating to highly paid employees to a proportion (2% on one test) of the accrual of other employees. This can be circumvented by putting in place a safe-harbour scheme (Table 2)	Can make loans to members; can release accrued balances in defined cases of hardship. Employers can flex their contributions to non 401k DC schemes.

It should be noted that the governance requirements of DC schemes also vary. As outlined in detail under section 5, governance rules are dependent on whether the pension is provided directly by the employer, or via an employer sponsored trust or pension company, or via a financial services provider. The requirements vary significantly from one form or provision to another. Key variables include: licensing / fitness and propriety; professional / trustee requirements; prudential reserves; member representation; and whether or not a fiduciary duty applies to either the employer or the provider.

There is, in particular, a large variation in the ability of the employer to offer DC provision without taking on fiduciary responsibility. This can easily be done by using a contract-based plan in the UK and Ireland. In the Netherlands contract-based DC is possible only in industries where pensions are not mandatory. It is possible in the USA but there are strict rules to be followed if the employer is to avoid fiduciary responsibility. The employer retains some limited fiduciary responsibility in Germany for direct insurance arrangements.

Australian employers are allowed to offer a contract-based DC scheme without taking on a fiduciary responsibility but, to help protect the interests of employees, the employer must guarantee the capital sum. As a result, the employers must adopt a conservative investment strategy which makes this type of pension relatively expensive to offer. On the other hand, Australian employers can offer a DC scheme with only a fiduciary responsibility for the choice of default fund, if they opt for a public offer scheme which are trust-based (often not-for-profit) and face tougher governance requirements than other trust-based schemes. Section 5 expands on these issues.

Hybrids

The types of hybrid widely found across the survey, except for the DC schemes with guaranteed capital preservation that are mandatory in Germany, provide considerable flexibility for employers. For example, Collective DC in the Netherlands enables the scheme to fix the level of employer contributions thereby removing the obligation to underwrite the scheme, although a high funding requirement is applied[7]. It is also the only form of DC that employers can offer where they are in an industry with mandatory pension provision.

In the USA, employers can achieve flexibility through using a cash balance scheme. They can also do so when accrued final salary DB benefits are transferred to a cash balance scheme. This is because the transfer is made on the basis of the member's current salary, not the probably higher (in real terms) salary at retirement. German cash balance schemes enable pre-funding of the schemes with the only subsequent uncertainty being any indexation of pensions in payment.

Flexibility and cost

UK employers currently have much more flexibility than most counterparts in the Netherlands or Australia as to whether to contribute to a pension scheme, given the mandatory or quasi-mandatory provision in those countries. In Australia the employer must contribute 9% of salary for most employees, while in the

[7] As the funding level for collective DC is reviewed every five years it is possible that employers may still become liable for accumulated deficits.

Netherlands most employers must join or provide a DB scheme with contributions that are negotiated though industry-wide collective bargaining[8].

But the position is different for employers actually wishing to provide DB benefits. This is not primarily due to generic regulation, although some of the differences are significant - notably the lighter vesting requirements in the USA and Germany and the option available to schemes in Ireland, the Netherlands and the USA to unilaterally transfer out small balances. But, the biggest difference arises from the relative inflexibility and cost of UK DB regulation, contrasting with the relative flexibility of DC allowed.

The UK has the most costly regulatory product requirements for DB because of the unique requirement to provide both revaluation and indexation. This contrasts with the sharing of inflation risk allowed in the other surveyed countries. The Committee of European Insurance and Occupational Pensions Supervisors (CEIOPS) has estimated that the eventual cost to the scheme of a particular specified promise (such as two thirds final salary) could be around 67% higher in the UK, all else being equal, than in the countries without reserving for mandatory inflation proofing and about 25% higher than in Ireland where reserving for inflation proofing is required only for deferred members[9]. The existence of an indexation requirement also makes it harder to change the method of benefit accrual.

More generally, German employers have the widest choice of DB and hybrid arrangements, from book reserves, through a contractual trust arrangement, to funded options at various degrees of arms length (and would rate as having the most flexibility were it not for the legal reinforcement to conditional indexation).

In contrast, the UK places few restrictions on DC product design, other than not allowing access prior to age 50 and stipulating that at least 75% of the fund must be decumulated as a lifetime income. (Certain requirements do apply in the case of stakeholder pensions but there is no obligation on the employer to provide them if the employer is making a contribution.) This differs significantly from most of the other countries surveyed which either apply conditions to the tax deductible level of employer or employee contributions (see Table 3 above) or effectively do not allow some or all employers to use pure DC. Indeed, in the UK a contract-based scheme does not place any formal fiduciary responsibilities on the employer either directly or through a requirement to appoint trustees. This

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[8] DNB statistics for 2005 showed average employer contributions to Dutch pension funds of 12.8% of gross salary, although for company plans the figure was only 7.3%. Industry-wide plans had average contributions of 17.6%.

[9] CEIOPS*: Survey on fully funded, technical provisions and security mechanisms in the European occupational pension sector* (March 2008). As will be seen in section 4, the CEIOPS figures for the UK and Ireland are inflated relative to Germany and the Netherlands because those countries do not require reserving for future salary increases either. The CEIOPS figures model the experience of an average member aged 50, retiring at 65. Lower figures are obtainable if the experience of all members is averaged.

freedom is available only in the UK and Ireland. (Although, as outlined above, an employer in Australia can achieve a similar outcome in certain circumstances.)

On the basis that increased flexibility results in lower potential costs, a crude league table of flexibility and costs might look like Figure 1. The table is particularly influenced by the cost arising from the lack of flexibility on indexation, requirements for under-pins and the scope for contract-based provision.

Figure 1. DB design rules – flexibility and cost

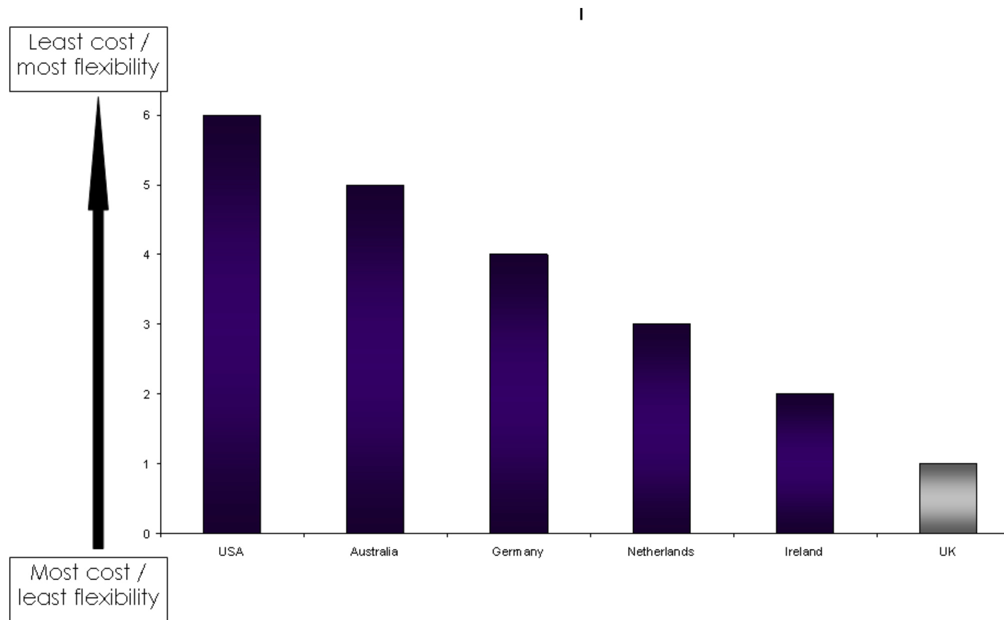
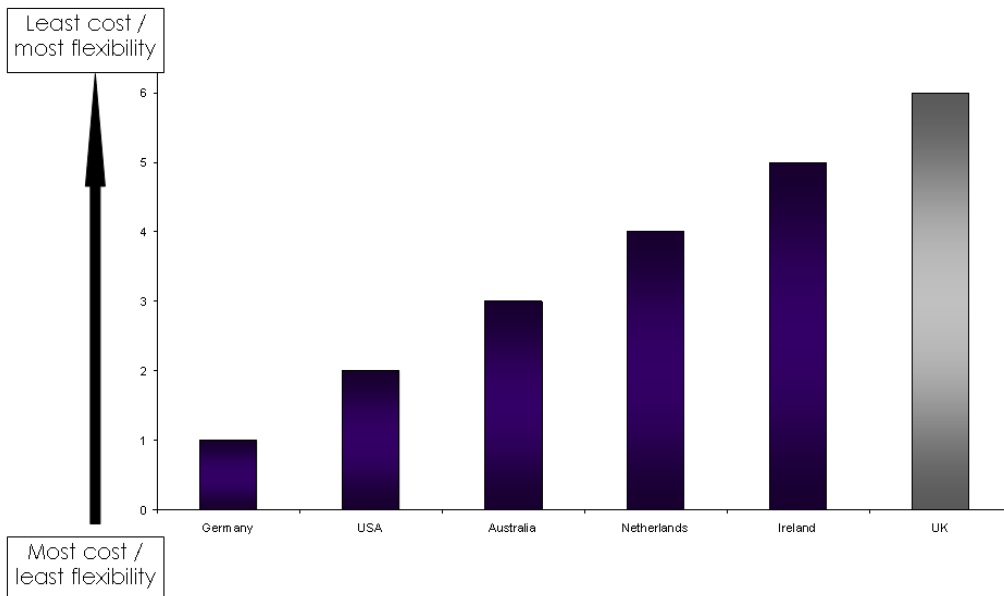


Figure 2. DC design rules – flexibility and cost



4. Benefit security

Benefit security is primarily an issue for DB and hybrid pensions. It presents only a very small risk in all employer-sponsored DC schemes where it concerns the risk that the administrative costs borne by the employer might not be met.[10] The risks to the beneficiaries of DB schemes from under-funding or employer default are far greater. The regulatory response in the countries studied is to reduce by a mixture of quantitative (funding) and / or qualitative (governance) measures.

Quantitative measures can take one or more of the following forms of benefit protection set out in Tables 4 and 5 (as well as restrictions on investment covered in section 5):

- Employer support;
- Pension guarantee or compensation schemes;
- Funding in the scheme; and / or
- Restrictions on the release of surpluses.

The three regulatory archetypes for ensuring benefits security

The contribution which each of the regulatory responses makes to the overall regulatory framework varies markedly. There are three distinct regulatory archetypes[11]:

- **Employer protection:** the sponsor underwrites the full scheme liabilities, with a pension guarantee/compensation scheme to fill the gap where the employer becomes incapable of doing so. This is the approach used for German book reserve schemes.[12]

- **Funding protection:** the funding level required is set close to (or at) the termination level of benefits, thereby placing no or only limited reliance on the sponsor to make good any deficit. This applies to German funded schemes and DB and Collective DC schemes in the Netherlands.

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[10] Germany and the Netherlands expect DC schemes to reserve for the risk of the employer becoming insolvent and not being able to pay for administration, as indeed do insurance regulators of contract-based schemes.

[11] The second and third archetypes are identified and explored in more depth in the EU context in the CEIOPS report "Survey on fully funded, technical provisions and security mechanisms in the European occupational pension sector" (CEIOPS-OPSSC-01/08 Final) published 31 March 2008. The CEIOPS report does not cover book reserve schemes.

[12] The strength of employer protection in German book reserve schemes comes from pensions in payment being contractually equivalent to pay (although they could presumably be bought out with annuities). The German guarantee scheme has the highest levies (for book reserve schemes) being nearly four times as high for their US and UK counterparts, and possibly reflecting the larger exposure due to relatively low funding levels.

- **Combined employer and funding protection**: the sponsor ultimately underwrites the benefits but provides upfront funding, held in trust. The funding is intended, at a minimum, to cover the liabilities of the scheme on an on-going basis, and to some extent to act as collateral against future employer default. This is the approach that applies in Ireland, the UK and the USA and in the small number of DB plans in Australia. This regulatory approach sometimes, but not always, includes the use of a guarantee scheme, for example, the Pension Protection Fund in the UK. (Within the third archetype, the UK has the strictest requirement on employers meeting their liabilities, with a compensation scheme in the event of insolvency and regulatory powers to prevent actions that could increase the risk of employer default.)

Figure 3. DB benefit security

	UK	Ire	Aus	USA	Ge (BR)	Ge (PF)	NI
Archetype	Combined	Combined	Combined	Combined	Employer	Funding	Funding
Employer guarantees up to what level?	Buy-out	Full Funding	Full Funding	Buy-out	Buy-out	Paying premiums required	Paying premiums required
Guarantee scheme	✓	×	×	✓	✓	✓ (low risk)	×
Formulaic funding standard?	×	✓	×	✓	✓	✓	✓
Funding discount rate	Scheme specific - average just below IAS19	Buy-out for pensioners formula for others, 4.5-7.25%	Part buy-out, part actuarial best estimates	Approx IAS19	6%, being strengthened to IAS19	Risk free rate	Risk free rate
Full funding?	100%	100%	100%	100%	Funding not required	104.5%	105%
Solvency margins	×	×	×	×	×	✓	✓
Transfer values	Below funding level – best estimates	Same as funding level	Same as funding level	No regulation	Same as funding level	Same as technical provisions	Same as funding level
Recovery period (years)	10 year trigger	3-10 years	5 (some benefits only)	7 years	No requirement	Immediate (<100%) or 3(<104.5%)	3 years

NB. For a more detailed description see Tables 3 and 4 in Appendix 3.

Colour	Meaning
(dark purple)	Strictest
(light blue)	Average
(white)	Least strict

Figure 3, above, illustrates the nature of the archetypes by highlighting the strength of regulation under each relevant heading.

Funding standards vary considerably, with there being no requirements for assets to stand behind the reserves in the first archetype, employer protection, ie German book reserve schemes.

A standard of around 105% of full funding, which includes a buffer of 4.5% or 5% respectively applies to German funded schemes (pensionfonden) and Dutch schemes in the second, funding protection, archetype. (They are also expected to hold additional solvency buffers against the risks of the investments they hold.) The funding standard of 100% of assets needed to cover ongoing liabilities applies in Ireland, Australia, the UK and the USA (the "combined employer and funding protection" group).

The level of employer guarantee also varies. A high standard of "full buy out" applies for German book reserve schemes, in the UK and in the USA. A less onerous level of guarantee linked to the funding standard applies in the case of Ireland and Australia. The lowest level of employer support is found in the Netherlands and for German funded schemes (pensionsfonden) where the employer is only required to honour its normal contribution[13]

Finally, guarantee or compensation schemes are used in the UK, the USA and in Germany (book reserves) – but not in Ireland, Australia or in the Netherlands. A correlation between higher funding levels and not requiring a guarantee scheme can be observed, although it does not apply in all cases.

A further dimension to this patchwork is provided by the length of time in which schemes are allowed to recover deficits. There is no regulatory requirement at all for German book reserve schemes, while the USA's (7 years) and the UK's (as quickly as reasonably affordable but with a 10 year regulatory trigger) provide notably more flexibility than the immediate recovery requirement for German funded schemes, 3 years in Ireland (though up to 10 years with Regulator consent) and the Netherlands and 5 years in Australia (for statutory minimum benefits only, but with control of the scheme passing to the scheme actuary).

The UK and Australia differ from the other countries by basing their funding requirements on actuarial valuations following best practice, with assumptions set

[13] The extent to which Dutch schemes must stand behind a scheme in deficit is unclear and variable. The CEIOPS survey referred to in footnote 9 above reported that 76% of Dutch schemes are classified as falling under Article 17 of the IORP Directive, that is, with no recourse to the employer. These schemes have over 98% of the technical provisions. Instead, these schemes may reduce benefits in extreme circumstances without having to wind up.

by the trustees and the scheme actuary respectively, rather than by a quantified funding formula[14].

Comparing valuation requirements is never easy because of the large number of variables involved. A recent report by CEIOPS[15] suggests that many of the other key assumptions on which funding valuations are based, such as treatment of costs and including future mortality trends, are common across the EU countries in this survey, although the Netherlands mandates a less conservative treatment of mortality than the UK. A key difference, however, is that the Netherlands and Germany make no allowance for future salary increases (which are in any case irrelevant in the cash balance plans predominant in Germany), whereas the other countries do.

Apart from the points covered above, the other major difference between the EU countries in this survey relates to discount rates. The triggers set by the UK's Pensions Regulator mean that most schemes can satisfy regulatory scrutiny if they set technical provisions at the IAS19 (FRS17) level or, if justifiable, a little lower. The figures available for valuations completed by July 2007 show technical provisions set on average at 96% of IAS19[16]. German book reserve schemes currently use a higher (6%) discount rate to value benefits but are moving to an IAS19 discount rate. But, ring-fenced assets are not needed to stand behind these reserves. Ireland requires higher levels of funding, with a buyout standard but allowing a progressively higher discount rate for the younger members of the scheme[17]. On average an Irish scheme is required to be funded to a level significantly higher than using IAS19. The requirements in the Netherlands and Germany are higher still, starting from the risk free rate and then, as noted previously, adding a solvency margin of around 5% on top and then further risk-based solvency margins (in the Netherlands equivalent to over 25% for a scheme with a 50% equity holding).

Comparisons with Australia and the USA are harder. Australia has a buyout standard for minimum guaranteed benefits[18] and no legislative requirements for other benefits that can comprise a substantial part of the whole. But there are regulatory expectations of trustees that all benefits will be funded to a similar level. However, Australian standards may be less rigorous because of the best

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[14] Although the solvency margins required in the Netherlands and Germany can be calculated using internal models

[15] "*Survey on fully funded, technical provisions and security mechanisms in the European occupational pension sector*" (CEIOPS-OPSSC-01/08 Final) published March 2008

[16] "*Summary of the recovery plan data analysis*", the Pensions Regulator, September 2007

[17] This, incidentally, provides an incentive to Irish employers to keep schemes open to new members.

[18] Minimum guaranteed benefits are those funded by the 9% mandatory employer contribution and by employee contributions, and the investment returns thereon. They exclude non-mandatory employer contributions

estimates rather than prudent approach adopted[19]. The USA's mandated discount rate is now not far off IAS19, which is close to where the average UK scheme appears to have ended up thus far under scheme specific funding, but the USA allows some smoothing of asset and liability values and requires no allowance to be made for future salary increases. The USA's funding standard is therefore, on balance, the weakest[20].

In summary, countries like Germany (pensionsfonden) and the Netherlands that rely primarily on funding standards and less on the employer covenant, have higher funding standards than the others in this study – Australia, Ireland, the UK and the USA. However, within this second group, it is possible to draw a further distinction between those like Ireland and Australia where considerable reliance is placed on the assumption that the employer will remain solvent and therefore be able to honour its promise, with a stronger funding formula to back this up, and those like the UK and USA where the employer guarantee is not only higher (full buyout) but is also backed by a guarantee scheme and regulation of employer corporate transactions.[21]

Surpluses and transfers

The impact on employers of the regulation of DB benefit security is also affected by the scope for recovering the surpluses likely to arise and their ability to unilaterally transfer members out at a lower funding level.

All countries allow surplus of funding against the funding standard to be returned through reduced contributions except the Netherlands, where some of the surplus must be used to meet the scheme's indexation aspirations, and funded German schemes where premium levels are fixed (and hence surpluses are used to fund increased benefits). As the funding standard varies between countries, so does the ability to recover surpluses. Return of cash sums appears very difficult in the Netherlands and for funded German schemes, where in any case the expectation is that surpluses should be used to fund conditional indexation. In the USA a surplus can be returned only upon termination of the scheme and then only when benefits have been paid in full and subject to a tax charge. At the other extreme, surpluses are freely accessible for German book reserve

[19] The rigour of the Australian funding approach is tempered by the use of a best estimates approach mandated by the actuarial profession to estimating whether the valuation will hold good for the next three years and the full rigour applies only to a subset of the benefits – funding requirements for full vested benefits are more persuasive.

[20] Except possibly for cash balance plans where no country would require provision for future salary increases

[21] The weakness of funding requirements in Australia and Ireland relative to other countries in the second archetype may be because relatively few DB schemes are left in the former, and the strength of the social partnership culture in the latter, which has, thus far, sufficed to prevent solvent employers defaulting on their liabilities.

schemes[22]. The UK lies in the middle with a buyout requirement that is in practice tougher than the fully funded requirements in Australia and Ireland.

Most countries, including the UK, have removed the fiscal rules that discourage high funding surpluses. However, a cap can be applied by the Irish tax authority for a surplus of just 10% (or more) while there is a cap at 50% in the US (a level well above full termination benefits).

Most countries in this survey require that transfers of vested pre-retirement benefits to another scheme be valued in the same way as scheme liabilities are valued for funding regulation purposes, which as noted above, is not that far below the termination value of the accrued benefits, other than in the USA. A different rule applies in the UK. Here, the valuation of voluntary transfers is based on an approach which could be interpreted as being less stringent than the prudent level used for scheme funding purposes in circumstances where the scheme is underfunded or it is not supported by a strong employer covenant[23].

That said, in the UK employers can enhance transfer values so as to make them higher than the minimum specified in the regulation. Moreover the trustees are expected by the Regulator to ensure members are properly informed of the implications of taking a transfer value at the level offered, in particular the difference between prudent funding in the scheme and the assumptions that have to be used to calculate the transfer value.

Hybrids

This section has not thus far explicitly considered the prudential regulation of hybrid schemes, and they are of only limited relevance for UK comparisons. The position for each type can be summarised as follows:

- Hybrid schemes in the UK are effectively regulated as DB schemes, for instance being subject to the compensation fund levy and regulation of employer transactions.
- Cash balance schemes (US and Germany) are regulated in the same way as DB schemes.
- Collective DC schemes (Netherlands) have similar funding standards to DB schemes and are effectively regulated in the same way.

[22] Where employers set up a contractual trust arrangement there may be limitations on return of surplus depending on the interaction of the relevant legislation and the rules of the arrangement. It can be assumed from their growing popularity that these are not serious.
[23] The position described reflects Section 7 of the Occupational Pension Schemes (Transfer Values) (Amendment) Regulations 2008, which come into force on 1 October 2008, which is itself an interpretation of the current actuarial guidance GN11. Although this does not explicitly refer to best estimates, like the Regulations it refers to taking account of the returns of the investments held by the scheme. This might be interpreted in some circumstances as being a level lower than the funding level.

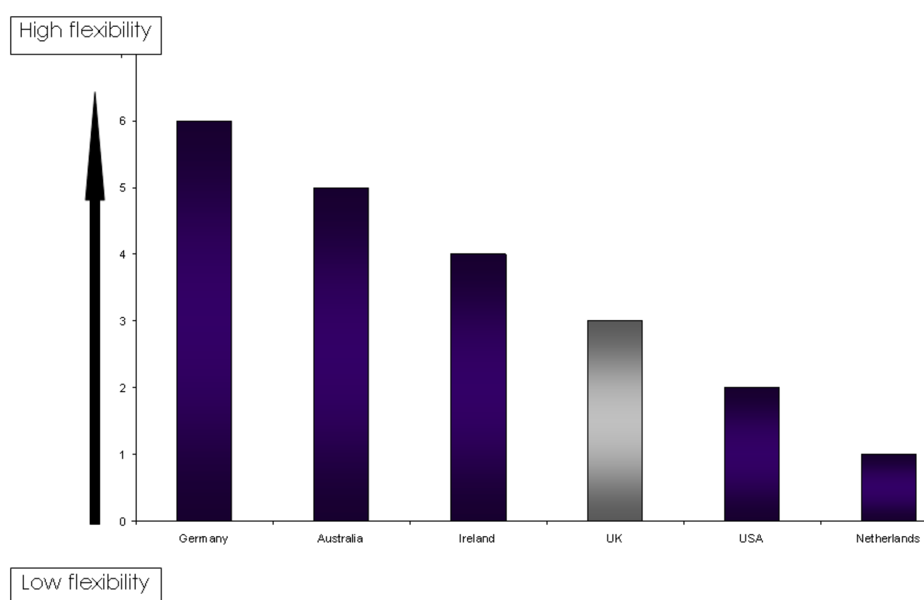
- DC schemes in Australia that maintain reserves to avoid charges eroding small balances or to smooth investment returns are subject to requirements for actuarial valuation and a five-year recovery period, but not any funding standards.
- German DC schemes (pensionskassen and direct insurance arrangements) are subject to insurance regulation for the mandatory, guaranteed part of the promise.

Flexibility

Exposure to the full liabilities upon solvent wind-up exists only in the UK, the USA and in Germany for book reserve schemes. In addition, the UK, has wide-ranging "moral hazard" powers which place constraints on corporate restructuring which are not matched elsewhere. Furthermore, if surpluses develop, it is harder to recover them than in Ireland and Australia (although easier than elsewhere), especially given the fact that mandatory revaluation and indexation means that the pension promise is rather more expensive than elsewhere.

UK employers do, however, have lower requirements when it comes to voluntary member transfers out of the scheme. The valuation of transfers is slightly less generous to the member than elsewhere, being calculated, in some circumstances on a lower basis than the scheme funding requirement. This creates an incentive for employees that have left the employer to leave their pension as a deferred entitlement with their former pension scheme. Potentially, it also gives the employer an incentive to encourage members to leave the scheme, although trustees are expected to ensure that employees are properly informed of their obligations. Figure 4 provides a rough league table of flexibility. This contrasts with a requirement to provide transfer values at the funding objective level in Ireland, Australia, and in some German schemes. However, the UK requirement is higher than in the USA where they are not subject to regulation.

Figure 4. DB benefit security: by desirability to the employer



Costs

The ultimate cost to a DB pension scheme of providing the promised benefits is a function of the benefits accrued and the longevity of members. Regulatory regimes can, however, increase the cost to the employer above the eventual actual cost of paying the pension by:

- requiring the employer's funds to be tied up in upfront funding that proves to be higher than necessary to meet the pensions promise;
- 'trapping' surplus funding in the scheme which cannot be readily returned to the employer;
- requiring the payment of levies to a pension guarantee/compensation scheme, bearing in mind that a solvent employer obtains no direct benefit from such payments;
- requiring or incentivising sub-optimal investment strategies; and
- any legislative or regulatory action that alters the value of the benefits payable under the pension promise.

An analysis that excludes the last of these suggests that the UK's regulatory regime regarding funding requirements is around the "middle of the pack" when compared to the other regimes studied here. Taking each of the potential costs identified above in turn:

- UK employers are less likely to be able to recover trapped surpluses than counterparts in Ireland and Australia, but more likely than in the other countries.

- only the UK, the USA and Germany have guarantee/compensation fund levies, with the UK level being roughly comparable with the USA, much less than for German book reserve schemes, but higher than for funded German schemes; and
- the requirements in the Netherlands and Germany (funded schemes) for solvency buffers that penalise the holding of (more volatile) growth assets may also increase costs A rough calculation suggests that this might make these schemes around 5% more expensive to fund.

However, when the impact of legislative or regulatory action that alters the value of the benefits payable under the pension promise is considered, a different picture emerges. Factoring in the additional cost to employers of providing mandatory revaluation of deferred benefits and indexation of pensions in payment adds around two thirds to funding costs. The financial effect of this requirement is similar in magnitude to the additional cost of the higher funding requirement that applies in the Netherlands (105% plus solvency buffers rather than 100%) and for German *pensionsfonden*. It makes the overall funding requirement much higher than in Australia, Ireland or the USA. Hence the cost to employers of funding the pensions promise in the UK is similar to, or much higher than, in the other surveyed countries[24]. The UK also has the greatest potential for a surplus that is of no value to the employer being trapped.

Looking at the situation in the round, it can be concluded that, from the employer's perspective, UK funding requirements are as expensive, or more expensive, than in other countries.[25] Figure 5 illustrates the relative costs on a

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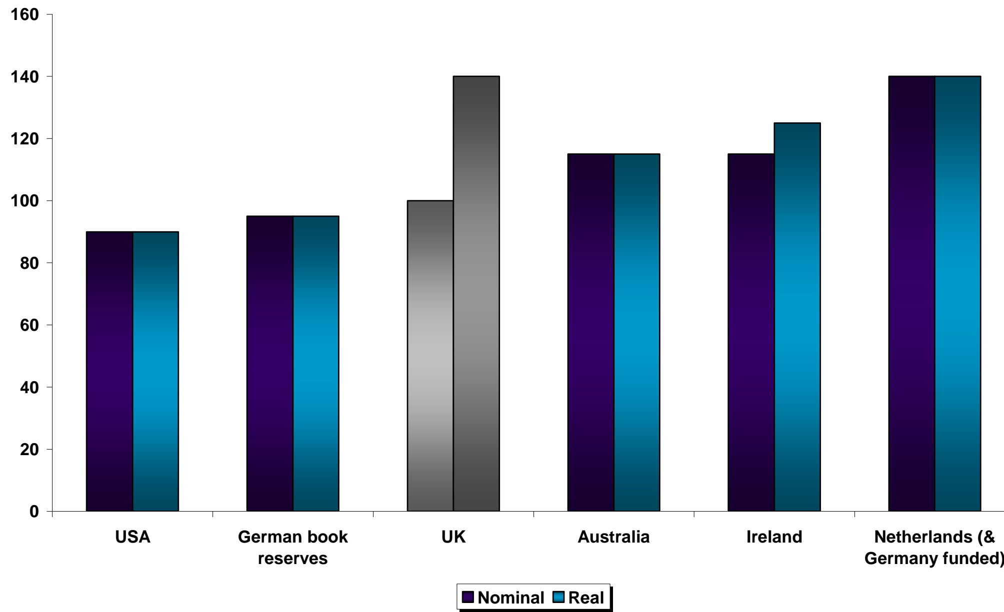
[24] The March 2008 CEIOPS paper (footnote 9) is under-pinned by a more robust analysis than was possible for this paper. This suggests that Dutch technical provisions are around 40% below the UK's which would make the Dutch funding requirement 20% less in real terms than the UK's. CEIOPS, however, use a lower discount rate for the UK than is seen in practice or has been used in this analysis. The CEIOPS assumptions on the impact of indexation on funding costs have been used, although, as note 8 indicates, they may over-state the impact. The CEIOPS study does not provide figures for German *pensionsfonden* (let alone book reserve schemes that are out scope for CEIOPS). For the purpose of Figure 5 it is assumed that the overall funding requirement for *pensionsfonden* is similar to that for Dutch schemes. *Pensionskassen* require more funding, allowing for solvency margins, but are treated as DC not DB in this paper.

[25] The methodology for estimating costs is fairly approximate and the figures should be taken as a very rough guide. The following key assumptions should be noted:

- The analysis excludes the impact of different approaches to mortality which may, according to the CEIOPS paper, reduce Dutch funding requirements.
- The figures assume the historic differential in discount rates between the corporate bond rate used in IAS 19 and the risk free rate. The impact of the recent widening of the differential by over 100 basis points may not be that great in the UK where the rate used may be more based on an uplift over the risk free rate than the Pensions Regulator's IAS 19 trigger, but could weaken significantly the funding basis used in the US and for German book reserve schemes. As it happens, this would not change the overall ranking.
- The costs for German book reserve scheme assume the forthcoming use of an IAS19 discount rate, not the current 6% discount rate which makes them easily the cheapest in the survey. They are shown with an allowance for the relatively large levies to the guarantee scheme.
- The figures for Australia assume employers fund the full benefits of the scheme and not the minimum requisite benefits which would make Australia the cheapest for employers, but probably not sustainably so.

nominal basis and real (taking account of indexation) basis, and shows how indexation pushes the UK up from the middle of the range to the top in terms of cost to employers.[26]

Figure 5. Relative cost of funding a given promise



[26] The analysis used in Figure 5 makes some allowance for the costs of guarantee compensation schemes but does not reflect the much greater impact in the UK of schemes paying the risk-based PPF levy. No allowance is made for the cost of any sub-optimal investment allocation resulting from the application of solvency margins on the Netherlands and Germany (funded schemes), nor the varying risk of surpluses being trapped in schemes which roughly correlates with the ranking for flexibility to the employer.

5. Governance

Within the countries surveyed there are three broad types of entity responsible for running pension schemes:

- **Direct employer provision**: Employers providing pension benefits, accounted for as book reserves, directly to members. The employer is the entity subject to regulation. Of the countries studied, this approach is only used in Germany. Employers providing book reserve arrangements are subject to standard corporate governance requirements and some aspects of pensions law relating to design rules. While employers can establish contractual trust arrangements to place the assets at arms length from the employer, there is no specific regulatory framework for them and they are governed purely by the relevant German corporate law, with the assets ultimately belonging to the employer.

- **Employer sponsored trust or pension company**: Pension trusts or companies that have the sole purpose of providing employee benefits on behalf of one or more sponsoring employers, with a primary duty of fiduciary care applied by trust law (UK and Ireland) or statute law.

- **Financial services providers**: Commercial financial service providers that contract directly with members and may or may not place the management of the scheme under a manager or board with a primary fiduciary duty to the members. As Section 3 has shown, there is considerable variability between countries as to the forms of such provision. In particular, Australian retail public offer funds are regulated as pensions trusts although they are owned by commercial providers.

Governance is a broad term subject to a range of meanings. For the purpose of this report, it can be defined either as the way in which the entity is run (managerial governance), or the way in which it manages the investments entrusted to it (investment governance). Applying the first definition, the overall governance of the first and third types of entity is subject to the regulation of corporations or financial service companies, and to which, in general, pensions regulation does not apply. However, there are exceptions to this simple rule, eg the managerial governance of some contract-based pensions products in Australia and the UK are subject to all or some elements of pensions regulation.

This report therefore considers the managerial governance of trust-based and contract-based pensions, before turning to investment governance, the regulation of which can apply across trust and contract-based schemes.

The managerial governance of trust-based schemes

All the countries examined in this report place basic fiduciary duties on the trustees or managers running the trust-based schemes, for instance covering duties to beneficiaries, obtaining expert advice and conflicts of interest. The duties derive either from trust law or pensions legislation (notably ERISA in the USA and the Pensions Act in the Netherlands) or from both as in the UK and Ireland. In particular, there are fairly standard duties relating to record keeping, payment of benefits and scheme wind-up. There are also comparable requirements for the appointment of auditors and actuaries.

The biggest differences between the countries surveyed arise because of the requirements in national pensions law relating to:

- licensing;
- member representation on governing boards;
- the qualifications required of fiduciaries; and
- risk management and internal controls.

There are other detailed regulatory differences, for instance relating to internal dispute resolution procedures but their impact is not material. Figure 6 summarises some key features (detailed in Table 6 in Appendix 3).

Figure 6. Trust-based governance arrangements

	UK	Ire	Aus	Ger	Nl	USA
Licensing	×	×	✓	✓	×	×
Member representation	One third	50% (on request)	50%	Extensive	50%	× (50% for a few)[27]
Trustee qualifications	All trustees to have TKU	Collective TKU	Extensive comp-etence	Sufficient theoretical and practical experience	Expertise related to scheme operation	None explicit
Risk management	Regulatory recommendation	Little explicit	Extensive	Extensive	Extensive	None explicit

NB. 50% member representation is required for collectively bargained schemes

(dark purple)	Strictest
(light blue)	Average
(white)	Least strict

The requirements for professionalism in governance are most stringent for schemes in Australia, Germany and the Netherlands. Indeed in Australia where, since 2006, pension schemes have had to be licensed by the regulator, along

with strict rules on the fitness of trustees, the implementation of risk management processes and outsourcing arrangements. These requirements are tougher than those that went before (which were pretty close to current practice in Ireland, the UK and USA).

The extent of regulation in the UK, Ireland and the USA is less. However, in the UK, mandatory regulation is complemented by a wide range of guidance and codes, the latter including the Myners Principles on investment decision-making. Of the three countries listed, the USA is the extreme case, with principle-based requirements for good governance underpinned by strict fiduciary responsibility should things go wrong, and limited advisory guidance (interpretation) from the regulator. Although there is much less specific regulation, trustees and other fiduciaries in the USA may feel obliged to follow good practice similar to that expected in the UK and Ireland.

There are, however, some significant differences between these three countries. For instance, in Ireland schemes are required to use registered and regulated scheme administrators. Similarly, while the USA does not apply specific regulatory requirements relating to the selection and monitoring of investment managers, the UK tackles this issue via the increasing application and promotion of the Myners Principles, one of which recommends the same. In Ireland and the USA, trustees/ fiduciaries are explicitly required to exercise fiduciary responsibilities in choosing the annuities that members buy at retirement, while in the UK trustee responsibility appears to be limited to taking appropriate advice.

On the other hand, UK trustee knowledge and understanding requirements apply to all trustees, while Irish requirements are discharged so long as one trustee or the trustees' advisers possess the requisite knowledge and the USA has no explicit requirements beyond the statement that fiduciaries should apply such skill as "a prudent man acting in a like capacity and familiar with such matters would use in the conduct of an enterprise of a like character and with like aims". Furthermore, the UK has explicit requirements for risk management, in the context of internal controls, which have no parallel in Ireland or the USA.

Turning to member representation, Australia and the Netherlands require 50% member representation for most schemes, higher than the UK's one third member-nominated trustees. Ireland's requirement is also 50% but only where sufficient members request it. Germany requires representation through the system of supervisory boards.[28]. At the other extreme, representation is required in the USA only for collectively bargained schemes (these represent only 2% of schemes but 34% of the total membership).

[28] The requirement only applies in Ireland where requested by the membership, while in Australia it has limited application in practice to retail schemes. An APRA research paper from May 2008 (*Superannuation fund governance: Trustee policies and practices)* shows that just under 10% of the directors of retail public offer schemes are member nominated, compared with well over 40% in company and industry-wide schemes.

Contract-based schemes

The basic governance requirements for contract-based schemes are those in the regulatory license conditions applying to the commercial provider concerned, which are fairly standard across the OECD. In particular, senior managers are expected to be fit and proper persons and risk management is expected as a matter of course. There are also requirements for commercial providers to have prudential reserves against operational risks and any other potential costs that cannot be recovered from members.

The governance requirements of contract-based schemes are, therefore extensive. However, in some respects there may be less inherent protection for members than is the case for trust-based schemes:

- The legislative frameworks for contract-based schemes do not provide for representation for members, (other than a limited requirement for retail public offer schemes in Australia).
- The requirements do not usually provide for details of scheme activity and performance to be made available to members or for other forms of external scrutiny, beyond the aggregate reporting to shareholders on company performance (except for Australian public offer schemes, and the actuarial certification of Irish PRSA default funds, and the auditing requirements in the UK's optional stakeholder pensions). That said, the statutory money purchase illustrations required in the UK do give members some indication of the return they will receive on their fund.
- The managers of the schemes have a primary responsibility to their shareholders, not the members, (although this runs alongside fiduciary duties to members for UK stakeholder and retail public offer schemes in Australia), and there is a duty of care reflected explicitly in the UK's 'Treating Customers Fairly' regime.
- The employer has no fiduciary responsibility beyond any incurred in choosing the scheme, and hence incurs minimal costs, other than those related to payroll administration, in providing it, but leaves members in the protection of providers whose first duty is to their shareholders.

In practice, therefore, while contract-based schemes may sometimes be very professionally run, there may be less member or employer oversight of remedial action should things go wrong administratively than is the case in a trust-based scheme. To deal with this issue, the legislation in the countries surveyed has provided some compensating protections, either through provider governance or imposing a fiduciary responsibility on the employer to monitor the working of the arrangement:

- Australian retail public offer schemes, although resembling a contract-based arrangement from the employer's perspective, must be set up under a trust that is subject to pensions regulation. The requirements on the scheme differ from those used for the not-for-profit public offer schemes (eg industry-wide) only to the extent that there is effectively a lesser member representation requirement where there is no employer sponsor.
- Regarding the optional regulated products of stakeholder pensions in the UK and PRSAs in Ireland (see Table 2 above), these are required to comply with legislation on fees, investment options and disclosure, and to make annual declarations to the regulator of compliance with legislative provisions[29]. Providers are required to delegate responsibility for the product to a specific individual, who in the UK has an explicit fiduciary duty to the members. In the UK providers can choose to provide a further fiduciary safeguard by establishing stakeholder pensions under trust, or indeed group personal pensions under a master-trust. Such arrangements are not currently in wide use.
- Where German employers are involved in providing employees with direct contracts with a provider, the contract is initially between the employer and the provider (until the member is vested) and therefore the employer retains fiduciary responsibility.
- Contract-based pensions arranged through the employer in the Netherlands must be subject to an administrative agreement between employer and provider and the administrator is covered by pensions law. Effectively both the provider and the employer have a fiduciary responsibility to the members.
- USA regulation places strict requirements on employers if they are to use a contract-based scheme without taking on fiduciary responsibility. The employers cannot make contributions, tailor the scheme to employees' wishes or circumstances or brand or promote the scheme as their own. Otherwise the employer usually[30] retains fiduciary responsibility.[31]

These regulatory provisions leave only group personal pensions in the UK and retirement annuity contracts (RACs) in Ireland as not having an overlay of specific pensions governance regulation[32] and RACs are in practice rarely used by employers that contribute to their employees' pensions.

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[29] The stakeholder annual report need now only be sent to the regulator on an exceptions basis.

[30] Employers with 100 or fewer employees and no other pension scheme can avoid some fiduciary responsibilities by putting in place a SIMPLE IRA.

[31] There must also be a possibility that UK employers do have fiduciary responsibility for their contract-based schemes if they do not apply equivalent safeguards as the USA schemes referred to.

[32] Bearing in mind the unattractiveness of Australian retirement savings accounts. In practice, Irish employers rarely contribute to retirement annuity contracts, which are hence much less prevalent than group personal pensions in the UK where an employer contribution is usual.

Table 4 below summarises the distinctions between the governance of trust and pure contract based schemes.

Table 4. Governance: Trust v. Contract

	Trust-based	Pure contract-based[33]
Fitness and propriety	**Variable** Requirements placed on lay trustees with risk-based enforcement	**Yes** Required as a licence condition
Risk management	**Variable** Requirements placed on lay trustees with risk-based enforcement	**Yes** Required as a licence condition
Prudential cover	**Variable** Employer-dependent	**Yes** Required as a licence condition
Member representation	**Yes** With exceptions, especially in the USA	**No**
Fiduciary duty to beneficiaries?	**Yes**	**No** Only lesser duty of care
Fiduciary responsibility for employer	**Yes** But may have safe-harbours for member directed investment	**Probably not** Depends on employer involvement in choosing scheme/fund

Investment

Investment is the aspect of governance that places the greatest potential risk on the trustees and managers. The basic regulatory framework for trust-based investment is common to all three EU countries surveyed, as it is based on Article 18 of the Institutions for Occupational Retirement Provision (IORP) Directive, and hence the 'prudent person' principle. This principle is also the guiding philosophy in Australia and the USA where, respectively, schemes have either to prepare something akin to a statement of investment principles or be used to help demonstrate discharge of fiduciary responsibilities (and, in practice, over 80% of USA schemes prepare them). This report therefore focuses on regulations (detailed in Table 7 of Appendix 3) that go beyond the prudent person principle.

Only the Netherlands and Germany (funded schemes) go beyond the prudent person principle in regulating what schemes can invest in. In both cases, there is a funding cost penalty through the design of solvency margins (which has an indirect effect on German under-pinned DC schemes by reducing their returns

[33] These are group personal pensions in the UK, retirement annuity contracts in Ireland, and Individual Retirement Accounts in the US, to the limited extent that employers can use them.

and hence attractiveness to members). Germany also limits to 35% investments in riskier classes of assets by under-pinned DC schemes (notably *pensionskassen*).

The USA's approach differs significantly from the other countries. It is the only country surveyed that allows more than 5% investment in the sponsor – and the main constraint on fiduciary action is the strict fiduciary responsibility which, coupled with a highly litigious society, makes fiduciaries reluctant to take risks. Furthermore, in contrast to the situation in the other countries surveyed (with the exception of Germany regarding book reserve schemes), the employer is allowed to direct scheme investment, albeit through an investment manager with fiduciary responsibilities. This inevitably makes employers cautious about being sued for poor investment performance.

Concerns about the fiduciary responsibility for DC investment are not just found in the USA. The standard response has been to introduce participant choice, which is allowed in all the countries surveyed where they permit pure DC. In the UK, group personal pension schemes offer considerably more fund choice than trust-based schemes which may suggest risk avoidance by employers[34].

While USA legislation makes it hard for employers to set up contract-based schemes, it has provided a framework for 401k schemes where employers retain fiduciary responsibility by providing a 'safe-harbor' (see Table 2). While there is no obligation on USA employers to design their funds in this way, concerns about fiduciary risk coupled with the desire to introduce auto-enrolment may result in this design becoming an industry standard. The UK, Ireland and Australia have provided similar safe-harbours through government-specified contract-based products, the stakeholder pension and standard PRSA (Table 2).

A safe-harbour is also explicitly available to trust-based schemes in Ireland. If the scheme gives members sufficient information in relation to the investment choices available to them under a DC (including AVC) arrangement, they can have an indemnity in respect of any losses incurred by members who made what turned out to be the wrong choice. Regulations set out the information which trustees must provide to enable them to benefit from this indemnity. In contrast, legislation in the Netherlands explicitly places fiduciary responsibility on the scheme even where participant choice is offered. There is no safe-harbour.

[34] The paper "*Dealing with the reluctant investor*" Byrne, Harrison & Blake, Cass Business School 2007, drawing on data from the NAPF survey 2006, indicates that the median number of funds offered by a contract-based scheme is 50, compared with 11 for trust-based schemes and that virtually all contract-based schemes offer more than 20 funds. This is backed up by research by Harris for the Pensions Regulator (January 2008) which states that "There are indications that contract-based schemes are more likely to have a larger number of funds available than trust-based, although this is not always the case. This would fit with the potentially lower level of employer involvement observed in relation to contract-based schemes and the apparent tendency for some employers to distance themselves from responsibility and any liability that could possibly ensue."

Flexibility

Flexibility for employers in relation to governance essentially relates to the ability to choose a range of different governance arrangements, be they part of the employer, trust-based, pure contract-based or a regulated contract-based product. Their choice will be influenced by the relative burdens and risks of each. In no country are all three types of arrangement listed in paragraph 5.1 available as only German employers can choose book reserve schemes (and then only for DB and hybrid provision). Their choices are limited for DC. UK and Irish employers have the most flexibility in choosing a contract-based DC scheme, either product regulated or not, but the available trust-based schemes are subject to more explicit regulation of governance than USA counterparts. USA employers with over 100 employees are effectively limited to trust-based provision. The governance requirements in Australia and the Netherlands are, however, much more prescriptive than in the UK, with extensive regulation both of trust-based schemes and regulated contract-based products. However, unlike in the UK, they involve fiduciary responsibilities that fall on the provider rather than on the employer.

Table 5 summarises the flexibility available to employers in each of the countries surveyed. It shows the UK and Ireland are much more flexible for DC than DB provision. This is mainly because the regulation of UK contract-based schemes is more flexible than elsewhere with regard to design rules and the lack of fiduciary responsibility on either the provider or employer. In contrast, the availability of contract-based provision is limited in the USA and Australia, and it is only permitted to operate in Australia, Germany and the Netherlands if additional fiduciary duties are applied. Dutch employers have some fiduciary responsibility for DC investment and, as with German funded schemes, are also constrained by specific investment requirements for DB and hybrid provision. Finally, a further element of flexibility is permitted in the UK and Ireland, where employers also have the option of choosing state-regulated safeguarded products for the default fund, and in the USA, where employers have a fairly similar option of choosing a safe-harbour plan.

Table 5. League tables of flexibility to the employer in choosing arrangements for the governance of pension provision

	DB	
1.	Germany	Can choose book reserves, fund or direct insurance
2.	USA	Member representation optional (mostly)
3=.	UK	Minimal choice
	Ireland	Minimal choice
	Australia	Minimal choice
	Netherlands	Minimal choice

	DC (trust-based and contract-based)			
1.	Ireland		Regulated contract-based	"Pure" contract-based
1=.	UK		Regulated contract-based	"Pure" contract-based
3.	Australia	Arms' length trust	Regulated contract-based – capital sum guaranteed	
4.	USA	Safe-harbour		"Pure" contract-based – only
5.	Germany	Arms' length trust – capital sum guaranteed		"Pure" contract-based – capital sum guaranteed
6.	NI		Regulated contract-based – only available to some employers	

Costs

The following aspects of governance regulation are most likely to impact substantially on the costs of trust-based schemes in the countries surveyed:

- Licensing, as in Australia and in German funded schemes, where schemes have to demonstrate high standards and have robust documented approaches to risk management.
- Requirements on trustee expertise, notably the very high standards expected in the Netherlands and Australia.
- Investment regulation that impacts on prudential requirements for DB schemes (Netherlands) or DC (Australian schemes without fund choice and to some extent Dutch schemes).
- Member representation where the employer has to meet the costs of recruiting trustees, which makes provision costlier in the UK than in the USA or in those Irish schemes where members do not insist on representation.

The administrative costs of large trust-based DC schemes have been estimated at well under 0.5% of assets held in several of the countries surveyed say 0.3%. According to the latest NAPF annual survey, the average cost of governance and trustee training amounts to £60,000, although if account is taken of scheme size, the cost to a typical scheme is £12,500.[35] Few of the regulatory requirements considered above would therefore materially affect the cost of running a large scheme. Governance requirements can, however, significantly increase costs for small and medium sized schemes, whose overall costs are likely to be comparable with, or higher than, the 0.8% of assets common in UK contract-based schemes. Table 6 sets out a league table for the approximate costs relating to governance requirements. The UK is in the middle of the table for trust-based schemes, though as the average scheme size data shows, the proportionate cost position may mean that the costs bear more heavily on small and medium sized schemes.

Table 6. Governance regulation in trust-based schemes (DB and DC): costs to the scheme

Cost	Trust-based schemes only	Average membership of scheme
1. Low	USA	2,500
2.	Ireland	2,400
3.	**UK**	**2,600**
4.	Australia	27,400
5.	Netherlands	10,500
6. High	Germany (funded)	7,000

NB. The UK figures relate to the average scheme size for schemes with 100 members or more. There are an additional 48,390 pension schemes with less than 100 members.

From this viewpoint, the impact of regulation on the costs of trust-based schemes is less attractive for the UK than an initial reading of the table might suggest because the average scheme size is much lower than in the countries where governance requirements are costlier. As most of the regulatory costs relating to governance are flat rate rather than being proportionate to size, the overall burden on employers in those countries might well be less than for the UK.[36] Even if regulatory requirements doubled the cost of governance in Australia, and for German funded schemes and in the Netherlands, the cost per member would still be much less than in the UK. (It is possible that the relatively heavy burden of governance regulation may well have contributed to the rapid demise of smaller schemes in those countries and hence the average scheme sizes observed today.)

[35] NAPF Annual Survey, October 2008

[36] The absolute (but not proportionate) costs of governance do tend to rise with scheme size in Germany (funded schemes) and the Netherlands where the regulatory penalty for growth assets acts proportionately to scheme liabilities and makes their schemes significantly more expensive regardless of size. German DC schemes also have the constraint of quantitative investment limits.

From the UK perspective, the most pertinent comparison is therefore with the USA and Ireland, where average scheme sizes are similar. As outlined earlier in this section, there are explicit requirements found in those countries that are not found in the UK. But the costs of these are unlikely to be high. The aspects of UK regulation greater than in the USA or Ireland, relating to member representation, trustee knowledge and understanding and risk management are bigger in scale.

The cost position for contract-based schemes is very different. Most of the cost of providing a contract-based scheme is passed on to the members through fees, and hence in reduced net returns. The employer is therefore left only with the incurred payroll and any promotion costs. Both are far less than the administrative costs of running a trust-based scheme which, in the UK and Ireland, are borne by employers. Contract-based schemes are, therefore, much cheaper for employers to provide than trust-based schemes in the UK and Ireland. This difference is much more marked than in Australia and the USA where even in trust-based schemes, respectively, all and some of the administrative cost can be passed from employer to employees.

The position changes somewhat if the costs of delivering a specific employee benefit are compared as then contact-based fees levied on member accounts would need to be taken into account. It is generally recognised that the costs of large UK trust-based schemes are much less than those of contract-based schemes. But, as outlined above, the regulatory regime results in the cost differential being reduced for smaller UK trust-based schemes. Hence the UK regulatory framework has given contract-based schemes a competitive edge for many employers whatever way the costs are compared. This competitive edge may be unique to the UK as:

- The costs of contact-based schemes in Ireland tend to be no lower than the PRSA charge cap which is roughly equivalent to a 1.2% annual management and hence 50% higher than in the UK, while regulation imposes a lower burden of cost on trust-based schemes than in the UK;
- Trust-based schemes are less regulated in the USA and contract-based provision (with employer contributions) is readily available only to the smallest employers;
- Large multi-employer trust-based schemes are available to employers in Australia, the Netherlands and Germany and the availability or design of contract-based schemes is constrained in the first two countries.

There is some evidence of significant growth of contract-based provision (or retail public offer schemes in Australia) wherever it is available. But, as the above analysis shows, the conditions for its growth are most favourable in the UK and this may help explain the growth in the UK of contract-based schemes, especially group personal pensions which have benefitted from a more liberal approach to regulation than in the other countries surveyed.

Conclusions

This report sets out to compare the regulation of pension schemes in the UK to that in five other OECD countries. A complex picture emerges.

While UK pension regulation for trust-based DB schemes is, on balance, somewhat higher than that of other countries, especially if the typically small size of UK schemes is taken into account, the regulation of trust-based DC pensions is in the middle of the range of regulatory approaches. As for the regulation of UK workplace contract-based DC arrangements, this appears a little lighter than in other countries, in particular with regard to product design and the lack of explicit fiduciary responsibility on the employer or the provider.

However, the UK regulatory framework provides considerable flexibility in relation to the form that pension provision can take. In the UK, employers may use either trust-based DB or DC schemes, or contract-based DC pensions. This contrasts with the position in the Netherlands where many employers can only choose trust-based DB or Collective DC provision and the situation in Germany (and to a limited extent in Australia) where DC must be under-pinned with a guarantee. In addition, more generally, the scope for choosing contract-based provision is limited in Australia and the USA.

The report identifies a number of areas where UK regulation is markedly different to the approach taken elsewhere and which should be the subject of further review:

- **DB inflation proofing**: The mandatory inflation proofing in the UK of the benefits both of deferred members and of pensioners, is out of step with regulation elsewhere and makes the DB promise far more expensive than in other countries with comparable levels of benefit security and nearly as expensive as those with much higher levels of protection. Removal of the requirement would bring UK regulation into line with regulation in most other OECD countries.

- **DB employer covenant regulation**: The UK has unparalleled regulation of the DB employer covenant when compared to the regulatory regimes used elsewhere. While it can be argued that it plays an important role in ensuring the security of member benefits within the UK regime, it is an outlier in terms of international practice. If mandatory indexation were to be removed, it would be easier to apply higher funding levels which, in turn, would reduce the need for such strong regulation of the covenant.

- **DB and DC governance requirements**: The UK requirements for governance in trust-based schemes are high and are only exceeded in

countries where most pension schemes are very large. The UK applies high standards to all its mainly small schemes. Consideration should be given as to whether the UK's approach is sufficiently proportionate. One solution might be to make regulation more proportionate to scheme size. Another approach to reducing employer costs – but within a trust-based framework - would be a consolidation of pension provision, as has occurred in Australia and the Netherlands.[37]

- **DC contract-based provision:** The UK regulation of contract-based schemes, especially group personal pensions, is out of line with the regulation of contract-based DC schemes in most other countries. In particular, in other countries either an explicit fiduciary responsibility is placed on the employer or the provider or product rules are applied to ensure suitability. This suggests that it may be worth reviewing the requirements in this area, perhaps by requiring the use of a default fund (as will anyway be required for auto-enrolment schemes from 2012) and the introduction of additional governance obligations, such as the use of management committees or a requirement on the employer periodically to review the scheme offered to ensure that it meets member needs.

[37] It would be interesting to undertake further research into why this has not happened in the UK, and the extent to which this has been due to regulatory constraints on multi-employer schemes.

Appendix 1

Pensions Terminology

Categorisation of pension arrangements

Pension arrangements are categorised using the following definitions.

Pension scheme: The entity that arranges the accumulation, and where relevant, payout, of pension benefits on behalf of one or more employers in accordance with the promise it makes to members which can be described as a **pension plan**. These can take the form of:

- **Trust-based** schemes: broadly defined to encompass any scheme which is a legal entity in its own right and is run by people with a fiduciary responsibility in law to the members of the scheme, including those where the fiduciary is effectively the sponsor or the sponsor's nominees. Such an arrangement may involve outsourcing to commercial providers, administrators or managers, but the ultimate accountability remains with the fiduciaries. Trust-based schemes can be sufficiently separate from the sponsor to remove fiduciary responsibility.

- **Contract-based** schemes are defined as groups of contracts between members and a pension provider that are sold or facilitated through the workplace by a financial services institution (commonly an insurer) but place no explicit fiduciary responsibilities on the sponsor or provider. In some countries the distinction between these schemes and trust-based schemes is blurred.

Pension funds: holdings of assets that are invested by pension schemes to generate a return for members either as a pool to support promises made by the employer or as an earmarked pensions entitlement for an individual member. Hence, DC schemes commonly provide members with a choice of pension funds.

Scheme sponsor: an employer that offers employees a pension plan, arranges the pension scheme and underwrites the scheme to the extent that the scheme obligates such support.

Pensions providers: insurance companies or other regulated financial services institutions that manage contract-based pension schemes or the funds owned by trust-based pension schemes.

Scheme members: current or former employees of the sponsor who have entitlements recognised by the scheme. Employees who are still accruing benefits in

the scheme are **active** members; employees and former employees not accruing benefits but below retirement age are **deferred** members; and retired members are **pensioners** (even if they are not drawing a pension).

Types of pension promise

The types of promise encountered in this paper that are made by pension plans and administered by pension schemes are categorised as follows:

A **defined benefit** (DB) promise determines the benefits payable at retirement in terms of the member's salary at retirement (final salary) or throughout the working career (career average). Employer contributions to the scheme depend on the assessed cost of funding the promise, as the sponsor carries the risk that scheme assets may become insufficient to meet the promise.

A **defined contribution** (DC) promise bases the benefits payable to each member at retirement schemes on the contributions made to an individual account for that member and subsequent appreciation of the assets earmarked to deliver the promise. There is no recourse to the sponsor to supplement the assets and hence most of the risk in the scheme is borne by the members. This is the form of DC promise predominant in the UK. Two variations, below, are found elsewhere in the countries surveyed.

Pooled DC schemes base the eventual benefits of members on contributions plus investment returns but hold a single fund and seek to smooth the benefits so as to reduce member vulnerability at retirement to investment volatility. They may sometimes seek to achieve a target level of benefit, holding reserves for this purpose. There is, nonetheless, no call on the sponsor to make good poor performance and in adverse circumstances benefits may have to be reduced. Schemes fitting this definition are found in Australia, Germany, the Netherlands and the USA.

Under-pinned DC schemes provide that (some or all) members receive a minimum (or at least non-negative) return on their contributions by holding reserves for this purpose. The state of these reserves is likely to influence the contributions required of sponsors, but most of the risk remains with the members.

Hybrid schemes relate benefit entitlement to accrued contributions and a return on invested contributions that does not entirely reflect actual investment performance. Where benefits calculated in this way exceed the available assets the employer is required to top-up the funding. In this way risk is shared between the sponsor and the members. Under-pinned DC schemes fall within this category, as do cash balance schemes where the scheme (and hence sponsor) guarantees a rate of investment return on the contributions made. Other variants are possible but not widely found in the countries surveyed.

Appendix 2

Summary of the private pension systems in countries surveyed

United Kingdom

The UK's main private pension provision is through employer sponsored trust-based schemes, (including a few industry-wide schemes) which have been progressively shifting provision from DB to DC. These schemes can be exclusively DC, or DC sections of schemes that also have a DB section. DB provision has been declining since the 1990s due primarily to employer concerns about rising costs and the large risks involved, but unlike some other countries in the survey the response has been a shift from final salary DB to pure DC rather than to average salary or cash balance. Because UK DB schemes are fully under-written by the sponsor, its insolvency could result in members losing a substantial part of their benefits, and hence since April 2005 a levy-funded Pension Protection Fund has existed to pay out much of the pensions in the event of insolvency.

DB membership still far exceeds DC trust-based membership[38], in part because contract-based DC provision has been the main growth area for private pension provision in the last few years. These have taken the form of group personal pension contracts or group contract using the simplified "stakeholder" pension. This state established and regulated product can be sold through employers or directly to the public.

The Pensions Regulator supervises around 90,000 trust-based plans (with two or more members) of which around 8,000 are DB and around 1,600 have over 1000 members. They share responsibility for regulating work-based stakeholder and personal pensions with the Financial Services Authority. The Government intends to introduce, from 2012, a new quasi-mandatory individual DC pensions savings account, "personal accounts", to be delivered by a state-sponsored pensions trust. All employers will have to offer this to their employees, and make contributions unless the employees opt out. This new scheme is not analysed in this paper.

Ireland

Ireland's private pension provision is similar to the UK's with employer sponsored trust-based schemes, which have been progressively shifting provision from DB to DC, so

[38] The Pensions Regulator's 2006/07 figures show around 14 million private sector DB members - the DC membership figure for that year is around 2.7 million [check]. To compare like for like pensioner figures need to be excluded from DB memberships in which case they fall to [to follow].

that nearly half their private sector members have DC rights[39]. Employers can alternatively make contract-based DC provision in the form of Retirement Annuity Contracts (RACs)[40] and, since 2003, Ireland's equivalent to the stakeholder pension, the Personal Retirement Savings Accounts (PRSA). In practice most of the regulatory requirements fall only on 'standard' PRSAs which are the normal pension plan for employers offering no other form of provision.

The regulatory authority is the Pensions Board for all pension plans (including single member plans), which supervises 93,000 schemes, of which 1,400 are DB, including some public sector schemes. The Irish Financial Services Regulator supervises RACs. The Board shares responsibility for PRSA supervision with the tax authority.

Australia

Australia started off with the trust-based DB model similar to other anglo-saxon countries, except that payout has always generally taken the form of a 100% lump sum at retirement, often reinvested in the scheme or a separate fund. By the 1980s employers were already starting to make trust-based DC provision available. In 1992, Australia introduced the world's first private pension system with mandatory employer contributions. From that point, (nearly) all employees had to be enrolled into a trust-based superannuation plan. These are traditionally either company or industry wide schemes limited to employees of the company or industry concerned. Alternatively, DC pensions can be offered by 'public offer' plans which may have started life as employer or industry schemes but have decided to expand their membership base, or retail funds - schemes offered under a master trust by commercial providers. Some DC schemes provide pooled DC – but most offer fund choice.

Superannuation plans are now nearly all DC, with only a few 'legacy' DB plans remaining[41]. Since 1997 employers and employees have had the option of contributing to commercially provided contract-based Retirement Savings Accounts (RSAs). These provide a guaranteed minimum return (with returns usually much less than a superannuation fund) and are targeted at low earners who are intrinsically less attractive to public offer pension funds. All other DC schemes must ensure that member balances under $Aus 1,000 are not eroded by charges regardless of the level of investment returns. Since 2006 employers have generally been required to offer a choice of scheme[42].

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[39] 2006 figures from the Pensions Board give 542,000 DB members, just under half of which are in the private sector and 255,000 DC members. There were 95,000 PRSA accounts many of which would not have been arranged through the employer.

[40] Despite their name these are 'pure' DC contracts

[41] APRA statistics (June 2007) show private sector DB scheme only 0.2% of assets of private sector schemes but show a further 40% in hybrid schemes in which some members have DB rights. The scale of residual DB assets and memberships is therefore difficult to tell, but unlikely to be very big.

[42] Except in some cases where scheme membership is a condition of a collective bargaining agreement

Since 2006 all superannuation plans with five or more members have had to be licensed by the supervisor, the Australian Prudential Regulatory Authority, which also supervises the providers of RSAs. This development has been accompanied by a substantial reduction in the number of licensed pension trusts that APRA supervises (down to some 500 in June 2008)[43] and professionalisation of their management. Self-managed superannuation plans, with fewer than five members all of whom are trustees, are supervised by the tax authority. The Australian Securities and Investments Commission (ASIC) regulates conduct of business.

Germany

Germany has a tradition of extensive state sponsored social insurance arrangements that have given little incentive to establish private pensions and those that exist accrue benefits at a much lower rate (say 20-25%) than UK final salary schemes[44]. Although final salary schemes exist, the predominant benefit structure has been a hybrid; providing a guaranteed investment return on the employer contributions supplemented by a share of the profits made on the investments. DC schemes are allowed only if they provide an under-pinning guarantee at least for the capital sum involved[45].

Book reserve schemes are the largest form of provision. Sponsoring employers hold accounting reserves against a cash balance or sometimes final salary) pension promise, with tax relief being granted on the allocation to reserves according to rules set by the tax authority. Some employers (and most large ones) have moved these reserves into contractual trust arrangements (CTAs) with some similarity to a DB trust-based pension scheme[46], while others have bought insurance policies (in their name not the employees) to fund them. In any event, the members have a contractual call only on the employer.

Separately funded arrangements also developed in the form of *pensionskassen* - small mutual insurance companies or subsidiaries of commercial providers working industry-wide or for large companies. The benefits are under-pinned DC, deriving from a predetermined rate of interest applied to the employer contributions, supplemented where possible by some of the excess investment returns on the assets. The minimum rate is 0% while the maximum is set by the government and is currently 2.25%. The provider, not the employer, is liable in the event of a shortfall and hence is regulated as a life insurance company. A variety of plan structures are available to

[43] APRA also regulates approved deposit funds and eligible rollover funds established to invest retirement benefits post-retirement

[44] "A consideration of book reserve schemes" (D. C. Mason., R. L. M. Arnold, Mrs R. E. Clark, T. E. Crowter, A. I. Johnston, A. N. Walston – Presented to the Institute of Actuaries 25.4.94)

[45] In practice the distinction between DB and Dc is not clear cut in Germany, and rests on whether the employer or the provider to make good fund under-performance. Confusingly the responsibility is often shared.

[46] Strangely, the German Government does not consider contractual trust arrangements to be Institutions for Occupational Retirement Provision, and hence covered by the IORP (pensions) Directive, but has recently expressed a view that they should be subject to banking supervision.

employers. Employers can also take out under-pinned DC insurance policies which effectively belong to the members once benefits are vested.

Reforms in 2002 gave every employee the right to request membership of a pension scheme and provided incentives to employers to provide funded schemes in the form of the two types already mentioned and (new) *pensionsfonden* which more closely resemble a standard DB pension scheme (and indeed provide a funded alternative to setting up a CTA). Some large multi-employer plans have also been established acting as an umbrella for funded pension or direct insurance arrangements. The reforms have reversed the trend away from private pensions and 46% of the private sector workforce had some provision by 2004.

Book reserve schemes still account for 60% of the €400 billion German private pension obligations while *pensionskassen* have about 24% and *pensionsfonds*, though growing rapidly since a 2006 regulatory relaxation are around 4%. The remainder are direct insurance contracts, which are growing rapidly.[47]. Most funded pension arrangements, including CTAs, are outsourced to financial service providers. BaFin[48] regulates some 150 *pensionskassen* and over 20 *pensionsfonden*, as well as direct insurance arrangements The minimal regulation of book reserve schemes comes through the finance ministry and accounting rules.

Netherlands

The pensions system in the Netherlands looks very different depending on the industry in which the employer operates. Where industry organisations of employers and employees jointly set up an industry-wide pension scheme, they can ask the Government to impose an obligation on all employers and employees within the particular industrial sector to participate in the scheme[49]. Employers can avoid participation in the scheme only if they offer a scheme that can be considered at least as good. It is normal for employers to automatically enrol employees into these schemes without an opt-out. Hence, the 71 industry-wide schemes cover some 80% of the 90% of the workforce in occupational pension schemes. Most of the remainder are employer-sponsored schemes[50].

Industry-wide schemes provide DB benefits (until recently final salary but mostly now career average). Employers that wish to provide their own scheme are effectively restricted to a DB or 'collective-DC' scheme with a similar aspiration for pension levels and hence similar contribution levels. A collective-DC scheme is a pooled DC

[47] Mercer press release "What's New in Germany: Funding via CTA and Pensionsfonds" 22 June 2007

[48] Short for Bundesanstalt für Finanzdienstleistungsaufsicht. The following statistics are taken from BaFins's 2006 annual report

[49] For participation in an industry-wide pension scheme to be declared mandatory the employer's organisations supporting the request must employ at least 60% of the employees in their sector.

[50] There are also 11 schemes covering various professions, but these are fairly small.

scheme which pays a pre-determined benefit so long as its investment returns are sufficient for this purpose, and is funded so as to have a high probability of delivering the promise. If, however, funds prove insufficient the promise can be cut, as indeed is the case for DB schemes in extreme circumstances.

Employers in other industries are, however, free to offer DB, DC, or indeed no provision at all, either through a pension scheme or an agreement with an insurance provider. Both DB and DC insurance contracts exist and the arrangements are covered by pensions law. There are restrictions on DC scheme design aimed at evening out member benefits.

DC provision has been growing rapidly recently where it is permitted and along with 'combination plans' where DB benefits are supplemented by a DC section. Latest statistics[51] show 5.3 million active members of 420 DB schemes, plus some 0.1 million members of 77 hybrid schemes 0.4 million active employees with DB insurance contracts; and 0.3 million active members of 38 DC schemes plus 0.4 million employees with DC insurance contacts. The last of these numbers has been growing rapidly and is probably now much higher.

Although pension schemes are not set up under UK-style trust law, pensions legislation places clear fiduciary duties on their controlling directors[52]. Prudential regulation of all these schemes and arrangements is undertaken by the Dutch National Bank, with the Netherlands Authority for Financial Markets (AFM) responsible for conduct of business regulation.

USA

The Employee Retirement Income Security Act 1974 (ERISA) places fiduciary responsibilities on the sponsor, and anyone who exercises discretionary control or authority over plan management or plan assets, of any pension scheme to which employers contribute (and which receive tax benefits). Anyone who provides paid investment advice also has such a responsibility[53].

Traditionally USA schemes were final salary trusts. DB provision has been shrinking as elsewhere, although constrained by difficulties in terminating schemes. The move from final salary has been to hybrid (cash balance) as well as DC. Employers were already moving to DC before 1980 but were constrained by the absence of tax relief on employee contributions. In that year a change to the tax code enabled so-called '401k' schemes - these have since become predominant[54]. They are individual

[51] Der Nederlandsche Bank statistics – 2007 for trust-based, and 2005 for contract-based.
[52] Pensions Act of 7 December 2006, Article 105
[53] Plan fiduciaries include, for example, plan trustees, plan administrators, and members of a plan's investment committee.
[54] The name refers to Section 401k of the US tax code that since 1980 has allowed these plans. While a different section of the tax code (403b) applies to some not for profit entities, the

pensions savings accounts available only to employees (including the self-employed) with rules established by USA tax legislation, as well as ERISA. Employees must contribute and employers commonly do, but their contribution must be on a matching basis. There are a variety of designs, most familiar elsewhere, but there are also employee stock ownership plans where some of the employer contributions take the form of its own stock. Participants direct the investments in around 84% of the plans with a further 4.5% of plans where participants direct only the investment of employee contributions.

Not all DC provision is through 401ks, as neither a profit sharing plan, where employers contribute a share of their pre-tax profits, nor a money purchase plan where employee benefits are pooled and returns smoothed, complies with 401k rules. Such plans are now mostly offered in combination with a 401k plan to enable (tax relieved) employee contributions. Some other DC plans continue which are employer funded (although employees can make contributions without tax relief and a few do). In addition, individuals can take out contract-based individual retirement accounts (IRAs). These are not caught by ERISA so long as they are standard products and the employer makes no kind of contribution (except to payroll administration costs) and provides no form of endorsement.[55] Employer-sponsored IRAs are a small part of the market.

There are some 48,000 DB and 630,000 DC schemes[56], of which some 430,000 are 401k plans and some 67,000 plans have 100 or more participants. Of the 114 million memberships in 2005, 2005 memberships were 27% DB, 9% cash balance and 64% DC. The total memberships are 42 and 72 million for DB and DC respectively, although many members belong to both. Regulatory responsibilities are divided between the Employee Benefits Security Administration (EBSA) of the Department of Labor and the Internal Revenue Service, with the Pension Benefit Guarantee Corporation having a regulatory role in relation to employer default on DB plans.

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provisions are similar and the term 401k is generally considered to apply to all plans of this nature.

[55] Clarification to this effect provided (at length) in the regulator's Interpretive Bulletin 2509.99-1

[56] With more than one participant.

Appendix 3 – Supporting Tables

Table 1: generic rules for pension products

	Vesting	Transfers pre-retirement	Options on retirement
UK	2 years for acquiring right to a deferred pension. 3 months to acquire right to transfer out.	Member entitled to transfer to another scheme. Scheme can only force transfer by buying an annuity.	Up to 25% tax free lump sum. Pension paid by scheme or insurance annuity bought – general preference for the former
Ire	2 years	Member entitled to transfer to another trust-based scheme, or, with under 15 years service to a PRSA. Employer can require some deferred members with balances under €10,000 to transfer to a scheme to which member is entitled to transfer. PRSA balances can be transferred into a trust-based scheme.	Can take as a lump sum, although only a certain potion is tax-free, or take as an annuity (bought or scheme-paid). Many DB schemes tend to buy annuities rather than payout. Alternatively, members with AVCs or PRSAs, or directors of the employer can instead use an approved retirement fund, which effectively provides a drawdown facility. Members of PRSAs can keep the account open and drawdown at will so long as they stop contributions and start drawing down by age 75.
Aus	Immediate for mandatory employer contributions, employee contributions, and income thereon: for other benefits can be phased in over some years.	Member entitled to transfer accrued 'minimum' benefits[57] to another licensed scheme, approved deposit fund or retirement savings account that will provide an equivalent level of entitlement, Other benefits can broadly be removed from the system at will. Transfers allowed even where accrual is continuing in original scheme (but	Employers can offer 100% lump sum, annuities or a roll-over to an approved deposit fund, eligible rollover fund or within the scheme itself.

[57] ' Minimum benefits' are defined as benefits accruing from employee contributions and mandatory employer contributions.

		scheme can require up to Aus$5,000 to be left behind).	
Ge	5 years and at least 30 years old	Members generally have (since 2005) an entitlement to transfer out but this is restricted by detailed rules and depends on the precise nature of the scheme.	Life annuities or scheme payout. Income drawdown permitted so long as no more than 3.6% of the capital is paid each year and annuitisation takes place by age 85
Nl	Generally 1 year	Deferred members are entitled to transfer out to another pension scheme, as do DC members at the point of retirement. Scheme can (if allowed by scheme rules) convert into a lump sum the benefits of members deferred for over 2 years if the eventual pension would be less than €400 a year (but only if the member has not already requested a transfer).	No lump sum allowed and pension has to be paid out by the pension scheme or through a life annuity.
USA	Immediate vesting for employee contributions and all contributions to 401k plans. For DB schemes and DC schemes without mandatory employee contributions: 5 years, or spread over 4 years from year 3 [58]. All benefits vested upon full or partial plan termination.	DB schemes are not required to allow transfers, and tend not to. Other types of schemes generally have to allow transfers to other schemes or individual retirement accounts (IRAs). DC schemes can transfer out deferred members to under $5,000 into an IRA without consent.	All schemes can offer the benefits as 100% lump sum, income drawdown, rolled over into another fund or an annuity. DB pensions must offer a life annuity (paid from the scheme or outsourced) as must money purchase DC schemes. Money must start being paid out as pension from age 70.5.

[58] 20% vesting after 3 years with 20% vesting each year thereafter to produce full vesting after 7 years - an approach rarely used by DB schemes.

Table 2: regulatory requirements applying to DB product design		
	Revaluation or Indexation required	**Ability to change scheme design**
UK	Revaluation (deferreds) capped at 5% and indexation (pensioners in payment) capped at 2.5%	Can only change retrospectively with actuarial confirmation that members are no worse off or by members agreeing to changes. Changes to future terms must be subject to (non-binding) consultation
Ire	Revaluation only, capped at 4%	A scheme amendment that detrimentally affects the accrued rights of members should only be agreed by trustees in "very exceptional" circumstances.
Aus	None required – indeed scheme is only responsible for post-retirement income if the member so elects.	Most schemes can only accrue new benefits if they have 50 or more members. Any change affecting accrued benefits must either have the consent of all members or protect the accrued rights. For instance, if benefits are moved into a DC scheme, the accrued benefits would need to be protected from adverse investment performance by reserving or an employer guarantee[59].
Ge	No revaluation of deferred benefits. Pensions in payment should be reviewed at least triennially and increases granted to reflect inflation where affordable to the sponsor – a provision that is interpreted fairly liberally. Schemes are not required to reserve for such increases.	Retrospective changes to accrued benefits not possible, except that funding arrangements for book reserve schemes can be changed (without changing the promise)
Nl	None required, but if provided revaluation and indexation must be the same	An employer may change the pension agreement without the consent of the employee if allowed for in the scheme rules and, additionally, the situation is one of such a weighty interest on the part of the employer that the standards of reasonableness and fairness dictate that the interest of the employee that would be damaged by the change must yield to the interest of the employer. In the event of a change to a pension agreement, accrued benefits may only be reduced if the

[59] APRA Superannuation Circular I.C.4

		scheme has no reasonable prospect of restoring scheme funding up to the level of technical provisions within one year.[60] In the last eventuality the reduction in benefits must be restored should the scheme's finding level recover.
USA	None required	Most schemes can only accrue new benefits if they have 50 or more members. Legislation allows plan designs to be changed but a plan amendment cannot reduce accrued benefits. Advance notification (45 days written notice) to plan participants is required if, as a result of the amendment, the rate that plan participants may earn benefits in the future is significantly reduced. Other legal requirements have to be satisfied, including prohibitions against age discrimination. In some cases, following a change to a cash balance plan formula, the benefit earned under the old formula may exceed the amount determined to be the benefit under the new formula. In this situation, a member might not earn any additional benefits until the benefit under the cash balance plan formula exceeds the benefit earned under the old formula.

[60] Pension Act of 7 December 2006, Articles 19, 20 and 134

Table 3: regulatory requirements applying to DC design rules		
	Special requirements	**Scope for avoiding fiduciary obligations**
UK	None, other than for contract-based stakeholder pensions which have a charge cap and must be 'life-styled' close to retirement.	Can be done by establishing a group personal pension or group stakeholder pension arrangement.
Ire	Employers must make a 'substantial' contribution to trust-based plans to be eligible for tax relief. There is a charge cap for standard PRSAs of 5% of contributions and 1% of assets. All PRSAs must have a default investment strategy certified by a PRSA actuary.	Can be done by establishing a group retirement annuity account or PRSA.
Aus	For balances under Aus$1,000 and accounts in respect of 'lost' members, administrative charges, fees etc may not reduce the value of the capital, which necessitates scheme maintaining a reserve to fund these costs when member balances cannot. However, the accounts of lost members can be transferred to a separate roll-over fund. Employers have to provide employees with a (limited at least) choice of scheme (but not fund). Schemes can make specified types of hardship payment out of accrued benefits	Either: place employees in a contract-based Retirement Savings Account (RSA). These have to provide a guaranteed minimum return and hence are invested conservatively and give much lower returns than a standard pension fund. Or: provide employees with a choice of public offer schemes which take on the fiduciary responsibility although the employer still chooses a default scheme.
Ge	Only allowed with underpin of minimum return guarantee and regulatory maximum guarantee for funded schemes. Indexation requirement applies in theory although in practice guaranteed and with profits returns would be sufficient to provide this. Some restrictions on (tax-deductible) maximum size of contributions.	Can use a direct insurance arrangement, or pensionskasse (although this has some residual liability attached)
Nl	Effectively impossible in industries with mandatory pension provision, except for 'Collective DC' which targets a similar level of benefits to the industry-wide DB scheme, at a similar (or greater) cost. In other industries scheme design must effectively group contribution rates into 5 year and 10 year age bands such that they are actuarially equivalent. In other words, they must increase with age such	In industries without mandatory provision can offer an insurance company provided contract-based arrangement.

	that two plan members with identical salaries but different ages must purchase the same euro amount of normal retirement pension with the current year's contributions.	
USA	Only 401k plans allow tax deductible employee contributions - such contributions are mandatory. The 401k rules, however, do not allow pooled DC (known as money purchase) and constrain how employer contributions are made, e.g by not allowing profit sharing. 401k plans can provide loans to members or make hardship payments in specified circumstances if allowed by scheme rules. Tax reliefs for 401k's depend on the scheme not over-favouring better paid employees through non-discrimination rules (for employers with 100 plus employees). They can be avoided by implementing a safe-harbor scheme, which comes with (fairly mild from the UK perspective) constraints on investment (see section 5 below).	Can only avoid ERISA fiduciary responsibilities by offering independent retirement accounts (which are a contract between employer and insurer) in a way that secures exemption from ERISA, e.g no special features, no employer contribution, no employer payment of scheme costs (except payroll deduction costs) and no active promotion.

Table 4: regulatory requirements applying to DB benefit security (excl investment and scheme funding)			
	Employer liability at (solvent) wind-up	**Pension guarantee or compensation scheme**	**Release of surpluses and caps on surpluses**
UK	Liable to buy out full benefits using bulk annuities. Corporate transactions that might reduce ability to do so subject either to risk of subsequent application of 'moral hazard' powers or a clearance process.	PPF, funded by flat rate (20%) and risk-based (80%) levy on the scheme and providing compensation equivalent to 60-70% of benefits for the average scheme. Levy averages out at 0.08% of asset values	Can only return to employer where scheme funded to buy-out level and trustees consider in beneficiaries' interests. No cap on surpluses.
Ire	Morally obliged to meet the minimum funding requirement which is equivalent to the cost of buying out pensioner benefits in full with annuities, and transferring out other benefits at the mandatory minimum level which is determined by the actuarial formula outlined in Table 5 below[61], plus the costs of winding up. Strictly speaking, there is no obligation in law to meet the full cost of wind-up. However, the liability is not unlimited as schemes can reduce members' accrued benefit entitlement in the event of a financial shortfall that cannot be recovered safely within a reasonable period	None	No explicit regulation and hence determined by scheme rules. Allocation of surpluses in ongoing schemes at trustees' discretion. In the case of wind-up all liabilities need to be bought out and scheme rules then determine whether surplus can be used to augment benefits or pass to the employer (or both). Contributions can be reduced when scheme in surplus. Surpluses in excess of 10% need to be notified to the tax authority who may require distribution.
Aus	Liable to pay out (by lump sum or other	None	Can be released by reduction in contributions or

[61] Set out in Actuarial Standard of Practice PEN-2 published by the Institute of Actuaries in Ireland

	means agreed with the member) full termination value of minimum requisite benefits (MRB)[62] . Although additional redundancy benefits may be payable at this point, and MRB is likely to be less than full vested benefits the employer does not have to fund these amounts (unless the trust deed so requires)[63].		repatriation to the employer (with return on tax concessions on the original contributions). Any repatriation must be "reasonable having regard to the interests of both the employer and beneficiaries", requires two thirds support of trustees and three months consultation with members. No cap on surplus but cap exists on maximum tax-deductible contributions each year - therefore deficit correction payments may not all be tax-deductible
Ge	Employer fully liable to make payments as they fall due out of a book reserve scheme and to fund deficits in a pensionsfond. Only minimal liability to pensionskasse once premiums have been paid.	Guarantee scheme (PSV) funded by levy on employers, covering vested liabilities (excluding any indexation not covered by scheme rules) of book reserve schemes, and the unfunded liabilities of funded schemes[64]. Levy of some 0.3% of guaranteed obligations for book reserve schemes – around 0.07% for other funded schemes.	For book reserve schemes surpluses automatically unwind where payments made less than those reserved for. Return of surplus from contractual trust arrangement unregulated. Funded pension schemes cannot return surpluses Surplus limited only by maximum pension rules

[62] Minimum Requisite Benefits (MRB) are the DB benefits bought since 1994 by the (9%) mandatory employer contribution and any employee contributions, plus the provision in 1994 for pre-1994 benefits revalued using a specified index. They are commonly less than the full vested benefits, even for members who joined after 1994 and for most funds much less than the aggregate full vested benefit taking account of benefits accrued before 1994. In 2003 the regulator (APRA) found at least one scheme that was funded to at least MRB that was 60% funded for full vested benefits.
[63] A survey has shown that 48% of the 27 plans responding to a question about whether the employer-sponsor is legally bound to make good any deficit in a plan, indicated that they believed that they had such an obligation – Australian Securities and Investment Commission (2003) *Financial Reporting by Corporate Sponsors of Defined Benefit Superannuation Plans*. ASIC Media Release, 21 August 2003.

[64] As with other guarantee/compensation schemes there is also a cap on guaranteed benefits and disallowance of recently granted increases.

Nl	Employer can only reduce or discontinue premiums required by the scheme 'in the event of a drastic change of circumstances'. Employer must continue providing scheme if in mandatory provision industry but can withdraw from the industry without retaining an ongoing liability.	None	Where schemes give conditional indexation, contributions can only be used to reduce surplus if some indexation is given as well. An employer may change the pension agreement without the consent of the employee only if the pension agreement allows it and "the situation is one of such a weighty interest on the part of the employer that the standards of reasonableness and fairness dictate that the interest of the employee that would be damaged by the change must yield to the interest of the employer"[65] Employer must consult employee representatives if moving to an insurance arrangement.
USA	Employer liable for annuity buy-out cost of meeting the full liabilities, unless it can show that it is in a distressed condition in which case PBGC takes over the plan and levies a special fee of $1250 a participant a year on the employer for the next three years. PBGC can secure involuntary termination of a scheme where it is concerned that potential loss to the PBGC on subsequent termination will substantially increase, e.g because of re-structuring by employers	PBGC, pays normal benefits at retirement subject to a cap and restrictions on recently granted increases. Funded by part flat rate ($33 per participant) part deficit-related levy on the employer, using special formula for calculating deficits. The annual levy income of $1.6 billion represents around 0.07% of DB assets.	Can only return to employer once the scheme is wound up and all benefits (including unvested benefits) have been bought out. But scheme can make a qualified transfer of surpluses to a related health benefits account. Cap on surpluses of around 150% of legislatively defined full funding – any surpluses returned above this level subject to 50% tax.

[65] Pensions Act (of 7 December 2006) article 19

Table 5: regulatory requirements relating to DB funding				
	Funding requirements inc solvency buffers	**Discount rates**	**Recovery periods allowed**	**Valuation of transfers out pre-retirement**
UK	Assets must cover technical provisions, an actuarially based valuation of liabilities on 'prudent' assumptions chosen by trustees. 'Prudence' needs to be interpreted taking account of regulatory trigger points (see next column).They are expected to be stronger where the employer is weaker, hence providing a kind of (unquantified) solvency buffer.	Trigger point set at IAS 19, (effectively 5% rate) but rates used in practice most commonly in 5-5.5% range.	No limit, but should be as short as 'reasonably affordable' – regulatory trigger point at 10 years	Transfer valuation according to actuarially calculated cash equivalent, likely to be below member's share of scheme funding
Ire	A discontinuance standard. Schemes must be fully funded to buy out pensioners with annuities and to provide transfer values to non-pensioners calculated according to a formula mandated in actuarial standards. No solvency buffers.	For non- pensioners, set at 4.5% adjusted to reflect actual risk-free rate for benefits post-retirement, 7.25% for period over 10 years from retirement and on a sliding scale between these two for years within 10 years of retirement. This gives about 5.3-5.5 % for 45 year old member)	3 years beyond which regulatory consent needed (few cases in practice)	Transfer value formula prescribed and aligns with the funding standard. Members therefore get their 'share' although this is less than buy-out.
Aus	Schemes must have sufficient assets to cover a best estimates valuation of the cost of the current scheme discontinuance value of	None defined, nor needed except for period between valuations for which	5 years for deficit against MRB, with actuarial control of the scheme, including	Transfer values determined according to actuarial standard which aligns with the funding

	meeting the liabilities in relation to members' MRB (see note 10 to Table 4). This valuation must take account of likely (negative) changes over the following three years. Where this valuation method shows a deficit against the termination value of full vested benefits the trustees are encouraged to recover the position[66] but have no power to enforce deficit recovery contributions. Actuaries have considerable latitude in the methods and assumptions they use.	Actuarial Profession GN461 suggests best estimates of investment performance adjusted for likely risk during the period.	investment and benefit payments, until deficit cleared. No limit for deficits against full vested liabilities – nor can such a recovery plan be imposed on the employer.	standard. This is a best estimates standard and so values will be relatively low.
Ge	No requirement to fully fund book reserve schemes with earmarked assets (average funding 50%) but full liabilities calculated by regulatory formula must appear in employer accounts[67]. Funded pension schemes must be funded to 104.5% of their technical provisions calculated according to a legislative formula, and hold solvency margins on top that are adequate according to the regulator's stress testing scenarios.	Book reserve schemes: 6% currently, moving to IAS19[68] Pensionsfonds: risk free rate Pensionskassen: the discount rate set at the time of employer contributions (currently 2.25% but up to 4% on earlier contributions).	Deficits not a problem for book reserve schemes. For funded schemes: immediate recovery if funding drops below 100%, 3 years if below 104.5%	Transfer values at termination value from or into funded schemes. Transfers out of book reserve schemes at funding level value (but given requirements for funded schemes this would effectively only cover transfers to other such schemes or direct to employee personal DC pension)
Nl	Schemes must have assets of at least 105% of	Risk free rate (around 4-	3 years for TPs, 15 years for	Transfer value calculated in

[66] The regulation of trustee risk management as applied by APRA appears to have the effect of requiring trustees to identify where reserves are needed against shortfalls and hence to press for funding above 100% of full vested benefits.
[67] Unusually, the formula assumes membership of scheme from the later of 30 or the date of joining employment (not the scheme).
[68] Forthcoming changes to German accounting law will reduce this to a market-related rate aligned with IAS19.

	technical provisions, valued using a mandated discount rate. They must hold solvency buffers on top designed to give a 97.5% probability that assets remain sufficient. This gives a buffer of 25-30% for a scheme with 50% equities.	4.2%)	solvency buffers	same way as technical provisions, which means that transfers can take place at below the funded level, but in most industries they can only be made to another DB plan which has to abide by funding legislation.
USA	Schemes must be fully funded using assumptions set by the regulator, covering discount rate and mortality. In calculating funding levels schemes can apply a two-year smoothing to asset and liability values.	3 year average performance of high quality (AA or better) corporate bonds – hence at least as strong as IAS 19	7 years (except airlines). Schemes funded below 80% subject to restrictions on what they can do, which become draconian below 60%.	No entitlement - legislation implies that any transfers must be valued in the same way as for scheme funding

Table 6: regulatory requirements applying to the governance of trust-based schemes				
	Representation	**Fiduciary qualifications/ capability**	**Risk management, inc internal controls**	**External scrutiny**
UK	⅓ member-nominated	Generic legal requirements supported by detailed regulatory code of practice. No sanctions for failure to comply although failure may be used as evidence where legislative breaches found	Required to have adequate internal controls – with (Pensions Regulator) recommendation that risk management should underpin these.	Annual report (covering specified information) and accounts has to be prepared and audited but not published
Ire	For schemes with 50 plus members, or directly invested schemes with 12 plus: if the trade union or 15% or more of members require it, there should be 50% MNTs.	Schemes must have trustees, or employ or enter into arrangements with advisers who between them possess, the qualifications and experience specified in regulations. Where investment not out-sourced must seek regulatory approval of a trustee with competence to discharge this role. Trustees should undergo training appropriate to their experience within a reasonable time of their appointment and from time to time thereafter, and the annual report must state what training has been received	Required to take fiduciary responsibility for annuitisation process. Otherwise the only explicit requirements are that the statement of investment principles should cover risk management of investment and the annual report must state that there is a satisfactory process for receiving payable contributions.	As UK
Aus	Usually 50% nominated trustees or directors of corporate trustee. Representational policy councils required for public offer schemes	Extensive requirements on the competence of trustees as a condition of licensing, supported by code of governance. and trust processes for	Evidenced risk management strategy, and plan to be maintained and reviewed annually. For public offer funds,	Published annual accounts and audit. Trustees expected to undertake regular

	with an independent corporate trustee (rather than 50:50 trustees as above)	periodic checking.	trustee must be a corporate entity with sufficient resources to cover potential risks.	checks of governance against the code.
Ge	Many employers required to have one third employee representatives on their supervisory board, who hence will have some oversight of book reserve schemes. Funded schemes must have supervisory board (as well as governing board) which must be elected from the membership which appoints the independent trustee responsible for the guardianship of the technical provisions. Members' meetings influence profit distributions	Funded schemes must be licensed with the regulator, and information must be supplied necessary to judge the good repute and qualification of directors and managers prior to their appointment; a prerequisite of professional qualification shall be sufficient theoretical and practical knowledge of insurance business and management experience. For instance, the director or manager can furnish proof of having held a managerial position with an insurance undertaking of comparable size and type of business for at least three years.	Reserves should be held that cover operational risk as well as business risks, implying that these need to be identified and managed. Outsourcing contracts to be approved by the regulator. Independent trustee must approve all with profits distributions to members	Providers must publish annual accounts and lodge them with the regulator. Separate accounts must be kept for the technical provisions
Nl	Equal employer and employee representation for industry-wide schemes and at least 50% member representation for company schemes. Industry-wide Schemes and company schemes where members have requested it or with over 1,000	Rules set out required expertise relating to the operation of the scheme's business. Directors etc must be of trustworthiness beyond question as determined by the regulator.	Detailed regulations covering expected processes for the control of business processes and business risks.	Annual report and audited accounts Self-regulatory governance code expects schemes to establish a separate oversight board to apply scrutiny.

	pensioners unrepresented among the directors must have a scheme member's council which must be consulted on most issues.			
USA	None, but members can sue fiduciaries for breach of ERISA requirements	Fiduciaries must apply "the care, skill, prudence, and diligence under the circumstances then prevailing that a prudent man acting in a like capacity and familiar with such matters would use in the conduct of an enterprise of a like character and with like aims"	Sufficient to meet ERISA requirements – does not explicitly require risk management processes. Explicit requirements on choice of annuities.	Annual financial report has to be lodged with the regulator and must include full funding details (for DB or hybrid plans).

Table 7: regulatory requirements applying to scheme investment				
	Investment in the sponsor	**Restrictions on different on types of investment (DB and DC)**	**Additional requirements for DC investments**	**Provisions relating to fiduciary obligations of trustees/employers**
UK	No more than 5%	General requirement to diversify. Derivatives may only be used for risk management. Encouragement to comply with Myners Principles.	None, except for stakeholder pensions where life-styling is required	Trustees allowed to delegate fiduciary responsibility (only) to investment manager. No requirement for default fund except for stakeholders. Explicit legislative safe-harbour for stakeholder schemes.
Ire	No more than 5%	As UK.	Standard PRSAs may only invest in pooled funds. Scheme actuary must certify prudence of the PRSA default fund.	Requirements for due diligence in appointing and monitoring investment managers, including an investment management agreement. Default fund effectively required for all DC schemes.
Aus	No more than 5%	For pooled funds, where investment choice not offered, trustees solely responsible for investment decisions and the composition of the fund's investments as a whole including the extent to which the investments are or are not diversified and the associated risks. There must be precise investment objectives with formal asset allocation ranges strongly encouraged. Many of these requirements apply also to schemes with fund choice.	Pooled funds strongly encouraged to have a reserving strategy to smooth investment returns to members. Schemes must also have reserves to cover future administrative and payout costs. Reserves are regulated by DB style prudential regulation and distributions between members covered by fairness rules.	Safe-harbour where investment in line with properly documented and compliant investment strategy. If investment choice offered, strict regulations on how funds are described and managed and information to members. There must be a default fund (can vary between classes of members)

Ge	Inherent in book reserve schemes[69]. Limit of 5% for other schemes.	No restrictions for book reserve schemes or pensionsfonden other than general diversification requirement. But the requirement in the latter case for stress-tested solvency margins penalises the holding riskier asset classes. Pensionskassen cannot invest more than 35% of the assets should be invested in assets with 'an elevated level of risk', i.e equities, property, hedge funds etc. Implicit legal requirement to use ALM..	Pensions companies are liable for failures to deliver minimum returns and must establish reserves to cover against potential losses	None explicit – only relevant to profits made above minimum returns. Decisions on investment of the technical provisions must be made by the independent trustee (members appointed)
Neths	No more than 5%	DB (and collective DC) schemes must hold regulatory specified solvency buffers to cover the downside risk on growth investments.	Prudent person principle applies to all schemes (including contract-based) and hence responsibility retained for ensuring prudent investment unless members given choice of funds.	Provider must at least annually advise members on participant directed investment allocation in relation to the duration of the period up to retirement date so as to continue to reduce the investment risk as the pension date approaches.
USA	10% limit on DB investment but no limit on DC so long as scheme rules	Fiduciaries required to "diversify scheme investments so as to minimize the risk of large losses, unless under the circumstances it is clearly prudent not to do so".	None (except contribution restrictions mentioned in Table3.)	Safe harbor only available (for schemes with 100 plus members) where default fund is offered and is of one of three designs, which are either balanced or life-styled.

[69] The deficit for a book reserve scheme could be seen as form of self-investment.

	allow for it, except for safe-harbour schemes where a 5% limit applies			

Securing the future of pensions

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