

AGEING WORKING PAPERS

Maintaining Prosperity In An Ageing Society: the OECD study on the policy implications of ageing

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PRIVATE PENSIONS SYSTEMS: REGULATORY POLICIES

This is one of a series of analytic papers that supported the OECD's horizontal work on ageing. The results of the entire project are summarised in *Maintaining Prosperity in an Ageing Society*, OECD 1998. Chapter V of *Maintaining Prosperity*—on the financial system and the provision of retirement income—drew on this working paper.

The growing reliance on private pension schemes calls for an adequate regulatory framework. The paper analyses the main issues and policies related to the rights of beneficiaries and the financial security of private schemes. Policy conclusions list regulatory recommendations

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PRIVATE PENSIONS SYSTEMS: REGULATORY POLICIES

by

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ABSTRACT/RÉSUMÉ

The growing reliance on private pension schemes calls for an adequate regulatory framework, which is a precondition for maintaining the confidence of both beneficiaries and the public at large. Appropriate regulations will contribute to safeguarding beneficiaries' rights, which include *inter alia* non-discriminatory access to pension schemes, protection of vested rights, the implementation of provisions for transferability and the adequacy of benefits. Effective regulation and supervisory oversight of the financial situation of pension funds is indispensable for the development of sound private systems. The primary objective is to protect beneficiaries from the effect of sponsor's insolvency, insufficient funding of the plans reflecting improper technical and/or investment decisions, misappropriations by managers of the risk of default by other operators involved in the provision of pensions. Appropriate criteria should guide the licensing of pension operators and plans; proper funding, actuarial, accounting and disclosure requirements as well as limits on self-investment should be set in place. Adequate competition among retirement asset managers should also be ensured. Continued attention needs to be paid to the evolution of market practices so as to ensure that supervisory methods are adapted to the realities of marketplace.

Le développement des systèmes de pension privés suppose l'existence d'un cadre réglementaire adéquat, condition indispensable pour préserver la confiance aussi bien des bénéficiaires que de l'opinion publique en général. Il faut préserver les droits des bénéficiaires, ce qui signifie notamment assurer un accès non discriminatoire aux systèmes de pension, protéger les droits acquis, garantir la transférabilité des droits et veiller à ce que les prestations soient suffisantes. Une réglementation efficace et l'exercice d'une surveillance sur la situation financière des fonds de pension sont des conditions indispensables du développement de systèmes de pension privés sains. L'objectif premier est de protéger les bénéficiaires contre le risque d'insolvabilité du promoteur du fonds, contre le risque d'insuffisance du financement du dispositif, lié à des décisions techniques et/ou à des décisions d'investissement malheureuses, contre les risques de malversations par les gestionnaires ou contre le risque de défaillance de tout autre intervenant associé au fonctionnement du dispositif. L'agrément des gestionnaires et des plans devrait être régi par des critères adéquats ; de même, il devrait être établi des règles appropriées en ce qui concerne le financement, les principes actuariels, la comptabilité et la communication d'informations, et il devrait être fixé des limites aux montants qui pourraient être investis directement dans l'entreprise (auto-investissement). Il faudrait aussi veiller à ce qu'existe une concurrence adéquate entre gestionnaires de fonds de pension. Il faudrait en permanence suivre l'évolution des pratiques du marché pour s'assurer que les méthodes de supervision restent adaptées à la réalité du marché.

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PRIVATE PENSION SYSTEMS: REGULATORY POLICIES¹

Introduction

1. This paper focuses on the *regulatory* issues, in the broad sense of the term, generated by the growth of *private* pension schemes. Given that private systems are expanding rapidly in many OECD countries and can be expected to do so elsewhere and taking account of the financial importance of retirement institutions², it seeks to identify the problems raised by this growth in terms of the regulations and government policies designed to address them. It also suggests certain avenues that countries may wish to explore in connection with the implementation of an effective regulatory structure for private pension systems.

2. The focus of this document is on private schemes of the second pillar, i.e. *occupational pension schemes for private-sector employees*. These schemes are very complex and intrinsically linked to national and sectoral features. The objective of this document is not to present an exhaustive analysis of these schemes but to provide a general framework of the regulatory situation in OECD countries and to consider related policy issues.

3. The paper does not consider the third pillar, i.e. individual retirement systems available to people independently of employment.³ The role of individual retirement plans (third pillar) has been expanding in OECD countries, either due to the desire to supplement employment-related plans, or because of the inadequacy of some of them, or else reflecting the decision made by some governments to encourage individual initiatives in the area of retirement income. Beyond incontestable advantages, these plans may raise potential risks in that they are not backed by an employer's guarantees, their investment risks are borne essentially by individual members and they may have high management and distribution costs. In addition, retirement objectives can be diverted, creating a risk of inadequacy which may result in additional costs to society. This being said, the third pillar, which involves products on the borderline between pensions and savings, is a key source of future growth for financial markets.

4. This paper also deals almost exclusively with *non-insured* occupational retirement systems. Insured plans, which account for close to one-third of financial assets managed in the framework of the second pillar, have, in general, relatively better guarantees in terms of security to the extent that they are more strictly regulated. Finally, the paper focuses on retirement operations and does not deal with "benefit operations", which are sometimes very closely related and which include coverage for disability, long-term medical care, survivors' benefits and reversibility.

5. This paper is in three Chapters. The first Chapter examines the structural framework in which private pensions are developing. The second Chapter examines issues raised by the entitlements of plan members and the approaches generally used in this connection. It deals with the major issues of vesting and the adequacy of the systems. The final Chapter -- which will be published in the next issue of *Financial Market Trends* -- considers questions having to do with the security of private systems. It reviews the major risks to which systems are exposed and seeks to identify regulatory policies that have been developed or may be considered in this connection.

Summary and Policy Conclusions

6. Private pension plans have been operating in most OECD countries for a long time. In recent years, such plans expanded considerably but what has changed mostly are the *expectations* put on them, since they are now considered to be a viable answer to the problems of government pensions systems. Most observers agree that the role of private systems is bound to continue expanding in the future. Most also underscore the fact that they will play an essentially *complementary* role to that of government systems, and that any substitution effect could only be partial. Governments are expected to continue being the exclusive providers of assistance -- i.e., old-age benefits designed to cover minimum essential needs. Thus, private systems pay out benefits essentially above and beyond basic assistance and their purpose is to provide retirement income enabling recipients to maintain a minimum standard of living and/or one comparable to that which they enjoyed before retirement, along with benefits more in keeping with individual contributions.

7. The role of private pensions varies considerably from one country to another, however, and their development is closely linked to that of government systems. It should be noted that while private pensions are often looked upon as a solution to the problems facing government systems, they are generally not the only solution. Many avenues exist for the reform of government pension systems, including partial resort to funding methods (in particular given the current non-inflationary context) as well as instruments traditionally used to adjust benefits and contributions (changes in how benefits are calculated, retirement age, etc.)⁴.

8. It is not the role of occupational private systems simply to provide responses to the macro-economic problem of actual or expected deficits by government pension systems. Above all, their role is to fulfil the needs of employers and employees, both of whom consider that they offer significant advantages, mainly related to group funding and the flexibility of plans.

9. The foregoing considerations may induce governments to promote the use of private pensions, taking into account the specific characteristics of countries or industries. Promotion can be, for instance, in the form of tax incentives. The tax treatment of pensions generally allows the deduction of employer and employee contributions, while income from pension fund investments is exempted and taxes are paid only on benefits. This form of deferred taxation of contributions is considered an important incentive for providing retirement income. Governments can also make private pensions mandatory for employers and/or employees, through employment-related pensions or individual plans. Many arguments have been put forward regarding the mandatory or optional nature of private pensions, which depends to a large extent on the domestic context in which they operate. Compulsory systems exist in many countries, while others reportedly are considering implementing such practices, especially where large-scale privatisation is planned. Until now, most OECD countries have, however, opted for voluntary systems combined with tax incentives.

10. The growth of private pensions exposes individuals and institutions, as well as society as a whole, to a number of *risks*, which governments must address in order to contain and optimise the beneficial effects of retirement systems. Some of these risks are common to government schemes as well. They include a number of risks -- potentially more serious in the case of private systems -- related to beneficiaries protection, particularly in so far as non-discriminatory eligibility, vesting and the adequacy of benefits are concerned. Private plans are also exposed to significant "financial" risks, such as insolvency by the employer, underfunding of the fund, investment risks, changes in inflation patterns and interest rates or even fraud. Insured plans are also exposed to these risks but are more strictly regulated at the level of the solvency of the insurance entity. It is important to note that public schemes have also to face these

kind of risks but under different modalities, and account should be taken of the fact that governments can always have recourse to taxation.

11. It is essential for the sound development of private pension systems that they are adequately regulated. *Regulations*, which are indispensable to sustain beneficiaries' confidence, primarily help safeguard the rights of members and the financial security of plans. They are especially necessary because retirement systems affect people's lives. Their important social role, which the pension sector shares with that of health care, requires that governments pay special attention to it and ensure that private firms – to which certain duties can be said to have been delegated -- are properly fulfilling their obligations. The granting of fiscal advantages is a strong argument for governments to check their use.

12. There is a wide range of private systems, some of which are highly complex – the price that has to be paid for flexibility. They differ considerably from the standpoint of management and funding, and in terms of the plans' features. Regulations must take this *complexity* into consideration while trying not to make it worse. The regulation of the sector must be considered in a comprehensive manner, taking into account regulatory and financial developments affecting government pension systems. Regulation of private schemes is closely linked to the regulation of public schemes. Regulations must also integrate the various factors at play and avoid building up different regulatory layers while getting the most out of potential synergies. Regulations must be dynamic and evolve along with the sector.

13. An integrated approach to regulations is needed to ensure their convergence towards the same broad objectives. In this context, it must be noted that some regulatory measures can be conflicting with others, as in the case of tax laws and prudential rules regarding overfunding. Accounting and actuarial methods may not always fit neatly with the requirements of regulatory or supervisory bodies. Differences can, however, at times be justified, in particular when the objectives sought are different but compatible. This occurs, for instance, when the prudential rules applicable to funding are different from those governing long-term financial management. Lastly, even when regulations seek to achieve the same ultimate objectives, they vary across countries reflecting differences in the nature of their respective pension systems. This situation can seriously hinder the international mobility of labour. It also highlights the need to take into account the sectoral and national features of these schemes and to adapt policy approaches accordingly. Finally, regulation must be balanced and must avoid creating unnecessary distortions that would hinder the adequate functioning of private retirement markets.

Rights of Beneficiaries

14. Issues related to private schemes *access* have to be considered according to their role, i.e. as a complement or a partial substitute to public schemes. In this respect, it must be recalled that in the case of voluntary private pension schemes there is no obligation on the part of an employer to set up such a scheme within his enterprise. He may have numerous reasons for doing it, but if he does not do so, employees would have no alternative but to look to the third pillar or rely on public pension schemes. Governments have tried to address this issue (in particular when private regimes play a substitute role) by granting tax concessions, simplifying administrative formalities or making such schemes compulsory. Where firms do set up pension schemes, their access may be subject to specific conditions, as a result of which some categories of employees may be excluded. The main forms of exclusion or discrimination include: age restrictions, salary restrictions and restrictions based on sex. From a public policy viewpoint, it seems essential that access to existing plans be open without discrimination, provided that certain objective criteria are met.

15. In most countries, employees covered by a retirement plan have *vested rights* which, in theory, reflect irrevocable commitment from the employer and ensure that employees will receive benefits related to their past years of service. The concept of vested rights has become central to the issue of “financing” since the funding adequacy of the funds has to be assessed in relation to their commitments, i.e. the vested rights (possibly projected) of beneficiaries. The scope of vesting rules varies significantly from one country to another. Furthermore, certain practices, such as excessive back-loading (progressive vesting of the beneficiaries’ rights), can impact on their effectiveness. Failure to index benefits, which is common, also diminishes considerably the value of entitlements, in particular when employees change jobs. In general, employees must still pay too heavy a price when they change jobs or retire early as the transferability and *portability* of rights is often limited. There is a clear case for the development of adequate regulations to protect and promote vesting rights. The recent experience of many OECD countries can be of great assistance in this regard. The policy approach related to this question must conform to the principles used to determine a country’s employment policy. When professional mobility is promoted, related measures should be taken in the pension field in order to support the attainment of this goal.

16. The *adequacy* of private pensions should be examined in a broad context, taking into account existing government systems and the expected role of private schemes. This applies not only to the level of benefits but also to the scope of population coverage. In this respect it is important to note that in several countries where the public systems don’t provide a sufficient level of benefit a substantial part of the population does not benefit from private schemes coverage either. Some countries have sought to tackle this problem by making private pension schemes compulsory or by providing substantial tax incentives. Despite this, some strata of the population seem to have fallen through the net. This situation is bound to pose serious problems for governments in the long term as they may be called to provide for the needs of this segment of population. As far as benefits are concerned, a yardstick used in the case of adequacy of private plans is their ability to provide a minimum standard of living or one comparable to that which a member enjoyed prior to retirement; another is the balance between benefits and contributions. The measure of a plan’s adequacy can vary in the case of different individuals and employment categories, but benefits should in any event correspond to what was promised in the contract. Another issue concerns the method of liquidation. Lump sum liquidation could be subject to rules designed to prevent the misuse of retirement benefits and the premature spending of replacement income. In the assessment of adequacy, parameters concerning the treatment of inflation both before and after retirement are also essential elements. The development of a market for indexed bonds could provide a solution to the inflation/adequacy problem. Concerns about benefit levels under defined contribution plans have sometimes led to the addition of minimum-benefit clauses in some of these plans. Adequacy should also be assessed in relation to tax objectives. All in all, the adequacy of private pension systems is a complex notion which must be treated with caution. Government authorities must pay attention to it as, if benefits turn out to be insufficient, the state will in the end have to provide relief through public systems. Preventing problems from occurring requires that plan members be properly informed and that well-defined rules be implemented to protect them against abuses.

Financial security of pension systems

17. The *financial security* of pension funds (and of the instruments used in their financing) is a critical element in the development of effective regulations for private systems. The primary objective here is to protect beneficiaries from the effects of the sponsor’s insolvency, insufficient funding of the plan because of improper technical and/or investment decisions, misappropriations by managers or the risk of default by other financial entities involved in the provision of benefits. The rationale for regulation will

however be different following the nature of the plans (defined-benefit versus defined contributions), whose associated risks call for different approaches.

18. The following can be regarded as the key components of the regulatory structure for financial security:

- licensing
- separate assets
- capital requirements or equivalent solvency rules
- minimum funding rules
- sound actuarial methods for funding
- effective supervisory oversight
- competent managers and self-regulatory practices
- prudent investment rules
- transparency of accounts and promotion of information
- insolvency insurance or other guarantee schemes.

19. All pension institutions should be subject to *licensing* for the provision of retirement income. Approval should be made subject to specific legal, accounting, technical and management conditions. These could include prohibition against certain types of systems, the qualifications and reputation of trustees, along with the presentation of planned operations and of the actuarial methods to be used. Both the plan and the fund should apply for licensing with a view to combining institutional and functional procedures. Institutional licensing may be granted in the form of a certificate issued by a different authority than that granting functional approval. Licensing is particularly important as, in many countries, the “regular” supervisory oversight of funds and plans can be hindered by considerable obstacles of a practical nature.

20. Except in the special instance of pay-as-you-go plans, all current private pension systems are based on the principle of accumulated *reserves*, which can be real assets or book reserves. Another rule generally applied concerns the need for funds to be *separate entities* from their sponsors. Neither reserves nor separation can ensure that a plan will be adequately funded. However, the application of these principles reduces certain risks of default by the sponsor and should therefore be recommended. Exposure to the risk of bankruptcy by the employer is different depending on whether a plan is managed in-house or externally. In the event of bankruptcy by the sponsor, vested rights are protected if the fund is a separate legal entity and has sufficient assets. Rights can be fully protected, even in the case of insufficient funding, if the seniority of the fund’s claims in the event of liquidation of the company is sufficiently high, or if the plan is insured. A fund should therefore be separated from the employer. This legal separation, which minimises risks of fraud and conflicts of interest, should provide for irrevocable rights for the beneficiaries. If it is not the case, the fund should be backed with guarantees such as reinsurance or

insolvency insurance. Schemes based on overheads, which do not allow for separation, should be prohibited.

21. Reliance on *capital/own* funds, in a solvency approach, is rare in the case of pension funds -- in contrast with most other financial institutions whose capital provides a minimum degree of security for creditors. However, it is technically possible for funds to build up capital or at least its equivalent in the form of guarantees. The latter can take several forms (collateral provided by the employer's assets, subordinated debt, mandatory overfunding), which would add to the general guarantee of the employer in this type of system. The requirement that surplus funds be accumulated is likely to contribute to financial security at the same time as a fund reaches maturity. Consideration should be given to reconciling this requirement with tax objectives whenever conflicts may arise. Further examination should be conducted to establish what types of guarantees should be considered in this connection, based in particular on the situation prevailing in the insurance sector and especially in mutual associations, taking into account the specific nature of pension funds.

22. A distinction is frequently made in *funding* rules depending on whether a winding-up or on-going approach is used. Principles of prudence tend to favour the winding-up approach, although the two methods are not necessarily incompatible. In any event, specific minimum funding rules must be set out. In light of countries' experience the latest international accounting developments, rules based on the PBO (Projected Benefit Obligation) or, alternatively, on the ABO (Accumulated Benefit Obligation) method, could be recommended. It would also be advisable, however, for the pension funds to estimate their long-term obligations through recourse to forecasting methods. In this connection, it is essential to bear in mind that funding rules based on a winding-up approach correspond to minimum standards, which take little or no account of actuarial computations pertaining to the future development of the fund. Prudential rules should also take temporary underfunding situations into consideration.

23. Many variables must be taken into consideration when selecting *calculation methods*. They include management expenses, the growth of pay rates, the inflation rate, the indexing and/or adjustment of benefits, employee turnover and interest rates. Methods should be based on comparable, or at least compatible, actuarial and accounting principles. The work conducted by the International Accounting Standards Committee (IASC) in this connection should be supported. Asset valuation rules should be re-examined in light of developments in financial markets and of the need not to hinder fair competition, and should use comparable methods for assets and liabilities. Valuation rules should make possible a fair degree of disclosure. Requiring that market values be specified whenever assets are valued at their purchase price (and vice versa) can be useful. It is also important to follow strict amortisation principles and to rely on prudent assessment of interest rates. Furthermore, the recent development of asset-liability management techniques, as well as techniques for immunising portfolios, should be given proper consideration.

24. Pension funds are not often subject to close *supervisory oversight*, although it would seem logical that they should be subject to a minimum level of supervision. Even if this is not always done systematically, due to the large number of funds and to their complex nature, certain supervisory procedures are both possible and necessary -- and some of them are already applied for tax considerations. Strict supervision should be exercised over funds which a trustee, the sponsor, members or actuaries have reported to the authorities because of the problems they face. It could also apply to all funds over a certain size and could, in addition, be carried out on a random basis. Supervision can be modelled on practices in other sectors, such as the securities, banking and especially insurance industry. This would imply a strengthening of the co-operation between the authorities in charge of these sectors. Extensive work should be conducted between the supervisory authorities of OECD countries to identify the scope of

operating procedures designed to optimise the supervision of pension funds in light of their respective experience.

Box 1: Regulatory Policies Related to Private Occupational Schemes

The following principles should be at the core of the regulatory framework for protecting beneficiaries' rights and ensuring financial security of private occupational schemes:

concerning beneficiaries' rights:

- non discriminatory access to the schemes
- protection of vested rights, de jure and de facto (inflation)
- implementation of appropriate regulation for transferability and early departure, and promotion of mobility
- adequacy of benefits in relation to a minimum standard of living and/or comparable to that which was enjoyed prior to the retirement, to the balance between benefits and contributions, and to what was promised under the scheme
- appropriate regulation of benefits modalities (annuity /capital) and of costs/charges

concerning financial security of the schemes:

- strict enforcement of an institutional and functional licensing system on the basis of adequate legal, accounting, technical, financial and managerial (competence and honourability) criteria
- legal separation of the fund from its sponsors or, at least, requirement of appropriate guarantees (e.g. reinsurance or insolvency insurance)
- prohibition of private unfunded pay-as-you-go schemes at company level
- minimum requirements for equity capital or equivalent solvency rules
- favourable tax treatment of over-funding/surplus
- establishment of minimum funding rules
- appropriate valuation and funding calculation methods, including actuarial techniques and amortisation rules
- transparent accounting methods based on comparable standards
- enhancement of ongoing supervision of the funds, including through the transmission of information to the authorities
- strict limitations on self investments, unless appropriate safeguards exist
- liberalisation of investments abroad, subject to prudent management principles
- adequate regulation of insurance coverage of the fund (through group insurance or reinsurance)
- setting up standards for adequate information and disclosure to the beneficiaries
- promotion of self-regulatory practices for fund managers
- granting of priority rights to the fund in the event of employer's winding up
- assessment of the role of insolvency insurance and other guarantee schemes
- levelling of the playing field among operators

25. In the vast majority of cases, supervisory oversight is essentially based on a review of accounting and financial statements, which must be prepared and forwarded to the authorities in accordance with required procedures. There can also be on-site audits. The role of supervisory authorities may focus on the following axis:

- ensuring compliance with legal obligations, including applicable laws, company bylaws and general terms and conditions;
- financial controls: equity, technical reserves, investments, monitoring of activities, auditing of interim and annual financial reports;
- actuarial examination of contributions rates, and technical or mathematical provisions;
- management supervision: qualifications and reputation of managers, standing of principal shareholders and of the employer;
- economic review: market conditions, statistical data.

26. For a pension fund, the quality of management is essential. The protection of members can be significantly improved and risks minimised if the qualifications and reputation of managers are examined at the outset. Later, supervision can be exercised on an on-going basis through joint employee/employers representation on supervisory boards, disclosure requirements, the use of actuaries, of custodian services, rating agencies and the possibility of filing grievances with the supervisory authority. Independent, internal supervisory bodies are particularly important in a sector where the multiplicity of plans may limit the operability of governmental control. More generally, the authorities should also promote the development of self-regulatory systems, by managers, beneficiaries and employers, which would make them more responsible and which would lighten the burden of governmental supervision.

27. In the case of pension systems, supervisors must first consider pension plans, since pension funds are set up only after plans are established. A pension plan corresponds to the contractual provisions covering the rights and obligations of all parties, whereas a fund is the reserve accumulated to meet the objectives of the plan. The control of plans is mainly legal and fiscal in scope, while the control of funds is financial. The supervision of plans and funds may have to be lightened de-facto to take account of their large number, resulting in *ex post* controls replacing prior examinations. In addition, it may be necessary to conduct reviews of distribution methods and expenses.

28. Problems raised by differences in the degree of regulation applicable to various categories of pension service providers are similar to those in other sectors, including at the international level. Based on existing principles in this regard, it would seem that efforts should be directed at eliminating or reducing differences which are not justified from a prudential standpoint and hence unfairly discriminate against certain categories of providers. The Governments should consider the need to develop further the functional approach. Taking account of institutional characteristics, this approach should allow for a substantial reduction of current differences in regulations applied to the provision of similar products but by different providers.

29. All OECD countries regulate *investments* by pension funds, although to different degrees and in different forms. It may be worth noting that investments by insurance companies are generally governed by more stringent regulations than those of pension funds. The latter must comply with similar principles but are less frequently constrained by quantitative rules and are often subject to more flexible management

rules, such as the prudent-man rule. One principle that is generally implemented in the case of pension funds is the restriction on investment in the sponsor's company. A list of admitted assets exists for insurance companies, but not necessarily for pension funds. A clear distinction must also be made between the different types of plans and their related obligations, as for example, the obligation of result of defined benefit plans. In defined contribution plans, the investment risk is shifted to the members, which could in this respect justify the need for tighter supervision. However, the respective investment practices of funds do not necessarily reflect this distinction. It also appears that, on average, investments are not significantly limited by regulatory ceilings, since they generally remain below those levels. This could also imply that regulations are properly fulfilling their role in this connection, setting reference criteria rather than restrictions. Further deregulation should however be promoted, as far as it does not conflict with prudential objectives.

30. The *liberalisation* of investments by pension funds and insurance companies in foreign countries has recently been examined by the OECD. Many types of restrictions have been identified, most of which consist of setting ceilings or floors (less frequently), as well as of provisions regarding currency matching. Although it seems that greater consideration ought to be given to the possibility of liberalisation in this area, a regulatory framework should be in place to ensure that financial institutions invest prudentially.

31. The regulatory framework applying to private systems can also rely on safety nets in the event of bankruptcy by the sponsor, as in the case of *insolvency insurance* (when available), which is generally provided by a government agency. This "insurance of last resort" can turn out to be superfluous and counterproductive if effective safeguards already exist, in particular since it may create the wrong incentives by adding a moral hazard factor. It might be advisable, however, in the case of systems with only a limited degree of preventive protection -- such as plans that are not separate from the sponsor's business, as in the case of book reserves. The setting of a ceiling on insurance guarantees may reduce the moral hazard.

32. Other safety nets are provided by special *creditor's rights* in the event of bankruptcy and, more generally, through the use of insurance. Pension funds do not necessarily enjoy special rights in the event of bankruptcy by the sponsor. This constitutes a serious hazard if the fund is not a separate legal entity. The granting of special prerogatives should be taken under consideration, at least in certain circumstances, in particular with a view to supporting public confidence.

33. Having recourse to *insurance*, either in the form of group insurance or the provision of reinsurance for a pension fund, affords additional protection for members and generally shifts the responsibility from the employer over to the insurer. Insurance regulations and supervision implemented in most OECD countries provides a strong – though not absolute – guarantee of solvency. Insuring funds can be advisable in the case of those which are not governed by sufficient regulations. Regulations could draw on those applicable to insurance companies, making allowance for the actual and sometimes underrated differences that distinguish pension funds from insurance companies.

34. Finally, a key factor in improving the financial security of pension systems consist of setting up a *disclosure* procedure for members (in particular in case of underfunding) to enable them to monitor, either directly or indirectly, the fund's management at all times. In this connection, it appears that members do not always have access to adequate information and that additional efforts could be made in this respect. It appears also important to develop the beneficiaries' education concerning pension issues. In general, the promotion of the transparency of pension schemes is essential for both beneficiaries and supervisory bodies.

CHAPTER I. STRUCTURAL BACKGROUND

35. This Chapter will analyse certain characteristics of private schemes and seek to clarify the main structural components of such schemes. After a brief discussion of the distinctions between the concepts of “private” and “funded”, and between schemes that are and are not insured, the section explores the basic features of the three pillars of pension systems and then focuses on possible approaches to the second pillar, stressing the importance of factoring all these components into the analysis of regulatory issues.

Private and funded schemes

36. The first reason why it can be difficult to compare the regulatory frameworks of private pension systems is their extreme diversity, which goes back to the specific historical, social and economic contexts in which they developed, but also because it is difficult to agree on a common terminology. For example, depending on whom one talks to, the term “private pensions” can denote all those systems which are not directly run by the state, or the occupational schemes in the private sector, or the much more limited “third pillar” pension plans taken out individually.

37. Also, the “private” aspect is frequently confused with the “funded” aspect. However, it is essential to distinguish the two. The term “private” denotes the fact that the scheme in question is not a State scheme and thus operates, in a given regulatory context, in accordance with market practices and standards. It is this aspect which is of priority importance for regulatory issues: insofar as the government does not itself provide pensions directly, it is all the more bound to ensure that there is adequate regulation of the institutions that provide them. The term “funded” refers to the technique of capital accumulation. This is an essential concept in the analysis of financial markets. However, the fact that a scheme uses this technique does not warrant by itself that it should be described as funded. Funding must be the main way of financing the scheme. Some commentators go even further and require, in addition, that the accumulated capital be (a) “outside” the firm and (b) correspond to irrevocable rights for the beneficiaries.⁵

38. The confusion is increased still further by the fact that, usually, public schemes operate on a pay-as-you-go basis while private schemes are funded -- hence the temptation to mix the two and to treat any funded scheme as a private scheme.⁶ Concrete examples will help to make the problem clearer. The US Federal Old-Age and Survivors’ Insurance and Disability Insurance (OASDI) programme is a pay-as-you-go scheme. However, it has accumulated large reserves (around \$500 billion in 1995) in two trust funds, the investment policies of which are the subject of heated debate in the United States. These reserves belong to the government and not to the beneficiaries. The system is a pay-as-you-go one which makes partial use of funded techniques. On the other hand, the German system includes, among several schemes, one that is based on book provisions. The scheme is private, book (and not necessarily real)⁷ provisions are made within the firm, and the assets are not earmarked. Other private schemes operate on a pay-as-you-go basis by direct use of contributions. Conversely, some so-called public schemes may be considered to be funded schemes. For example, some US civil service schemes, which are not covered by the ERISA Law, operate on a funded basis with accumulation of capital and associated irrevocable rights.

Insured and uninsured private schemes

39. A distinction is often made between private schemes that are insured and those that are not, i.e. depending on whether the employer has contracted out part or all of his pension liabilities through an individual or collective insurance contract. On average, between 20 and 30 per cent of “second pillar” pension schemes in the OECD area are considered to be insured. The proportion is much higher for third-pillar schemes, where insurance companies are the main providers of personal pensions. Whether the scheme is insured or not is very important from the regulatory standpoint. The effect of the insurance will usually be to transfer, subject to certain conditions, the employer’s pension liability to the insurance company, and thus to switch the attention of the regulatory authorities to the insuring company. Insurance companies have been subject for a long time to regulation and close supervision by the authorities. In principle, this reduces certain risks, including that of the fund becoming insolvent, that are associated with private schemes (provided, however, that insurers are more strictly supervised than pension funds). However, this risk, albeit reduced, still exists in the insurance company, as attested by certain major bankruptcies at the start of the 1990s. Consequently, in the past decade the authorities in many OECD countries have decided to reform, sometimes substantially, the regulations and solvency rules that apply to insurers.

40. Insured funds will be touched upon only briefly in this report. However, it is important to bear in mind the role played by insurance companies in private schemes and their crucial role in the provision of second- and third-pillar pensions. They are present not only in “insured schemes” but also to a significant extent in the management of the investments of pension funds, in the provision of insolvency insurance, in fund re-insurance and in the insurance annuity markets. In addition to underwriting group insurance for employers, insurers are frequently solicited by fund administrators to manage their investments or annuity payouts. In many cases, pension funds prefer to purchase annuities from an insurance company rather than to manage the payouts themselves. In some countries, insurers may provide insolvency cover and reinsure fund commitments, particularly those in respect of death benefits and disability risks.

The three pillars

41. Pension schemes are often divided into three categories: the first pillar, which comprises social security; the second pillar, which comprises occupational -- and assimilated -- schemes; the third pillar, which includes all personal pension products. This paper does not aim to settle the debate on the respective advantages and disadvantages of each pillar. However, it can be useful to recap some of the main differences between them, and their characteristics. Firstly, the first pillar seeks to cover the whole of the labour force, while the coverage of the second pillar is much narrower. First-pillar post-retirement benefits are in principle index-linked, which is not often the case for second-pillar benefits. These are two important considerations that have to be taken into account when determining whether private systems are adequate, in particular if it is decided to replace public schemes entirely by private systems. First-pillar systems usually allow a very high degree of labour mobility since the pension rights are portable, while in the most common second-pillar schemes (i.e. defined-benefit plans) this is often not the case or only to a limited extent.

Box 2: Why Private Schemes?

It is important to remember that private pension schemes are far from being new. In many countries, company schemes were set up before basic public schemes.⁸ Of course, pension schemes have changed a great deal over time, both as regards their structure, size (absolute and relative) and the regulations that govern them. Another equally important change is the authorities' perception of the role of such schemes, as complementary to, or even a substitute for, public schemes. Whereas up to now the remedies proposed to deal with the actual and/or expected financial problems of public schemes have consisted essentially in modifying their structure, changing the rate of contributions, the pension age, and the amount and method of calculating benefits, the potential role of private schemes as a partial or principal solution to these problems, is now recognised. The existing or projected deficits of public schemes make it necessary to look for solutions from the private sector, whose role will be all the greater in that the deficit is large. This reverse correlation exists already, and it is not by chance that private schemes have expanded essentially in those countries in which the basic (public) schemes provided only a low level of benefits.

The question of an increased role for private schemes also needs to be considered from the standpoint of the purpose for which they were set up. Clearly, the debate is not the same if one considers that their role is to supplement rather than to replace public schemes. That said, no completely privatised pension scheme exists anywhere in the world.⁹ It may also be pointed out that such policies are usually accompanied by compulsory contributions on individual accounts and the introduction of a guaranteed minimum benefit based on a universal or targeted approach.¹⁰ In contrast, some countries have allowed the possibility of voluntary substitution ("contracting out" in Japan and the United Kingdom) between the first and second pillar and sometimes between the second and third pillar ("personal pensions" in the United Kingdom), thereby facilitating "à la carte" voluntary privatisation.

While the majority of experts¹¹ consider that total privatisation would not be feasible and that, in any case, the State would still have to play a leading role in the provision of "minimum assistance", irrespective of the form that it would take, nobody now seems to dispute that the private sector can play an important and growing role in pension provision, both per se and in order to make good the current and future shortcomings of public schemes.

Independently of this macroeconomic role, employers have all sorts of reasons for setting up occupational schemes: the pension can be presented as a deferred salary; an assumption of responsibility vis-à-vis the workers; as a means of facilitating the departure of older workers (especially if compulsory pensioning-off of workers is not allowed, as in the United States); to make employees loyal to the company and to avoid too-rapid staff turnover; to recruit the best staff by offering adequate pension benefits and by the same token raise productivity; to benefit from tax relief and to be able to invest the funds in the company when that is allowed.

42. Second-pillar schemes are usually funded, and thus generate own resources. It is for this reason that many people have argued in favour of them, not to mention the fact that such schemes are less exposed to demographic risks than pay-as-you-go schemes.¹² It is also quite possible to conceive a public system that is either partly funded (as is the case in several countries and is increasingly advocated) or totally funded. However, some people have expressed fears about the risks of such large amounts of capital being accumulated in the hands of a centralised public system subject to political pressures. The use of pay-as-you-go systems in second pillar is less conceivable, except under special circumstances

43. As to whether a funded system is superior to a pay-as-you-go system, this is a vast question which is hotly debated. For this reason, it is important to analyse all the facets of the issue, taking account of the economic and financial aspects as well as the social aspects.¹³ Indeed, several commentators consider that neither system is as a matter of principle superior to the other.¹⁴ However, it may be considered that it is perhaps just as dangerous to deny that one system has any advantages over the other as it is to argue that one system is the best in all circumstances. The advantages should rather be appraised on a case-by-case basis in the light of the goals and the national context in which they are pursued. In analysing the two systems, they should be treated as being complementary to, rather than as substitutes for, one another.

44. First-pillar systems are usually highly centralised, which in principle, and save any major malfunctions (X-inefficiency), makes possible substantial economies of scale and the absence of promotional costs. However, the excessive rigidity that results from such centralisation is often underlined.

45. Second and third-pillar schemes restore the link between contributions and benefits, especially in defined-contribution schemes. However, this “advantage” is two-edged and in the long term may penalise a segment of the population, especially those people who do not have a high income or who do not save enough.

46. Solidarity and the goal of providing at least some degree of assistance are characteristic of the first pillar, whereas the second pillar generally comes into play only beyond this primary level. In addition to such assistance, the first pillar delivers pension benefits, the extent of which—as measured by the replacement rate and the nominal amount obtained—varies. The second pillar tends, *inter alia*, to supplement these benefits, which would explain why its development is inversely proportional to that of basic schemes.

47. Public systems are subject to political risks (involving that substantial changes to contributions and/or benefits are possible). At the same time, however, the state is seen as an element that is inherently “stable”—in particular because it is perceived in terms of a certain perpetuity, which justifies in part the use of pay-as-you-go schemes—but also unstable, the nature of its power being such that it cannot make commitments for the future (no government can guarantee that its policy will be followed by subsequent governments). While public systems involve a definite political risk insofar as levels of contributions and benefits can be altered by a mere decision of the powers that be (although such decisions may be successfully challenged by the benefit-receiving electorate), this also holds true of private schemes, the regulatory framework of which can be altered at any time. Indeed, governments have not hesitated to do so. Such changes can not only create instability if they become too frequent, but they can also make the regulatory framework needlessly complex and ponderous.

48. Among private schemes as well, it is necessary to distinguish between the second and third pillars. To provide pensions under a second-pillar scheme holds out a number of advantages for both employers (see Box) and employees, who in many cases are entitled to a pension that is tied—albeit

through a replacement rate that can vary substantially—to the most recent salary level(s), (in case of defined benefit schemes) and to which the employer has often contributed greatly, if not exclusively (although employer contributions generally have repercussions, at least indirectly, on the level of pay). Collective schemes also make it possible to reduce the risk arising from a lack of information by individual employees, and to tap financial markets on favourable terms thanks to the collectivisation of contributions. In contrast, many such pensions impose *de facto* or *de jure* limits on employee mobility and, in addition, run a substantial risk of default, at least in the case of defined benefit schemes.

49. For their part, third-pillar products are tied directly to contributions, are fully portable (in the sense that they are not linked to a specific employment relationship) and flexible with regard to contributions (including loan options), and in many cases give beneficiaries at least a partial right to influence investment policy. Moreover, they completely restore the relationship between benefits and contributions and for this reason are especially prized by high-income segments of the population. This prompts some observers to raise the fundamental question that individual plans — at least voluntary ones — may not be suitable for people on low incomes. Such freedom does have a price, however, in that many such products lack guarantees of an adequate level of ultimate benefits (even if, as in the case of insured products, there is a guaranteed minimum), and the costs of entry, exit, management and promotion can be substantial.¹⁵ The third pillar is also subject to major risks (including fraud) concerning product distribution, as recent events in the United Kingdom have shown.

50. The third pillar is expected to develop considerably in the years ahead. This will ensue as the second pillar matures, but also because the second pillar may not satisfy the needs or desires of its beneficiaries. More generally, a number of countries would also seem inclined to encourage individual decision-making in connection with provisions for retirement. The third pillar is theoretically open to all individuals, and it is not linked to any particular employer, nor to the fact that the beneficiary is or is not employed. It consists primarily of individual pension products offered by independent financial institutions.

51. The borderline between this pillar and the second one can be very blurred. For example, in the United States, while IRA products fall into the former category, the matter is not as clear-cut for Keogh or 401 K plans, which can be classified in either the second or the third pillar, depending on the observer. However, 401 K plans are offered in an employment context and, as such, are theoretically incorporated into the second pillar.

52. It can also be noted that a number of Member countries have recently implemented major reforms of their pension systems, moving towards individualisation of the second pillar. Among these countries are Hungary, where a new pillar comprising a system of compulsory individual accounts with defined contributions has been in place since September 1997, and Mexico, where a new system based on voluntary individual accounts has been operational since July 1997. In the United Kingdom, the government embarked in July 1997 on a sweeping review of its current system, and the option of setting up compulsory individual second-pillar pensions was recently considered. In the United States, among the positions taken by the Social Security Advisory Council (including the so-called Ball, Gramlich and Schieber proposals), the Schieber proposal suggests creation of compulsory individual accounts.

53. Within the second pillar, employees cannot generally choose their own pensions funds, but such an option would appear to be developing, in particular in the wake of the individualisation mentioned above. Recent discussions in the Netherlands (on opting out) envisaged a transfer of assets from one fund to another, *inter alia* in the event that investments should underperform. In Australia, beginning in July 1998, employers will have to offer new employees their choice of five “superannuation” funds or retirement accounts (RSAs) to which contributions could be made. In Hungary, since 1 January 1998

employees have been able to select the private fund that will maintain their individual accounts (but they may be affiliated with one fund only). In Mexico, workers can choose the fund with which they open their individual accounts. In Italy, the existence of “open” funds allows for choice in certain cases.

54. Finally, third-pillar pension plans are often hard to distinguish from other savings products offered by financial institutions (banks, insurers, mutual funds). While their primary objective is savings-related, such products can also be acquired in order to constitute retirement income. Moreover, this is frequently used as a marketing argument. As a rule, they are eligible for tax concessions similar to those granted to “genuine” individual retirement products.

55. The three pillars tend to be mutually exclusive. It can be seen that in countries with a substantial first pillar, the second pillar tends to be limited. Moreover, substitution between pillars has been organised in certain countries, such as Japan and the United Kingdom. The United Kingdom has taken the step of setting up substitution options between the first and third pillars. Other countries have developed a mandatory shift from a part of the first pillar to the third one (although the related regimes are in fact in blurring area between second and third pillars) by requesting mandatory individual contributions to independent pension managers. The exclusion between pillars varies by category of employees.

Table 1. Financing the Second Pillar

Australia	Funded
Austria	Funded
Belgium	Funded (individually and collectively)
Canada	Funded
Czech Republic	Funded
Denmark	Funded
Finland	First pillar only
France	Pay-as-you-go for the compulsory part (ARRCO/AGIRC) Funded or pay-as-you-go (funded only in the future) for optional occupational pensions Funded for the part of pensions above mandatory minimum
Germany	Funded (mainly book reserves) Pay-as-you-go for public servants
Greece	Funded
Hungary	Funded
Iceland	Funded
Ireland	Pay-as-you-go or funded
Italy	Funded
Japan	Funded (for pension schemes managed by insurance companies)
Korea	Funded
Luxembourg	Funded mainly book reserves
Mexico	Funded
Netherlands	Funded
New Zealand	Funded mainly
Norway	Funded Pay-as-you-go for public servants
Portugal	Funded
Spain	Funded (individually and collectively) ¹
Sweden	Funded Pay-as-you-go for public servants
Switzerland	Funded
United Kingdom	Funded
United States	Funded

1: The reference in this document related to the Spanish situation belong only to the pensions schemes covered by Act n°8/1987.

Second pillar

56. Returning to the second pillar, which is this paper's primary focus, distinctions need to be made on the basis of:

- financing methods: whether firms resort to internal or external funding;
- financing vehicles used in the event of external funding;
- beneficiaries' rights on the assets of the scheme;
- obligations of results or best efforts;
- types of pension plans: defined contributions, defined benefits, mixed;
- taxation.

57. A second-pillar pension scheme comprises a substantial number of functional and institutional components. At the outset, the employer (or group of employers, or all employers in a given industry) institutes one or more pension plans -- which may be based on defined benefits, defined contributions or a combination of the two -- for its employees (or a certain segment thereof) according to certain rules (for establishing vested rights, transfers, etc.) and creates a fund to ensure that the plan operates properly, accumulates adequate resources (using a large number of actuarial techniques) and delivers pension benefits, which may be indexed, paid out in lump sums or annuities, etc. This fund may or may not be set apart from the employer's assets and administered internally or externally. In the latter case, it may be self-administered or its management turned over to one of any number of kinds of financial institutions. Moreover, the employer may make use of the second most common method for covering pension liabilities—group insurance. Even this very superficial description illustrates the potential complexity of pension schemes. Diagram 1 shows an illustrative, institutional typology of private schemes. Some remarks on this typology can be found in Annex I. See also Annex II for an analysis of typology.

a) Internal or external administration

58. Whether or not a pension fund is administered in-house is very important from a regulatory standpoint. Clearly, assets representing commitments to future pension benefits are potentially more at risk of the employer's default if they are not secured in a legally separate fund. Moreover, legal separation is not necessarily an adequate guarantee for those entitled to benefits if the employer effectively keeps control of the funds. In several countries (Austria, Finland, Germany, Japan, Luxembourg and Sweden), there is a system of book reserves under which the corresponding assets are not segregated from those of the employer. The insecurity connected with this method has justified the imposition of compulsory insolvency insurance in Germany, Sweden and Finland¹⁶. In Austria, employers are required to deposit 50 per cent of the book reserves in Austrian banks. In Japan, however, neither insurance nor security is required under book reserve schemes, exposing pensions to major risks. An extreme case of the absence of separation is a system in which benefits are paid out of overheads. This is a form of pay-as-you-go that presents many dangers in the absence of the guarantees available to governments using the same system. As a result, in many countries it is prohibited.

59. The principle of separation (which echoes that of specialisation in insurance and of "fire wall" within financial groups) is also to be found with regard to the regulation of investments. For example, many countries impose strict limits on self-investment in the firm that sponsors a fund. Separation is all-important in the event a business goes bankrupt, because to some extent it shelters beneficiaries. Even if a

fund is under-financed, the beneficiaries at least have a priority claim on its existing assets. If a fund is not separated, employees are entitled only to a share in the proceeds of liquidation, to be determined according to their rank among creditors. Lastly, separation limits the risks of fraud on the part of the employer.

b) *External schemes*

60. If a fund is an external one, it may be administered in a number of different ways. First, it may be self-administered; if so, depending on the country, it is subject either to special regulations, the strictness of which can vary, or to regulations modelled more or less extensively on those of life insurance companies. Second, funds may also be managed by specialised financial institutions, such as insurance companies, banks or certain investment management companies (e.g. money managers in the United States). In many cases this involves managing the investments of the fund. A fund can also arrange for a financial institution—generally an insurance company—to administer benefits. All administrative matters may be handled by the insurer under the system of deposit administration, in some cases with constitution by the insurer of secured assets (system of separate account). Certain commitments can also be reinsured.

61. Finally, an employer can set up a pension scheme via group insurance, whereby the employer transfers its performance obligation to the insurer—subject, however, to the contributions received. These insurance contracts may involve defined benefits or defined contributions. In case of such contract, the scheme is subject to the rules governing insurance, which are generally considered to provide a high degree of security. The regulatory differences to which pension funds and insurance companies are subject in respect of pension transactions raise questions as to the development of a suitable competitive framework.

62. It is also necessary to bear in mind the existence of external schemes on the borderline between the second and third pillars—i.e. schemes, generally compulsory, involving individual contributions and reserved for employees, which are administered by pension entities not constituted by the employer but created by independent financial institutions for the purpose of managing these contributions (Australia, Hungary, Mexico).

c) *The rights of beneficiaries*

63. The rights of pension scheme beneficiaries are also viewed differently depending on the countries, categories of schemes and types of products. Protection of such rights has been expanding in recent years, *inter alia* through the all-important institution of the concept of vested rights. For example, before ERISA was enacted in 1974, US employers had no legal obligation to confer vested rights in respect of pension benefits, except in special circumstances.¹⁷ These aspects will be dealt with in Chapter II.

d) *Obligations of results or best efforts*

64. Private schemes must also be differentiated on the basis of obligations—of best efforts or results—on the employer. Except in the case of group insurance, the employer theoretically remains the guarantor of the pension scheme it has set in place. However, the guarantee differs, depending on the type of plan. In defined contribution plans, the employer's obligation goes no further than its contribution. In the case of defined benefit plans, the obligation is tied to the promised benefit. The extent of the obligation and the uncertainty as to whether it will be fulfilled differ widely from one plan to another. The

obligation is sometimes qualified, however, as in the case of defined benefit plans having a safeguard clause, of defined contribution plans with guaranteed minima, or of hybrid or mixed plans which combine features from both types of plans.

65. The results/best efforts obligations related to the pension plans must be closely differentiated following to whom it applies, i.e. the employer or the retirement institution (pension fund or insurance company). The first question is to know which results/best efforts obligation is associated to the plan (defined benefits or contributions) and then to know who, employer or retirement institution, is responsible for its fulfilment.

e) Types of plans

66. Apart from the obligations of results or best efforts they contain, plans can be distinguished on the basis of a series of other important features. The two main categories are defined benefit plans and those with defined contributions. The table in Annex III shows some of the characteristics of the two types of plans, in the United States. It can be seen that each one involves potentially different regulatory implications with regard to financing rules, types of payouts, outstanding risks and risk bearers, suitability of benefits and insolvency insurance.

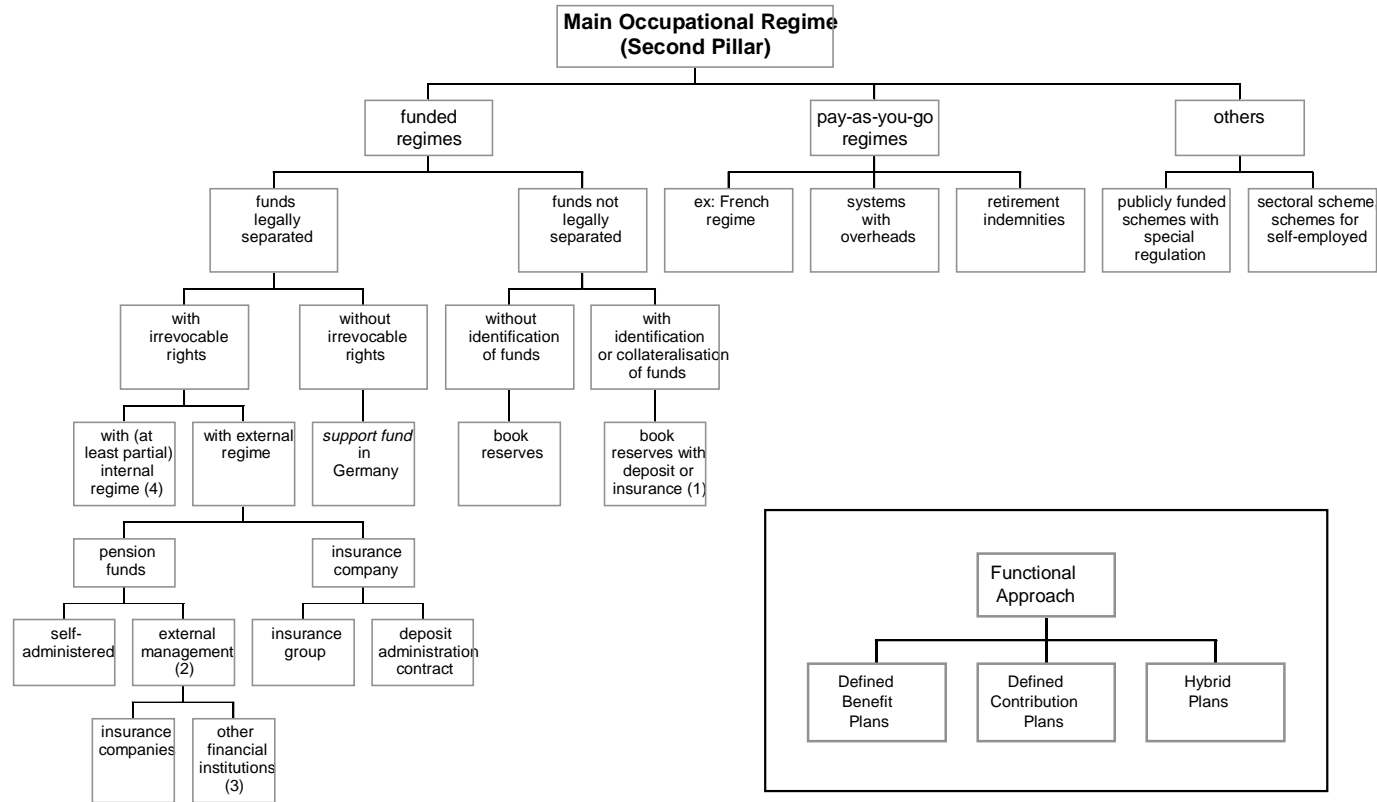
67. Defined benefit plans are the ones most commonly found on an OECD-wide scale. Nevertheless, there has been substantial growth in defined contribution plans in a number of countries, including the United States, where such plans now represent a very substantial proportion (if not the largest proportion, depending on the indicator used¹⁸) of private schemes. Even so, in recent years there would seem to have been a return to defined benefit plans in the United States¹⁹. In Italy, regulation prohibit employees from joining defined benefits plans (which can be set up only for self-employed workers and professionals).

68. There has also been substantial growth in hybrid products, which combine features of both types of plans. More generally, defined benefit plans may include safeguard clauses allowing contributions and/or benefits to be adjusted in certain circumstances, whereas defined contribution plans increasingly include guaranteed minima. Such is the case where plans must guarantee minimum profitability (with respect to an average). Finally, it needs to be emphasised that in many countries both types of plans are offered simultaneously within corporate schemes. In the United States, defined contribution plans are frequently offered as supplements to defined benefit schemes (at least in companies above a certain size).

f) Taxation

69. Without going into details regarding the tax treatment of pension schemes, it must be noted here that tax considerations exert a powerful influence over the choices of employers and employees, as well as over the type of management selected. This considerable influence has very substantial repercussions on regulations for other purposes (in particular prudential) and, in some cases, can conflict with those other purposes. A comprehensive approach to the various categories of regulations ought to be applied so as to minimise some of these counterproductive effects.

Illustrative Organigramme



- (1) ex: Bank deposit of 50% of book reserves
- (2) management of investments and/or benefits
- (3) ex: banks, investment companies, etc.
- (4) This subdivision exists only to point out that externalisation is not always complete, even in the case of funds separated with irrevocable rights.

Table 2. **Main types of private pensions schemes**

Australia	DC
Belgium	DB mainly
Canada	DB mainly
Denmark	DC mainly
Finland	DB
France	DB
Germany	DB mainly
Hungary	DC
Iceland	DC
Ireland	DB
Italy	DB
Japan	DB mainly
Luxembourg	DB
Mexico	DC
Netherlands	DB quasi exclusively
Norway	DB
Portugal	DB mainly
Spain	Hybrid (nevertheless, the retirement operation in D.C. mainly)
Sweden (ATP)	DB
Switzerland	DC: 60% , with contributions adjusted according to an objective of 60% replacement rate DB: 40%
United Kingdom	DB mainly
United-States	DB for basic cover, and often DC for supplementary pensions

DB = defined benefit plans

DC= defined contribution plans

CHAPTER II. RIGHTS OF BENEFICIARIES

Voluntary or compulsory schemes

70. While the regulations covering private pension systems vary a great deal from country to country, the basic objectives behind the schemes are the same. These objectives are both to protect the people covered by such schemes -- particularly their right to a fair and adequate pension -- and to ensure that the systems are solvent. Often, states also wish to check on the uses to which indirect subsidies, in the form of the many tax benefits granted to such schemes, are put.

71. The extent of regulation, indispensable to maintain beneficiary' confidence, depends on numerous factors, chiefly relating to the role -- complementary or substitute schemes -- and the social and financial impact of private systems. It will also depend on the self-regulation mechanisms put in place by private pension providers and the characteristics of products, financial vehicles and plans. It should also take account of the regulation applied to public schemes. Lastly, regulation often takes its cue from current events and develops appropriate responses (that is the aim at least) to incidents on the market (bankruptcies, fraud) or to the changing demands of the different actors.

72. Whatever the development of private pension schemes and their regulation, one key point must be kept in mind: the government will always be involved, if only as a last resort. Contrary to other sectors, where governments can leave everything to market forces -- under certain conditions and provided that minimum regulations are in place -- where pensions are concerned the non-payment of present or future benefits can seriously affect would-be beneficiaries' lives. This means that fund bankruptcy should be prevented or contained, either explicitly (insolvency insurance) or implicitly (e.g. "contracting in" at the rate of the GMP (Guarantee Minimum Pension), in the United Kingdom prior to the 1995 reforms). In cases of hardship the state, through the operation of aid programmes or ad hoc assistance, is *de facto* the last resort.²⁰

73. Regulation may go so far as to make private pensions compulsory. The compulsory or voluntary nature of private pensions raises many questions. Where a private system partially substitutes for a public system, one might consider that it should be made compulsory. This would decrease the risk of "short-sightedness" and potential irresponsibility on the part of the individual (which could however also be reduced through appropriate educational programme). Compulsory provision, at the very least at company level, would also make it easier to achieve the social objectives pursued by the state. Compulsory cover would also have a bigger impact on national savings,²¹ would enable standardisation of transfer and vesting conditions,²² would reduce annuities market failures (if taking pensions in the form of an annuity was also made compulsory), the costs of distribution and sales (in the event of compulsory provision at employer level),²³ or indeed the risks of major social disparities. Some observers add that it would also facilitate the reduction by governments of tax advantages granted in case of voluntary regimes. It would also help build a degree of solidarity.

74. One of the reasons often cited in support of the introduction of compulsory systems is the desire to extend as much as possible the scope of coverage of private schemes, which may be limited in the case

of voluntary schemes, particularly for certain categories of the population. However, it should be noted that the fact that a system is compulsory is not an adequate guarantee of its real coverage²⁴. The private nature of a scheme, a fortiori if it is complementary, may also incite to the implementation of voluntary regimes, which are based on individual responsibility.

75. Compulsion may take any of several forms: for example, compulsory provision at employer level or compulsory pension cover at employee level. A review of the situation in 22 OECD countries shows that most second-tier complementary systems are voluntary for employers. However, they are mostly accompanied by “minimum” rules covering some of the risks that a purely voluntary system could give rise to. In some cases, voluntary systems allow for government intervention to make the system compulsory under certain circumstances (in the Netherlands, for example). On the other hand, in several cases compulsory systems provide for the possibility of “contracting out” or of involving the social partners, thus introducing a voluntary element. Compulsory systems for employees only are rarer but do exist in some countries. In Hungary, Switzerland and France pensions schemes are compulsory for employees (except for some categories including the self-employed), not for the employer. The United Kingdom has recently been considering the introduction of such a system. Conversely, a recent project in New Zealand on compulsory employee pensions was overwhelmingly rejected in a referendum. In the United States, some recent proposals²⁵ suggest to replace the first pillar by mandatory employees contributions to individual accounts.

76. Compulsion must also be considered from the legal and collective bargaining standpoint. Several countries in which there is no legal compulsion to provide or contribute have compulsory systems at sectoral or company level under collective bargaining agreements. In general, it is observed that, in cases where the employer is not obliged to set-up a retirement system, once he does it, he has to follow specific rules, in particular as far as non-discrimination is concerned, while employees will often be obliged, through employment contract, to join the scheme.

77. What we find is that while compulsory systems are very tempting and exist in law in some countries or sometimes in practice in others, the tendency in OECD countries has been towards voluntary systems, although these are accompanied by a regulatory framework, which is stricter in some countries than in others. The necessity to set up a minimum educational programme for beneficiaries is also often raised in the case of voluntary regimes.

Rights of beneficiaries

78. The current expansion of the role of private provision in retirement pension coverage increases the need for adequate safeguards for beneficiaries. The basic rights of individuals are generally guaranteed by the state in some form or another. Inasmuch as the state is no longer playing its role (deliberately or involuntarily) or is decreasing its role, it nonetheless still has a responsibility to ensure that others will fulfil that role in its stead. This explains why private provision of pensions, when it entirely replaces public provision, is (or should be) subject to a regulatory framework that protects the rights of individuals, particularly where a private system also replaces minimum assistance, which is generally the responsibility of the state. The same applies when the public system does not provide an adequate pension (or does not anymore, following a reduction of the benefits due to budgetary constraints) and is supplemented by a private system to ensure a minimum pension. At the other end of the scale, i.e. where private provision is additional to a public system which provides adequate and satisfactory benefits, the protection of beneficiaries of private schemes that are merely providing an “additional” pension may be regulated in a more flexible way. This is often the case for third-pillar schemes particularly where they are additional to strong first-pillar and second-pillar schemes.

Table 3. **Obligation For The Worker To Be Affiliated To An Occupational Pension Systems**

Australia	V (C for the employer)	Korea	C
Austria	V	Luxembourg	V
Belgium	V	Mexico	V
Canada	V	Netherlands	C
Czech Republic	V	Norway	V
Denmark	C (Collective agreement and ATP)	Portugal	V
Finland	C (First pillar)	Spain	V
France	C (partly)	Sweden	C (collective agreement)
Germany	V	Switzerland	C (partly)
Greece	V (TEAM: C)	United Kingdom	V
Hungary	C	United States	V
Iceland	C		
Ireland	V		
Italy	V		
Japan	V		

V = voluntary

C = compulsory

79. The state therefore can only reduce its direct role as a provider of minimum pension benefits if other providers are ready to take over this role and comply with the basic objectives of the state. In so doing, private system would partly fulfil a social function (this is mainly what leads some authors to say that today's employer pensions are quasi-public²⁶). Hence, the pensions sector should not be treated just like any other sector of the economy. It has unique social components that it shares with the health system, which quite simply are connected with people's survival, particularly when one considers that pensions (or their equivalent) must as a minimum cover a person's -- or at any rate a worker's²⁷ -- essential needs.

80. Regulation and analysis of private schemes must be set-up in close connection with public schemes and their respective roles. In this respect it is important to note that a substantial percentage of the population does not benefit from private pension provision in several countries where public pensions do not offer adequate cover, or offer only reduced cover. For instance, in the United States, where the minimum pension is one-third of the average in G7 countries²⁸; in the United Kingdom, where, on the government's own admission, the basic pension alone does not provide adequate income for retirement and is typically lower than minimum income levels. This is why one-third of the retired population receives additional benefits such as "income support"²⁹. Some countries have tried to tackle this type of problem by making private pension schemes compulsory. Others have attached substantial tax incentives to private schemes or personal pension plans. Despite this, some strata of the population seem to have fallen through the net. Although the self-employed benefit from substantial tax incentives on pensions, often few or none have taken out a pension. Even where pensions are compulsory such disparities are noted. This is bound to pose serious problems for governments in the long term as they may well have to provide for the needs of this segment of the population.

a) *Right to a pension*

81. A first major element of beneficiary entitlement and protection concerns the “right” to retirement cover. With voluntary private pension schemes there is no obligation on the part of an employer to set up a scheme within his enterprise. He has of course numerous reasons for doing so, e.g. to obtain tax relief, meet expected pressure from unions or make employment in his firm more attractive for future employees. But if he does not do so, and if there is no obligatory scheme, workers have no alternative but to look to the third pillar or rely on public pension schemes. Governments may try to ease the situation by granting tax concessions, by simplifying administrative formalities (e.g. the SIMPLE programme set up for independent workers in the United States in 1996), or by making these schemes mandatory.

b) *Access to a private pension*

82. Where firms do set up pension schemes, individual entitlement may be subject to numerous conditions and some categories of employee may be excluded. The main forms of exclusion or discrimination include:

Table 4. Percentage Of Working Population Covered By Second Pillar Private Schemes

Belgium	31%	Luxembourg	30%
Canada	41%	Netherlands	90%
Denmark	80% of the employees	New Zealand	22%
France	100%	Norway	66%
Germany	42% (Western Germany, 92)	Portugal	15%
Greece	5%	Spain	15%
Ireland	40%	Sweden	90% (compulsory)
Italy	5% (mainly for executives)	Switzerland	100% above a certain income level (Sfr 23 280)
Japan	37% (funded schemes only)	United Kingdom	50% (occupational schemes)
		United States	46%

Sources: Turner (1996), Davis (1995), Pestieau (1992), EU Green book and OECD.

- age restrictions: no pension below a specified age or no benefits in respect of employment above a specified age;
- salary restrictions: pensions are de facto or de jure restricted to a specified salary bracket;
- restrictions based on sex.

83. Several countries have adopted regulations to deal with these situations. For example, by mandatory pension entitlement above a specified age or specified length of employment (Norway, United States³⁰), by requiring continued accrual of rights for employment beyond the normal retirement age, or by prohibiting discrimination, particularly that based on salary. Rules to prevent discrimination sometimes have to be backed by other rules to make them operational. Thus in the United States, discrimination is prohibited primarily among beneficiaries of a given pension plan, so that by setting up several plans an employer can avoid the prohibition. In 1986, minimum participation requirements were introduced to deal - at least partly - with this problem (plans must cover at least 50 employees or 40 per cent of all employees).

84. In addition to restrictions on who can join a scheme, there may also be discrimination as to benefits. The most flagrant of these is that between the sexes where retirement age, benefits and mortality tables are often different. One problem is to decide whether the ban on discrimination applies to benefits, implying unequal costs, or to costs, resulting in unequal benefits (lower for women, although generally for a longer period). Several regulations have however been adopted in recent years to deal with this problem (e.g. in the European Union by directive and by decisions of the European Court of Justice, including the Barber decision³¹) and reduce these differentiations as far as possible.

c) *Vested rights*

85. If a firm decides to provide retirement cover for some or all of its workforce, such cover has to be genuine and represent a binding obligation on the part of the employer. Up to the beginning of this century, most pension plans in the United States contained clauses to the effect that pensions were at the discretion of the employer and in fact amounted to gratuities.³² But the tendency is no longer to see company pensions as a gift the employer may or may not make, but rather as an irrevocable commitment conferring a vested right. A retirement pension then becomes a kind of deferred salary with all the rights that this implies.³³ Here again, regulations in most countries determine the moment in time when such vested right is acquired. But the situation differs considerably from one country to another -- from immediate entitlement to a waiting period of several years, or sometimes progressive entitlement. The table hereinafter sets this out.

86. The acquisition of rights to a pension has been a major step forward for the protection of beneficiaries. In particular, it allows a degree of mobility and limits the risks linked to business closure -- provided, of course, that the pension scheme has adequate funds. The concept of vested rights has become central to financing since funding adequacy of the funds has to be assessed in relation to their commitments, i.e. the vested rights (possibly projected) of beneficiaries. An employee is in principle always entitled to benefits corresponding to his own contributions. Problems arise more in connection with entitlement related to employers' contributions.

87. In some cases, vested rights may vary depending on position in the career path ("backloading"). This tends to tie down the employee and may restrict vested rights. In this respect some countries require minimum accrual of such rights so as to limit cases of abuse.

88. Similarly such rights may be severely curtailed by the fact that they are habitually *nominal*. This is particularly important on leaving a firm if rights are not transferable. An employee who leaves his firm, especially early in his career, will indeed have vested rights for the period of employment counting towards his pension, but where the reference is to final salary, benefits will be relatively low and may moreover not be index-linked. The United Kingdom requires index-linking of pension rights, but is one of the few countries to do so. It will be seen below that indexing pre- and post-retirement rights raises other problems.

89. The issue of beneficiaries' protection may be particularly relevant in the framework of disputes that the calculation of vested rights may generate. Beneficiaries may face very difficult situations in case of miscalculations of contributions and/or benefits. The issue of vested rights raise also specific questions concerning the right of spouses. As mentioned in the introduction, these matters will not be treated in this paper.

d) *Mobility and transferability*

90. Aside from adjustment of vested rights to take account of inflation, workers who move around within different firms may face problems of aggregation of limited pension rights. Workers will be penalised in various ways, particularly in the case of schemes where benefits are based on final salary. On each occasion the worker loses any right he might have acquired to a pension based on a higher final salary. A recent study (by the Office of Fair Trading) shows, for example, that a wage earner who changes jobs for instance five times could end up with a pension 30 per cent lower than a person who stays in the same plan—and in some cases with much less. Mobility issues could spur the growth of defined contribution plans. Some countries have introduced the possibility of transferring entitlement acquired by the employee to the private pension fund of his new employer. Portability goes even further in that the new employer also recognises periods of prior employment for pension purposes. The mobility issue is particularly important for movements across countries and is related to the principle of free movement of workers. The report of the high-level group on the free circulation of individuals (Veil Group), which underlies the recent proposal for a European directive on the pension rights of individuals moving between European countries, is concerned mainly with the preservation of pension rights and equality of treatment for workers moving from one State to another. The policy approach on this issue should correspond to the national employment policy. There is here a policy choice between the promotion of the mobility of employees and the interest of employers to fidelity and stability of their employees. When professional mobility is promoted, related measures should be taken in the pension field in order to encourage this goal.

e) *Entitlement to benefits*

91. Entitlement to a full pension is also generally limited by length of employment or by the age of the worker. Arrangements here vary considerably. Acquisition of entitlement to benefits is also often linked to age or length of employment. Such practices can be highly prejudicial depending on how benefits are calculated (e.g. where they are linked to final salary or entitlement increases substantially in the last years of employment) if the employee leaves, voluntarily or otherwise, some years before pensionable age.

Table 5. **Vested Rights**

	entitlement of vesting rights	accrued benefits	indexation	transfer modalities
Belgium	immediate on employee contribution	no	but possible adjustments	transferability of vested reserves
Canada	1 year on employer contribution			
Denmark	2 years immediate		weak	possibility of transfer of surrender value between occupational pension schemes
France	immediate			
Germany	10 years		yes	
Hungary	immediate			
Japan	from 5 to 30 years for voluntary departures			little transfer values for employees leaving the fund voluntary and early
Mexico	no		no	no
Netherlands	1 year		yes in practice	possibility of transfer, under same conditions, within large network of pensions
Norway	3 years			
Spain	immediate			transfer to other national plans
Sweden (ATP)	immediate			full transferability of national plans
Switzerland	immediate for minimum contrib.			
United Kingdom	2 years		yes	transfer to other pension funds
United States	5 years (+ progress.)		no	possibility of lump sum in case of transfer

Source: Davis (1995) and OECD.

f) *Adequacy of the pension*

92. Echoing as they do the broad concepts underlying the development of social security systems (Beveridge and Bismark concepts in particular), private pension schemes are also concerned by discussions regarding public schemes, since the underlying principles are the same. This issue concerns first the adequacy of private schemes to substitute or complement public schemes in an appropriate way, at the level of the scope of the coverage within the population or at the level of the size of the coverage itself. In this respect, the aim that a pension should provide a minimum income to meet basic needs should be looked at first. It may be assumed that this is a matter for the State. Such income may come from a retirement scheme or some other system to deal with poverty among the elderly. It does not necessarily have to be linked to a previous salary. In that case private schemes would not be expected to provide such minimum income. But they might conceivably be required to do so and the government might play only a role of last resort if the private sector defaulted, particularly for certain categories. If the private sector had to cover such “minimum” situations, it might be considered that it would for such purposes have to be closely regulated to meet public objectives. One last -- theoretical -- possibility would of course be that of a country which would not consider covering such needs to be one of its objectives, either at public or private level.

93. Whether private retirement schemes are adequate will therefore generally be assessed by reference to a second facet of the concept, i.e. maintaining a minimum living standard and/or one comparable to that prior to retirement and balancing adequately benefits and contributions. The minimum living standard can be fixed somewhere above that for basic needs. There is great potential flexibility here. Maintenance of comparable income is however a more precise concept and reflects an approach based on contributions rather than redistribution.

94. Comparable level basically means the level of consumption rather than that of the income itself. During his working life the worker divides his income between consumption and savings. The latter are intended for deferred consumption during working life and/or after retirement. Once he retires the pensioner's need to save is generally less and the replacement ratio is below 100 per cent. Low-income workers as a general rule need a higher replacement ratio than high-income workers.

95. Aside from comparing the living standard to that prior to retirement, the benefits/contributions ratio is also crucial. It naturally favours high-income workers. A high-income worker whose pension is, for instance, only 50 per cent of his salary may think it gives him a standard of living which is a) adequate, b) perhaps comparable with his previous level of consumption, depending on the size of his savings, but c) presumably does not correspond to the level of contributions he paid. Whether or not his pension is adequate will no doubt be seen in terms of the benefits/contributions ratio rather than the living standard.

96. Conversely, low-income workers would no doubt not find their living standard adequate with such a percentage. Adequacy of the pension will be looked at more in terms of this last parameter. Since the private pension will generally come on top of the public pension, the living standard will be judged by how the two are combined. Ways in which they are combined vary considerably, with contributions being offset, or added as a step rate. These methods may however result in benefits being inadequate depending on how they are calculated.³⁴

97. Adequacy of the private pension scheme must of course be considered in the broad context, i.e., as compared with adequacy of the public scheme. Adequacy is assessed differently according to whether the public scheme already permits a standard of living comparable with that enjoyed earlier or not. If it does, adequacy of the private scheme is assessed essentially in terms of the benefits/contributions ratio. If

it does not, adequacy will be assessed in terms of standard of living. In this case, however, the private scheme's adequacy will essentially make up for the public scheme's inadequacy. It would be dangerous here to shift the focus from the inadequacy of public systems to that of private systems. In this case, too, the problem has to be gauged in terms of substitution effects or complementarity. If there is substitution, the question is whether the private scheme does better or, at any rate, as well. If there is complementarity, the question is whether the private scheme meets the objective assigned (comparable standard, minimum standard) as a supplement to the public scheme. Finally, adequacy may be assessed as between private schemes. Generally, it is important that benefits correspond to what was promised in the contract. Adequacy has also to be considered in a dynamic framework and will vary following periods, and related consumption and savings patterns.

98. The adequacy or inadequacy of private schemes is very well conceptualised in the rare cases of contracting out. For example, in the United Kingdom contracting out of SERPS must permit the receipt of minimum benefits corresponding to a reference scheme.³⁵ In Japan, the pensions paid must be at least 30 per cent higher than those of the general pension scheme.

99. Private pension arrangements also pose problems as regards the principle of adequacy. This is notably the case with schemes that propose lump sum payments³⁶. Although these present certain obvious advantages, practice shows that in some cases the beneficiaries use the payments not as a retirement pension but as a pure product of saving, and consume them. Once the amounts concerned have been consumed, the pensioner is without resources. A number of countries allow tax relief for annuities only. Others permit the capital/annuity option but restrict capital sum payment. Others, finally, seem to encourage the latter. Certain limits on this type of pension payment may be considered necessary. These situations should be dealt with flexibly, however. Persons with income from other sources, whatever they may be, should be allowed to choose between capital sums and annuities, particularly if this permits the use of capital for specific purposes such as the purchase of a dwelling³⁷, which moreover may be regarded as a potential source of income (via rental) or to invest related amount in more performing plans. One of the criteria to be taken into account is the extent to which such uses deflect the system from its essential aim of providing a deferred income.

100. Plans with defined benefits are often based on the employee's final salary. This practice, apparently advantageous to the employee, may turn out to be disadvantageous if earnings have tended downward for business reasons that are sectoral or firm-related or for personal reasons (illness, etc.). The "backloading" methods frequently applied in pension vesting make this system all the more unfavourable to employees who leave the firm before retirement age. The risks are reduced if the pension is based on the highest pay or again on average pay (but this average is also more likely to be lower than the final pay).

101. Finally, the adequacy should also be assessed from another point of view, when contributions/benefits may be too important in consideration with social and tax objectives. The objective of tax deductions is to promote the development of adequate pensions and to respond to several social objectives, not to allow citizen to embezzle taxes for personal enrichment. The possibility of tax deductions corresponds to selected social objectives, which may be diverted. This has induced several countries to set maximum ceilings to tax advantages related to contributions and/or benefits.

Table 6. **Replacement ratio (including social security)**

	average gross replacement ratio	maximum benefit
Australia	53% (92)	flat rate: 6 x annual salary
Austria		DB schemes: 60-80%
Belgium	60% (92)	DB schemes: 75%
Canada	70% (92)	DB schemes: 70% including RPC
Czech Republic		flat rate: varying, depending on savings
Denmark	60%	DB schemes: 70%
Finland	60%	DB schemes: 65% (excluding social security)
France	67% (92)	DB schemes: 70% of final carrier salary
Germany	66% (92)	DB schemes: 60% of final carrier salary
Greece	67% (92)	Not available (marginal)
Hungary		varying , depending on the type of scheme
Ireland	59% (92)	DB schemes: 66.6% of final the salary taken into account at the final the carrier
Italy	60% (92)	80%
Japan	60% (92)	DB schemes: depending on salary, varying according to the length of service and the conditions of final occupation
Korea		flat rate: 6 x final carrier monthly salary
Luxembourg	67% (92)	DB schemes: 80% of the salary that is taken into account
Mexico		flat rate (in general): approx. 45% final of carrier salary DB schemes: varying according to length of service (up to 100%)
Netherlands	61% (92)	DB schemes: 70% final of carrier salary
Portugal	68% (92)	DB schemes: 80% of final carrier salary
Spain	74% (92)	DB schemes: 80% of final carrier salary
Sweden	65% (92)	DB schemes: 65% of final carrier salary
Switzerland	72% (92)	DB schemes: 70 % of final carrier salary
United Kingdom	68% (92)	DB schemes: 66,6 % of final carrier salary
United States	68% (92)	DB schemes: 60% of final carrier salary

Source: Pestieau (1992), OECD.

102. Another major problem concerning the adequacy or inadequacy of pensions paid by private schemes is that of indexation. It is useful, first of all, to remember that public system pensions are always indexed and sometimes adjustable upward. This is far from being the case with private schemes. Pre-retirement indexation exists where benefit are based on final earnings, but this does not concern the development of the situation after retirement. Very few countries impose indexation of private pensions: Australia (for the period after 1994), the United Kingdom since the 1995 Pensions Act, and Germany in the case of book provision, following a decision by the Supreme Court. On the other hand, there is evidence that indexation and other forms of inflation-proofing are practised in certain countries despite the fact that this is not mandatory (Ireland, Netherlands, United States). The problem of indexation may be addressed in the future through the development of index-linked bonds, which inter alia would enable insurers to propose inflation-proof annuities on better terms. Variable annuities are also a possibility but these may in fact shift part of the inflation risk to a post-retirement investment risk (though not necessarily, since the two risks may be additional to each other). For a table summarising the different types of annuity, see Annex IV. However, the annuities market is suffering from problems connected with adverse selection (which mandatory annuity payment for all might limit³⁸).

103. Finally, the question of pension adequacy relates to the types of scheme proposed. Needless to say, pension plans with defined contributions carry a greater adequacy risk than those with defined benefits, cases of bankruptcy excepted. The risk is greater in the defined-contribution plan as the amount of benefit is not specified as a matter of principle (except for special provisions). Practice would seem to confirm that, in the present situation, current investment yields obtained on defined contributions plans are generally higher. However, statistical data are not developed enough to assess in an appropriate way the adequacy of defined contributions plans for which much will depend on economic developments, especially the trend of inflation, and policy responses. The concerns related to the adequacy of defined contributions plans were also expressed in the framework of the expected development of the third pillar. There is evidence of a general tendency to make private pension schemes subject to minimum requirements as regards adequacy, even in the case of defined-contribution plans, in order to limit the uncertainties associated with these schemes. These minimum requirements are also being applied to defined-benefit schemes, although there is less uncertainty attaching to the latter.

g) Costs

104. A private pension system can be costly. For one thing, the fact that pension plans are decentralised at the level of industries, companies or even individuals means that none of the economies of scale obtained from a centralised system can be expected. Yet a centralised pension plan can be highly dysfunctional, due to its size, offsetting any such savings. Creating a fund entails fixed costs (for starting it up) as well as variable ones (for operating it). The fixed portion may be high and mean that the setting up of a fund should be considered only if it is likely to grow to a certain size. The high cost also partly explains why self-employed individuals and small- and medium-sized businesses turn relatively infrequently to pension funds, generally opting for insurance coverage instead.

Table 7. **Commutation of Benefits (capital/annuity option)**

(Private Schemes)

	Capital sum or annuity	Annuity only
Australia	<p>Total option: payment of pension in capital sum under most plans and chosen by almost all beneficiaries; <u>taxation</u> of this capital at – 5% for the portion paid in before 1.7.1983 – 16% approx. (as for ordinary income) for payments subsequent to that date, which represents a tax inducement to exercise the option; maximum capital receiving tax exemption (reasonable benefit limit or RBL, introduced recently): – A\$ 836 000 for at least part-payment in annuities; – less for total lump-sum payment</p>	
Austria		Situation fairly comparable to that of Germany
Belgium	<p>Total option: payment of pension in capital sum under most plans and chosen by the majority of beneficiaries; <u>taxation</u> of this capital at 16.5%, whereas annuities are taxed at the standard rate</p>	
Canada	<p>Total option, offered by defined-contribution plans; <u>no taxation</u> of capital if transferred to certain other types of plan</p>	
Denmark	<p>Partial option: possible payment of a capital sum of a certain percentage of the pension (this possibility must be chosen at time of payment of contribution) <u>taxation</u> of this capital at 40%; annuities taxed as personal income</p>	
Finland		Annuity payment mandatory
France		Pensions financed on pay-as-you-go basis, therefore without reserves – “ <i>loi Thomas</i> ”: capital-sum option disallowed, notably to avoid direct competition with the third pillar
Germany		Nearly 60% of supplementary pensions are financed by book reserves; it is therefore in firms’ interests to spread out payments
Greece	Total option	
Iceland		Annuity payment mandatory
Ireland	Situation comparable to that of the United Kingdom	
Italy	<p>Total option: payment of pension in capital sum under the most important complementary system, mandatory for all employers; <u>taxation</u>: this capital is taxed separately at a more favourable rate than the standard rate, especially in the case of long careers; <u>maximum capital</u> accumulation qualifying for this treatment: 3 times the annual earnings for long careers; partial option (50% capital sum</p>	

	payment) introduced recently but with less favourable tax treatment	
Japan	<p>Total option; taxation;</p> <ul style="list-style-type: none"> – no taxation of capital for a first tranche of ¥ 15 million nor for one half of the remaining capital (figures valid for at least 30 years' service) – taxation of the other half of the capital at the standard rate 	
Korea	Total option	
Luxembourg	<p>Total option; <u>taxation:</u> capital taxed separately at a maximum rate of 35%</p>	
Mexico	Total option: usually monthly benefit but option of a lump sum payment. Taxation from a certain level.	
Netherlands		Annuity payment mandatory
New Zealand	Total option	
Norway		Annuity payment mandatory
Portugal	<p>Partial option: possible capital sum payment of one-third of the pension; <u>no taxation</u> of this capital</p>	
Spain	Total option: Nevertheless in the case of combination capital/annuity a unique collection of capital resources concur.	
Sweden		Annuity payment mandatory
Switzerland	<p>Total option: <u>taxation:</u> separate and moderate taxation of this capital</p> <ul style="list-style-type: none"> – at a special rate that varies according to canton, or – at a maximum rate equal to the rate at which annuities would have been taxed (for part of the capital only) 	
Turkey	Total option	
United Kingdom	<p>Partial option: possible capital sum payment of one-quarter of the capital with a maximum of 1.5 times the annual salary; <u>no taxation</u> of this capital, whereas annuities are taxed as ordinary income, which represents an inducement to exercise the option</p>	
United States	<p>Total option: payment of pension in capital sum under the very current 401(k) plans <u>taxation:</u> limited and phased</p>	

Source: Davis (1995), Gollier (1997)

Table 8. **Indexation**

(Private Schemes)

	Existence /legal status	amount
Australia	mandatory indexation	
Belgium	no indexation but possible adjustments	
Canada	rare (6% of private plans); some discretionary increases	
Denmark	no mandatory indexation but usual in practice by allotment of bonus	
Germany	mandatory indexation	
Ireland	indexation usual in practice	
Japan	rare, except for pensions substituting to public schemes	
Mexico	rare	
Netherlands	no mandatory indexation but usual in practice	
Norway	indexation	following social security index, fixed annually by the government
Sweden	indexation	
Switzerland	optional indexation	
United Kingdom	benefits indexation	5%
United States	discretionary indexation	total indexation rare (5% of plans), discretionary increases based on current life costs

Sources: Davis (1995) and OECD.

105. Expenses can have serious repercussions on benefits. For example, high management fees charged to early leavers penalise employees and could create a real obstacle to their right to early retirement. Private systems can also incur high distribution and promotion costs, in particular if they are not linked to a occupational scheme. This is true of individual pensions, where competing providers have high advertising budgets, something which does not hold true in the case of company or industry group pension plans. Distribution costs can also be considerable, which creates special problems when membership in a plan is mandatory, since a portion of members' contributions can be used for other purposes than accumulating funds towards future benefits. Managing plans of this type can also be very costly, in particular if workers are allowed to belong to only one plan, yet are also permitted to transfer between pension funds³⁹.

106. The matter of costs is therefore of particular relevance to the third pillar, which in fact devotes substantial expenditure to promotion, distribution and administration. These costs can lead not only to a hefty reduction in actual benefits, but also to abuses—with regard to payout charges for example. More generally, the third pillar poses a great many potential problems with respect to product distribution, since there is a real risk that products will be sold that are ill-suited to their beneficiaries' profiles or, as recently transpired in the United Kingdom, that offer objectively inadequate benefits.

CHAPTER III. THE FINANCIAL SECURITY OF PRIVATE PENSION SYSTEMS

107. One of the essential components of the regulation of private schemes involves the security of such schemes, which entail a series of financial risks requiring appropriate prevention and supervision. The authorities' involvement is all the more vital now that pension funds and other financial vehicles on the retirement market have come to represent an enormous financial power. The recent OECD study on Institutional Investors shows that insurance companies and pension funds are the largest OECD institutional investors with 46 per cent of the investments in 1995.⁴⁰ The financial assets of these two institutions amounted to more than \$14 000 billion in 1995. Major failures on the part of these institutions could potentially have considerable repercussions on financial markets.

108. This part of the paper considers some of the main financial risks of private schemes and then, after placing government action in its regulatory context, reviews the fundamental options for appropriate regulation and supervision of these schemes, namely: agreement, separate assets, minimum funding requirements, capital/own funds, modalities of supervision, regulation of investments, insolvency insurance, disclosure to members and, briefly, tax issues.

Exposure of private systems to risks

109. Private pension systems are exposed to a wide range of risks, some of which are the same as for all pension systems while others are specific to private plans. Problems of unfairness, inadequacy and discrimination, or those connected with portability or early retirement, referred to in the previous chapter, affect the rights of retired individuals and the protection to which they are entitled. Other risks have more to do with the financial features of private systems. A non-exhaustive list of these risks includes:

- the risk of the fund becoming insolvent;
- the investment portfolio risk for the employer in defined benefit plans, and for employees in defined contribution schemes;
- interest-rate and inflation risks in funded schemes;
- the risk of employers failing to make adequate contributions, in all plans;
- the risk of misappropriation, in all plans;
- the risk that the employer's pension policy may change with regard to non-mandatory benefits;
- the risk that the sponsor may change (e.g. following a take-over or merger);
- the risk of default by an entity other than the fund (e.g. the insurance company);

- longevity risks for plans paying out annuities;
- risks from the structural shortcomings of certain systems.

110. The principal risk relating to the expansion of pension funds is the risk that they may become insolvent. A fund may become insolvent due to many factors, from the employer's failure to make contributions, to miscalculations of provisions, to ill-advised investments, including purely external factors linked to unforeseeable events. They primarily concern defined benefit plans. A defined contribution plan is similarly exposed, but here the risk is generally one of misappropriation. Such risks affect pension funds as well as their alternatives, such as insurance companies, even though these may have better safeguards against bankruptcy to the extent that they are usually regulated more strictly. If a fund is managed in-house, or externally but in an autonomous manner, the employer is liable in case it goes bankrupt. If it is managed by an outside insurer, liability would normally be shifted. This is not always the case, however.⁴¹ Failure can be caused by technical or financial factors. Technical risks include those arising from actuarial methods and practices, and from the underlying projections used. The risk of insolvency is reduced by adequate safeguards (government and/or industry supervision), minimum funding regulations, sound actuarial and accounting principles, minimum levels of capital and prudent investment rules.

111. Financial risks (investments, interest rate, inflation) are inherent to funded systems because those funds depend heavily on the growth of their investments. When the investment of assets yields a high return, this works to the advantage of the plan's members, producing increased benefits in the case of defined contribution plans, or lower contributions in the case of defined benefit systems, provided a plan is fully funded. In this instance, however, employers are more likely to lower or suspend their contributions ("contribution holiday"), in particular if tax regulations include ceilings on excess funding. On the other hand, when investments perform poorly, funded systems are exposed to major risks, particularly if assets have been invested in speculative instruments. Recent developments in the Asian financial markets have served as a reminder to investors that high yields also carry a high risk, which are in principle borne by employees in the case of defined contribution plans and by the employer under defined benefit systems. The level of risk can be reduced, however, through the use of safeguards, careful asset-liability management or the purchase of annuities (even though this only shifts the risk over to the insurer). Risks can also be lessened if investment policies include basic diversification principles and, in general, if portfolios are prudently managed. An analysis of past experience shows that the investment policies of funds are often sufficiently prudent, at times even more so than is called for by regulations. Besides investment risks "per se", which are related to the management of portfolios, there are risks linked with interest rates and inflation. Significant changes in interest rates and in the level of inflation have a considerable impact on the funding of pensions, hence on the benefits paid out, in particular if assets are not adequately indexed.

112. Private pension systems are also exposed to the risk of default by the employer. This risk, which is connected to the performance of companies, is more acute in depressed industrial sectors or in those undergoing restructuring. The bankruptcy of a company causes its fund to be terminated. If the plan is funded, the risk is reduced. Investing substantial fund assets in shares of the company, even in the case of fully funded plans, would considerably reduce benefits under the plan. Such investments may be explicit or implicit in the case of insufficient funding or when the plan is financed by book reserves. The winding up of the employer can shift the burden of the risk to other creditors, to the extent that the fund's claims take precedence over theirs. Insurance carried by the system also shifts the risk over to the insurer. Less serious than default, but also dependent on the profitability of the company, is the risk that an employer cannot afford to continue contributing to the fund as in the past and is forced to reduce or suspend its

contributions. In the absence of corrective measures, employees may have to forego some of their expected benefits.

113. The risk of misappropriation has been well publicised and people have not forgotten recent incidents of this type. Both employers and fund managers can be tempted to misuse funds. Misappropriation refers to unlawful acts that are distinct from simple mismanagement, even though the end-result may be the same. This risk is present in particular if there is no clear separation between the fund and the company, or a lack of supervision of its management (by the government, employer and employee representatives, actuaries, etc.).

114. In many instances, employers are allowed a certain leeway and may at times take unfair advantage of it. For example, an employer who increases benefits in the absence of explicit provisions to that effect in the fund's rules can very well suddenly decide to stop. A plan can also expressly provide for this type of flexibility, as in the case of profit-sharing plans in the United States, where employers may vary their contribution at their discretion. As long as employees do not have an irrevocable claim to benefits, the risk always exists that these benefits may disappear or be reduced.

115. The risk of changes in the status of an employer, as in the case of a company being taken over, must also be considered, since an acquisition can result in the fund being terminated, in violation of the rights of its members. Certain take-overs are motivated by the fact that pension funds have excess reserves (overfunding).

116. Insured plans are also exposed to many specific risks which can cause their collapse. They include⁴² the fact (this applies also for pension funds for similar operations) that:

- More individuals may live to retire than the mortality tables anticipated (mortality risk);
- Those who retire may live longer than the mortality tables anticipated (longevity risk);
- The rate of interest earned on investments may fall below the anticipated level (investment risk);
- There may be defaults in the investment portfolio, or it may be necessary to sell particular investments at a loss;
- Expenses of handling the plan (management, promotion, distribution) may be higher than anticipated.

117. For example, the longevity risk raises a problem in the case of life annuities. Insurers generally fear that annuities attract a selected clientele of potential buyers who expect to live long. More generally, insurers have to deal with risks related to underestimated life-expectancy tables (even prospective ones). In Germany, for instance, mortality tables formerly used (which were prospective tables taking into account future increases in life expectancy) no longer reflected reality only six years after they were issued.⁴³

118. Lastly, certain systems have built-in financial risks, as in the case of those funded through provisions set aside in company books and, even more so, private “pay-as-you-go” plans which are not specifically secured.

Regulatory measures

119. Regulations governing the security of private pension systems vary a great deal from one country to another, even though their goals are the same. Whereas the protection of members' interests calls in general for the regulation of plans and funds, protecting the solvency of institutions primarily concerns the funds. However, since many different types of providers are active in the private pension sector, a purely institutional approach would not be practical. It is probably best to look at institutions as well as operations, concentrating exclusively on the pension business of those institutions.

120. There are several ways of regulating private pension systems, which are at times in conflict with each other. From the point of view of the tax authorities, for instance, it is preferable not to permit excess funding as this removes income from taxation beyond what pension plans actually need. For the supervisory authorities, however, excess funding represents an additional guarantee in the form of additional reserves. The funding of plans can also be considered from a winding-up standpoint or as an on-going concern, which implies different actuarial methods and solvency rules. Accounting principles may not coincide with the concerns of supervisory authorities. Prudential rules can and must be considered in terms of whether the operation has an obligation of result or best effort. A distinction should also be made between private and funded systems, as was pointed out earlier. Public-sector funded plans (such as those in the Netherlands before 1995 and the United States) are not subject to the same rules as private plans.

121. Regulations related to soundness are being discussed extensively in most OECD countries. It is interesting to note that they are evolving considerably and tend to get tougher, in particular in countries where there are large private systems. This is a consequence of recent instances of bankruptcy but also of the growing financial importance of these regimes. The Employee Retirement Income Security Act (ERISA) in the United States, for instance, in spite of its shortcomings, has become one of the most comprehensive regulations governing defined benefit plans. In the United Kingdom, the recently enacted Pension Act has raised funding standards. These trends have also been criticised by certain observers, some of whom attribute the shift from defined benefit plans to defined contribution plans in certain instances to the excessive regulation associated with defined benefit plans. Although such effects seem to have been actually observed, there is no single view as to their importance.

122. There are generally two ways of strengthening regulations. One consists of toughening pension regulations enacted earlier, the other of adapting regulations to those governing insurance, which essentially have the same objectives, in spite of the real differences that exist between the two systems.

123. Regulations related to the soundness of pension funds must be examined as a whole. All aspects of these regulations cannot be made more effective at the same time, lest the entire system become unmanageable. If the emphasis is placed on licensing, for instance, then supervisory provisions must be more flexible. Likewise, if technical reserves are under strict supervision, there is less of a need for rules on equity capital. This also concerns the scope for ongoing supervision, to the extent that a higher degree of self-regulation may reduce the need for government supervision. Lastly, regulations evolve, adapting to events and reflecting experiences. The following sections look at various ways to lay the groundwork for an appropriate regulatory and supervisory framework for private pension schemes.

a) *Licensing*

124. Given the important social, economic and financial role played by pension funds and plans, it seems obvious that they must be subject to prior approval. In a recent Green Book, the European

Commission noted that, although there were differences between national pension regulations, all had in common the fact that pension funds are required to be authorised or approved by a competent authority. Authorisation or approval could be dependent on fulfilling certain criteria, such as the honorability and competence of managers of pension funds and custodians/depositories/trustees of the funds' asset and/or the legal form of the fund. It is important that licensing should involve more than simple registration and that it be subject to specific standards such as those referred to above. Other requirements could include that pension plans have disposable reserves, and that they submit an operational plan specifying the actuarial techniques to be used as well as the expected growth of the fund. Other criteria concern legal, accounting, technical and management prerequisites, which in principle could be the same as in the case of insurance companies.⁴⁴ Legal principles may include prohibitions against certain types of pension regimes, such as pay as you go, in the absence of sufficient guarantees (e.g. reinsurance).

125. Licensing can take various forms and does not necessarily correspond to administrative licensing *stricto sensu*. The key point is to assure that the objectives are reached. A distinction must be made between approval for operating and for tax purposes. A plan could be rejected by tax authorities and not qualify for tax exemption, yet be "legal" in other respects. It is very important that members of the plan be familiar with the criteria on which licensing and/or qualification are based.

126. Licensing must cover all retirement institutions, in particular those not otherwise regulated, but also the pension plan itself, which must in any case be approved by tax authorities as well if it is to qualify for tax exemption. Regulatory authorities ought to consider the evolution that have occurred in the (related) insurance sector, and decide whether prior approval of a plan is necessary, taking into account the specific conditions prevailing in the country concerned, or whether a more limited procedure is sufficient, or even under what conditions can approval be granted *a posteriori*. This assumes in principle the existence of strict rules concerning the regulation and ongoing supervision of institutions providing retirement services. It would seem advisable, under current circumstances, to require that licensing be based on both the fund and the plan, and perhaps of the company itself, in particular if the fund is not a separate entity.

b) Segregation of assets

127. One of the basic principles of sound pension systems is the requirement that a fund (pool of assets) be separate and distinct from the employer, or else that specific guarantees be provided if this is not the case. The segregation of assets should be irrevocable, meaning that rights by members on the funds (at least up to the full funding limit) should be irrevocable. The principle of separation of assets is applied in most OECD countries. The existence of independent custodian services is also very important in this respect.

128. However, existing private systems are not always funded in such a way that members have a guaranteed, irrevocable claim on their reserves. In certain instances funds are separate but the notion of an irrevocable claim is missing (e.g. German support funds); certain private systems do not have separate assets but are funded from reserves in the books of the employer ("book reserve" systems in Germany, Japan, Austria, Luxembourg and Sweden). Financing pension plans by setting aside reserves in the books exposes them to a high risk of insolvency. That is why such plans are required to carry insurance against insolvency in Germany. It is surprising to note that Japanese lump-sum retirement benefit plans, which are funded out of reserves set aside in company books, are not required to have such insolvency coverage. These systems, with lump sum payments, can result in considerable financial pressure on employers. Since 1976, Japanese employers have been required to secure guarantees for their book reserves with financial institutions. This rule is reportedly seldom complied with, if at all.⁴⁵ If financing pensions out of book

reserves is authorised, it should at least require certain guarantees, such as insolvency insurance in Germany, partial deposits in Austria or certain types of reinsurance.

129. Other private pension systems exist which are not funded or for which no reserves are set aside. They are plans financed out of a firm's general budget, in use in Ireland and Norway.⁴⁶ In many regards, they are pay-as-you-go systems. Such plans are considered risky, in particular if not backed by sufficient guarantees, and several countries prohibit them. Some special private systems also operate on the basis of pay-as-you-go, but within strict rules and under joint management and government supervision. This is true of French complementary retirement schemes, although the rules governing them make it difficult to put them in a clear category.

130. Except in the specific case of pay-as-you-go systems, all current private pension systems are funded either with actual funds or in the books only. Requesting funds to be separate legal entities from companies is also a rule that is generally followed. However, neither the setting aside of reserves nor segregation from the company provides sufficient guarantees that plans have adequate resources. Both tend to lessen certain risks associated with the bankruptcy of the employer, however, and are recommended for that reason.

131. The risk of default by the employer can be assessed differently depending on whether a plan is operated in-house or by an outside entity. In the case of bankruptcy by the sponsor, vested rights are protected whenever the plan is a separate legal entity from the company and is adequately funded. Vested rights can also be fully protected, even in the event of insufficient funding, provided the plan has sufficient rank among the company's creditors, or if it is insured.

132. Whenever a pension plan is part of a group insurance contract, it is subject to the guarantees required under insurance regulations. These funds are part of the insurance company's technical reserves and are not supported by any specific guarantees, nor do they take precedence over other debts in the event of bankruptcy. On the other hand, pension plans managed by an insurance company may either be operated for the company's own account, in which case they are part of its technical reserves, or they may be managed on behalf of third parties, in which case separate assets exist, the role of the insurance firm being limited to the financial, administrative and actuarial management of the plan.

c) *Minimum funding requirements*

Approaches

133. A distinction is frequently made between two major approaches to funding rules. The first emphasises the notion of long-term equilibrium and considers the system as an on-going concern. This method takes into account not only past services but also future ones. The approach is sometimes referred to as a financial approach or prospective method. The second looks at a fund from the perspective of its winding up. It primarily considers past services, which may be projected to reflect changes in pay rates (the approach corresponds to the so-called legal approach or retrospective method). It is this second approach that is generally used to measure solvency and, in particular, to set regulatory minima. The development of vesting rights and the strengthening of measures related to portability and transferability are also part of this approach. The two approaches are compatible and minimum funding requirements should not be set at the expense of long-term equilibrium. Asset-liability management techniques (ALM) contribute to this equilibrium.

134. Funding rules based on the liquidation of vested rights concern past services and, hence, vested benefits. There are several types of them, the main ones being the following:

- ABO, or “accumulated benefit obligation”, corresponding to what a defined-benefit pension plan would have to pay out, as measured by vested rights, at current pay rates in the event of immediate termination;
- PBO, or “projected benefit obligation”, which corresponds to the ABO, but takes into account estimated final pay rates;
- GBO, or “Guarantee benefit obligation”, which corresponds to the ABO, with a minimum benefit guarantee.
- IBO, or “indexed benefit obligation”, which corresponds to the ABO, with indexed vested rights.

135. Opinion is divided on the relative advantages of these minimum funding rules. Some observers believe that the PBO/IBO indicators have a considerable edge over the ABO concept in that they anticipate the burden represented by the system reaching maturity, by spreading its costs (at least in part) over the entire life of the plan⁴⁷. Other authors agree that the PBO is more relevant than the ABO, at least for plans with benefits based on final or “final average” pay rates, because it takes into account the impact of changes in pay. On the other hand, the issue is not quite as clear-cut in the case of flat benefit plans⁴⁸. Also, the PBO is likely to be less sensitive to changes in interest rates, since changes in the expected inflation rate should be reflected in interest rates as well as in projected pay increases⁴⁹. Furthermore, the approach leads to higher funding standards, a fact which other writers claim makes it unpopular with managers of pension plans and public authorities⁵⁰. Others consider that the PBO should be used only if benefits have to be indexed, as in the United Kingdom⁵¹.

Developments

136. Funding rules have changed significantly in certain countries. In the United States, for example, the 1980s saw a shift in accounting emphasis from the entry-age normal cost method (ongoing) to that of projected unit credit (winding-up). This change in accounting practices, which took place following a change in FASB principles, had repercussions for funding rules, which were also amended in practice and designed to bring the two methods into line. This type of change resulted in costs being higher at the end of an employee’s working life and lower at the start of it. Subsequently, the 1987 Omnibus Budget Reconciliation Act (OBRA) called for a switch from the PBO to the ABO. This caused a number of employers to take a contribution holiday, since the change meant that plans had excess funds (the funding requested from PBO to ABO reduced the required minimum funding, at least in the beginning of the cycle; in addition to this, overfunding is fiscally limited). This could have damaging consequences in the future when, because of the “baby boom”, employers will have to contribute more than they have in recent years. To the extent that this situation is likely to arise at the same time as the social security system reports a deficit, the effect on benefits would inevitably be considerable⁵².

137. As shown in Table 9, the weighted average funded ratio of ABO for all plans diminished between 1987 and 1993. This decrease was due in great part to the decline of overfunded plans. For their part, the changes in the ratios of underfunded plans between 1987 and 1988 and between 1989 and 1990 were linked to financial market returns. Table 10 shows the same ratios computed on a PBO basis. In this instance, it can be seen that in 1993, on average, plans were slightly underfunded, whereas the degree of

underfunding of underfunded plans amounted to 63 per cent. What is especially interesting in comparing the two tables is the difference between the ratios, depending on whether they are based on ABO or PBO. PBO ratios are uniformly lower than ABO ratios, reflecting the projection of future salaries for wage-related plans. The difference is less pronounced in the case of underfunded plans, many of which pay flat-rate benefits and accordingly do not require salaries to be projected, as stipulated in FAS87.⁵³

138. Charts 2 and 3 provide a good illustration of the trends described in the previous paragraphs. The first chart traces pension costs for a 25-year-old employee, over a 40-year period. These costs are expressed as a percentage of wages. The use of PBO instead of the prospective entry-age method reduces costs at the beginning of a career but increases them at the end. The second chart illustrates the shift from PBO to ABO. It can be seen that ABO is lower than PBO until mid-career. OBRA regulations require funding equal to the lesser of 100 per cent of projected obligations or 150 per cent of ABO. For persons under 40 years of age, 150 per cent of ABO is generally less than 100 per cent of PBO. It so happens that, at the time this legislation was passed, the baby boom generation was in this first age bracket. The shift from entry age method to PBO, and then to ABO, meant that many plans became overfunded, encouraging them to suspend contributions. In contrast, the figures show the substantial ABO contributions expected in the scheme's maturation phase, which could trigger the problems referred to earlier on.

139. In the United Kingdom as well, there was an initial change in the use of actuarial techniques. Heretofore, methods used had been of the prospective kind, but the emphasis today is on the projected unit method.⁵⁴ As for funding rules, only those concerning the Guaranteed Minimum Pension existed until recently in the case of plans contracted out, meaning a guaranteed benefit obligation (GBO) and no minimum-funding rules in other instances. The Goode Committee⁵⁵ report also noted that certain plans funded on an on-going basis, namely most salary-linked plans, could in fact be balanced according to that approach, yet end up being insufficiently funded at winding-up, especially in the event of a major drop in the market. Among the suggestions made by the report was the implementation of a minimum funding rule based on the cash-equivalent approach (already used in the case of transfers). The government eventually approved the suggestion, as far as minimum funding is concerned, but allowed actuarial computations to use an approach close to that of ongoing. The Act does away with the GMP but maintains the principle of a minimum pension based on a reference plan.

140. The issue of the adequate funding of plans is particularly acute in the case of defined benefit plans. Defined contribution plans are always technically funded, in theory, although in practice they may not be, especially where there has been misappropriation. In 1995 and 1996, the US Department of Labor reported 1 300 cases of employers who had misused the funds of "401k" plans covering their employees.⁵⁶ Funding regulations, however, primarily address the technical risk that funds may be short of resources following the bankruptcy of the sponsoring firm, an improper estimate of reserves, or other foreseeable or unforeseeable factors. The purpose of regulations is to require a prudent approach to the funding of plans, to set limits on fluctuations caused by exogenous factors (interest rates, rate of inflation, decline in industrial output, etc.) and mostly to reduce the possibility of improper endogenous conducts.

141. In general, minimum funding rules must be examined from the standpoint of the protection of plan members in the event a fund is terminated. Those rules are different from the methods used by fund managers as part of their long-term management policies. Managers are more likely to emphasise practices which protect the long-term health of funds. Such approaches do not remove the obligation to comply with minimum rules, however.

Table 9. Ratio of Assets to ABO of DB Plans

(United States, Weighted Averages)

Year	All Plans	Underfunded	Overfunded
1993	1.13	.69	1.28
1992	1.22	.71	1.35
1991	1.28	.69	1.40
1990	1.26	.71	1.40
1989	1.40	.78	1.54
1988	1.37	.78	1.52
1987	1.39	.73	1.51

Source : Warshawsky⁵⁷

Table 10. Ratio of Assets to PBO of DB Plans

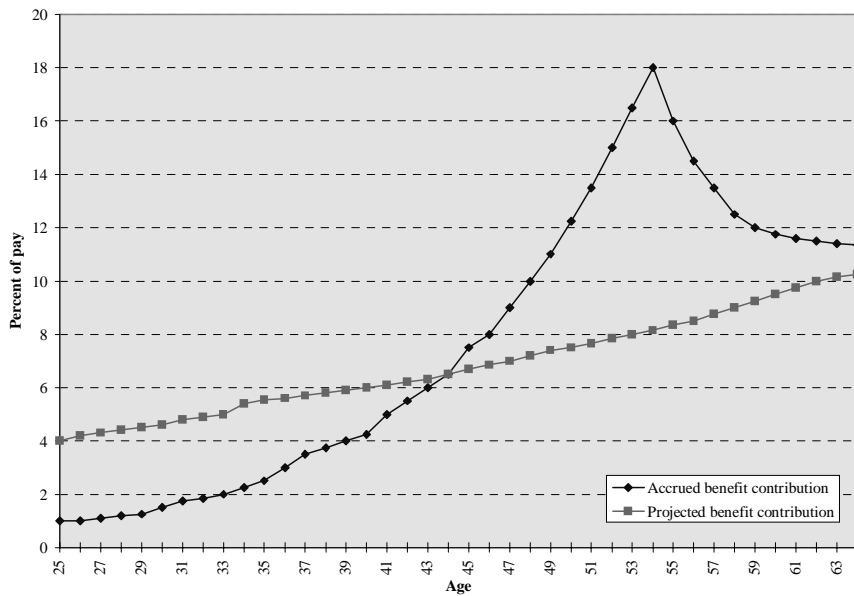
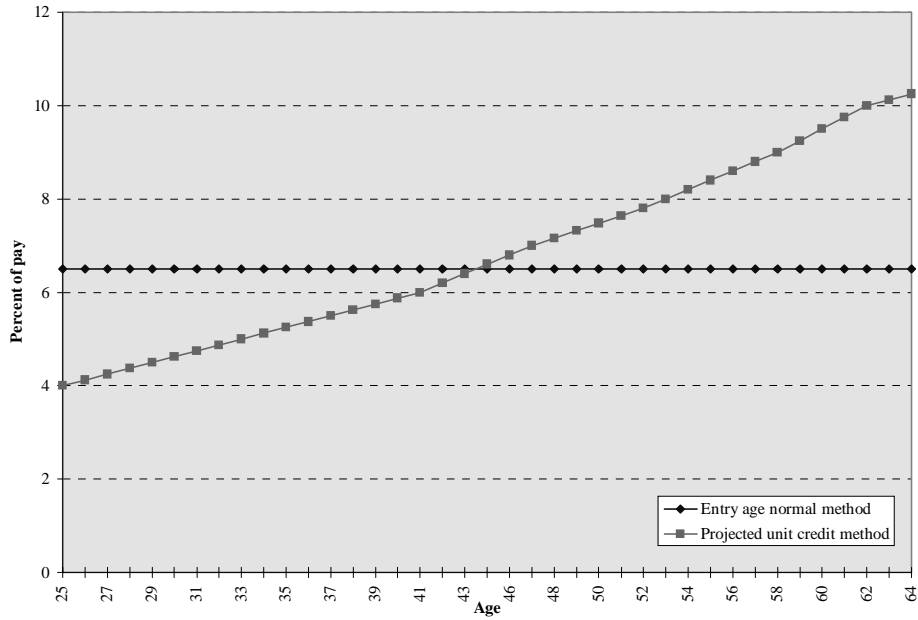
(United States, Weighted Averages)

Year	All Plans	Underfunded	Overfunded
1993	.99	.63	1.10
1992	1.05	.65	1.14
1991	1.09	.63	1.18
1990	1.06	.64	1.16
1989	1.18	.73	1.27
1988	1.14	.73	1.24
1987	1.16	.66	1.24

Source: idem.

Graphs 2 and 3

**Pension costs under alternative actuarial cost methods:
25-year-old worker over a 40-year career**



Source: Warshawsky (1997).

Table 11. **Funding Regulations**

	Funding requirements	Other regulatory features
Belgium	yes: ABO based on current pay rates (7% interest rate)	
Canada	yes	maximum excess funding: 5% of PBO
Denmark	not applicable (DC plans)	
Finland		
France	not applicable	
Germany	yes for "Pensionskassen" though only up to the PBO	option of book-reserve funding (tax-exempt pensions taxed at normal rate)
Ireland	yes, ABO	
Italy	yes, for insured plans, which must be fully funded based on 15-year projections	
Japan	optional	tax exempt up to ABO only (reserves exempted from taxes up to 40% of liabilities)
Mexico	no	
Netherlands	minimum funding: current ABO value discounted at 4%	percentage of excess funding depending on the nature of investments and on the volatility of returns min. excess funding: ABO
Norway	yes, at least equal to the difference between the PBO and the net current value of future contributions, at 3% interest	
Portugal	yes, ABO	
Spain	yes, PBO + 4% margin 6% interest rate (nevertheless there is a reduction planned of 1 or 2 points)	
Sweden	for ATO; IBO is funded	contribution rate adjusted every 5 years to assure funding of IBO
Switzerland	PBO or ABO	
United Kingdom	only for the share of social security from which one may be exempted	max. excess funding: 5% of IBO or PBO
United States		ceiling on excess funding of 50 % of ABO higher premiums in the event of underfunding

ABO refers to the accrued benefit obligation; PBO the projected benefit obligation.

Sources: Davis (1995) and OECD.

Insured systems

142. Under insured systems, provisions must meet several criteria. Provisions, often referred to as “technical”, reflect the difference between the discount value (taking into account the time factor) and actuarial value (taking into account the risk factor) of liabilities, for the insurer (benefits) and for the insured (future premiums). They are the product of the levelling and capitalisation of premiums, combining temporary life insurance and deferred capital. In addition, life insurance companies generally give policyholders a share of underwriting and financial profits, in other words surplus revenues. This offsets the impact of prudential rules used to set premiums, which are generally calculated on the basis of assumptions derived from mortality tables, funding rates, management costs, etc. The method used can be retrospective or prospective.⁵⁸ Plan members have a surrender option, a type of vested right, enabling them to obtain a refund of a portion of the reserve that varies in particular according to when the application for the refund is submitted.

143. When financial managers (other than insurance companies) are in charge of funds, they are not bound by any specific prudential rules with respect to liabilities incurred by the plans, which is understandable, since their responsibilities are limited to pure “financial” management. On the other hand, when this financial manager is an insurance company, it may be required to set aside technical provisions and a solvency margin of one per cent of the provisions whenever the amount earmarked for management fees included in the contract is fixed for a period of more than 5 years⁵⁹. This may be seen as contrasting with principles of fair competition as, for the same activity, two operators may be regulated with very different restrictive provisions depending of their core sector of activity.

Surplus

144. An important issue in connection with pension systems concerns the ownership of surplus assets, at least in defined benefit plans since, by their very nature, plans with defined contributions cannot be overfunded. Surpluses are generally considered to belong to the employers, as it is their duty to make up for deficits. This is a controversial issue, however, and some people consider that, consistent with the principle of deferred wages, employees also have a claim to this surplus (akin to profit-sharing rights under life insurance). In reality, unless regulations exist regarding sharing of excess funds, they could be shared on the basis of a negotiated agreement. Surpluses can be used in a variety of ways and make it possible for employers to suspend contributions (contributions holidays) or to recapture the assets concerned (reversion). Otherwise, they can enable employees to receive higher benefits or to reduce or even suspend their contributions, while the plan itself can use the surplus to set aside additional free reserves.

145. How surpluses are generated and used is generally governed by regulations, for tax reasons and to prevent abuses, in particular in connection with the voluntary termination of certain plans. In the United States, for instance, there is a 50 per cent tax on surpluses refunded to employers. If they are used, at least in part, to improve benefits or to set up a replacement fund, the tax is reduced to 20 per cent.⁶⁰ In the United Kingdom, a 40 per cent tax applies to reversions to employers. The courts have also set restrictions in the case of certain take-overs which are chiefly designed to acquire pension funds at the expense of employees’ interests.

Underfunding

146. Underfunding should be examined from a dynamic standpoint. Even though prudential principles call for a winding-up approach, a healthy fund can sometimes find itself underfunded without its viability being affected. A good example of this is provided by the case of retroactive benefit allocations, which frequently occur when flat-rate benefits are renegotiated. If regulations require that they be fully funded, without amortisation and pre-funding, (as in the United States), unless the fund has sufficient excess funds (which, as we have seen, is generally limited) it is likely to end up being underfunded, even though a measure designed to benefit members has been implemented. The same situation arises in the case of a sudden and significant fall in the value of assets, or if inflation increases (taking the PBO into account would lessen the impact, since inflation would --at least partially-- be reflected indirectly in the final pay projections).

147. If a plan is underfunded, the employer—and possibly the employees—will be called upon to rectify the situation. This generally takes the form of an increase in contributions, which, depending on the extent of underfunding, may be spread over a specified period of time. In the United Kingdom, for example, under the new rules of the Pension Act of 1995, underfunding of 10 per cent needs to be corrected within five years. If, however, the underfunding is greater than that, it must be rectified within one year. Otherwise, the fund may be liquidated, and the underfunding recorded as a debt of the sponsoring firm.

148. As a rule, supervisory authorities respond to substantial funding problems by encouraging the pension fund and the employer to take all necessary steps to find appropriate solutions, in particular by requiring a medium- and long-term recovery plans. Voluntary liquidation involves a particular risk in that it may be prompted by considerations that are contrary to the beneficiaries' best interests. In the United States, voluntary liquidation requires that an employer plan be fully funded. Voluntary liquidation of an underfunded plan is possible only in situations of genuine distress, and it requires the consent of the court having jurisdiction over bankruptcy, or that of the PBCG.

d) Capital/own funds

149. In the insurance and banking sectors, business entities are required to have their own capital in order to be considered solvent. Solvency ratios are calculated based on own capital, including the Cooke ratio, the European solvency margin, the American risk-based capital ratio or Canada's Minimum Continuing Capital and Surplus Requirements (MCCSR). Capital provides important protection in the event of financial setbacks, though only *a posteriori*. Other rules governing the management of assets and liabilities have a more direct impact on the solvency of institutions. In the insurance sector, they include for instance calculation of technical provisions, tariffication (which correspond to actuarial setting of contribution for pension funds) and investments regulation.

150. The notion of own capital has a different meaning in private pension systems. For one thing, funds do not have actual shareholders and they are closer to mutual associations. As in the case of those institutions, capital could consist of the "borrowing" which generates the start-up funds of mutual associations. Including items which are not owned by an entity to measure its solvency may appear to conflict with the very notion of solvency. However, to the extent that insured or plan members have a senior claim in the event of liquidation, this debt can be considered as contributing to the soundness of the fund.⁶¹ It must be remembered that the employer stands behind the pension fund and guarantees its ability to pay, at least in so far as defined benefit plans are concerned and in the absence of insurance mechanisms. This guarantee also has to be taken into account in the case of solvency. If need be, the

sponsor's assets could serve as collateral, in particular in the absence of special rank in case of liquidation. As for insured funds, they can be exempted from having to guarantee their solvency, subject to certain conditions, whenever this is already covered by the insurer's own guarantees and the regulations applicable to him.

151. Although pension funds are seldom required to maintain solvency margins, requirements to that effect exist in certain countries. This is the case in Belgium, whenever a fund covers death and disability risks, or --following regulatory proposals-- when there is an obligation of results. In this regard, it is important to distinguish between margin requirements according to the type of obligations concerned. The European Insurance Committee has issued several interesting proposals in this respect (see Part f). Whenever there is an obligation to produce specific benefits, many observers feel that the management institution, regardless of its nature, should have enough capital for solvency margins or similar safeguards (see Annex V).

152. Another method for generating "own capital" for pension funds has to do with the various funding rules used. Pension funds are required to set aside technical provisions corresponding to minimum funding levels, generally corresponding to their accumulated benefit obligation (ABO) or projected benefit obligation (PBO). Yet, the management of assets is based on the long-term prospects of the fund as a going concern. Hence, in practice, funds often set aside reserves for vested benefits as well as for future benefits, on top of legal reserves. Requiring that such additional reserves be set aside in the case of obligations to pay out specific benefits would significantly improve the partial guarantee provided by minimum funding rules. These supplementary funds, as in the case of the shareholders' capital of insurance companies, should be managed freely and not be restricted in terms of the types of investments that can be made.

153. As discussed earlier, excess funding often causes conflicts between the objective of solvency, which favours excess funding, and taxation, which opposes it since additional allocations to reserves reduce taxable income. That is why in the United States, funding is limited to 150 per cent of ABO, and in the United Kingdom to 5 per cent of the PBO or of the indexed benefit obligation (IBO). The PBO is also used in Canada to measure the level of overfunding, which allows for a larger amount than in the case of ABO. Reconciling the two objectives seems, however, not only possible but also desirable. It could be achieved by means of a flexible schedule of tax deductibility, for instance.

154. Besides the creation of capital reserves of the type mentioned above, a minimum guarantee fund can be required under the same system.⁶²

e) Calculation methods

155. The rules referred to in section c) correspond to minimum standards applicable in the event of the termination of plans. Pension funds must meet these standards, and, more importantly, strive at all times to have the financial resources needed to pay out promised benefits. In this regard, a "going concern" approach can best point out how to achieve this. In general, a plan's funding rules determine the contributions that are needed and when they are to be paid in order to yield the corresponding benefits. Several variables must be taken into account, including management fees, pay increases, the inflation rate, the indexing or possible upward adjustment of benefits, mortality tables, the expected return on investments, employee turnover, interest rates, etc. A number of actuarial methods are used for that purpose, the choice between them often depending on the level of minimum funding requirements. Accounting regulations determine how expenses are reported in financial statements.

156. The rules actually used in order to meet these objectives (minimum funding, long-term financing, accounting) can vary considerably. This, in turn, can hinder disclosure and sometimes cause harmful complications, as well as make it difficult to compare the financial position and performance of funds at the national and, even more, international level. It is however expected, that some major differences exist between the methods used, because each of them corresponds to a different objective. A plan could, for instance, be adequately funded from an on-going point of view, though not from a winding-up standpoint, as was noted earlier.

157. It would be beyond the scope of this report to provide a detailed analysis of all of these technical rules. Yet some of their features can be described here, along with their relevancy for the issue of fund solvency.

158. The main *accounting* standards currently in use are the American FAS87 and the British SSAP24. Both take into account possible volatility in employer contributions as a balance-sheet item rather than as an information note. A basic difference resides in the fact that SSAP24 does not seek to put restrictions on the actuarial methods used, provided that they are based on an on-going approach,⁶³ whereas FAS87 calls for the projected-unit method. The two accounting principles also use different approaches to deal with existing surplus funds. As for valuation rules, FAS87 calls for the use of market value (or of “fair value”, which is equivalent to market value if an active market exists for the asset). Accounting standards have considerable influence on pension funds regulations.

159. More recently, the IASC reviewed its accounting standards calling for valuation methods based on a winding-up approach, as in the case of the new version of IAS19, currently being finalised. After noting that the old IAS19 allows accountants to use both accrual (winding-up approach) and projected (ongoing approach) methods, the IASC Board deemed that, for reasons of comparability, the accrual method should take precedence, together with the “projected unit credit method”.

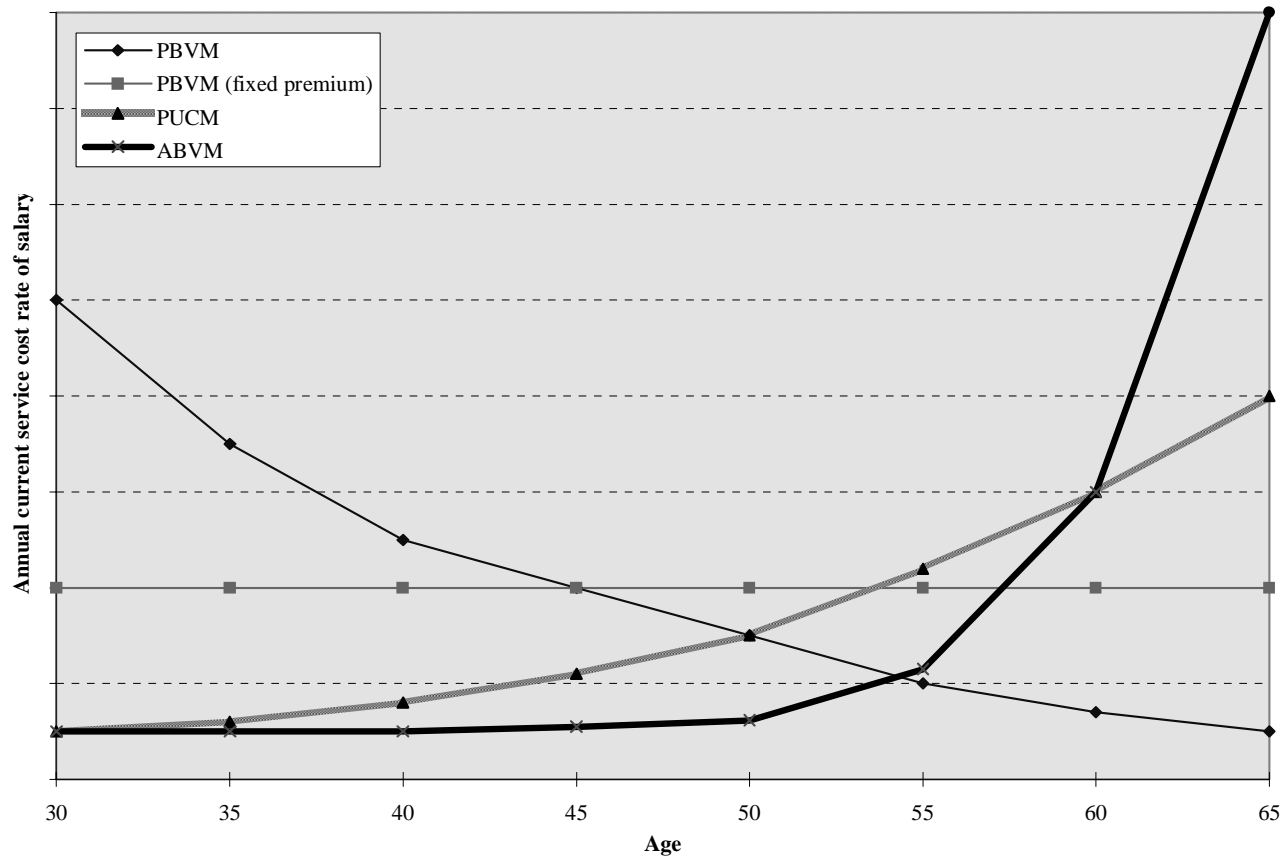
160. *Actuarial* methods play a key role in ensuring the soundness of pension plans, as much from the standpoint of winding up as from that of ongoing concern. Minimum funding rules are based on several pertinent actuarial methods, such as the unit credit method in the case of the ABO and the projected unit credit method in the case of the PBO. Rules based on the total duration of employment make use of the individual level premium (at current pay), entry-age or else, in a more global approach, the aggregate-cost method, which takes into consideration the estimated final pay as well as group funding factors.

161. Chart n°4 illustrates the theoretical trend in the annual cost of an employee under a number of different actuarial methods. ABVM corresponds to the Accrued Benefit Valuation Model (Unit Credit). PUCM corresponds to the Projected Unit Credit Method. The two PBVMs correspond to the prospective methods, with or without fixed premiums. While it would be beyond the scope of this report to analyse these methods in greater depth, the chart highlights the differences between them, and their repercussions on how costs are booked. The trend for the Unit Credit Method used to calculate ABO (ABVM) is the reverse of that of the prospective method (PBVM).

162. It can be seen that both accounting standards and minimum funding requirements tend to favour a winding-up approach. This should at least improve the comparability and compatibility of methods currently in use. It can also be expected that the PBO standard will be used increasingly if the projected unit credit method of accounting gains recognition as the new international standard.

Graph n° 4

Trend of annual current service cost rate of salary



Source: FEE Survey, 1995

163. Without going into detail, the importance of *amortisation* rules and their impact on funding regulations should also be noted. For example, the system applicable in Ontario, Canada, sets relatively stringent standards requiring that initial unfunded liabilities be amortised over 25 years, whereas subsequent unfunded liabilities resulting from changes in plans or the addition of new plans must be amortised over 15 years. Unfunded liabilities resulting from low returns on investments must be amortised over 5 years. Conversely, in the United States, amortisation rules are somewhat more flexible, as shown in the following table:

Table 12. Amortisation Periods for Unfunded Liabilities
(United States)

Initial unfunded liability, plans established after 1 January 1974	30 years
Plan amendments	30 years
Actuarial gains and losses	
Single-employer plans	5 years
Multi-employer plans	15 years
Changes in actuarial assumptions	
Single-employer plan	10 years
Multi-employer plans	30 years

Source: McGill, Brown, Haley, Shieber, 1997.

164. An accurate estimate of *interest rates* is an essential factor in funding rules as it influences strongly the actual effect of these rules on the funding of the funds (following the interest rates chosen, ABO can for instance have similar results than a PBO). History has shown that many underfunded plans in the United States had used excessively high interest-rate assumptions in discounting their future obligations. The importance of interest rates becomes apparent when considering that a one per cent change in the rate of interest causes a change of 20 to 25 per cent in funding costs.⁶⁴ Thus, the 1996 PBGC (Pension Benefit Guaranty Corporation) report pointed out that the marked rise in the funding deficits of company plans (from \$ 31 billion to \$ 65 billion) was due in large part to a drop in interest rates in 1995 (from 7.15 per cent at the end of 1994 to 5.3 per cent at the end of 1995). This consideration has led several countries to adopt rules on the use of interest rates in actuarial procedures. In the Netherlands, for instance, the interest rate has been set at 4 per cent⁶⁵. In Japan, nominal return on assets is assumed to be 5 per cent. In Belgium, the discount rate is 7 per cent, while its ceiling has been set at 6 per cent in Spain.⁶⁶ Other countries, such as the United Kingdom, do not fix pre-established rates of interest.

165. Principles used for the *valuation* of assets make up a key component of funding rules, since they concern the relation between assets and actuarial obligations required to adequately fund a plan. From a prudential point of view, a prudent valuation of assets is advisable. Using purchase values does not necessarily guarantee this, since it can lead to an overvaluation of assets if restatements are not taken into account (including through provisions for depreciation). This is all the more problematic when funds are not sufficiently guaranteed, as in the case of systems based on book reserves in Japan, which are however using this valuation method. As for market value, it can lead to an overestimation of either underfunding or overfunding. The value of assets must be estimated in accordance with the methods used in the case of liabilities, seeking to achieve a minimum matching. But whereas shares, for example, are frequently assessed at their market value, the liabilities of defined benefit plans are often estimated by actuarial methods that may have little to do with these values.

166. Rules governing the valuation of assets vary considerably from one country to another. Those most frequently used consist of evaluating pension fund assets at their “fair” market value. They yield a clearer picture of the financial position of plans than methods based on purchase or book value. On the other hand, market values are more volatile, although the long-term management of funds can compensate for this. It can be difficult, however, to estimate market value when the assets in question are not traded on a regular basis on capital markets.

167. Generally applied valuation practices may be in conflict with certain regulations. For example, using market value, which takes into account unrealised as well as realised gains and losses, could, in certain countries, be contrary to the basic principle of the fourth European accounting directive, which holds that only realised gains and losses should be taken into account.⁶⁷ The approach suggested by the European directive for the accounting practices of insurance companies is interesting in this respect, since it accepts that the value of assets may be based on either their purchase or their market value, but requires that a note to the balance sheet give their value as computed by the alternative method (and allows also for balance sheet correction through depreciation reserves). This provides maximum disclosure while allowing insurance companies a certain amount of flexibility with respect to their financial statements. Valuation rules for pension funds could be based on a similar approach. It should be noted, however, that some accounting standards call for a single method, in general that of market value.

168. There are other methods for estimating the value of assets, including one used until recently in the United Kingdom. It is based on an actuarial estimation of projected revenues from assets. It evens out long-term income and at the same time allows for a degree of short-term fluctuations in returns from investments. This has enabled British pension funds to own more stocks than pension funds in other countries. However, the Pension Act of 1995 introduced a minimum funding requirement based on fair market value. Combined with the requirement to index benefits, this could cause changes in the investment portfolios of British plans. In the Netherlands, the fact that stocks held are stated at their market value, and that the current value of liabilities is calculated using a fixed interest rate, seems, following some observers, to have had a strong impact on the investment policies of Dutch funds.⁶⁸

169. Finally, a series of techniques have been developed for asset *management*. They evidently contribute significantly to the soundness of plans and can also provide ways of dealing with certain financial risks to which pension funds are exposed, for example by immunisation techniques or, more generally, through the implementation of asset-liability management methods (whose costs are however highlighted by some observers)⁶⁹.

f) Supervision

170. Today, private pension regulations are frequently contained in a special, comprehensive law (as in the case of the United States, the Netherlands, Spain, Austria, Ireland, Italy and the United Kingdom), whereas in other countries they are found in several legal provisions. Even when a special law exists, significant amendments have often been made to regulations. Private pension systems are also subject to tax, social and financial legislation. This makes private pension regulations generally appear complex, or at least more so than those governing insurance companies, which have furthermore been substantially harmonised in certain regions, such as the European Union.

Supervisory bodies

171. Pension funds are also under the control of various regulatory authorities. The first of these are the tax authorities. Funds often enjoy significant tax benefits, based on certain criteria which tax authorities must be able to verify. Other official agencies with regulatory and/or supervisory authority over pension funds include those in charge of financial markets and, in particular, for several countries, of the insurance sector. This is explained by at least two factors:

- In the case of supervision by financial market authorities: pension funds are major institutional investors (second only to insurance companies in OECD countries as a whole), which handle considerable amounts of money and whose activities have a significant impact on financial markets;
- In the case of supervision by insurance regulators: the manner in which pension funds are organised and operate is similar to that of insurance companies, in particular mutual associations, even though there are a number of major differences between the two; insurance companies play an important role in the pension sector either as direct financial vehicles (accounting for some 20 to 30 per cent of managed assets), through group insurance plans, or as investment and/or benefit managers, or else in connection with individual retirement plans (third pillar), where they play a leading role.

172. The table below provides an overview of regulatory and/or supervisory authorities for pension funds and insurance companies in OECD countries. It shows that, in a majority of Member countries, pension fund regulatory and/or supervisory authorities are the same as those of insurance companies.

Modalities of supervision

173. The large number and wide variety of pension plans makes their supervision problematic. In the United States, the Department of Labour reportedly examines only one per cent of all documents concerning pension funds.⁷⁰ On the other hand, the fiscal authorities conduct supervision, at least partial, of plans, in spite of their large number, in particularly those which benefit from substantial tax exemptions. Here, too, many practical problems arise.⁷¹ Supervision can, however, be differentiated depending on exposure to risks. Many plans are very small (in Australia, for example, 85 per cent of all superannuation funds have fewer than 5 members). In any event, it is essential that the authorities in charge of supervising funds and/or pension systems be given sufficient resources and capabilities to exercise effective supervision. How adequate such supervision actually is can only be measured in terms of the government's objectives and the supervision methods selected. In consideration of the difficulties in effectively supervising funds in certain countries, the authorities have the option of relying upon the self-regulating role of fund trustees and other participants in pension plans, namely employers and employees, as well as to use existing information, for instance from rating agencies. Development of self-regulation is of particular importance in the pension field since it allows for increased responsibility of the actors involved as well as a lightening of the burden of governmental control (which has to face the above mentioned problems).

Table 13. Regulatory and Supervisory Authorities

	Insurance regulatory and supervision authorities	Pension funds regulatory and supervision authorities
Australia	Insurance and Superannuation Commission	same
Austria	Federal Ministry of Finance, V/D Division	same, V/14 Division
Belgium	R: Ministry of Economic Affairs or Insurance Supervisory Office S: Insurance Supervisory Office	same
Canada	Office of the Superintendent of Financial Institutions	<u>federal level</u> : Pension Benefits Standards Division, Office of the Superintendent of Financial Institutions <u>provincial level</u> : Superintendents of Pensions, Pension Commissions, etc.
Czech Rep.	R: Ministry of Finance S: Insurance Supervisory Authority	R: same S: Dept. of Supplementary Pensions and Insurance
Denmark	Financial Supervisory Authority	same
Finland	Ministry of Social Affairs and Health	same
France	R: Ministry of Finance S: Insurance Control Commission	R: Ministry of Finance (Treasury Division) and Ministry of Social Affairs S: Pension Funds Control Commission (consisting of representatives of the Insurance Control Commission and of the Control Commission for Welfare and Mutual Associations)
Germany	R: Federal Ministry of Finance S: Federal Insurance Supervisory Office (BV)	same (whenever there is a legal obligation to provide benefits)
Greece	Ministry of Development	same
Hungary	R: Ministry of Finance S: State Insurance Supervisory Authority and Supervisory Authority of Insurance	R: same S: Supervision of Voluntary Mutual Benefit Funds
Iceland	R: Ministry of Commerce S: Insurance Supervisory Authority	R: Ministry of Finance S: Banking Supervisory Authority
Ireland	R: Ministry of Enterprise and Employment (Insurance Division)	S: Pension Board; Irish Insurance Federation (for pension products offered by insurance companies)
Italy	R: Ministry of Industry (Insurance Division) S: ISVAP	R: Supervisory Committee for Pension Funds
Japan	R: Ministry of Finance (Insurance Dept.)	Ministry of Health and Welfare (for employee pension funds and “National pension fund”) Ministry of Finance (for “Qualified Retirement Pension Plan” and for financial institutions managing the investment of funds)
Korea	R: Ministry of Finance and Economy S: Insurance Supervisory Board	same
Luxembourg	Insurance Commissioners’ Office	same
Mexico	R: Ministry of Finance S: National Commission of Insurance and Bonding	National Commission of the Savings System for Retirement
Netherlands	R: Ministry of Finance S: Insurance Supervisory Body (“Verzekeringkamer”)	R: Ministry of Social Affairs and Employment S: same

Norway	R: Ministry of Finance, Ministry of Health and Social Affairs, Insurance and Securities Commission S: Banking, Insurance and Securities Commission	same
Poland	R: Ministry of Finance S: State Insurance Supervisory Authority	no private pension fund system at this time (regulations in progress)
Portugal	Insurance Institute	same
Spain	Ministry of Finance (Insurance Division)	same
Sweden	R: Ministry of Finance S: Financial Supervisory Authority (Finansinspektionen)	same
Switzerland	R: Federal Ministers S: Federal Office of Supervision of Private Insurance	S: same (for independent private pension institutions) and Federal Office of Social Insurance and local social insurance authorities
Turkey	Under-secretary of the Treasury's Office (General Directorate of Insurance) (inspection by the Insurance Supervisory Board)	no private pension systems at this time (regulations in progress)
United Kingdom	R: Department of Trade and Industry	R: Dept. of Social Security, Occupational Pensions Regulatory Authority and various other institutions, including DTI S: Financial Institutions Supervisory Authority
United States	R: Dept. of Commerce National Association of Insurance Commissioners (NAIC) S: State Commissioners	R: Dept. of Labor, Pension and Welfare Benefits Administration (PBWA)

R = regulatory authority
S = supervisory authority

174. Supervisory oversight, when it exists, consists primarily of a review of accounting and financial statements, though there can also be on-site audits. The role of supervisory authorities with respect to pension funds or insurance companies may focus on the following major issues:

- ensuring compliance with legal obligations, including applicable laws, company bylaws and general terms and conditions;
- financial control: equity, technical provisions, investments, monitoring of activities, auditing of interim and annual financial reports;
- actuarial examination of contributions rates and technical or mathematical provisions;
- management supervision: qualifications and reputation of managers, standing of principal shareholders and of the employer;
- economic review: market conditions, statistical data.

175. In the case of pension systems, supervisors must first consider pension plans, since they form the basis of pension funds. A pension plan corresponds to the contractual provisions covering the rights and obligations of all parties, whereas a fund is the reserve created to meet the objectives of the plan. The control of plans is mainly legal and fiscal; the examination of the funds is financial and actuarial. The supervision of plans and funds can be lightened reflecting their large number, resulting in *ex post* controls

replacing prior examinations. This correspond to a recent trend in the review of insurance products, although for entirely different reasons.

176. One of the decisive factors in supervising the solvency of pension systems concerns whether the system has an obligation of result or best efforts. An obligation to achieve results exists in the case of defined benefit plans and these evidently require tighter regulation than do systems where the obligation is only to make best efforts. This regulation can take various forms, such as those that require a minimum levels of equity (with the related problems referred to above), minimum funding rules, specific actuarial methods or solvency insurance. Co-operation between supervisory authorities of OECD countries should be in general strengthened in order to identify the operational supervisory modalities set up within OECD area and to draw appropriate conclusions. It appears essential that reform of pension schemes refers to the experience of other countries. This co-operation would also result in greater comparability of information and would contribute to making these schemes more transparent.

Management

177. Besides purely financial controls, supervision also concerns the qualifications and good standing of fund managers, as well as their independence. Qualifications are particularly important when regulations emphasise the fiduciary responsibility of trustees and limit the direct role of regulatory authorities. Fund trustees are often appointed by the employer (sometimes without in-depth professional criteria), with the risk of conflict of interest that this implies. There are conflicts not only between the interests of the employer and of employees covered by the plan, but also between those of current and retired employees. In many countries, attempts have been made to reduce the scope for conflicts between employers and employees by including employee representatives on the supervisory board of funds. Improved financial disclosure and information on the activities of funds also helps members have more control over their plans.

178. Substantial civil and criminal penalties may be imposed on managers who fail to comply with the rules governing independence. Restrictions on investments in the employer's own business also provide important safeguards. Thus, in the United Kingdom, the 1995 Pension Act contains several measures relating to these issues and emphasises the key role played by trustees in protecting pension funds. In general, fund managers have to obey a number of mandatory rules or general guidelines. General guidelines cover basic principles, leaving managers free to implement them with some degree of flexibility.

179. Existing direct or indirect rules aimed at ensuring, or at least promoting, qualified and independent management may be supplemented by requirements that the technical aspects of funds be handled by qualified professionals, such as actuaries. Their help is indispensable for the proper choice of computation methods. They can also play a valuable role in internal supervision, and that role can be further enhanced by requiring actuaries to report any serious instance of mismanagement to the authorities. The development of an actuarial profession and of actuarial qualification standards can therefore contribute to the improved protection of pension systems. The use of professional qualified bodies and custodian services can in general be recommended. In this respect, independent auditors play an especially important role in light of the operational difficulties related to the governmental control in the case of multiple and complex plans.

Different supervisory approaches

180. The supervision of pension funds is closely related to that of insurance companies, and in certain countries the two are similar, yet there are many differences between them. The insurance industry, especially in Europe, considers that regulations governing the insurance business are more stringent than those applicable to pensions funds. One trade association (CEA: Comité Européen des Assurances) has recently submitted a proposal for reforms aimed at resolving what it regards as a discriminatory situation. The suggested approach is functional and argues in favour of regulations based on the nature of pension systems rather than on which institution provides them. The table below summarises the various suggestions made by the association.

181. The European Commission, aware of this view and of genuine regulatory differences between the two types of pension providers, has included four options for possible reforms in its 1997 Green Paper⁷²:

- Option I: make funds of pillar 2 schemes subject to the rules currently applied to group life schemes;
- Option II: adapt the current rules on the solvency margin for group life schemes to the framework currently applied to pillar 2;
- Option III: define new common EU standards for both pillar 2 schemes and group life assurance;
- Option IV: accept the differences that currently exist because de facto they do not lead to significant distortions of competition.

182. A competition factor arises in addition to concerns about the protection of plan members and the solvency of pension funds. All three issues seem to point to the need for a reform of pension systems in certain countries, aimed at reinforcing regulations. The discussion could also call for the removal of certain controls applicable to insurance companies, which governments may reconsider following a comparative review⁷³.

183. Although both types of institutions are faced with similar issues in their pension business, many differences still separate them. They include, for instance, the fact that

- insurance companies provide financial services; pension funds purchase such services;
- a pension fund has no shareholders—instead, it has an employer (with an obligation to achieve certain results, in the case of defined benefit plans, not undertaken by the fund), whereas an insurance company has shareholders, and a mutual insurance company has neither an employer nor shareholders;
- both use long-term actuarial methods with many variations, even if life insurance companies are increasingly selling short-term products (at least in the 3rd pillar);
- benefits guaranteed by a fund can be based on final pay, whereas those provided by insurance companies are often “nominal”;

Table 14. Summary Table Of Prudential Standards To Apply To Pension Business

CASE	RISKS ASSUMED BY THE RETIREMENT INSTITUTION		PRUDENTIAL STANDARDS TO APPLY TO THE RETIREMENT INSTITUTION				
	TECHNICAL RISKS	FINANCIAL RISKS	RESERVING	SOLVENCY MARGIN	INVESTING ASSETS		MATCHING
					LIST	SPREAD	
A. THE RETIREMENT INSTITUTION TAKES ON A FIRM COMMITMENT UNDERTAKING							
A.1. SELF-ADMINISTRATION	YES	YES	Third Life directive or alternative specific standards	4 per cent or alternative specific standard	Third Life directive or alternative specific list	Third Life directive or specific alternative rules	80 per cent or specific alternative rate
A.2. EXTERNAL FINANCIAL ADMINISTRATION							
A.2.1. WITHOUT FINANCIAL GUARANTEE	YES	YES	Third Life directive or alternative specific standards ³⁾	4 per cent or alternative specific standard ³⁾	Third Life directive or alternative specific list	Third Life directive or specific alternative rules	80 per cent or specific alternative rate
A.2.2. WITH FINANCIAL GUARANTEE OF A DURATION IDENTICAL TO PENSION LIABILITIES	YES	NO	Third Life directive or alternative specific standards ⁴⁾	Solvency margin adapted (to be determined) ⁵⁾	Third Life directive or alternative specific list	Third Life directive or specific alternative rules	80 per cent or specific alternative rate
A.3. SUBSCRIPTION OF AN INSURANCE CONTRACT	NO	NO	No for the retirement institution; provisions are constituted by the insurer	No for the retirement institution; the insurer must have a 4 per cent margin	Third Life directive, to be complied with by the insurer	Third Life directive, to be complied with by the insurer	80 per cent to be complied with by the insurer
B. THE RETIREMENT INSTITUTION TAKES ON A BEST EFFORT UNDERTAKING⁶⁾	NO	NO	Third Life directive or alternative specific standards	0 per cent?	Third Life directive or alternative specific list	No rule	No rate to be complied with
C. THE GROUP INSURER							
C.1. TAKES ON A FIRM COMMITMENT UNDERTAKING	YES	YES	Idem A.1.	Idem A.1.	Idem A.1.	Idem A.1.	Idem A.1.
C.2. TAKES ON A BEST EFFORT UNDERTAKING	NO	NO	Idem B	Idem B	Idem B	Idem B	Idem B

- 1) Only prudential standards relating to pension business are dealt with in this document to the exclusion of those applicable to benefit scheme business.
- 2) If such financial administration is done by an insurer, he must set up "technical provisions" when he guarantees total management costs for a duration of over 5 years. The other managers do not have to reserve.
- 3) If such financial administration is done by an insurer, he must set up a 1 per cent solvency margin when he guarantees total management costs for a duration of over 5 years. The other managers are bound by general conditions in the regulations arising out of the "Banking" or "Investment Services" directives.
- 4) If such financial administration with guarantee is done by an insurer, he must set up technical provisions. The other managers do not have to reserve.
- 5) If such financial management with guarantee is done by an insurer, he must establish a 4 per cent solvency margin. Other possible managers - who do not have to link their financial management to a long-term guarantee - have the general constraints of the regulations arising out of the "Banking" or "Investment Services" directives.
- 6) The type of management adopted by the pension institution (self-administration, external financial management, taking out an insurance contract) does not matter. *Source: CEA (1995).*

- a contractual relationship exists between an insurance company and a policyholder in respect of the insurance, while it is between the employer and the employee in the case of pension funds;
- pension funds are non-profit entities, which is not the case of insurance companies (except, in principle, for mutual insurance companies).

184. It is important to underscore that the above differences apply in the case of pension funds and insurance companies which operate as business entities. They are much less evident when a fund is compared with a mutual association, and when defined contributions plans are concerned.

185. As for regulations, it can be seen that, in certain countries, rules governing pension funds correspond with those applicable to insurance companies (the Netherlands, Belgium, France, Portugal, Spain). This does not hold true in some other countries, where regulations, although based on similar principles, have developed along different lines (United States, United Kingdom, Japan). Problems raised by varying degrees of regulation applicable to various service providers are similar to those in other sectors and at the international level. Based on existing principles in this regard, it would seem that efforts should not be directed at developing uniform regulations, but rather at identifying existing common regulatory principles, implemented in a different way; and at eliminating or reducing differences which are not justified from a prudential standpoint and hence unfairly discriminate against a category of providers. The Governments should consider the need to develop further the functional approach. Taking account of institutional characteristics, this approach should allow for a substantial reduction of current differences in regulations applied to the provision of similar products but by different providers.

g) Investments

i) Regulations governing investments

186. All Member countries regulate investments by the main operators in private pensions business, i.e. pension funds and insurance companies, although to different degrees. Investments by insurance companies are generally governed by more stringent regulations than those of pension funds.

187. Often in the latter case, a list of admitted assets is established by the authorities, and investments must also be made in compliance with rules regarding the diversification, spread, liquidity, localisation, currency matching and, assets/liabilities matching. Although OECD countries no longer set floor levels, they often set ceilings on specific types of investments, in order to promote risk spreading and diversification. Some problems can arise in connection with the implementation of diversification policies, as investment categories are sometimes excessively broad in scope and include assets with widely differing degrees of risk (e.g. within listed stocks or bonds). Investments must frequently meet requirements in terms of matching with respect to currencies, and assets and liabilities. While no one challenges the need to take maturities into account, currency rules are more open to question concerning their principle and the level usually applied (80 per cent). Many countries find it sufficient to require application of the prudent-man rule, letting fund managers decide what this entails.

Table 15. Maximum percentage that can be invested by insurance companies in a given class of investments

	Domestic shares (quoted)		Domestic shares (unquoted)		Foreign shares		Foreign bonds and other securities		Real Estate		Loans (mortgage)		Loans (non-mortgage)	
	Non-life	Life	Non-life	Life	Non-life	Life	Non-life	Life	Non-life	Life	Non-life	Life	Non-life	Life
Australia	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Austria	30a	30e	5	5	30a	30e	-	-	30a	30e	-	-	0	0
Belgium	-	-	10a	10e	10a(2)	10e(2)	10(3)	10(3)	10(4)	10(4)	-	-	5(5)	5(5)
Canada	25a	5-25e	25a	5-25e	0	5-25e	0	-	10	5-25e	-	-	5	5
Denmark	40a	40e	10	10	40a,d	40d,e	-	-	-	-	-	-	10	10
Finland	50	50	10	10	25 L	25 L	100k	100k	40	40	70	70	50m	50m
France	65a	65e	65a	65e	65a	65e	-	-	40	40	10b	10f	10b	10f
Germany	30	30	10	10	6	6	5	5	25	25	50a	50e	50a	50e
Greece	30a	30e	30a	30e	30a	30e	-	-	40	50	10b	10f	10b	10f
Iceland	40a	40e	10b	10f	40a	40e	10b	10f	-	-	-	-	10b	10f
Ireland	50-60a	55e	20	2.5	50-60a	55e	-	-	60	25	15-30b	10	15-30b	45
Italy	20	20	20	20	10	20	30	50	35	50	20	50	0	0
Japan	30a	30e	30a	30e	30b	30f	30b	30f	20	20	55c	-	55c	10
Luxembourg	10	10	5	5	5	5	10	10	40	40	10a	10e	0	0
Mexico	30	30	30	30	30	30	30	30	40	40	40	40	40	40
Netherlands	-	-	10	10	-	-	-	-	-	-	10	10	5j	8j
Norway	20a	20e	20a	20e	20a	20e	30b	30f	30b	30f	30b	30f	30b	30f
Portugal	25a	25e	10	10	25a	25e	60	60	35	45	10	25	10	25
Spain (6)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sweden	25a	25e	25a	25e	25a	25e	-	-	25b	25f	25b	25e	10	10
Switzerland	30a	30e	30a	30e	25b	25f	20b	20f	-	-	-	-	0	0
Turkey	-	-	10	10	-	-	-	-	20	20	20	20	20	20
UK	-	-	10a	10e	-	-	-	-	-	-	10a	10e	10a	10e
USA(New Jersey)	-	15e	-	15e	h	i	h	i	5	10	40	60	-	-
USA (Delaware)	40a	(1)	40a	(1)	5	5	5	5	25	25	50	50	-	-

a) maximum for these classes of investment combined (Non-life)

b) maximum for these classes of investment combined (Non-life)

c) maximum for these classes of investment combined (Non-life)

d) if unquoted then ten per cent

e) maximum for these classes of investment combined (Life) which would constitute one single investment

f) maximum for these classes of investment combined (Life)

g) maximum for these classes of investment combined (Life); only for unqualified non-mortgage loans

h) investment must not exceed the value of outstanding policies in the foreign country

i) five per cent in the aggregate; two per cent in foreign countries, except for "qualified foreign investment"

defined in the statute j) unsecured loans. k) from OECD countries

l) from non-OECD countries m) secured loans

1. 250 per cent (at market value) of the capital and surplus

2. unquoted shares only

3. only State and enterprises bonds outside of area A (see the Directive 89/647/EEC)

4. investments in a single real estate or in several real estate close to one another

5. five per cent with a maximum of one per cent for one single loan

6. The investments in securities (unquoted) and loans (non mortgage) may not exceed 10% as maximum

Source: OECD Policy Issues in Insurance, Paris 1996.

Note: maxima in respect of foreign investments are separate from the currency matching requirements for foreign liabilities

Table 16. Regulation governing pension funds investments

Summary of Pension Asset Regulations

	Portfolio regulations
Belgium	No more than 15 per cent in sponsor, 40 per cent limit on real estate, 10 per cent in sight deposits, advance notice deposits and one month time deposits(1)
Denmark	Max. 40 per cent in “non-gilt edged” assets, for example shares. “Gilt-edged” assets are for example government and mortgage credit bonds.
France	50 per cent minimum of ARCCO and AGIRC assets have to be invested in EU public bonds, and 33 per cent max. in loans to initiators. Insured funds to be at least 34 per cent state bonds, maximum 40 per cent property and 15 per cent Treasury deposits. No foreign assets.
Germany	guidelines: 30 per cent max.in EU shares, 25 per cent in EU real estate, 6 per cent in non-EU bonds, 20 per cent in foreign assets, 10 per cent self-investment.
Irlande	Schemes must diversify prudently, any self investment to be declared.
Italie	Schemes managed by the company itself are not regulated; investment policy is defined by the Board of directors. Investments are usually limited to state bonds (maximum 90 per cent), deposits, insurance policies and real estate, investment funds. Most schemes are insured.
Japan	50 per cent minimum in bonds, 30 per cent max. in shares, 20 per cent max. in real estate, 30 per cent max. in foreign assets, and 10 per cent max. in the assets of one single company.
Netherlands	5 per cent max. self-investment, whereby free reserves can be added up to a total limit of 10 per cent; “prudent man rule”
Norway	Maximum 20 per cent in shares; maximum 30 per cent in loans that are not issued or guaranteed by: the government or municipalities; financial institutions or EU credit institutions; and investment in other real estate than negotiable property.
Portugal	30 per cent to be invested in government bonds, maxima of 50 per cent real estate, 15 per cent self investment, 40 per cent equities and bonds not listed in Portugal.
Spain	10 per cent of the financial assets of Fund may not exceed 5 per cent of the issuer ; 90 per cent in listed securities, deposits, real estate or mortgage loans ; 1 per cent in shareholder’s account or on the money market.
Sweden	The majority of investments should be made in bonds, loans, and retroverse loans to contributors.
United Kingdom	5 per cent max. self-investment; “prudent man rule” concentration limit for defined contribution plans.
United States	“prudent man rule”.

(1) to be revised

Source: Davis (1995), EFRP, OECD, Commission européenne, *Retraites complémentaires dans l’Union Européenne*, 1994

188. Investment regulations of insurance companies make a distinction between technical provisions and own funds. Investment of own funds, at least that in excess of minimum capital levels, is generally unregulated. Finally, regulations concern not only assets but also their valuation method. The value of assets, as noted earlier, plays a key role in determining the solvency of a firm (see also Annex VI).

189. Regulations governing the investment of pension funds is often based on similar principles, even though the methods used differ. A distinction must first be made between the types of plans concerned. Defined contribution plans, in the opinion of some specialists,⁷⁴ require tighter regulations than defined benefit plans, for which the prudent-man rule may be sufficient. Others claim that this rule can also be applied to defined contribution plans.⁷⁵ Even if employees bear the investment risk in these latter plans and if their exposure is greater owing to the relative lack of financial disclosure, the investments of these plans tend to be very prudently oriented and are therefore not likely to require stringent regulations. Another distinction must be made between the case where the employer has a “result” obligation and the case where he transfers it to an insurance company through group insurance.

190. The choice of so-called risk instruments, such as shares as opposed to bonds, does not necessarily depend on the type of plan concerned, contrary to what might be assumed on the basis of whether or not an obligation exists to produce certain results. Pension funds in the United Kingdom have invested large sums in stocks, in spite of the fact that most of them correspond to defined benefit plans. One of the factors that may explain this practice in the United Kingdom is that an “ongoing” actuarial approach is used there, which makes it possible to offset more easily fluctuations in stock prices. On the other hand, the fact that British insurance companies have large shares investments is primarily accounted for by the absence of a guaranteed minimum surrender value of policies. The analysis of investment portfolio of major US pension funds does not seem either to indicate clear distinction of investments according to types of plans⁷⁶.

191. One principle found in most investment regulations governing pension funds concerns restrictions on investing in the sponsor’s business. Limits on such investments seem to exist in most countries. In the United States, defined benefit plans may not invest more than 10 per cent of their funds in this way; in the United Kingdom, the ceiling is 5 per cent; it is 15 per cent in Belgium and 10 per cent in Switzerland. Some countries appear to prohibit this type of investment (Denmark). The rule does not apply to all plans. For example, an amendment to ERISA concerning 401(k) plans exempts them from the 10 per cent ceiling, so that they may retain their profit-sharing features designed to promote productivity. In the case of book reserves, self-investment is in some sense the rule and it constitutes one of the main reasons why these plans became popular in Germany and Japan after the Second World War. Both pension funds and insurance companies are subject to restrictions insofar as long-term borrowing is concerned.

192. The debate on investment regulations focuses today on such major issues as the respective advantages of the prudent-man rule versus a “quantitative” approach, as well as on the matter of foreign investments⁷⁷. It is difficult to establish which approach rule is best, as this depends on a number of variables. For instance, the prudent-man rule can be more readily implemented in countries where effective internal controls already exist. In general, this principle is in use mainly in Anglo-Saxon countries (United States, Canada, Australia, United Kingdom, Ireland), as well as in the Netherlands, whereas most Continental European countries and Japan set quantitative limits on investments. The enclosed tables provide additional information on this issue. Principles currently under consideration would tend to give more responsibilities to managers, while allowing them greater flexibility. On the other side, actual investments almost never attain regulatory ceilings, although this observation must be qualified, as it only pertains to composite averages.

ii) *Foreign investments*

193. Provisions of investment regulations for pension funds and insurance companies concern also portfolio investments in foreign securities. Although most OECD countries have relaxed those rules in recent years, a whole range of measures still restrict foreign investments, either directly or indirectly. There are three types of regulations of this kind, i.e.⁷⁸

- the imposition of a maximum limit to the shares of foreign assets in the institutions portfolios (including technical provisions), which is lower than the limit applied to comparable national assets;
- the obligation to hold a minimum percentage of national assets (e.g governmental bonds), in the global asset portfolio of the institution (including technical provisions), that would be higher than the percentage applied to comparable foreign assets;
- a requirement that there should be a degree of currency matching, namely that a given portion of the assets and the corresponding liabilities be in the same currency. This provision is designed to reduce currency risks but it also means that institutions have to hold assets in their own home currency, at least up to a given percentage of their liabilities. This can create an obstacle to the diversification of international portfolios, depending on the portion of assets concerned, the relative weight of local-currency obligations in the institution's overall liabilities and the availability of foreign investment instruments in the local currency of the institutions concerned.

194. Although many OECD countries have already removed most of the direct restrictions referred to above, a great number are still applicable in the case of currency matching. The implementation of the "Euro" currency within the European Union should however allow for a substantial withdrawal of limitations existing within this geographical area⁷⁹. In addition, various forms of incentives to invest domestically as well as localisation requirements related to documents of title to foreign assets are still on the books in several countries. The requirement that securities be held in paper form is becoming obsolete, with the growing practice of holding them in electronic book-entry form gaining wide acceptance. Continued implementation of this rule could constitute a serious problem for fund managers.

195. Initially, all of these provisions were justified – or at least motivated – by considerations of prudence. Of these, the two most important considerations were:

- the need to shield pension plan members from foreign-exchange risks (assuming that there is agreement that the credit risk of foreign investments is comparable to that of domestic investments);
- the possibility of a system-wide risk, in the event of default by institutional investors, which would cause a domino effect throughout the financial system.

196. There are several arguments in favour of a lowering of controls on foreign investment, at least within the OECD⁸⁰. For one thing, returns on internationally diversified portfolios, with a better balance between country and currency risks, have proved more stable than non-diversified portfolios; in addition, institutional investors now have access to effective instruments for hedging their foreign-currency positions. For another, institutional investors tend to be relatively conservative precisely in those countries where no restrictions exist on international portfolio investments and where only prudent-man rules apply.

197. Lastly, potential system-wide risks are probably lower, all other things being equal, in the event of the bankruptcy of an institutional investor than that of a financial intermediary – a bank or a brokerage house – with a more extensive business, for a given level of assets. The supervision of financial intermediaries does not generally require that their business be examined in detail, but rather that the combined risks to which their business is exposed be analysed to ensure that they are able to handle such risks and have sufficient capital.

198. Progress has been achieved in the past ten years or so within the OECD in terms of information on foreign investments and, more generally, on the capital markets, their regulations and supervision, of other Member countries, which have become more sophisticated in many countries. This is the perspective from which choices should now be made between prudential considerations and requirements to diversify and optimise investment portfolios, meaning between prudence and return on investments.

Table 17. Restrictions on portfolio investment abroad

Insurance Companies		Private Pension funds
Australia	None. With respect to non-life insurance, assets the value of which exceeds Australian liabilities by A\$ 2 billion (or to the level of the statutory solvency margin if this is higher) must be held within Australian jurisdiction. New standards are being developed with respect to life insurance.	None
Austria	Assets covering technical reserves for contracts denominated in Austrian currency must normally be located in Austria.	None
Belgium (1)	Assets constituting the technical provisions must be located in Belgium or in EC countries.	Asset representatives of the funds liabilities must be located in Belgium and, upon several conditions, abroad.
Canada	None.	Employers-sponsored pension plans and other retirement saving plans are generally subject to a 20 per cent limit on foreign property.
Czech Republic	Assets constituting the technical reserves must be invested in the country.	All assets must be invested in the country.
Denmark	None	None
Finland	Technical reserves must be composed of real estate situated in Finland, securities issued by residents or assets guaranteed by residents.	Existing decree: No more than 5% can be invested in assets denominated in foreign currency. Up to 20% of funds may be invested in assets in EU states (exception: 10% in real estate and 30% in debts by or guaranteed by EU states, deposit banks or insurance companies)
France	None vis-à-vis OECD countries. Documents of title to capital assets must normally be located in France.	At least 50% of assets must be invested in securities guaranteed by the French state (AGIRC/ARRCO regimes).
Germany	Up to 5% of the premium reserve stock and 20% of the remaining restricted assets may be invested abroad. In addition, specific ceilings range from 5% to 20% depending on the foreign assets concerned.	6% limit on foreign asset holding.
Greece	EC legislation applies	Pension funds are allowed to place up to 20% of their assets with domestic unit trusts, with those trusts being allowed to invest in foreign assets.
Iceland	Life: full prohibition for assets issued by non-residents.	[Civil servants], nurses', farmers' and seamen's funds: full prohibition for assets issued by non-residents.
Ireland	Non ^e	None
Italy	EC legislation applies	None
Japan	30% limit on investments in assets denominated in foreign currency.	Private funds: 30% limit on investments in assets denominated in foreign currency. [Public-sector employees funds: depends on the fund agreement of association].

(1) to be revised

Luxembourg		
Mexico	Only investment in securities registered in the Registro Nacional de Valores e Intermediarios is permitted.	Only investment in securities registered in the Registro Nacional de Valores e Intermediarios is permitted. Private pensions plans must invest 30% minimum in securities issued by the Federal Government and the rest in securities approved by the National banking and Securities Commission, in accordance to the insurance tax law.
Netherlands	None	None
New Zealand	None	None
Norway	None	None
Portugal	Assets must be located in EC countries	Up to 40% of total assets may be invested in EC securities.
Spain	None vis-à-vis OECD countries. Documents of title to capital assets must be located in Spain.	None vis-à-vis OECD countries. Documents of title to capital assets must be located in Spain.
Sweden	No more than 20% of technical reserves may be invested in foreign securities and foreign-currency denominated securities (unless necessary to cover liabilities in the same currency). Assets constituting the technical reserves must be localised in Sweden.	Limitations range from 5% to 10% depending on the pension funds and the assets concerned.
Switzerland	<i>Technical reserves only</i> Assets in foreign currency: 20% Debt instruments issued abroad: 30% Shares issued abroad: 25% Real property abroad: 5% Global limit: 30%.	Assets in foreign currency: 20% of total assets Debt instruments issued abroad: 30% of total assets Shares issued abroad: 25% of total assets Real property abroad: 5% of total assets Global limit: 30%.
Turkey	Technical reserves: - cannot be invested in foreign assets, - can be invested in domestic financial assets, which are specified by the Undersecretariat of Treasury, denominated in foreign currency. Other than technical reserves: No ceiling or restriction.	None
United Kingdom	None. Documents of title to capital assets must be held in the United Kingdom or, if they cover liabilities in foreign currencies, in the countries of those currencies. (The localisation rules will be amended with the entry into force of the EC Third Directives.)	None
United States	No federal legislation. State level regulations: – Aggregate limits on investment in foreign securities are within a range from 0 to 10% (the median point being 5%), depending on the state and the quality of the asset concerned. – Investment in Canada is treated more favourably.	Funds under ERISA: none. The indicia of ownership of plan assets must normally not be maintained outside the jurisdiction of the district courts of the United States.

Table 18. Regulations on investment: currency matching

Country	Insurance Companies	Pension funds
Australia	None for the time being	None
Austria	For technical reserves, at least 80 per cent of liabilities in any currency must be matched with assets in the same currency, except if the assets to be held in that currency do not exceed 7 per cent of total assets.	None
Belgium	At least 80 per cent of liabilities in any currency must be matched with assets in the same currency, except if the assets to be held in that currency do not exceed 7 per cent of total assets.	Representative assets must be denominated in the currency of denomination of the liabilities or in a convertible currency.
Canada	None	None. The "prudent person" approach applies.
Denmark	At least 80 per cent of liabilities in any currency must be matched with assets in the same currency, except if the assets to be held in that currency do not exceed 7 per cent of total assets. For EU currencies, up to 50 per cent of liabilities can be covered by assets in ecus.	Same provisions as regards insurance companies.
Finland	None	No more than 20 per cent of assets may be in other currencies than FIM or not protected against exchange rate risks.
France	At least 80 per cent of liabilities in any currency must be matched with assets in the same currency, except if the assets to be held in that currency do not exceed 7 per cent of total assets.	None
Germany	A minimum of 80 per cent of assets must be invested in matching currency in case the premium reserve stock concerns no more than 5 per cent and the remaining restricted assets no more than 20 per cent of the obligations in a certain foreign currency.	A minimum of 80 per cent of assets must be invested in matching currency in case the premium reserve stock concerns no more than 5 per cent and the remaining restricted assets no more than 20 per cent of the obligations in a certain foreign currency.
Greece	EC legislation applies	None
Iceland	None	None

Ireland	At least 80 per cent of liabilities in any currency must be matched with assets in the same currency, except if the assets to be held in that currency do not exceed 7 per cent of total assets.	None
Italy	EC legislation applies.	Not relevant
Japan	Only for reserves of foreign-controlled insurers for outstanding claims in respect to contracts in yen concluded outside of Japan.	30%
Luxembourg	At least 80 per cent of liabilities in any currency must be matched by assets in the same currency.	None
Mexico	n.d.	n.d.
Netherlands	At least 80 per cent of liabilities in any currency must be matched by assets in the same currency.	None
New Zealand	None	None
Norway	None until transposition of the EC Directives into Norwegian legislation.	None for the time being
Portugal	At least 80 per cent of liabilities in any currency must be matched with assets in the same currency, except if the assets to be held in that currency do not exceed 7 per cent of total assets.	None
Spain	At least 80 per cent of liabilities in any currency must be matched with assets in the same currency, except if the assets to be held in that currency do not exceed 7 per cent of total assets.	None
Sweden	None	None
Switzerland	At least 80 per cent of liabilities in any currency must be matched by assets in the same currency.	None
Turkey	None	Apart from prudent currency management requirements.
United Kingdom	At least 80 per cent of liabilities in any currency, when exceeding 5 per cent of total obligations, must be matched with assets in the same currency. With the entry into force of the EC Third Directives, the matching rules will also apply to business carried out outside the United Kingdom and reinsurance.	None
United States	No federal legislation. State-level regulation: at least 10 states prevent foreign investment in excess of what is needed to match liabilities vis-à-vis foreign countries.	None

Source : OECD, EU Green Book.

h) Insolvency insurance

199. Insolvency insurance is designed to shield pension plans and their members from the risk of bankruptcy by the sponsor in the event that a plan is insufficiently funded. Such insurance is generally provided by a government agency, as it is assumed that the market cannot provide it, at least not at an affordable price. Not all observers agree on this point.⁸¹ It should also be noted that, in Germany, the PSVaG is a mutual insurance company that purchases annuities from a consortium of private-sector insurance companies.

200. Thus far, however, the market has not really been tested, since premiums have not been set to reflect the actual risk of insolvency by employers. The system creates cross-subsidies between financially sound firms and those in difficulty, causing a reduction in economic efficiency and a redistribution effect, which could be lessened if underfunded plans were made to pay higher premiums (as it has been the practice in the United States since 1987). The practice also has shortcomings in terms of moral hazard: a fund may make rash decisions because it knows it is insured, or fail unnecessarily -- considerations which have led the US authorities to put strict limitations on the voluntary liquidation of funds and to set a ceiling on coverage, forcing plan members to act as co-insurers. It can also cause an adverse selection process to occur: if premiums were to rise significantly, sound businesses would tend to leave the system, for instance by switching to defined contributions, and the insurance system would end up with a higher proportion of bad risks. A massive increase in premiums could also contribute to further destabilising firms in difficult positions and cause some of them to fail.

201. These insurance schemes exist in certain countries, such as the United States, Germany, Japan, the United Kingdom (only recently, and in case of fraud only), Sweden, Finland⁸², Canada (Province of Ontario) and Switzerland. The systems have generally been set in place to face crisis situations (in the United States and Canada, and recently in the United Kingdom in connection with the Maxwell affair).

Table 19. Solvency insurance

creation	GERMANY 1974	CANADA	UNITED STATES 1974	JAPAN 1989	UNITED KINGDOM	SWEDEN 1961
Insolvency of the sponsor and under funding	Yes, in the case of book reserves	Yes	Yes	Yes, for employee protection funds.	Yes, but only in cases of fraud	In case of book reserves
Voluntary liquidation	No	No	No, but it was so in the past	No	No	
Market premiums or prices (with insolvency risk)	No	No	No	No	Fees collected after a bankruptcy	
Ceiling	Yes, three times the social security ceiling	Yes (CND 9 000)	Yes (USD 29 000 per year)			
Exclusions	- Unearned benefits - Some benefits earned the previous year	- Certain early retirement benefits. Supplementary benefits granted in last three years.	- Unearned benefits - Special supplement for early retirement - Part of recent supplementary benefits.			
Prudential feature: - Minimum funding rules - Asset valuation methods	No (for book reserves) Market/historical value	Yes Market value	Yes Market value	Book value	Yes Actuarial/market values	
Issues under discussion	Increase ranking in winding-up	Consideration being given to dropping this insurance	- Solvency - Privatisation - Amendments			
Form	Mutual insurance		Public sector			Mutual insurance

202. Any examination of insolvency insurance must take place within the overall context of pension fund regulations. This “insurance of last-resort” could turn out to be superfluous and counterproductive if effective preventive safeguards exist, in particular to the extent that it may instill the wrong incentives. Yet it can be very useful whenever the risk of insolvency is not curtailed by regulatory limits. The system of book reserves provides a good example of this and would seem to call for insolvency insurance. Increasing the degree of insurance against a risk because it is quantitatively and qualitatively prevalent does not prevent the risk of being realised, however, and only shifts the burden of coverage, adding a moral hazard factor. It would seem advisable, therefore, to set a priority on the implementation of preventive regulations. If this proved not to be practical, then consideration could be given to insolvency insurance, with the hazards it entails, and only under certain conditions. Thus, the setting of a ceiling, or even of a deductible amount, may reduce the moral hazard and promote better prevention by implicitly creating a situation of coinsurance.

i) Disclosure to members

203. A recent study by the European Federation of Accountants (FEE) has concluded that, in most European countries examined,⁸³ the employer is not required to disclose information either regarding the valuation method used for a pension fund’s assets, or on whether the plan is adequately funded, even though that information can be obtained directly from the funds.⁸⁴ However, in Ireland and the United Kingdom, the SSAP24 standard makes it mandatory to include this information in company financial statements. The lack of disclosure requirements in other countries may seem surprising, since employers are responsible for funding the pension funds, even though they are separate entities from the company (and except insurance schemes).

204. That same study has found that only in some countries does the law require that copies of the annual financial statements of pension funds be distributed to their members. Considered together, the preceding two observations would seem to indicate that there are situations where plan members may not have detailed access to information about the management and performance of funds. The greater a fund’s exposure to risks, the more important it is to share information with its members. Plan members should as a matter of course be provided with information on eligibility requirements, portability, vesting, the plan’s financial position and its funding, as well as be able to obtain other information on request. The Goode report suggests, for instance, that employees ought to have access to the following data prior to joining a plan and while they are members of it:

- a statement of whether the scheme is registered with the Regulator and its registration number;
- a full statement of the nature of the pension promise, detailing contributions payable, scheme benefits and how those benefits are secured;
- a statement of the scheme’s past policy with respect to pension increases, which should be contained in the annual report;
- details of trustee arrangements;
- a general statement of the powers to make scheme amendments, the use of surplus, the application of funds in the event of winding-up and the steps to be taken if the scheme has a deficiency;
- a statement of the members’ rights to further information and how this can be obtained.

Table 20. **Details on requirements to provide information to beneficiaries (situation in Europe)**

<i>Country</i>	<i>Details on requirements to provide information to beneficiaries</i>
Austria	Information about the notified claims for old age and surviving dependants' and disability benefits has to be given to the beneficiary, and to members of pension funds and supervisory board and to the sponsoring employer, information on the respective investment and risk pools. Financial statements of the fund have to be available six months after the end of the fiscal year.
Belgium	The annual accounts are provided to the members of the general meeting of the legal entity, who are not necessarily the beneficiaries. Accounts of ASBL/VZW have to be deposited to the national Bank of Belgium. The requirements vary depending on the rules of each fund.
Denmark	Statement of present value of pension obligation is annually sent to policyholders' pension beneficiaries.
France and Switzerland	Financial statements are available to members.
Germany	Information is not considered necessary, because support funds are secured against insolvency by the pension benefit guarantee corporation and "Pensionskassen" cannot go bankrupt, because they have to obey strict rules of the Supervisory Board for Insurance Companies. However, members of pension funds and support funds are normally given information about the financial status of the fund as well as the pension plan document outlining the benefits.
Italy	It is not required by law and the supervisory body has yet to issue rules for this purpose.
Luxembourg	Members are only informed if the employer voluntarily provides them with a copy of the annual accounts of the pension scheme.
Netherlands	The statements are provided on request of the beneficiaries and are available at the Insurance Control Board after October 1 of the Year following the reporting year. A Bill was presented to Parliament aimed at giving all those in active unemployment and annual summary and the balance of accrued pension rights.
Norway	No requirements regarding beneficiaries in an occupational scheme. Private scheme : annual statement for the insurance policy.
Spain	Certification of contributions during each calendar year, and the value of the "consolidated right" (vested right) at the end of the year. On the other hand, the members or beneficiaries have access to the accounts by application to the Control Commission.
Sweden	It is not required by law. The beneficiaries can apply to the board of the pension fund, as this is made up of half employees and half employers. In addition, it is always possible to apply to the county administrative board, which receives all annual reports within six months.
Switzerland	Required by the law. The members/beneficiaries can consult the annual financial statements and have to be informed on their own personal insurance situation.
UK and Ireland	In Ireland and the UK, requirements provide for disclosure to the members of a comprehensive range of information such as eligibility, conditions of membership, calculation of contributions, type and level of benefits and conditions for entitlement, the trust deed and rules and an annual report. The time limit in Ireland is nine months, and in the UK one year, after the year end of the scheme for accounts to be available to the members or beneficiaries. In the report, trustees must account for matters such as the collection of the contributions due, the investment of the scheme's resources, payment of benefits and the actuarial valuation of the assets and liabilities. They must as well disclose whether more than 5 per cent of the scheme's assets are invested in the employer's business or in any one shareholding or property.

Source : FEE (1995)

205. The issue of disclosure to members raises the broader one of “pension contracts” and of the nature of information given to members joining a pension system. It is particularly important that members receive ample information whenever funds are not closely monitored by supervisory authorities and fiduciary responsibility for the operation of the fund rests with its managers. Any loosening of direct government controls over plans must be contingent upon members having access to adequate information about their plan.

j) Tax issues

206. Tax regulations applicable to private pension systems are of key importance. Retirement policies advocated by governments have often provided grounds for granting tax advantages designed to create incentives for employers and employees to join private plans. But exemptions only apply within the scope of such policy objectives, so that there are ceilings on tax-deductible contributions as well as limits on excess funding, notwithstanding the fact that overfunding is beneficial from a prudential standpoint.

207. Tax regulations affect all three main financial stages of pension plans -- namely contributions, funding and benefits. Major differences exist between national tax laws, in particular with respect to the taxing of contributions and benefits. In general, employer contributions are tax deductible provided that a plan qualifies under existing regulations. Also, in general, the tax burden does not shift to the employees, meaning that contributions are not treated as indirect income on which employees must pay taxes. Employee contributions are also generally tax deductible. Certain ceilings apply to deductions, either at the level of the contributions themselves or else indirectly on the amount of benefits towards which contributions are made.

208. As far as benefits are concerned, however, they are in principle taxed as regular income, in any case when paid out as an annuity. Lump sum payments are treated differently according to such considerations as the purpose for which they are used and the government’s policies in the area. The rule on income from investments and capital gains is that they are not taxable as long as the fund complies with applicable regulations.

209. As far as pension fund operators are concerned, there are sometimes differences in their tax status in respect to contributions (taxes on insurance policies) as well as to income from investments (operators taxed differently) and to benefits (although more rarely), depending on whether the operator is a pension fund or an insurance company. These differences raise certain issues, even though they may be justified by such considerations as the profit-making nature of insurance companies.

210. Tax benefits granted to pension systems can be very costly. The expected growth of private pensions could substantially raise this cost and hence offset the positive impact that pension plans may have on budget deficits. In any event, tax treatment has a decisive impact on the types of plans that are chosen, as well as on fund management⁸⁵. In this regard, it is important to reconcile regulatory objectives, and to get a comprehensive grasp of all of the various provisions that might be applicable to pension plans and pension funds, in order to minimise potential conflicts.

Table 21. Taxation

Country	Employee's contributions	Employer's contributions	Interest and capital gains	Tax treatment of benefits lump sum and annuities
Australia	tax deductible only within certain limits			
Austria	tax deductible only within certain limits		taxable at a rate of 15%	
Belgium	tax deductible	tax deductible	annual tax of 0,17% on assets of self-administred funds and withholding tax of 15% or 25% on realised income; for insured funds, 9,25% tax on allocated profits, which is not tax-deductible for insurers.	Flat taxation of capital ; margin rate taxation of annuities
Canada	tax deductible (up to a certain ceiling)	deductibles(up to a certain ceiling)	non taxable	benefits taxable under income tax
Denmark	tax deductible	tax deductible	Interest and capital gains on bonds are taxable, dividends and capital gains on shares are exempted	lump sum taxed 40%; annuities taxed as personnel income
Finland	Employee's and employer's contributions to supplementary pensions schemes are tax deductible up to a certain ceiling.			benefits taxable under income tax
France	tax deductible	tax deductible		benefits taxable under income tax
Germany	tax deductible only within certain limits	employer contributions to book reserves are tax deductible for employers; however, employer-paid insurance premiums are considered as an indirect salary and thus constitute taxable income for employees (the employer can assume this tax liability on a flat-rate basis, which is currently set at 22,9%)	non taxable	benefits partially taxable, at a low rate, depending on funding methods
Greece	tax deductible	tax deductible		benefits taxable under income tax

Irland	tax deductible	tax deductible		lump sums not taxed pension benefits taxable under income tax
Italy	tax deductible	tax deductible		benefits taxable under income tax
Japan	tax deductible	tax deductible	pension assets taxed	benefits taxable under income tax, except for the capital which is not taxable
Luxem- bourg	tax deductible up to a certain ceiling	comparable with provisions in effect in Germany		benefits taxable under income tax
Nether- lands	tax deductible	tax deductible	non taxable	benefits taxed
New- Zealand	taxed	tax deductible but subject to a 33% withholding tax, which is paid by the employer		lump sums not taxable pension benefits deductible
Norway	partially tax deductible for schemes that comply with fiscal regulation	tax deductible	partially exempted for schemes that comply with fiscal regulation	benefits taxable under income tax
Portugal	taxed	taxable for the employee, except if they have no vested rights in the event they leave the their employer early		partially or fully deductible up to a set ceiling
Spain	tax deductible (up to a certain ceiling)	tax deductible	pension assets non taxable	benefits taxable under income tax
Sweden	tax deductible	tax deductible	taxable	taxed at low rate
Swizerland	tax deductible	tax deductible	non taxable	taxed
United Kingdom	tax deductible	tax deductible	non taxable	benefits taxed, except for the capital that is not taxable
United- States	tax deductible for 401(k) schemes and defined contributions schemes such as IRAs	tax deductible		benefits taxable under income tax

Sources: OECD and different authors (Turner, Davis, Gollier, Pestieau).

ANNEX I: REMARKS ON THE ORGANIGRAMME

The following remarks are related to the organigramme mentioned in paragraph 61 of the report. Annex II provides other details related to this issue. The organigramme is illustrative and does not pretend to cover the pensions systems existing in all OECD countries. Several systems exist in OECD countries which do not fit within this structure. Other systems are at the boundary between second and third pillar, for instance systems with mandatory contributions by the employees to independent pension administration bodies. The objective is rather to highlight the diversity of second pillar schemes. The organigramme is based on an institutional approach. The alternative functional approach is based on pensions plans, i.e. defined benefits plans, defined contributions plans and hybrid plans, which all have multiple sub-categories. Both are relevant for the establishment of an adequate regulatory framework and should be used in a complementary way, even if the institutional approach seems to get some priority in consideration to the current regulatory structure of OECD countries in the field of private pensions.

Basically, the main private regimes of the second pillar can be split between the funded regimes (the most common) and pay-as-you-go regimes. The latter which are quite rare, in the private field, include the overheads systems, retirement indemnities and several “quasi-public” schemes. The overheads systems allow for benefits payment directly from the overheads of the company. They are quite risky in a private framework and are, for this reason, often prohibited. Retirement indemnities are also paid from the general overheads of the company. They have a less systematic nature and are still commonly used in several countries. Finally some systems are at the boundary between private and public schemes, as the French system and enshrined in specific regulatory framework. These quasi-public systems could be considered more as an extension of the public schemes than an independent substitute or complement to them.

Some other regimes are noted here for reference. They are the public funded schemes, which have several common characteristics with private schemes but which are generally covered by special regulation. These regimes are generally civil servants schemes. Some of them manage very huge amount of assets and behave as private funds. Other schemes with a special nature correspond to schemes set up at a sectoral level through an agreement between trade unions and employers of the sector. They have also special feature. Finally, the regimes grouping self-employed also obey often to special regulatory provisions.

In the funded regimes, the funds are usually legally separated. This is not however always the case. For instance, book reserves are generally considered as funded regimes, where the funds are not separated legally from the assets of the employer who keeps the control on these funds. In some cases, parts of the funds may be deposited into banks accounts or guaranteed through insurance (which will be treated as an asset by the employer in the balance sheet). In such cases, the employer keeps the control but the related assets are identified/designated.

The main category of second pillar regimes groups the funded regimes with funds legally separated. Usually the beneficiaries have irrevocable rights on these funds. This may not be the case, as in the case of support funds in Germany. The funded and separated regimes are usually managed outside the employer. Sometimes, the externalisation is not clear-cut, for instance when the employer is represented in the management board or can influence directly or indirectly the decision taken by the managers of the fund.

The external regime can take the form of a pension fund , which can be self-administered or managed by specialised institutions, as insurance companies, banks or investment companies. The management by these institutions will generally concern the assets portfolio of the fund; it may also be related to the provision of the benefits, which can be administrated by an insurance company . It can also concern specific administrative services. Pensions schemes can also be based on group annuities contracts or group deposit administration contracts (possibly with constitution of secured assets, as in the separate account system) with a insurance company. Such insured funds counts for about 30 per cent of pension funds.

ANNEX II

PRIVATE PENSION SYSTEMS AND THEIR FINANCING SUPPORT: TYPOLOGY⁸⁶

Once a decision has been made as to the 'design' of a private pension system, a financing support has to be selected for it. As part of the financial package which the system requires, who is going to handle the process from point A where plan members contribute, to point R where they receive the benefits guaranteed by the system? Hereafter we shall limit our discussion to those systems - the most common ones - set up by companies on behalf of their employees. A distinction must be made here between internal and external supports.

In the case of internal supports, the company makes no payment outside its accounts prior to the time when benefits are to be paid pursuant to the plan. It is often said, in such cases, that these supplementary pensions are not funded. Then there are external supports for which amounts required for funding are paid out by the company to an entity which subsequently pays the benefits called for under the plan.

First internal support: overhead expenses budget

The first internal support is the payment of pension benefits directly out of the company's budget for overhead expenses (the so-called "pay-as-you-go" practice). In this instance, a company pays benefits directly from the time of an employee's retirement or death, to that employee or to his or her beneficiaries. Payment can be made on the basis of internal company rules, either known to employees or not, or else on a case-by-case basis depending on merit or needs. Operating in this manner is considered very hazardous:

- for the company which does not set aside any reserves for the future, even though the cost of the system is expected to increase with time and could pose a threat to the future financial soundness of the business;
- for shareholders, as the profit and loss account does not reflect the accrued cost of supplementary pension benefits; dividends paid out today are therefore artificially high and biased in favour of current shareholders, at the expense of future ones;
- for retired as well as current employees, who could lose everything if the company went bankrupt. Most countries have prohibitions against such pay-as-you-go systems.

Second internal support: book reserves

The company and its shareholders can reduce the risks from pension costs being charged to overhead expenses by setting aside reserves in the books. The amount of such provision is computed by actuarial methods that are often the subject of detailed regulations. The properties of such a system are as follows:

- for the company, the setting aside of reserves against pension benefits payable in the future makes it possible to absorb increases in costs, while the corresponding funds are available to the company and can be invested in its operations. Everything proceeds as if the long-term provisions were added to the company's equity, enabling it to fund its pension commitments. The interest paid on those provisions is equal only to the technical interest that serves as an underlying basis for the provisions and is generally below the long-term rate on money markets. In most cases, the provisions are in fact invested in the company, the return on them being that on the company, which usually makes it possible to cancel out the consequences of inflation, especially in countries where it is rising rapidly;
- for the shareholders, fairness is restored between the generations;
- for retired and current employees, on the other hand, the situation remains unchanged in terms of the risk that the company could go bankrupt; they have no special privileged claims on assets and are considered to rank equally with other creditors, after the tax authorities and social security administration, etc., meaning that they stand little chance of recovering a significant share of their pension benefits in the event of bankruptcy.

It is possible to reinsure commitments entered into by a company under this kind of system. If an employer chooses to do so, it can secure a group policy from an insurer, providing coverage for the commitments made with respect to employees, either in whole or in part. The company, rather than its employees, is the beneficiary of such a policy. Normally, the company thereby will book in its assets a claim against the insurer equal to the amount of the actuarial reserve set aside by the latter. This approach enables the company to cut down on liquidity problems caused by the payment of benefits, although it does not seem, on the other hand, to provide employees with improved guarantees in the event of bankruptcy. Yet the safeguarding of vested pension rights, as that of the benefits themselves, has been the subject of a European directive (80/987 EEC).

In order to reconcile the interests of employers and employees and the requirements of the European provisions, some countries have introduced a reinsurance system covering companies' solvency in the event of bankruptcy, for those setting aside pension provisions in their balance sheet. Under that system, employers pay annual premiums to an insolvency reinsurance pool, based on reserves that are or should be set aside in order to pay future pension benefits to current and future retired employees, whenever no such provisions have been made outside the company.

Individual pension guarantees

A company may wish to provide special pension benefits to some of its employees or officers, on a purely individual basis. This is sometimes handled through a personal pension guarantee in the form of an agreement between the company and the employee or officer in question. Under that guarantee, the company promises to pay benefits upon retirement or in case of death prior to retirement and, in some instances, of disability. Normally the company should set aside a reserve in its books. It can avoid having to do so, however, by taking out an individual insurance policy on its own behalf, as in the case of the reinsurance of provisions, for the same benefits as those promised under the pension agreement.

Self-administered pension funds (first external support)

The first external support is the self-administered pension fund. It is a legal entity distinct from the employer itself, generally a non-profit company or a similar legal entity, or trust on the Anglo-Saxon model. The employer calculates - or has an actuary calculate - what reserves are required to provide for future benefits, and allocates to the pension fund, which is independent of the company, the corresponding amounts, taking into account interest income by the fund and benefits payable.

Because self-administered pension funds exist independently of the company, the employees of the latter are protected in the event it goes bankrupt, with the effect being only that no more money is paid into the fund, while amounts already in the fund cannot be reclaimed by the company.

It is evident that this type of organisation necessarily involves both fixed and variable administrative expenses. Among fixed expenses are those incurred for starting up the fund, preparing legal documents, accounting, etc. and they may account for a major share of total expenses. It is therefore obvious that such a structure can generally be used only if contributions to the private pension fund are substantial. It must be recognised that savings can be realised only if the sums managed are substantial and if competition among insurance companies would not make it possible to obtain equally advantageous conditions, with the added advantage of limiting the investment risks.

The question may be asked whether the main advantage of self-administered pension funds is not precisely that they give employers the opportunity to choose on their own the financial risk to which they agree to be exposed. All the available statistics show that properly managed higher-risk investments have a medium-to-long-term yield that is significantly higher than risk-free investments. However, in that event, it is extremely important that the employer limit that risk as much possible, with due regard to the exposure of the company itself, for it would definitely run counter to interest of the fund for it to incur investment losses at a time when the company is having problems, a factor that underscores the need to properly manage fund assets. It is obviously an easier matter in the case of self-administered funds than in that of funds handled by outside insurers, unless more sophisticated methods of investment allocation are used.

Lastly, it should be noted that pension funds do not have performance obligations to their members. They collect contributions paid to them by employers so as to live up to the commitments resulting from the pension plan bylaws. Any financial shortfall would therefore be covered by the employer.

Group insurance (second external support)

The second external support consists of group insurance. Under that system, employers turn to an insurance company. The employer and the insurer jointly draft a group insurance contract specifying the respective rights and obligations of the parties, namely the insurer, the employer, policyholders and their beneficiaries. Based on that contract, the insurer computes the premium that needs to be paid, in the form of contributions either by employees or by their employer. Individual contributions are always individually funded and therefore pay for individual insurance policies guaranteeing the payment of benefits upon retirement or in the event of death prior to retirement.

Under a system of defined contributions, contributions by employers are always individually funded and hence also pay for individual insurance policies.

On the other hand, under systems of defined benefits, two approaches are available. If the method used is that of individual funding, employer contributions are paid on individual policies, whereas if employer contributions are part of a group funding, no such individual policies exist.

The individual funding part determines the ratio of premiums to benefits, based on a life insurance rate schedule. That schedule in turn depends on interest rates, technical interest rates, mortality tables and administrative expenses incurred by the insurance company in connection with its operation as well as, in certain instances, commissions paid to intermediaries.

The fact that life insurance rates are used evidently implies that the insurer has performance obligations, since specific benefits are guaranteed in consideration for the payment of premiums. It should be noted, in addition, that whenever employer contributions are - at least in part - allocated to collective funding, a certain interest rate can also be guaranteed, so that here again the insurer makes a commitment insofar as performance is concerned. From the point of view of the insurer, the obligation to achieve a specific result is in fact always limited to the level of compensation established at the time of computing the premium. The performance obligation -- with benefits expressed as a percentage of the final income, in case of defined benefits -- implies that the necessary premiums are recomputed every year and thus always hinges on the employer being willing and able to pay the required premiums.

The case may also arise where the insurer funds all or part of the employer contributions on a group basis without making a commitment as to the rate of interest or the nominal value. This is the situation when assets are managed as mutual funds or as allocated investments, with a "best efforts" obligation.

The management of group pension funds

The notion of collective funding in group insurance is akin in fact to another concept, that of the management by insurance companies of group pension funds. The technique was developed several decades ago, at the same time as group insurance. It is sometimes referred to as 'deposit administration' or 'separate account'. As pointed out earlier, this is a special form of group insurance, where the insurance company manages a joint account into which an employer pays contributions, and from which the insurer pays out the benefits specified by the policies when they come due, hence the term 'deposit administration' reflecting the idea of an account that is set aside for a specific purpose, which constitutes a collective provision on the liability side of the insurer's balance sheet.

One can go even further by covering this liability with an allocated investment, which is then called a "separate account". The insurer, or an actuary working for the employer, calculates -- using recognised actuarial methods -- the amount of contributions required by the group pension fund in order to enable it to pay out the benefits promised by the employer to the fund members, pursuant to the fund's bylaws.

It can therefore be noted that, except where the insurer guarantees a minimum rate of return, it makes a commitment only to use its best efforts, just as in the case of self-administered pension funds. This shows how close a group pension fund is to the notion of a pension fund. The major difference is that group pension funds are offered by insurance companies.

It should be noted, in addition, that insurance companies are in a position to offer a choice of two separate methods, one where the assets are considered by the insurance company to be part of its own technical provisions and are managed as such, the other where they are managed on behalf of a third party

which actually owns a self-administered pension fund, the role of the insurance company being merely to perform financial management and actuarial duties on the fund's behalf. In that instance, technical provisions are the property of the pension fund rather than of the insurance company, with all the legal, tax and other differences which that implies.

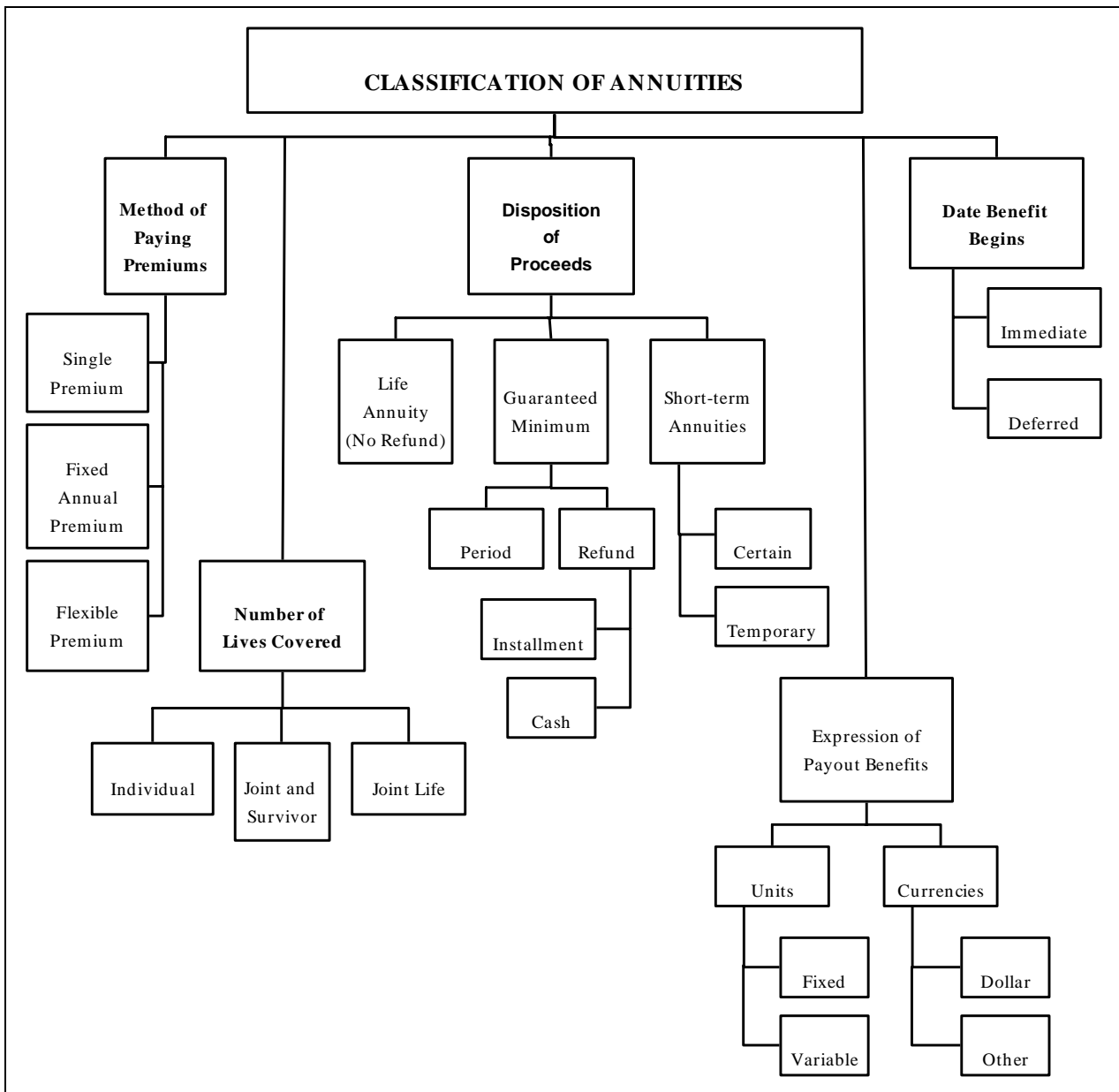
ANNEX III

EXAMPLE OF DIFFERENCES BETWEEN DEFINED BENEFIT AND DEFINED CONTRIBUTION PENSION PLANS (UNITED STATES)

Plan feature	Defined Benefit	Defined contribution
Benefit accrual pattern	Higher in later years	Higher in earlier years
Cashouts for early leavers	Not usually	Lump sum
Retirement benefit payment	Annuity	Lump sum (with possibility of conversion to annuity)
Early retirement subsidy possible	Yes	Not usually
Postretirement benefit increases	Often	Not usually
Investment risk	Borne by employer	Borne by employee (often)
Benefits fully funded	Not necessarily	Yes
PBGC benefit guarantee	Yes	No
Employee makes asset allocation decision	No	Often

Source: Mitchell and Rappaport (1993)

ANNEX IV: ILLUSTRATIVE CLASSIFICATION OF ANNUITIES



Black and Skipper, 1994

ANNEX V: FURTHER CONSIDERATIONS ON OWN FUNDS REQUIREMENTS

The most recent developments show a convergence between insured pension funds and self-administered ones as far as prudential principles in general are concerned, although differences—sometimes considerable—do subsist in certain countries. The question must therefore be asked whether it is logical for prudential rules to hinge on the method of financing or whether, on the contrary, they should be based exclusively on the legal and financial structure of the commitments involved.

In cases involving a performance obligation, it seems logical that the managing entity be endowed with capital from which it could offset any losses in respect of its commitments; such is the purpose of the solvency margins prescribed in European legislation. This implies, *inter alia*, that for defined-contribution schemes there are two possible solutions:

- application of a tariff with a guaranteed technical rate of interest, which entails a performance commitment. In this case, there must be an adequate solvency margin, and the most appropriate legal structure is probably incorporation as an insurance company or a mutual insurance association—since a non-profit organisation does not normally possess any equity capital—unless the initiating employer provides the necessary guarantee, backed up by a bank or insolvency insurance.
- application of a tariff but with no guaranteed technical rate of interest, all contributions and benefits being linked to the value of a unit of account representative of the performance of fund assets (or any other comparable actuarial technique). In this case, there would be nothing to preclude incorporation as a non-profit organisation (as well as an insurance company or a mutual insurance association), since the proposed guarantee is extremely limited—covering no more than mortality differentials or variance in respect of management overheads.

If a system involves defined benefits, however, it is necessary to make the following distinction:

- If the technique used is that of individual capitalisation with a performance obligation, the situation is the same as described above for a defined-contribution scheme having the same obligation: there must be a solvency margin, meaning that the employer setting up the fund should provide a performance guarantee or that the managing entity should be an insurance company or a mutual insurance association;

- If the technique used is that of collective capitalisation, which can only be applied to employer contributions, there is normally only a best-effort obligation, no solvency margin need be required, and prudential rules must focus primarily on asset-liability management (ALM), i.e. a correlation should be established between existing assets and the necessary mathematical provisions. With regard to these provisions, a legitimate question is whether minimum provisions or individual rights calculated on the basis of actual years of service and current (in some countries, projected) earnings are really reasonable and whether the concept of aggregate equilibrium between reserves plus future contributions and total commitments should not be given top priority.

ANNEX VI: VALUATION BASES USED IN APPLYING QUANTITATIVE INVESTMENT RESTRICTIONS

	Shares (quoted)	Shares (unquoted)	Government and high quality fixed rate bonds	Lower quality fixed rate bonds	Loans (mortgage)	Loans (non- mortgage)	Real estate
Australia	<i>d</i>	<i>d</i>	<i>d</i>	<i>d</i>	<i>d</i>	<i>d</i>	<i>d</i>
Austria	<i>a</i>	<i>a</i>	<i>a</i>	<i>a</i>	<i>a</i>	<i>a</i>	<i>a</i>
Belgium	<i>d</i>	<i>d</i>	<i>a, d, f</i>	<i>a, d</i>	<i>g</i>	<i>g</i>	<i>d</i>
Canada	<i>e</i>	<i>a</i>	<i>c</i>	<i>c</i>	<i>c</i>	<i>c</i>	<i>e</i>
Denmark	<i>a, d</i>	<i>a, d</i>	<i>c</i>	<i>c</i>	<i>c</i>	<i>c</i>	<i>a, d</i>
Finland	<i>e</i>	<i>e</i>	<i>c</i>	<i>e</i>	<i>c</i>	<i>e</i>	<i>e</i>
France	<i>a</i>	<i>a</i>	<i>c</i>	<i>c</i>	<i>a</i>	<i>a</i>	<i>c</i>
Germany	<i>b</i>	<i>b</i>	<i>b</i>	<i>b</i>	<i>a</i>	<i>a</i>	<i>a</i>
Greece	<i>b</i>	<i>b</i>	<i>a</i>	<i>a</i>	<i>b</i>	<i>b</i>	<i>b</i>
Iceland	<i>d</i>	<i>a</i>	<i>d</i>	<i>a</i>	<i>a</i>	<i>a</i>	<i>a</i>
Ireland	<i>d</i>	<i>d</i>	<i>d</i>	<i>d</i>	<i>d</i>	<i>d</i>	<i>d</i>
Italy	<i>a</i>	<i>a</i>	<i>a</i>	<i>a</i>	<i>a</i>	<i>a</i>	<i>a</i>
Japan	<i>a</i>	<i>a</i>	<i>a</i>	<i>a</i>	<i>a</i>	<i>a</i>	<i>a</i>
Luxembourg	<i>d</i>	<i>d</i>	<i>g</i>	<i>d</i>	<i>d</i>	<i>d</i>	<i>d</i>
Mexico	<i>e</i>	<i>e</i>	<i>d</i>	<i>d</i>	<i>d</i>	<i>d</i>	<i>d</i>
Netherlands	<i>a, d</i>	<i>a</i>	<i>a, c, d</i>	<i>a, c, d</i>	<i>a, c</i>	<i>a, c</i>	<i>d</i>
Norway	<i>a</i>	<i>a</i>	<i>a</i>	<i>a</i>	<i>a</i>	<i>a</i>	<i>a</i>
Portugal	<i>d</i>	<i>d</i>	<i>c, d</i>	<i>d</i>	<i>d</i>	<i>d</i>	<i>d</i>
Spain	<i>d</i>	<i>a</i>	<i>d</i>	<i>d</i>	<i>a</i>	<i>a</i>	<i>d</i>
Sweden	<i>a</i>	<i>a</i>	<i>a</i>	<i>a</i>	<i>a</i>	<i>a</i>	<i>a</i>
Switzerland	<i>e</i>	<i>e</i>	<i>c</i>	<i>c</i>	<i>d</i>	<i>d</i>	--
Turkey	<i>b</i>	<i>a</i>	<i>b</i>	<i>b</i>	<i>a</i>	<i>a</i>	<i>a</i>
United Kingdom	<i>d</i>	<i>e</i>	<i>d</i>	<i>d</i>	<i>d</i>	<i>d</i>	<i>d</i>
United States (New Jersey)	<i>d</i>	<i>d</i>	<i>c</i>	<i>a</i>	<i>a</i>	<i>a</i>	<i>a</i>
United States (Delaware)	<i>d</i>	<i>d</i>	<i>c</i>	<i>a</i>	<i>a</i>	<i>a</i>	<i>a</i>

a) Lower of purchase price or market value for quoted investments; or purchase price (or written down book value) for unquoted investments.

b) Lower value ever

c) Amortized value

d) Market value

e) Adjusted market value

f) Repayment value for securities issued or guaranteed by State authority or a regional or local authority.

g) Balance outstanding.

Source: OECD (1996), *Policy Issues in Insurance: Investment, Taxation, Insolvency*, OECD, Paris.

NOTES

1. This article was prepared by André Laboul, a Senior Economist in the Financial Affairs Division, Directorate for Financial, Fiscal and Enterprises Affairs.
2. Life insurance companies and pension funds are the biggest world institutional investors, with their assets in the OECD area amounting to more than \$14 000 billion in 1995.
3. These working definitions help define the scope of this paper. Many retirement plans are however on the borderline between occupational and individual plans and, depending on who describes them, may be considered to fall into either category.
4. See in particular: OECD (1995a), *the transition from Work to Retirement*, Social Policy Studies No.16, Paris and OECD (1996a), “Policy Implications of Ageing: A critical Policy Challenge”, *Social Policy Studies* No. 20; OECD (1998), *Maintaining Prosperity in an ageing Society: Background Report*, Forthcoming.
5. Federation of European Accounting Experts (FEE), 1995.
6. Some authors consider that, in certain respects, pay-as-you-go and funded systems are in fact identical. Blake (1995), for instance, deems that from certain standpoints all pension systems are actually pay-as-you-go systems. A funded system is merely a deferred pay-as-you-go system, the only difference being that instead of using current contributions to finance benefits, benefits are paid with contributions made years earlier. On a strictly economic level, it has also been held that the total cost relative to retirement benefits is the same, regardless of the method of financing. From this standpoint, both systems involve redistribution—either between categories, or between periods of time (*Insurance Trends*, July 1997).
7. Since 1987. Before, employers were not requested to set-up provisions and liabilities were sometimes not accounted (ApRoberts and Reynaud 1991).
8. Charpentier (1997).
9. Not even in Chile, contrary to what is commonly believed. The system in that country, which, moreover, cannot be transferred as such to the OECD countries, poses a number of problems that should moderate the excessive optimism as to the virtues of total privatisation.
10. Feldstein, 1997.
11. It is interesting to note that the private sector seems to share these views. “The insurance industry cannot and does not wish, in any cases, to substitute [to] government but instead wish to play its role in the new areas of competence of public and private operators”. CEA, 1995.
12. See Blommestein (1998) for a discussion of demographic risks in the framework of funded schemes.

13. Among the arguments put forward in favour of funded schemes are: their flexibility (in relation to the profile of the employer and employee), the possibility of benefiting from the returns generated by the investments, their impact on national saving and especially the fact that they are much less exposed to demographic risks than pay-as-you-go schemes. On the other hand, funded schemes are more exposed to financial risks and, especially, investment and inflation risks. Their merits and demerits have to be appraised in a longer-term prospective. Their current success is no doubt due in large part to the fact that inflation has been held down in most OECD countries, which would imply that they are worth introducing only in a specific economic context.
14. “Neither technique offers any inherent superiority in terms of a guarantee of the future level of pensions [...] Whatever the method used, to make preparations for retirement entails constituting a claim on the output of future generations in exchange for foregoing a portion of current output. No procedure can guarantee the actual value of that claim. Moreover, returns from both techniques are identical when the real rate of interest (funded systems) is equal to the sum of the growth rates of wages and of the number of people employed (pay-as-you-go) [...] The guarantees offered by both systems are therefore always virtual: in one case, they are based on the strength of a social contract; in the other, on the economy’s ability to be virtuous, and on the stability of markets. While it would obviously be a gross oversimplification to view the two guarantees as opposites, it is nonetheless true that, in the case of funded schemes, the reliance on yields from financial assets is subject to unforeseen events over which society has no control, whereas, in the case of pay-as-you-go, society—while it cannot guarantee a previously defined level of pensions—has the option of fully and continuously controlling the terms of the irreversible social pact that has been sealed between the generations.” (*Livre blanc des retraites*, 1991). “Pay-as-you-go or funded schemes. There is no scheme which outclasses the other, for any country or criteria concerned. The choice of social security policy seems finally to be, to a large extent, a normative choice” (*OECD Economic Outlook*, June 1995).
15. Blake, 1995, estimates that these costs can reach 10 to 20 per cent of the contributions in case of personal pensions versus 5 to 7 per cent for occupational schemes.
16. Compulsory insolvency insurance covering investment is in run off till year 2005 and it only was part of statutory occupational pension system (TEL). In TEL-System, there exists another compulsory collective guarantee system for bankruptcy of pension institution.
17. Mc Gill, Brown, Haley, Schieber (1996).
18. Indicators vary in particular following number of plans, of beneficiaries covered by categories of plans following the importance of assets related to concerned categories.
19. Ferone, 1997.
20. These considerations are intended to stress the fact that governments should monitor carefully the development of private plans taking in particular account their social features, and that a total privatisation would not get them rid of their responsibilities. This said, the pension sector is not the only one where state has a potential last resort role and this role is not an integral part of regulation.
21. Bernhein and Scholz, 1992.
22. Davis, 1997.
23. Vittas, 1997.
24. In Chile for example, where pension provision is compulsory for employees, the gap between the number of contributors and the number of members has been widening for the last 10 years or so (the ratio was as

low as 56 per cent in 1996). While this figure is partly explained by the fact that the new system is not wholly compulsory, the fact remains that the obligation to contribute may not be observed in practice and may, in the long run, put the state in the position of having to provide assistance, through its “minimum pension” programme. This kind of problems exists generally in mandatory schemes.

25. Feldstein, 1997.
26. Altman, 1992.
27. Although public pensions are not necessarily work-related, second pillar -- but not third pillar -- private pensions are.
28. Leone, 1997.
29. Davis, 1997.
30. Altman, 1992.
31. The Barber Judgement was not a one-off event but the culmination of a series of Directives, Acts and Judgements. In December 1978 the Equal Treatment Directive required ‘progressive implementation of equal treatment of men and women in matters of social security’; in 1984 a further directive ‘there shall be no discrimination whatsoever, on grounds of sex, either directly or indirectly’. In February 1986 the European Court of Justice ruled that men and women should not have different compulsory retirement ages; women working in the public sector could claim unfair dismissal under the Equal Treatment Directive. This was implemented in the UK in the 1986 Sex Discrimination Act, introduced in 1987, which forced pension funds in both public and private sector to have the same retirement age, although employers could choose what the retirement age was. The Barber judgement clarified that pensions are a form of pay in the terms of Article 119 of the Treaty of Rome, which forbids discrimination between men and women on grounds of sex (Davis, 1997).
32. The rules governing the first scheme adopted by an American industrial company, the Dolge scheme, in 1882, stipulated: “It should be clearly understood that any provisions of this internal scheme does represent a voluntary action of Alfred Dolge company, and that neither this scheme nor any of its provisions grants any legal right for any employee of the company or for any other individual and that neither Dolge company nor Alfred Dolge haven’t any legal or equity responsibility “(SASS, 1996).
33. This view is also supported by the fact that, in reality, employees contribute to the employer’s contribution in that they accept reduced wages in return for their rights to pension benefits.
34. Gollier, 1995.
35. The 1995 Pensions Act foreshadows abolition of the GMP as from April 1997 and replacement by a “Requisite Benefits Test”. The minimum pension will be based on that of a “reference scheme” accruing 1/80th per year of service applied to an earnings definition based on 90 per cent of the member’s earnings which would qualify for SERPS averaged over the last years of service (Davis, 1997).
36. Capital or annuity payment is also linked with the longevity risk. The longevity risk arises in two ways. First, in the case of lump-sum or “non-life” annuity payments, the pensioner may outlive his pension and find himself without resources at a particularly advanced age. Second, from the insurer’s point of view, there may be “adverse selection” in the case of voluntary schemes and optional benefit commutation plans. The insurer will consequently tend to raise his premiums steeply, making it more difficult to purchase annuities at an equilibrium price.

37. Some countries make it easier for people to use retirement capital to purchase their homes. In Switzerland, for example, home ownership incentives offer policyholders two options: advance payment of acquired pension rights or the possibility of pledging that amount or the right to future pension benefits.
38. The 1994 report by the World Bank suggests that, in this case, the private annuity market should be heavily regulated.
39. As in Chile. Serious problems have arisen in that country owing to the high cost of operating pension systems as well as to the overexpansion of the distribution network. With agents earning commissions on the opening of new accounts, transfers among funds have increased markedly. The introduction of a long-term membership bonus is currently under consideration.
40. Institutional Investors Statistical Yearbook 1997.
41. ApRoberts and Reynaud (1992) report that, in the United States, the Department of Labour has ruled that an employer was ultimately responsible for funding pensions in the event of the bankruptcy of an insurance company from which it had purchased annuities.
42. Black and Skipper, 1994.
43. Meierholzner, 1997.
44. These criteria are:
 - legal requirements, i.e., in particular, conformity of the form of business organisation adopted by the company, filing of bylaws and general terms and conditions of policies, insurance specialisation;
 - accounting requirements, i.e. filing of opening balance sheet, budget and income statement, proof that the company has the required minimum capital, etc.;
 - technical requirements, i.e. filing of premium rates for information or, if applicable, for approval, as well as of the technical bases used in tarification and planned technical provisions, and of reinsurance contracts;
 - managerial requirements, i.e. demonstration that officers are fit and proper, and that the shareholders are reputable (Center for Co-operation with Economies in Transition, OECD, 1997).
45. Watanabe, 1996.
46. Altman, 1992.
47. Davis, 1997.
48. Warshawsky, 1997.
49. Pesando, 1996.
50. Frijns et Petersen, 1992.
51. Bodie, 1993.
52. Mc Gill, Brown, Haley, Shieber, 1997.

53. Warshawsky, 1997.
54. Foster, 1994
55. See Pension Law Review Committee, 1993.
56. Parkinson, 1997
57. Author's computations from Compustat data, only include those United States-Domiciled corporations (subsidiaries excluded) reporting under FAS No.87 the sponsorship of at least one defined benefit plan. See Warshawsky (1997) for further methodological details.
58. Bellando, 1992
59. Comité Européen des Assurances, 1996.
60. Davis, 1997
61. Bellando, 1992.
62. In the Czech Republic, the minimum equity requirement is CK 20 million. In Chile, AFPs are required to possess equity of at least \$160 000, which increases with the number of members.
63. Foster, 1994.
64. Mc Gill, Brown, Halez and Schieber, 1997.
65. This rate applies to the normal situation that indexing of accrued benefits is at the discretion of the board of managers. When a scheme offers an irrecoverable right to indexation, the supervisory body takes the view that the rate should be fixed at one or two per cent.
66. Davis, 1997
67. FEE, 1995.
68. Queisser, 1997.
69. Blommestein, 1998.
70. Carpentier, 1997.
71. Idem.
72. The position taken by the CEA at the end of 1997 on the Green Paper was as follows: The Green Paper raises the question of the general prudential framework to be applied to pension funds and refers to the proposals in the CEA's Prudential outline for pension business as a reference in the field of applicable schemes: for an identical level of liabilities and risks, supplementary pension business must be subject to equivalent prudential standards in terms of reserving and solvency (liabilities) and investment of assets and matching (assets), whatever financing vehicle or methods of management are adopted for these operations. For each specific case, it is suggested either to refer to the corpus of existing prudential standards (in this instance, the rules in the life insurance directives) - option I proposed by the European Commission - or, a more viable solution, to envisage an alternative scheme of specific norms applicable to all second pillar schemes - option III envisaged by the Commission - which would be sufficiently

balanced between the protection requirements for final beneficiaries and the concern that operators should not have to bear a disproportionate financial burden. The other two options envisaged in the Green Paper would not guarantee equality of competition between pension operators and cannot therefore be approved by European insurers. CEA is formally in favour of the - eventual - adoption of a legally binding system (Commission option III) comprising basic principles relating to elements of the liabilities and the assets associated with supplementary pension business.

73. Aiming to protect competition in the pension market can lead to highly diverse regulatory positions. For example, some countries may consider that the market should be segmented, and that any differences in the characteristics of the various operators mean that separate markets should be defined, depending on the institutions involved; other countries may decide, while recognising that such differences exist, to limit all regulatory distortion and to aim, *inter alia*, for functional regulation based on operations rather than institutions, distinguishing or not between operations (e.g. second vs. third pillar, obligation of result vs. best effort, etc.).
74. Vittas, 1997.
75. Davis, 1997.
76. Ferone, 1997.
77. The CEA (Comité Européen des Assurances) favors a controlled liberalisation of investments by retirement operators. They are against minima ceilings and wish that current quantitative restrictions be abolished but they promote in the same time the existence of some regulation to protect beneficiaries interest (instead of to orientate investment strategies).
78. Which, for insurance companies, apply mainly to technical provisions.
79. The CEA underlines the beneficial effects of the Euro on matching as well as on restrictions on investment abroad. They consider that the Euro will allow for withdrawal of numerous current investments restrictions.
80. The CEA considers a too large international diversification of investments as being an imprudent policy.
81. Smalhout (1996) for example, suggests a total privatisation of PCBG and insurance through private insurers.
82. See note 15.
83. FEE, 1995.
84. According to Cardon (1992), analysis of the accounts of French companies also shows that few of them disclose information on: the schemes in place or the contribution burden they represent; actuarial methods; main actuarial assumptions; reconciliation of obligations, financing and provisions; breakdown of annual costs; or timing.
85. The risks associated to the deterioration of the fiscal environment are often highlighted in this respect.
86. Gollier 1997.

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