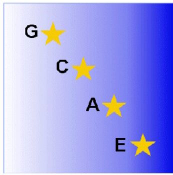

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Security Standards for Occupational Pension Schemes in the European Union

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PREFACE

In this third update of the report three new countries are added: Estonia, Cyprus and Hungary.
Important update in security takes place in Ireland and United Kingdom.
The other countries reported no significant changes or even no updates at all.
In the Netherlands important changes in security are under review.

INTRODUCTION

The first report on solvency standards was published in 1995. The first two editions of this report were titled "*Solvency Standards for Occupational Pension Schemes in the European Union*". The word 'solvency' is being used increasingly to describe the extent to which the assets covering a benefit promise are adequate to guarantee payment of these benefits. The word 'security' gives a better description of the extent to which a combination of the method of pension provision and minimum criteria for reserving provides cover for accrued benefits. The funding vehicles and the methodology for financing occupational pension schemes vary widely between the countries in Europe. Consequently, the editors consider that the term "security" better covers the content of this report.

The object of this survey is to give an overall picture of the way in which the different countries in Europe secure occupational pension benefits. Security in this context means that the members are given a guarantee that the retirement benefits promised are paid, and continue to be paid, regardless of any external events. Such external events might include the insolvency of the employer operating the plan, the failure of any independent provider of benefits, or fraud. Security for beneficiaries is normally considered to imply a guarantee of the continuation of payment of benefits. For leavers with vested rights, it is the guarantee that deferred pension rights will be paid on retirement. In respect of active employees, we usually consider protecting those benefits that are deemed to be earned in respect of past service, giving priority to those employees whose rights have been vested.

In most of the countries of Europe, occupational pensions represent an important part of retirement provision, albeit to differing degrees. Ensuring that these benefits are properly secured is therefore vital for the viability of the system of retirement provision and to the stability of the country as a whole.

Directive 2003/41/EC on the activities and supervision of institutions for occupational retirement provision

The European Commission recognises the common interest and in 2003 the Directive for Institutions for Retirement Provision was adopted.

The directive is meant for institutions which are separated from any sponsoring undertaking and which operate on a funded basis for the sole purpose of providing retirement benefits.
The next articles published in the directive are important.

(18) In the event of the bankruptcy of a sponsoring undertaking, member faces the risk of losing both his/her job and his/her acquired pension rights. This makes it necessary to ensure that there is a clear separation between that undertaking and the institution and that minimum prudential standards are laid down to protect members.

(26) A prudent calculation of technical provisions is an essential condition to ensure that obligations to pay retirement benefits can be met. Technical provisions should be calculated on the basis of recognised actuarial methods and certified by qualified persons. The maximum interest rates should be chosen prudently according to any relevant national rules. The minimum amount of technical provisions should both be sufficient for benefits already in payment to beneficiaries to continue to be paid and reflect the commitments that arise out of members' accrued pension rights.

(28) Sufficient and appropriate assets to cover the technical provisions protect the interests of members and beneficiaries of the pension scheme if the sponsoring undertaking becomes insolvent. In particular in cases of crossborder activity, the mutual recognition of supervisory principles applied in Member States requires that the technical provisions be fully funded at all times.

(29) If the institution does not work on a cross-border basis, Member States should be able to permit underfunding provided that a proper plan is established to restore full funding and without prejudice to the requirements of Council Directive 80/987/EEC of 20 October 1980 on the approximation of the laws of the Member States relating to the protection of employees in the event of the insolvency of their employer (1).

The next articles of the same directive are relevant for the solvency standards in the European Union.

Article 6
Definitions
For the purposes of this Directive:
(a) 'institution for occupational retirement provision', or 'institution', means an institution, irrespective of its legal form, operating on a funded basis, established separately from any sponsoring undertaking or trade for the purpose of providing retirement benefits in the context of an occupational activity on the basis of an agreement or a contract agreed:
— individually or collectively between the employer(s) and the employee(s) or their respective representatives, or
— with self-employed persons, in compliance with the legislation of the home and host Member States, and which carries out activities directly arising therefrom;

Article 8
Legal separation between sponsoring undertakings and institutions for occupational retirement provision
Each Member State shall ensure that there is a legal separation between a sponsoring undertaking and an institution for occupational retirement provision in order that the assets of the institution are safeguarded in the interests of members and beneficiaries in the event of bankruptcy of the sponsoring undertaking.

Article 15
Technical provisions
1. The home Member State shall ensure that institutions operating occupational pension schemes establish at all times in respect of the total range of their pension schemes an adequate amount of liabilities corresponding to the financial commitments which arise out of their portfolio of existing pension contracts.
4. The calculation of the technical provisions shall be executed and certified by an actuary or, if not by an actuary, by another specialist in this field, including an auditor, according to national legislation, on the basis of actuarial methods recognised by the competent authorities of the home Member State, according to the following principles:
(a) the minimum amount of the technical provisions shall be calculated by a sufficiently prudent actuarial valuation, taking account of all commitments for benefits and for contributions in accordance with the pension arrangements of the institution. It must be sufficient both for pensions and benefits already in payment to beneficiaries to continue to be paid, and to reflect the commitments which arise out of members' accrued pension rights. The economic and actuarial assumptions chosen for the valuation of the liabilities shall also be chosen prudently taking account, if applicable, of an appropriate margin for adverse deviation;
(b) the maximum rates of interest used shall be chosen prudently and determined in accordance with any relevant rules of the home Member State. These prudent rates of interest shall be determined by taking into account:
— the yield on the corresponding assets held by the institution and the future investment returns and/or
— the market yields of high-quality or government bonds;
(c) the biometric tables used for the calculation of technical provisions shall be based on prudent principles, having regard to the main characteristics of the group of members and the pension schemes, in particular the expected changes in the relevant risks;

Article 16
Funding of technical provisions

1. The home Member State shall require every institution to have at all times sufficient and appropriate assets to cover the technical provisions in respect of the total range of pension schemes operated.
2. The home Member State may allow an institution, for a limited period of time, to have insufficient assets to cover the technical provisions. In this case the competent authorities shall require the institution to adopt a concrete and realisable recovery plan in order to ensure that the requirements of paragraph 1 are met again.
3. In the event of cross-border activity as referred to in Article 20, the technical provisions shall at all times be fully funded in respect of the total range of pension schemes operated. If these conditions are not met, the competent authorities of the home Member State shall intervene in accordance with Article 14. To comply with this requirement the home Member State may require ring-fencing of the assets and liabilities.

Article 17
Regulatory own funds
1. The home Member State shall ensure that institutions operating pension schemes, where the institution itself, and not the sponsoring undertaking, underwrites the liability to cover against biometric risk, or guarantees a given investment performance or a given level of benefits, hold on a permanent basis additional assets above the technical provisions to serve as a buffer. The amount thereof shall reflect the type of risk and asset base in respect of the total range of schemes operated. These assets shall be free of all foreseeable liabilities and serve as a safety capital to absorb discrepancies between the anticipated and the actual expenses and profits.
2. For the purposes of calculating the minimum amount of the additional assets, the rules laid down in Articles 27 and 28 of Directive 2002/83/EC shall apply.

The IORP requires a full funding in the case of cross-border activity. If there is no cross-border activity, an under funded position is allowed for a limited period of time.
As laid down in Article 17 (see above) a buffer is required, where the IORP carries the biometric risk and/or guarantees a given investment performance. The calculation of the buffer is described in article 28 of directive 2002/83/EC (see below)

Article 28
Required solvency margin
1. Subject to Article 29, the required solvency margin shall be determined as laid down in paragraphs 2 to 7 according to the classes of assurance underwritten.
2. For the kinds of assurance referred to in Article 2(1)(a) and (b) other than assurances linked to investment funds and for the operations referred to in Article 2(3), the required solvency margin shall be equal to the sum of the following two results:
(a) first result: a 4 % fraction of the mathematical provisions relating to direct business and reinsurance acceptances gross of reinsurance cessions shall be multiplied by the ratio, for the last financial year, of the total mathematical provisions net of reinsurance cessions to the gross total mathematical provisions. That ratio may in no case be less than 85 %;
(b) second result: for policies on which the capital at risk is not a negative figure, a 0,3 % fraction of such capital underwritten by the assurance undertaking shall be multiplied by the ratio, for the last financial year, of the total capital at risk retained as the undertaking's liability after reinsurance cessions and retrocessions to the total capital at risk gross of reinsurance; that ratio may in no case be less than 50 %. For temporary assurance on death of a maximum term of three years the fraction shall be 0,1 %. For such assurance of a term of more than three years but not more than five years the above fraction shall be 0,15 %.

Benefit cover method

In Europe various financing systems and vehicles exist to secure the benefits of the members in an occupational pension scheme. Four different systems exist:

1. Pay-as-you-go-systems
2. Book reserve
3. Pension funds / trustees
4. Direct insurance

In most of the countries more than one of these systems exist together.

1. **Pay-as-you-go systems.**
   In general in a pay-as-you-go system the current pension payments are paid from current premiums paid by the employers and/or the employees. In countries where this system is used, it is mandatory. In principle no funding is taking place. In the case of funding, it is only intended to stabilize the premium in the long term.
   The IORP Directive is not applicable.

2. **Book Reserve**
   The benefits are promised and paid directly by the employer, without recourse to an external institution. The liabilities are on the balance sheet of the employer. In the case of bankruptcy neither the benefits of the employees nor the benefits of the beneficiaries are guaranteed. In some countries insurance against insolvency is mandatory.
   The IORP Directive is not applicable.

3. **Pension fund / Trustee**
   The financing of the benefits is in a separate entity from the employer's company. This entity is a pension fund connected to one employer or an industry wide pension fund for a particular industry sector. In all the countries the accrued benefits should in principle be funded. In the case of bankruptcy of the employer the assets in the pension fund provide security for some or all benefits.
   In every country the pension funds have to report to a supervisor. In many countries the supervisor is the same as for the insurance industry.
   In some countries an insolvency margin is required.
   Also in some countries investment in the sponsor company is prohibited or limited.
   The IORP Directive is applicable.

4. **Direct Insurance**
   The benefits are provided by using insurance contracts. The employer and/or employee pay contribution to the insurer. The insurer pays the benefits arising from the insurance contracts to the beneficiaries.
   In accordance with EU rules, the supervisor monitors the insurer.
   The Life Directive is applicable.

Summary

This survey covers the following twenty countries of Europe:

Austria, Belgium, Cyprus, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Luxemburg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

All the countries, except Estonia, have defined benefit plans and eighteen out of the twenty have defined contribution plans. In some countries the defined benefit plans are insignificant and in others the defined contribution plans are insignificant.

Defined benefit plans

1. **Pay-as-you-go-systems.**
   This system is used in two countries.
   In France, a high proportion of retirement provision is operated on a compulsory, nation-wide basis through institutions whose continued existence is independent of the fortunes of individual companies.
   In Austria, it exclusively covers the pension benefits of professional associations with mandatory membership.

2. **Book Reserve**
   Ten countries use book reserve schemes.
   In Germany, Luxemburg and Sweden, employees are protected in the event of employer insolvency. Insolvency insurance is mandatory.
   The support funds in Germany are a kind of book reserve; the assets however are separate from the company.
   In Austria companies must maintain a direct holding of government bonds to back book reserved pension liabilities.
   In Finland, France, the Netherlands and Norway the use of book reserve is very rare or allowed only to special groups of employees.
   In Cyprus the banking sector uses book reserve.
3. **Pension fund / Trustee**
   In seventeen countries the financing of the pension liabilities takes place in a separate pension fund sponsored by the company, or in an industry-wide pension fund. In the majority of these countries the accrued pension liability has to be funded. In those countries where underfunding is allowed, the target is to be fully funded within a limited period. In the case of a fund becoming underfunded, the supervisor requires a recovery plan.
   In Germany and Switzerland insolvency insurance is mandatory, with the exception of “pensionskassen” in Germany. In the United Kingdom a Pension Protection Fund is established.
   The majority of countries have a supervisor to whom the pension funds have to report yearly.
   In nine countries the supervisor requires solvency margins. In some of the countries the rules are very specific. However, the actuarial methods and assumptions in the valuation of the benefits in these countries are very divergent. The real interest rate varies between 2% and 6%. This means that solvency margins in the different countries are not comparable. In some countries the solvency margin depends on the asset mix.
   Other safeguards exist in some countries, such as restricting investment in the employer, reporting and disclosure requirements and investment limits, reducing transfer payments in case of underfunding.
4. **Direct Insurance**
   All countries have direct insurance. The Insurance supervisors require solvency margins that are at least equal to the solvency margins lay down in the EU Third Life Directive. In the majority of countries the supervisor reduces the maximum interest rate in the last years.

Defined Contribution plans

Defined contribution plans exist in eighteen countries. The providers are insurance companies and in fourteen countries also pension funds. The insurance companies and the pension funds are supervised. In Germany and Switzerland the pension funds have mandatory insolvency insurance.

Conclusion

Security of pension rights is viewed as an important issue in all European countries. However, there is a wide range of requirements as regards minimum funding and/or the existence of compensation schemes.
In some countries additional requirements exist in case of funding in separate pension funds. Only four countries have insolvency insurance or a guarantee fund.

Austria

Company pension arrangements were traditionally fairly uncommon in Austria due to the generous level of State benefits. A Pensions Act was introduced in 1990 to encourage the establishment of occupational pension arrangements.

Both defined benefit and defined contribution schemes are found.

Occupational pension schemes are generally financed by one of four different vehicles, each of which is dealt with separately below.

Book reserves

Benefits are promised directly by the employer and are paid out of cash flow. Austrian companies are obliged to recognise the accruing liabilities in their balance sheet. The minimum liability that can be shown is that calculated according to the Austrian tax code, the requirements of which are as follows:

Valuation rate of interest	6%
Actuarial funding method	individual attained age
Other economic assumptions	no projection of benefits
Demographic assumptions	demographic tables "AVÖ 1999-P - Rechnungsgrundlagen für die Pensionsversicherung – Pagler & Pagler", or other appropriate tables

Note: pension promises granted prior to 31 December 1989 do not need to be recognised in full in the balance sheet but the amount of any non-recognition must be noted in the accounts.

The Company Pensions Act of 1990 required that Austrian companies operating a book reserve approach must cover at least 50% of the book reserve via a direct company holding of government bonds. There exists a 20-year transition period within which companies have to comply with this requirement, but only in respect of pension plans in existence in 1989. It effectively introduces a concept of minimum funding although the assets are held directly by the company. There is no insolvency insurance in place. In the case where the employer becomes insolvent the assets held to back the pension liabilities are used to meet the company's obligation to former and current employees.

Direct insurance

Benefits may be financed by the purchase of direct insurance contracts. Most of the insurance contracts are written on a tariff basis, whereby premiums are calculated using a 2,75% discount rate. In general the minimum financing method is the individual attained age method.

Pensionskassen

A Pensionskasse is a form of insured pension fund and falls under the supervisory requirements of the Austrian supervisory authority for Pensionskassen. The liabilities of a Pensionskasse must be fully funded. The method and assumptions to be used when calculating the liabilities are set out in a technical business plan, which must be agreed with the supervisory authority. The supervisory authority will, in general, only agree to a funding method that recognizes the liabilities over the active service period (individual entry age, current unit, attained age). The liabilities to be funded will include the full present value of pensions in payment and benefits for deferred pensioners.

The interest rate to be used for the calculation of the liabilities had to be for new contracts at

maximum 3,5%, but for old contracts it is between 3% and 6.5% depending upon the form of indexation. Demographic tables are normally “AVÖ 1999-P - Rechnungsgrundlagen für die Pensionsversicherung – Pagler & Pagler”, or other appropriate “generation tables”. The assets are valued at their actual market value.

Pay -as-you-go

There are some pension schemes that operate on a pay-as-you-go basis but these are almost exclusively for professional associations with mandatory membership.

Belgium

Company provided pension plans in Belgium have to be externally funded. The funding vehicles are (group) insurance or the self-administered pension fund (which can take different legal forms). Group insurance, in turn, can be further broken down into standard, individually allocated insurance with interest guarantee (the so-called “Branch 21” insurance) and collective unit-linked insurance without interest guarantee (the so-called “Branch 23” insurance).

For the three above-mentioned vehicles mandatory minimum funding requirements apply. For group insurance, these requirements stem from the Royal Decree of 17 December 1992, which has been modified by the Royal Decree of 30 April 1999. For self-administered pension funds, the Royal Decree of 15 May 1985, modified by the Royal Decree of 7 May 2000, sets the standards.

The market value of the underlying assets can not be less than:

- For Branch 21 group insurance, the accrued liabilities based on the insurer’s guaranteed tariff rates. Minimum tariff rates are currently based on MR or MK (men) and FR or FK (women) mortality tables and 3.75% interest, although most insurance carriers use 3.25%. Moreover, the accrued liabilities cannot be less than those obtained on the basis of the formula mentioned below with regard to Branch 23 insurance and self-administered pension funds.
- For Branch 23 insurance and self-administered pension funds, the accrued liability calculated as an ABO with currently an underlying discount rate of 6% and MR (for men) / FR (women) mortality tables. Moreover, 60% of any early retirement incentives provided by self-administered pension funds needs to be funded as well.

Other legal requirements with a view to monitoring and safeguarding the solvency of Belgian based pension plans include (a) the requirement to set up, on top of the above minimum reserve, a solvency margin as an additional buffer if the self-administered pension fund “insures” death in service and/or disability benefits, and (b) limited asset investment restrictions. Finally, there is also the reporting requirements vis-à-vis the supervisory control authorities (CDV/OCA).

Cyprus

Company pension arrangements are used to top up the social security benefit (compulsory cover) and are usually offered by government, semi-government large companies and Bank organisations and some private companies.

Defined Benefit

The majority of the government and semi-government schemes are defined benefit.

Pay-as-you-go

A pay-as-you-go basis for financing the occupational pension scheme is used for the employees of the Government Sector and in rare cases for other semi government organizations. It is mandatory and guaranteed by the state.

Book reserve

Banks finance their pension schemes on a book reserve basis. However there is no use of insolvency insurance.

Pension funds

The majority of the Pension funds are funded by the employers and are non-contributory. No insolvency insurance is used; neither a solvency margin is applicable. Further more there is an absence of a supervisor authority even though partial supervision is exercised by the Auditor General.

All defined benefit schemes have rules and regulation that need the approval of the Council of Ministers and then by the Parliament. This is due to the absence of a pension's legal framework. Once they have approved no real regulation is exercised apart from the publication of an annual report signed by an independent auditor and an actuarial report signed by an independent actuary. Furthermore companies that follow IAS 19 regulation are forced by the IAS to show their pension liabilities in the balance sheet.

Provident funds

The majority of retirement schemes in the private sector are provident fund style schemes with only a lump sum option at withdrawal or retirement. The Supervisor of Provident Fund who is also the Director of Social Insurance Department in the Ministry of Labour supervises these.

Denmark

The majority of occupational pension arrangements in Denmark are defined contribution plans financed via group insurance contracts.
Contributions are usually invested in endowment or deferred annuity contracts. The funding of these insurance contracts must comply with insurance company legislation and the bulk of contracts that commenced prior to 1 July 1994 are funded based on tariff premium rates calculated
using a 5% discount rate. As from 1 July 1994 all new insurances are to be calculated using a maximum interest rate of 3% per annum. The maximum interest rate is from 1 July 1999 reduced to 2% per annum for new business.

The insurance supervisory board supervises pension funds in Denmark.

Estonia

The pension system consists of three pillars:

- The 1st pillar: the state pension
- The 2nd pillar: the funded pension
- The 3rd pillar: the supplementary funded pension

The state pension is paid out of the social tax and is a pay-as-you-go system.

Subscription to the funded pension is mandatory for the persons entering the labour market, i.e. persons born in 1983 or later. The funded pension is voluntary for those born before the year 1983. By submission of a subscription application, person assumes a binding obligation – a person who has once subscribed will never be able to give up the funded pension.

Although the employer is the one withholding the contributions to the funded pension, the employee is still the actual payer. It means that the contributions are not connected with an employer and change of an employer will not prevent or affect savings for the funded pension.

In addition, the state will take part of the social tax that is used to finance today's state pension and move this to the personal account of the contributor. The state pension insurance component of the person, who has subscribed to the funded pension, is also respectively smaller.

A pension account is a special type of the securities account. The Estonian Central Register of Securities will keep account of person's subscription to a funded pension.

The Funded Pensions Act that entered into force in October 2001 assigned the Estonian Central Depository for Securities the task to maintain pension accounts as a subtype of securities accounts.

The Estonian Central Depository for Securities (Estonian CSD) as the registrar of the Estonian Central Register of Securities will calculate the number of pension fund units corresponding to the received amount to your pension account, and will transfer the money to the pension fund chosen by a person.

The Estonian Central Depository for Securities (ESCD) is an infrastructure vehicle of the securities market, which main functions are depositing of dematerialised securities, including units of mandatory pension funds, processing of information needed for realisation of securities transactions, performance of set-offs, registration of changes in ownership of securities, loans, pledges and other transactions concluded with the securities registered with the Estonian Central Register of Securities. The ESCD is a part of the Tallinn Stock Exchange (TSE) group, the strategic owner whereof is the Finnish HEX group, and the remaining shares whereof are held by major market participants of Estonia.

A person will not be able to receive the funded pension before the state pension. After the conclusion of the contract the fund transfers the amount contributed by the person to the insurer selected by such person. Payments are made in the form of annuities. Insurance companies that are going to pay out annuities face certain solvency requirements and they have to meet the conditions provided for in the Insurance Activities Act.

Finland

Supplementary occupational pension arrangements are in Finland typically defined benefit plans, which aim to top up the benefits provided by statutory schemes. Most of these schemes are arranged through pension funds but also group insurance contracts provided by life insurance companies are used. When group insurance contracts are used these schemes naturally comply with the funding and solvency requirements set down by the EU life insurance directives.

Most supplementary schemes are operated through employer specific pension funds or industry wide pension funds. For historical reasons industry wide pension funds have had to been fully funded but employer specific pension funds had been allowed to have deficit in their assets. New minimum funding requirements for both types of pension funds were set at the beginning of 1996 implying that also employer specified funds have to be fully funded by the end of 2010. The supervisory authority sets the calculation bases for valuation of liabilities. No requirements for solvency margins are set for pension funds. Regulations concerning investments of a pension fund are quite similar to the ones concerning life insurance companies added with restrictions as regards investment in the sponsoring company. The transition period will last until 2010. No compensation scheme or system of mutual liability exists.

In addition to the insured schemes and pension funds there are a marginal number of book-reserved schemes. These schemes should be fully funded according the accounting rules but no specific other rules on funding or solvency apply to these schemes.

France

In France the bulk of second pillar pension retirement benefits are provided through the various multi-employer industry-wide arrangements. Except for civil servants, public enterprises and non salaried professionals all mandatory salaried employees second pillar pension schemes are grouped under one of two organisations: ARRCO (for Non Cadres and Cadres employees and AGIRC for Cadres employees only).

As nationwide schemes, with compulsory affiliation, uniform rules and contribution rates, ARRCO and AGIRC could be viewed as extensions of Social Security old-age pension branch.

These ARRCO and AGIRC schemes, for historical reasons going back to the years after World War II, operate on a pay-as-you-go basis and there are no minimum funding requirements or compensation schemes. Nevertheless the present annual surpluses are vested in a Special Technical Reserve "Provision Technique Spéciale" for the year's deficits are foreseen. The size of these institutions, the fact that they operate in various industry branches and the fact that the pension rights are expressed in points whose cost of acquiring pension points and whose value can be adjusted accordingly to scheme situation (scheme projection) provide a good level of security to their members.

Top-up arrangements, generally defined benefit schemes promising benefits to senior executives, organised on an employer specific basis (on a voluntary basis for the employer according to the total remuneration policy of the company) are not subject to any minimum funding requirements, as such, nor are covered by any compensation scheme. They can be administrated on a book-reserved basis but presently book reserves are not tax deductible. They can also be funded through an insurance company or an Institution de Prévoyance. NB In some scarcer situations they can be funded through Institutions de Retraite Supplémentaires (IRS) since the August 8th, 1994 Law states that no new IRS can be established except when the actives beneficiaries of the plan sponsor company are to merge into Social Security, ARRCO and AGIRC schemes. The August 8th, 1994 Law who has transposed in France the EU Directives n°92/49 (non life) and n°92/96 (life) have set the various legal status of agreed "organismes assureurs". Moreover this Law has obliged all type of "Insurers" to fully reserve for all benefits accrued from August 8th, 1994. Insurers' companies must follow the insurance code regulations and solvency margin rules apply. Institutions de Prévoyance must follow the Social Security Code and similar solvency margin rules apply. Now Mutual insurance companies fall under similar solvency rules.

Régimes en points :

A specific type of pension scheme in France are the "Régimes de retraite collectifs en points" i.e. DC Group Point Pension Schemes. These DC schemes must be externally pre funded from the sponsor company. At present only insurers, Institutions de Prévoyance and lately Mutual insurance companies can run these point system schemes.

Two main features for these Group Point Pension Schemes provide security to their members:

1. The Point system
2. The legal framework these schemes fall under

1. The Point system

Beside the fact that these schemes are externally funded by an agreed insurance body, the fact that the benefit is expressed in points and not in Euros provides a degree of flexibility to operate the scheme.

This flexibility is in some aspects close to the way Anglo-Saxons pension funds operate:

- There is a mutualisation of technical gain and losses between actives, deferred and retirees
- One common pool of assets for all members (actives, deferred and retirees). I.e. the level of the pension does not depend of the assets market value at year of retirement.
- Discount rates retained to assess liabilities are conservative (insurance type rules) and therefore provide extra security margin.
- Assets are valued at book cost but each year the scheme must examine each security he has and see if there is a need to set a depreciation reserve for this security. This Provision pour Dépréciation Durable (PDD) system is not a global reserve on a whole asset class but an security by security reserve. Moreover the PDD proposed by the scheme must be approved by the scheme accountants (Commissaires aux Comptes)
- Point system allows flexibility in the accrual of pension rights: cost of acquiring a pension point and pension increases (point value increase) are set each year according to scheme balance sheet projections of assets and liabilities in the future years.

2. The legal framework these schemes fall under:

- Scheme' assets are totally segregated from the general portfolio of the "insurer"
    - In case of bankruptcy of the "insurer" these assets still belong to the scheme and the pension fund members are preferential creditors before the other policyholders of the insurer.
    - At least 85 % of financial results on scheme assets belong and are paid to the scheme fund. Distribution of financial results has done by granting additional points to scheme members. The distribution is at the scheme's discretion and there is no time limit to keep in the scheme fund these financial results. This deferred distribution of financial results option allows the scheme to increase or preserve the funding ratio "Assets / Liabilities".
- Pension liabilities must be fully funded and an evaluation must be conducted every year. If for two consecutive years the liabilities do not covered by the assets valued at book cost (accounting value in the balance sheet), the scheme is closed. The mutualisation between pension members is suppressed and the individual rights are converted in deferred or immediate life annuities with reduced benefits according to ratio "Assets / Liabilities".
- The insurer that runs the scheme is subject like for any other contract to the 4% solvency margin of liabilities in addition to the Special Technical Reserve (Provision Technique Spéciale) which is the reserve valued on a historical accounting basis of the scheme segregated assets.
- Moreover if the "Régime en points" is run by an insurer it benefits from the insurer's compensation fund (fonds de garantie des sociétés d'assurance) like any insurer's contract. Similar compensation funds mechanisms are under review by the Institutions de Prévoyance and Mutual Insurance companies.

Germany

Company pension arrangements in Germany are financed through one of five different vehicles; each is dealt with separately below.

Book reserves

Benefits are promised directly by the employer and paid out of cash flow.

German companies are obliged to recognise the accruing liabilities in their balance sheet. The minimum liability that can be shown is that calculated according the German tax code, the requirements of which are as follows:

Valuation rate of interest:	6%
Actuarial funding method:	Individual entry age with a minimum entry age of 28 (or 30 if the pension promise was granted prior to 01 January 2001)
Other economic assumptions:	No projection of benefits if not guaranteed at a fixed rate
Demographic assumptions:	Heubeck Richttafeln 1998
Turnover:	Allowed for by setting a minimum entry age to 28 or 30

Note: Pension promises granted prior to 31 December 1986 do not need to be recognised in full in the balance sheet, but the amount of any non-recognition must be disclosed (limited liability companies).

Companies operating a book reserved pension arrangement must participate in a compulsory insolvency insurance system operated through a central carrier known as the Pensions-Sicherungs-Verein AG. (PSV). The main features of insolvency insurance coverage under the PSV are as follows:

- In respect of active employees, vested benefits represent the past service portion of the benefits promised. Employees are considered to have satisfied the legal vesting requirements if they have attained the age 30 and have 5 years of pension promise; for pension promises granted prior to 01 January 2001 there is an interim arrangement until 01 January 2006. Active employees and deferred pensioners are covered if they meet these conditions at the date of insolvency or at the date of leaving the company. Pensioners are fully covered.
- In the event of insolvency, the PSV acts in effect as a central claimant for all pension creditors of the company. The credit ranking of the PSV is established in the Germany insolvency code. The PSV guarantees to pay the pensions in payment, the deferred pensions and pay active employees their vested benefits, but the PSV in general does not increase pensions in payment according to Section 16 of the Occupational Pension Act as pension increases depend on the employer's profitability.
- The PSV is financed through two main sources:
  a. a contribution levied on all employers covered by the PSV. Contributions are expressed as a percentage of the vested liabilities calculated in accordance with the requirements of the German tax code.
  b. recoveries from insolvencies.

The PSV buys out the benefits it has promised with a consortium of insurance companies. Funding is on a terminal funding basis, i.e. benefits are bought out via single premium immediate annuity contracts as and when they fall due.

Support Funds (Unterstutzungskassen)

A support fund is a flexible form of pension fund characterised by not granting its members a legal title to benefits. There are no minimum funding requirements for support funds. If a support fund has insufficient assets to meet its commitments at the level promised, then the member of the fund may claim his or her entitlement from the sponsoring employer. Companies operating a support fund must therefore disclose such 'hidden liabilities' in their financial statements. Benefits promised through a support fund are compulsorily covered by the PSV. This is as described above.

Direct Insurance

Benefits may be financed through the purchase of insurance contracts on a with profit basis. Employees are entitled to profit share on their contributions. Profit share resulting from employer contributions may be credited to either the employee or the employer. Prior to 1994, most insurance contacts were written on a tariff basis, whereby premiums were calculated using a 3.5% discount rate. The implementation of the Third Life Directive led to a greater range of premium rates and guarantees. Apart from certain special cases, direct insurance benefits are not covered by the PSV.

Pensionskassen

A Pensionskasse is a form of pension fund. It falls under the supervisory requirements of the German supervisory authority – BAFin (former BAV). The liabilities of a Pensionskasse must, according to the requirements of the BAFin, be fully funded. Larger Pensionskassen (Balance sheet assets greater than the Euro equivalent of DM 500 million and premium income of greater than the Euro equivalent of DM 25 million - lower limits apply for multi-employer plans) now operate under the less restrictive post Third Life Directive regime in a similar manner to life insurers (so-called deregulated Pensionskassen). This allows for more flexibility in the choice of the actuarial assumption to be used in solvency and contribution calculations. If the Pensionskasse does not belong to the group of deregulated Pensionskassen the method and assumptions to be used when calculating the liabilities are set out in a technical business plan, which must be agreed with the BAFin. The BAFin will, in general, only agree to a funding method that recognises liabilities over the active service period (individual entry age, current unit, attained age). These liabilities will include the full present value of pensions in payment and benefits for deferred pensioners. A deregulated Pensionskasse only discloses its technical calculations to the BAFin.

The interest rate generally used for the calculation of liabilities was 3.5% until 1994. After1994 some Pensionskassen changed to a discount rate of 4,0%. More recently the interest rate was decreased to 3,25% or 3,0%. As the maximum interest rate allowed for life policies even was decreased to 2,75% by 01.01.2004 Pensionskassen are following that route for new business. Standard demographic assumptions are used and no turnover is allowed for.

Assets are valued at the historic minimum of their book or market value.

The implementation of the Third Life Directive with effect from July 1994 has lead to a requirement that all Pensionskassen hold an additional solvency margin. Where those minimum funding requirements are not met a plan to correct this position is to be agreed with the BAFin.

Pensionsfonds

A Pensionsfonds does not provide insurance products, but it falls under the supervisory requirements of the German insurance supervisors – BAFin. Either the benefits are guaranteed

or the future contributions are fixed, but not both elements at the same time. Typically a Pensionsfonds runs defined contribution arrangements with a minimum guarantee but it may provide defined benefit plans as well. The product has to provide old-age benefits but it may also include disability and spouses'/orphans' benefits. The rules for the insolvency protection are the same as for book reserve schemes, but due to a recent amendment of the Occupational Pension Act the contribution the employer or the Pensionsfonds has to pay to the PSV is only 20% of the contribution of a book reserve plan.

Greece

The majority of company specific pension arrangements in Greece are insured, typically via deposit administration contracts.

The minimum solvency margin requirements (for the pension funds) are the sum of:

(a) 1% on the reserve if the contract does not offer guaranteed interest rate, or 4% on the reserve if the contract offers guaranteed interest rate; and

(b) 3% on the amount at risk, if there is an amount at risk

Hungary

There are three different *types of pension schemes* in Hungary:

1. Publicly managed, Mandatory Pension Scheme, generally called as Social Security Pension Scheme (SSPS). Participation and contribution is legally regulated, and it is mandatory for all employees. Contributions are paid both by employees and employers. It is financed in a pay-as-you-go system
2. Privately managed, funded Pension schemes with mandatory contributions. Participation is not mandatory (from the year of 2001) but this scheme is partially substitution to the SSPS, as the contribution to this scheme reduces the mandatory contribution paid to SSPS. The membership in this type of scheme automatically results in a decrease of the pension promise provided by SSPS with about 25%. Only employees pay mandatory contributions. Employers and employees are allowed to pay some additional voluntary contributions. These schemes are defined contribution systems with very limited guarantees.
3. Privately managed, funded Pension schemes with voluntary contributions, where participation is also voluntary. Pension provisions provided by these schemes are supplementary to the SSPS. Minimum contribution is regulated by the special rules of institutions providing pension provisions within these schemes. Contributions can be paid both by employers and employees. All these schemes are defined contributions without guarantees. Tax allowances are available both on contributions (up to a limited amount of contributions) and services provided by the schemes.

Occupational schemes are not typical in Hungary.

The Hungarian private pension institutions are autonomous legal entities, which were established as financial vehicle of private pension schemes. The members who elect the boards of the institutions legally own them. The main governing body is the general assembly of the members. There are no capital requirements to set up these institutions and the risks of operations are totally borne by the members. The institutions have the right to outsource any activity, which need expertise such as asset management or accounting and individual recording. The returns on the reserves are directly credited on the individual accounts according to special accounting rules.

Ireland

Retirement benefit arrangements in Ireland consist of either defined benefit schemes *(the majority)* or defined contribution schemes *(increasing in popularity).*

The Pensions Act 1990, which became effective on 1 January 1991, requires all retirement benefit arrangements to be funded *(with the exception of certain designated public service schemes).* There are in effect no longer any pay as you go schemes or schemes operating by means of book reserves. Schemes are established under Trust and their assets are separate from those of the sponsoring employer.

The investments of the scheme are managed either by:

- In-house *(rare)* or external investment managers in the form of Merchant Banks or the investment departments of insurance companies through the direct purchase of stocks and shares for the larger schemes and investment in pooled unit trust type vehicles for the smaller schemes.
- Insurance companies utilising traditional deferred annuity type pension contracts - *(this method of management is now very rare).*

The Pensions Act 1990 sets out minimum funding/reserving requirements for all defined benefit schemes. Monitoring of the requirements is by means of actuarial certification at least every 3½ years.

The first certificate for a scheme, which commenced prior to 1 January 1991 was required to be issued with an effective date not later than 31 December 1993. The first certificate for a scheme, which commenced after 1 January 1991, must be issued within 3½ years of commencement. To meet the funding standard set out in the Act the scheme's assets at market value must, at least, be sufficient to secure:

a. Pensions in course of payment and any contingent pensions payable in respect of retirees.

b. Benefits relating to transfer values received and past additional voluntary contributions.

c. The accrued pension entitlement of each member at the certification date is based on his pensionable salary at the date of certification and his pensionable service since 1 January 1991. Statutory revaluation of this basic preserved pension at a rate of 4% pa or price inflation if less effective from 1 January 1996 needs to be taken into account. It should be noted that statutory revaluation applies only to the period before the pension comes into payment. Statutory revaluation of pensions in payment is not a requirement of the Act but where pension increase guarantees are provided in the scheme rules they must be taken into account.

The first actuarial certificate for a scheme which commenced before 1 January 1991 must also state the "certified percentage". The "certified percentage" is the ratio of the value of the accrued pension entitlement of each member relating to his pensionable service prior to 1 January 1991, based on his pensionable salary at the certification date, to the residual assets of the scheme, after discharging the priority funding standard requirements. Where the ratio exceeds 100% the "certified percentage" is set at 100.

Subsequent actuarial certificates which must be issued within 3½ years of the previous certificates must confirm that the "certified percentage" has not decreased whilst actuarial certificates relating to an effective date after 1 January 2001 must confirm that the "certified percentage" is 100%.

The requirements of the Pensions Act 1990 will, therefore, ensure that by the effective date of the first certificate after 1 January 2001 all defined benefit schemes will always have sufficient assets to meet the liabilities associated with:

- Pensions in course of payment and contingent pensions relating to retirees
- Benefits relating to transfer values received and additional voluntary contributions paid
- The accrued pensions of active and deferred members relating to pensionable service completed at the certification date based on pensionable salaries at the certification date with allowance for statutory revaluation on the basic preserved pension

The Pensions (Amendment) Act 2002 introduced some changes to the minimum funding standard and the certification requirements. In summary these were

- Preservation was extended to all benefits provided under the rules of the scheme (including those accrued before 1991)
- Revaluation must be provided on pre 1991 benefits for future leavers and this must be fully funded by the date of the first actuarial certificate after 1 June 2012
- Benefits relating to additional voluntary contributions paid by members are advanced in priority ahead of pensions in payment and contingent pensions in respect of retirees
- In signing the actuarial funding certificate, the actuary is required by legislation to comply with professional guidance
- In preparing their annual report on the scheme, trustees will be required to include a statement from the actuary in years when no formal certificate is prepared stating whether, in his or her opinion, the minimum funding standard would have been satisfied had a certificate been required at the end of that scheme year

Prior to the introduction of the Pensions (Amendment) Act 2002, the method and assumptions to be used for the purpose of the minimum funding standard were at the discretion of the certifying actuary and were not laid down by legislation. In completing certificates, actuaries in Ireland must, however, comply with Guidance Notes issued by the Society of Actuaries in Ireland. The relevant Guidance Note GN3(ROI) is currently under review, but it is likely that the actuary will be required to value pensions currently in payment by reference to market annuity rates, and deferred pensions at the transfer value which would be available (which in turn would be calculated in accordance with Society Guidance Note GN11(ROI)). The allowance to be made for winding–up expenses may also be specified.

If at a certification date a pension scheme does not meet the minimum funding standard the trustees of a scheme must submit a “funding proposal” to the Pensions Board, which is the pensions regulator. Following the introduction of the Pensions (Amendment) Act 2002, a similar process must be followed if the actuary does not provide a statement for inclusion in the annual report that the standard would have been satisfied at the end of the scheme year as described above. The funding proposal must be designed to ensure that in the opinion of the actuary the scheme could reasonably be expected to satisfy the funding standard at the effective date of the next funding certificate, i.e. within a period of 3½ years. Where an acceptable funding proposal is not submitted, or no funding proposal is submitted, the Pensions Board may direct the trustees of the scheme to take such measures as to ensure that the scheme, in a modified format, would meet the funding standard. This would require a reduction in the benefits promised or in the extreme a winding-up of the scheme.

If an employer becomes insolvent the pension scheme would normally be wound up unless a new purchaser was prepared to assume in full the liabilities of the existing pension scheme. In a wind-up the assets of the scheme would be distributed in accordance with the winding-up clause in the scheme’s trust deed. Because of the application of the statutory funding standard the assets of all pension schemes after 1 January 2001 should in theory be sufficient to meet the accrued benefit expectations of all members and pensioners in a wind-up situation. However,

this may not be the case in practice if market conditions at the date of wind up differ from those applying at the date on which the actuary certified that the scheme met the funding standard. Therefore, under current legislation, schemes can be wound up with no legal obligation on the employer to make up the shortfall, resulting in reduced benefits.

Whilst some Irish pension schemes still invest by means of traditional insurance company deferred annuity arrangements there is no specified minimum level of premiums that must be paid. However, the funding standard requirements do, of course, apply and will in effect require a minimum level of premium to be paid.

Following on from negative equity returns in the period 2000-2002, lower interest rates, improved leaving service benefits as outlined above and improving longevity, many defined benefit pension schemes found themselves in a position whereby they no longer met the statutory funding standard. It was estimated by the industry that approximately 50-60% of defined benefit schemes failed to meet the minimum funding test. On foot of this a number of changes were made to the Pensions Act by the Social Welfare Act 2003. These included:

- the facility for trustees, acting on actuarial advice, to reduce transfer payments to other approved pension arrangements when requested by members leaving service, to reflect the scheme's solvency level

- the extension to the period over which a funding proposal operates. Prior to the changes a scheme that failed the statutory funding test had to submit a funding proposal that was designed to restore solvency within a period of 3½ years. The Social Welfare Act 2003 extended this period to a maximum of 10 years upon application by the trustees if (i) the actuary certified that the failure to meet the standard related wholly or mainly to the performance of investment markets and (ii) that the trustees, in making their application, believe the extended period is "necessary or appropriate and not contrary to the interests of the members".

- The Board also commenced a review of the statutory minimum funding standard. A paper was prepared in July 2004 on possible future changes and responses invited from interested parties.

The progress of the funding proposal towards its target must be reviewed annually. If the proposal remains on track to restore solvency within 3.5 years, no further action is required. However, if the financial position of the scheme has deteriorated such that the actuary cannot certify that the proposal is "on track" a further actuarial funding certificate and funding proposal is required. In the case of extended funding proposal periods, the review system is cumbersome as it is unlikely that a scheme will be on track to meet the funding standard within 3.5 years when it is working to a longer period. The review process may necessitate the re-submission of an application for an extended period, actuarial certifications and typically, a re-negotiation of the contribution acceleration underlying the funding proposal.

As a result of failing to meet the minimum funding standard many employers are reviewing their defined benefit schemes. There is widespread evidence of a move to close defined benefit schemes to new entrants and establish defined contribution arrangements in their place. Such DC arrangements can be trust based in the form of a traditional occupational pension plan or contract based in the form of Personal Retirement Savings Accounts (PRSAs). There is currently little evidence of defined benefits schemes closing to future accrual in respect of existing members although some employers have taken the more extreme step of winding up their schemes.

A further implication of the failure to meet the statutory test is the reduction in the level of discretionary benefits being granted. Such benefits would include post retirement pension increases, member augmentations or consenting to early retirement.

Social Welfare Bill 2005

The Social Welfare Bill 2005 proposes to make further changes to the Pensions Act 1990-2004. These changes follow on from a review of the statutory funding standard and a requirement to implement the EU IORP (Institutes for Occupational Retirement Provision) directive. Specifically these changes include:

- the placing of certain guidance issued by the Society of Actuaries in Ireland on a statutory footing. In particular it will not be possible for the Society to amend such guidance without ministerial consent

- the maximum cycle between actuarial funding certificates will be reduced from 3.5 years to 3 years for all certificates with an effective date after 22nd September 2005

- the expansion of the criteria on which to base an application for an extended funding period to cover situations where the liabilities of the scheme are greater than expected for reasons that are yet to be prescribed

- the introduction of an overriding provision to require trustee consent to early retirement where the scheme actuary advises that he is reasonably satisfied that the scheme would not meet the minimum funding standard

- the introduction of the requirement for defined contribution schemes that pay pensions from the assets of the scheme, rather than buying an annuity from a life insurance company, to prepare actuarial funding certificates and adhere to the funding standard. This practice is rare in most Irish defined contribution plans

- the introduction of a requirement for trustees of a scheme, other than of a small scheme (less than 100 active lives), to prepare and maintain a written statement on the investment policy principles and to review this statement at least every 3 years

- the introduction of a requirement for occupational plans registered in Ireland to fulfil a number of minimum conditions, such as being run by people of good repute who have appropriate qualifications, experience and properly constituted rules. For instance the Bill sets out the circumstances under which a person must not act as a trustee.

- the Bill also overturns a facility introduced by the Finance Act 2004 that allowed a pension scheme to borrow. In effect, a pension scheme will be prohibited from borrowing or acting as a guarantor for third parties although borrowing may be permitted in certain prescribed circumstances such as, for example, liquidity purposes.

Italy

The main pension benefits are provided through public and private compulsory nation wide schemes, financed on a pay-as-you-go basis. In these cases the Government effectively guarantees the benefits.

A new law (April 1993 - modified in August 1995) envisages that future complementary occupational benefits will be provided, above all, through defined contribution schemes. The 'new' pension funds will therefore not be subject to minimum funding requirements in a 'defined contribution context'.

The pension funds in 'defined benefit context' must be managed by an Insurance Company as the management of pensions trade in (all schemes). In these cases there is a minimum solvency requirement depending on law D.lgs 174/95 that governs the management of Insurance Companies.

However, when a complementary pension fund is managed in your own company, the pensions trade in must have the authorisation of COVIP (the Supervisory Authority).
The authorisation depends on technical criteria regarding the pension fund itself (number of members, age, actuarial assumptions, etc.). Like a guarantee, in these cases all "extra risks" must be insured (e.g. over survival).

Sometimes, especially in the 'defined benefit schemes' that are not dependent on D.Lgs 124/93, pension funds hold financial provisions that in most cases are two to four times the amount of pensions trade in. This can be considered a 'standard' of solvency.

In terms of employer insolvency, there are guarantee funds in place to 'make good' unpaid employer contributions. The guarantee for the compulsory schemes is financed via an employer contribution of 0.05% of gross salary.

Luxembourg

Company pensions are provided through book reserved schemes, insured schemes or pension funds. Companies operating a book reserved pension scheme must account for accruing liabilities via a reserve in the balance sheet and must participate in a compulsory insolvency insurance system operated through the PSV (cf. Germany); but the law does not provide a coverage of the benefits promised under group insurances or pension funds.

The Netherlands

Pension arrangements in The Netherlands are usually financed through either a group insurance contract or a self-administered pension fund.

The Pensioen-en spaarfondsenwet (Pensions and Savings Fund Act) in force since 1953, requires that pension funds should be financed on a 'funded' basis.

The body responsible for supervising insurance companies and pension funds - the Nederlandsche Bank (DNB) - has interpreted this requirement and places restrictions on the funding of pension schemes and insured schemes.
These restrictions have developed over a number of years.
Insurance contracts must comply with insurance regulations, which are in effect an implementation of the various European Life Directives. The maximum interest rate is 3%. (Of older contracts some still use 4% as technical interest rate).

Very recent the DNB formalised in a document solvability measures for pension funds.
For the purpose of assessing whether a fund has an adequate resource position the next elements had to be taken into account:

1. Assets must be valued at market value

2. The provision of accrued pension liabilities (PPL) (often nominal) should be based on prudent principles (for mortality tables), supplemented by adequate cost ratio. The applicable actuarial interest rate (discount rate) is at most 4%

3. In the case of unconditional pension adjustments (indexations of pensions in payment and/or accrued benefits) an earmarked reserve must be included in the PPL

4. A general risk reserve of 5% of the PPL is appropriated for the purpose of cushioning risks that are not explicitly quantified. The 5% can be lowered related to the real degree of risk incurred by the fund and in case this kind of risk is taken in account in the PPL.

5. A investment risks reserve:
   In case of investment in equities the fund has to be at least in a position in which the fund can cushion the impact of a 25% decline in value For investments in (government) bonds the fund needs a maximum buffer of 10% of the value invested in bonds at a market interest rate of 4% or lower, a buffer of 5% in case of a market interest rate of 5%. At market rates of 6% or higher no buffer is required.

In case of an inadequate cover, that means the value of the assets are below the sum of the PPL and the general risk reserve, the management of the board must take prompt action and inform the DNB immediately. A recovery plan had to be set up within three months. The inadequate cover had to eliminate in max one year.
In case of a shortfall of the investment risk reserve the fund has a period of recovery of two to fifteen years.
Furthermore DNB requires explaining the policy in case of conditional indexation, minimum premium levels and criteria to reduce contributions. This policy is subject to DNB approval.

In 2004 DNB explains in a consultation document the way to implement a Financial Assessment Framework (FTK) for pension funds in 2006. The FTK includes a solvency test and a continuity analysis. One major innovation compared to the current regime is the introduction of fair current value for the accrued pension liabilities. For pension funds this means that the fixed interest of 4% disappears.

Norway

Company pension arrangements in Norway are virtually all established on a defined benefit basis and are financed through group insurance contracts. At the moment an increasing number of contracts are written as DC-policies. The insurance supervisory authority specifies minimum bases for the premiums that must be charged by the insurance companies and the reserves that they must hold at each valuation date. There is a maximum rate of interest to be used when calculating premiums and reserves, which is currently 3% for new policies. Both insurance companies and pension funds must hold solvency margins, which depends on the asset mix.

Pension insurance contracts must comply with new insurance regulations, which are in effect an implementation of the various European Life Directives..

Portugal

Company plans in Portugal are generally financed through pension funds or, more rarely, direct insurance.

The financing of pension funds also comes under the supervisory umbrella of the ISP. There is an explicit minimum funding requirement and the ISP specifies the following minimum method and assumptions to be used in solvency calculations.

Method:	Pensioners	-	Present value of pensions in payment
	Actives	-	Current Unit method
Mortality:		-	TV 73/77
Interest rate:		-	4,5%

Assets are taken at their market value. If a deficiency exists it must be met over a specified period, with a maximum of twenty years minus the number of years that the fund has been in force.

Spain

With effect from 1990, an accounting rule was issued forcing the employers to reflect their pension costs as they accrue. Up until the new rule was introduced most of the pension commitments were registered only as they were paid, but with the new rule book reserves started to be built up and this approach was the most frequent way of financing pension plans.

The first specific law on supplementary pension plans and funds was issued in 1987. Despite the tax advantages given for employers who would make their plans qualify under that new rule, few followed that path. The main drawbacks were the discrimination requirements, high full vesting from the first day, majority of the employees' representatives in the powerful "control commission" and the conservative solvency requirements that made this option costly even allowing for the favourable tax treatment.

Insurance was starting to be a relatively frequent instrument because of partial tax advantages without any strict requirements to be fulfilled.

In November 1995, a new law on insurance was issued. Based on the need of guaranteeing benefits in case of insolvency of the employer, this law introduced the requirement of funding externally, through a pension fund or insurance contracts, all pension arrangements and any benefit linked with retirement.

The main consequence of the new regulation is that book reserving is not allowed, except for existing benefits at the inception of the Law in the case of Banks, Insurance Companies and Stockbroker houses

There was a transitional period (initially up to May 1999 and extended now until November 2002) for the employers to negotiate and decide which vehicles they are going to use, and how they are going to amortise the initial unfunded liabilities, and transfer of any existing fund.

Qualified defined benefit pension plans, regulated by the 1987 Law, have to meet a number of solvency requirements (basically the fund must have a solvency margin of 4% of the accrued liability for retirement, plus a maximum of 0.3% of death and disability lump sums at risk, subject to a minimum margin). Contributions and funding levels are generally calculated using the projected unit credit method or, on fewer occasion, an entry age normal method. The maximum net rate of interest to be used in the actuarial calculations is 4%. Deficits must be amortised according to a definite plan. The minimum solvency margin is € 225.000,--. These Solvency requirements are independent of the asset mix of the investments of the corresponding Pension Fund.

In the case that a defined benefit arrangement is funded through an insurance contract, this will fall within the scope on the regulations of solvency for insurance entities. Presently insurers are subject to a requirement of solvency very similar to the one of Pension Plans but without any minimum amount and, in the case of small plans, this can make a relevant difference. Finally, the regulations of insurance allow for a certain level of ALM in dealing with the investment of Mathematical Reserves, in which case the solvency requirements might be slightly lower.

In practice, a significant part of the old defined benefit arrangements have been already renegotiated and changed into defined contribution plans that do not include any guarantee and hence are not affected by any requisite of solvency margin.

Sweden

Occupational benefits are widespread in Sweden and the majority of benefit arrangements arise from discussions between employers and employee representatives and are set down in collective labour agreements.

Salaried white-collar employees within the private sector are provided with pensions under the ITP Plan, which is a defined benefit arrangement. Pensions under the ITP Plan are financed either through one of three methods: insurance, book reserving, or book reserving backed by foundation. Where the financing of the ITP benefits is through insurance, this is generally through a central carrier known as Alecta. Alecta calculates the required contributions on a standard funding basis adopting a 2.2% (after tax and expenses) discount rate. Significant refunds of surplus were recently paid to employers reflecting surplus built up in the 1990's.

Where a company chooses to book reserve the pension promise, as an alternative to insuring the benefits with Alecta, then there is compulsory insolvency insurance. The insolvency insurance is through a credit insurance organisation known as the FPG. In general the FPG insures only medium to large companies; smaller companies are not considered credit worthy unless sufficient collateral can be provided to secure the credit insurance. The FPG charges a premium for the insolvency insurance that is expressed as a level percentage of the amount of the book reserve insured.

The liability is assessed by the PRI (Pensions Registration Institute) organisation using a discount rate of 3.64% (after tax); to the result some further provisions are added, typically amounting to 15%.

Similar techniques are used for other parts of the labour market. The ITP-system is to a great extent a norm for these other parts of the labour market. Those other areas of the labour market consist of salaried employees within the state, salaried employees within the co-operative market and finally salaried employees within the municipal market.

Book reserves may be backed by foundations. These are funds which reimburse the employer for pension outgo, and which are used to secure obligations in the event of insolvency.

Where ITP foundations are in place FPG credit insurance is still payable but at a reduced premium.

Blue-collar employees are provided with defined contribution benefits through funded insurance contracts.

Switzerland

In Switzerland occupational pension schemes are mandatory for all employers and are established through pension foundations, which are financed either on a self-administered basis or on an insured basis (in addition the 'investments' can be managed on a self-administered basis with the risk benefits being insured). Both defined contribution and defined benefit arrangements are found.

There is a Supervisory Authority, which is responsible for the supervision of pension foundations. The Supervisory Authority imposes strict regulations on the administration of pension foundations and on the investment of assets.

There are explicit minimum funding requirements. The legal requirement is that a pension fund must have sufficient assets to ensure that, together with future contributions, it can meet its liabilities at all times, i.e. the foundation must be 'fully funded'. This legal requirement of the solvency of 100% is under review. Underfunding will be probably be tolerated in the future providing it is clearly time limited.
The responsibility for establishing whether this is the case rests with the scheme's actuary (self-administered schemes).

The Chamber of Actuarial Pension Experts in Switzerland gives guidelines to its members as to the minimum basis, which should be used when considering whether a scheme is properly funded. This minimum basis that is most used at present is the value of the accrued benefits calculated using a net discount rate of 4% (without projection of salary increases, pension increases etc). When considering the level of funding, the assets are usually taken at the minimum of book or market value. If full market values are used in the valuation then a fluctuation reserve is usually held to demonstrate that the fund can withstand variations in market values. Where the funding of the plan falls below that required by the financing method the fund must present the supervisory authorities with a clear plan as to how the situation will be rectified.

A guarantee fund is in place to help subsidise funds with unfavourable (i.e. mature) age structures and to provide security against the insolvency of the pension foundation, but only in respect of the legal minimum benefits.

United Kingdom

In the United Kingdom there are currently two types of defined benefit pension arrangement:

- an unapproved pension scheme, and
- an approved pension scheme.

From 6 April 2006, the concept of 'approval' will disappear as the tax regime is overhauled. All existing approved schemes will be deemed to be 'registered' schemes unless they notify the UK tax authorities that they do not wish to be. Registered schemes will be permitted to provide any amount of benefits, although the level of benefits that are 'tax relievable' will be restricted. Tax on any excess over the limit, is intended to be broadly neutral.

Unapproved pension scheme

Unapproved schemes are those that do not qualify for the usual tax privileges. There are no limits on benefits or contributions (unlike approved schemes where there is a maximum limit on benefits or contributions, otherwise tax reliefs are withdrawn). They do not have to be funded (but can be) and there are no solvency requirements to observe - book reserves would be maintained to satisfy accounting requirements. These schemes are used mainly for senior executives to provide benefits in excess of those that can be paid from the approved scheme. From 6 April 2006, unapproved schemes will become non-registered schemes (unless they choose to register).

Approved pension scheme

The vast majority of pension arrangements are approved schemes. These are funded arrangements whereby benefits are provided through an external trust. The trust may be operated on a self-administered basis or may be fully or partly insured with an insurance company.

This fundamental structure is unlikely to change as a result of the April 2006 revision of the tax regime.

With limited exceptions, all approved defined benefits schemes must comply with the Minimum Funding Requirement (MFR). The framework is set out in legislation and guidance on the actuarial aspects (ie methodology and assumptions) of its application is given by the Faculty and Institute of Actuaries. From September 2005, the 'one-size-fits-all' MFR will be largely replaced by new scheme-specific funding requirements. Schemes will need to fund to meet a Statutory Funding Objective, which is to ensure that it has adequate and appropriate assets to cover its technical provisions. Valuations must be carried out annually, or no less often than every three years. If such a valuation demonstrates that the SFO is not met, the trustees must put in place a recovery plan. They must also maintain a schedule of contributions, which is subject to actuarial certification, designed to ensure that the scheme's funding target is met. An annual statement of the scheme's funding position on discontinuance will need to be disclosed to members as a matter of course.

The main regulatory body is currently the Occupational Pensions Regulatory Authority (OPRA). From 6 April 2005, it will be replaced by a new 'Pensions Regulator'. It will be more actively involved with monitoring schemes than its predecessor, though it will also rely upon others involved with the scheme to bring any legislative breaches to its attention.

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From 6 April 2005, a new compensation scheme (called the Pension Protection Fund PPF)) will be set up (financed by levies imposed on schemes that have defined benefits) to provide a minimum level of benefits for members in the event of employer insolvency. The benefit is linked to that expected from the scheme that is admitted to the PPF. The level of that benefit depends on the member's age, in relation to what is termed the 'normal pension age' (NPA). Broadly, those above that age should obtain 100% of what they expected from the scheme (albeit future increases may be cut back). Those under NPA are likely to receive only 90% of their expectation. Moreover, if the resultant 'compensation' exceeds a prescribed amount, it will be capped (as at 2005/06, this cap is £25,000 pa).

SUMMARY

Country	Type of provider/scheme	Security Standard
Austria	Book reserve	Minimum reserve requirements. No compensation scheme
	Pensionskassen	Must be 'fully funded' as approved by supervisory authority
Belgium	Individually allocated group insurance (Branch 21)	Minimum funding driven by insurer's guaranteed tariff rates. Minimum tariff rates set by royal decree.
	Unit-linked group insurance (Branch 23) and self-administered pension funds.	Minimum funding driven by ABO type liability and actuarial assumptions set by royal decree.
Cyprus	Book reserve	No minimum funding requirements
	Pension Funds	No minimum funding requirements
Denmark	Group insurance	Mainly defined contribution schemes. The maximum interest rate is 2% from 1 July 1999
Estonia	Pension Funds	Must be fully funded
Finland	Pension Funds supplementary schemes	Industry wide pension funds are fully funded. Employer specific funds had to be fully funded in 2010. The supervisor set minimum standards for calculation liabilities. Restrictions investments in sponsoring companies
France	Mandatory supplementary system (AGIRC/ARRCO)	Pay-as-you-go arrangement
	Top-up arrangement	No minimum funding requirement or compensation scheme.
	DB benefit plans funded through an insurance company, an Institution Prévoyance, an Institution de Retraite Supplémentaire or a Mutual insurance company	They must all follow same prudential and solvency margins stated in the Insurance Code or Social security Code
France (continued)	Book reserving	No minimum funding requirement

	DC Point Schemes	Must follow funding ratio rule Flexibility in the accrual of pension rights and pension increase Mutualisation of assets between actives, deferred and retirees. Scheme members are preferential creditors in case of bankruptcy of the insurer.
Germany	Book reserve	Minimum reserving requirement. Mandatory compensation scheme coverage (PSV).
	Support funds	No minimum-funding requirement. Mandatory compensation scheme coverage (PSV).
	Pensionskassen	Must be 'fully funded' as approved by the supervisory authority.
	Pensionsfonds	Mandatory compensation scheme coverage (PSV).
Greece	Insured supplementary arrangements	No minimum funding standard
Hungary	Pension funds	Occupational pension schemes are not typical in Hungary.
Ireland	Funded defined benefit schemes	Minimum funding standard. Actuarial assumptions are the choice of each scheme's actuary (with guidance).
Italy	Complementary schemes	Pension funds aren't subject to minimum funding requirements
Luxembourg	Book reserve	Minimum reserving requirement. Mandatory compensation scheme coverage (PSV).
	Pension Funds	Minimum reserving requirement for defined benefit plans and for defined contribution plans if there is a guarantee on assets or on return.
Netherlands	Pension funds	Pension schemes must be funded. Funding level to be approved by supervisory authority. Solvency requirement general risk reserve and investment reserve
	Insurance Group contracts	Pension schemes must be funded. Funding level to be approved by supervisory authority, EU life insurance directives as minimum

Norway	Insurance contracts	Maximum interest rates imposed when calculating premiums.
Portugal	Pension funds	Minimum funding standard with specified assumptions (1% pension funds)
Spain	Approved pension funds	Minimum funding standard with specified maximum interest rate (4% per annum). Minimum solvency requirement by law.
Sweden	Book reserving	Where central insurance carriers are not used for funding mandatory STP/ITP benefits, a compulsory compensation scheme (credit insurance) is in place.
Switzerland	Pension funds and group insurance contracts	Pension schemes must be fully funded. Actuarial profession effectively imposes minimum funding standard (4% interest). Good practice a investment fluctuation reserve. Guarantee fund exist for insolvent pension funds.
United Kingdom	Approved pension funds	Statutory Funding Objective, to ensure adequate and appropriate assets to cover technical provision based on scheme-specific funding requirements. Actuarial Methods and assumptions are (with limited exceptions) set out in a guidance note issued by the Institute and Faculty of Actuaries. Pension Protection Fund to provide a minimum level of benefits for members in the event of employer insolvency.

(Note: Direct insurance arrangements have in general not been mentioned in this table. These arrangements are generally covered by insurance supervision).