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DEVELOPMENT AND ANALYSIS OF PENSION SCHEMES IN THE UNITED KINGDOM WITH PARTICULAR REFERENCE TO FINANCING AND INVESTMENT

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THIS THESIS IS SUBMITTED FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

THE CITY UNIVERSITY BUSINESS SCHOOL, LONDON

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TABLE OF CONTENTS

	Page Number
TITLE	1
TABLE OF CONTENTS	2
LIST OF TABLES	6
ACKNOWLEDGEMENTS	12
DECLARATION	13
ABSTRACT	14
KEY TO ABBREVIATIONS	15
CHAPTER 1. INTRODUCTION	17
(a) The Importance of Pensions	18
(b) Literature Survey	27
(c) Purposes of this Thesis	37
(d) Areas of Research	40
(e) Method of Research Adopted	42
(f) Method of Presentation	45
CHAPTER 2. THE HISTORICAL DEVELOPMENT OF PENSION SCHEMES IN THE UNITED KINGDOM	47
(a) Origins	48
(b) State Pensions 1908 to 1939	52
(c) State Pensions 1940 to 1946	57
(d) State Pensions 1947 to 1964	62
(e) State Pensions 1965 to 1974	67
(f) Occupational Pensions; Public and Public Service Sector Schemes	76
(g) Occupational Pensions; Private Sector Schemes	80
(h) Taxation	84

	Page Number
CHAPTER 3. CURRENT LEGISLATION, ENVIRONMENT AND STRUCTURE OF PENSION SCHEMES	88
(a) Social Security Act 1973	89
(b) Social Security Pensions Act 1975	94
(c) Approval of Occupational Pension Schemes	107
(d) Self-administered and Insured Occupational Schemes	115
(e) Surveys of Occupational Schemes	119
(f) Schemes for the Self-employed and Key Personnel	137
(g) Small Self-administered Pension Schemes	145
CHAPTER 4. ANALYSIS OF THE PRINCIPLES GOVERNING THE FINANCING OF PENSION SCHEMES	151
(a) The State and Public Schemes	152
(b) Private Sector Schemes	159
(c) The Principles of Assessmentism	164
(d) The System of Notional Reserves	169
(e) Desirable Funding Pace	177
(f) An Assessment of Funding Principles	182
(g) Special Points Relevant to Assurance Office Schemes	204
Appendix; Pension Funding under Dynamic Conditions	209
CHAPTER 5. THE INVESTMENT OF PENSION FUND ASSETS	214
(a) Fundamental Considerations	215
(b) The Magnitude Involved	229
(c) The Net Acquisition of Assets	231
(d) Proportionate Distribution of Funds according to Investment Class	236
(e) Ownership of Equity	241
(f) Activity and Assets Held	245
(g) Rates of Return	254
(h) Analysis of Individual Funds	262
(i) Indexed Funds	269
(j) Contracted-out Schemes	271
(k) Small Self-administered Pension Schemes	276

Page Number

CHAPTER 6. ASSET MANAGEMENT BY ASSURANCE OFFICES AND EXEMPT UNIT TRUSTS 279

(a) Fundamental Assurance Office Concepts 280
(b) Managed Funds; Magnitude 294
(c) Managed Funds; Performance 299
(d) Exempt Unit Trusts 308
(e) Managed Funds; Detailed Consideration of the Two Largest Offices 316

CHAPTER 7. FACTORS INFLUENCING FUTURE BENEFIT STRUCTURE AND COSTS 330

(a) The Age Structure 331
(b) Membership of Occupational Pension Schemes 343
(c) Expenditure under Occupational Pension Schemes 355
(d) Expenditure under State Schemes 360
(e) Economic Considerations 364
(f) Liabilities of Pension Schemes 372
(g) Potential Political Influences 378
(h) External Influences 384
(i) Multinational Company Considerations 397
(j) Retirement Ages 411

CHAPTER 8. ISSUES FACING THE PENSIONS INDUSTRY 432

(a) Possible Permissibility of Retro-Investment of Scheme Funds 433
(b) Possible Introduction of a New Investment Facility 441
(c) The Possibility of the Further Involvement of Members 447
(d) The Desirability of More Disclosure of Information 456
(e) Protection of Occupational Pension Scheme Rights 465
(f) The Cost of Pensions Increases 474
(g) Government Issues of Indexed Bonds 478

	Page Number
CHAPTER 9. SUMMARY AND MAIN CONCLUSIONS	482
(a) The Development of Pension Schemes	483
(b) The Financing of Pension Schemes	486
(c) The Investment of Pension Funds	493
(d) Factors Impinging on the Future Structure of Pension Schemes	509
LIST OF REFERENCES	514
References - Chapter 1	515
References - Chapter 2	521
References - Chapter 3	528
References - Chapter 4	538
References - Chapter 5	543
References - Chapter 6	547
References - Chapter 7	549
References - Chapter 8	558
References - Chapter 9	565
BIBLIOGRAPHY	567
(a) Statutes	568
(b) Statutory Instruments	570
(c) Government Reports	571
(d) Publications of the Department of Health and Social Security	573
(e) Other Government Publications	574
(f) Reports and Accounts	576
(g) Books	578
(h) Articles	580
(i) Published Remarks of Individuals	583
(j) Other Publications	585

LIST OF TABLES

Table Number	Title	Page Number
2.36.1.	Pension Scheme Coverage 1975. Public and Public Service Sectors. Civilians.	79
2.39.1.	Pension Scheme Coverage 1975. Civilians.	82
5.12.1.	Pension Fund Inflows and Wages and Salaries	230
5.13.1.	Pension Funds. Net Acquisition of Assets.	231
5.14.1.	Pension Funds. Distribution of Net Acquisition of Assets.	233
5.15.1.	Pension Funds. Net Acquisition of Assets by Class of Fund.	235
5.16.	Pension Funds. Actual Assets held at Market Values. Percentage Distribution.	236
5.16.1.	Local Authorities.	236
5.16.2.	Other Public Sector.	237
5.16.3.	Private Sector.	238
5.17.1.	Net Acquisition of Assets by various groups of Institutional Investors.	240
5.19.1.	Ownership of UK Equity Percentage.	243
5.22.A	Pension Funds. Actual Assets held at Market Values. Absolute Terms.	247
5.22.A.1.	Local Authorities.	247
5.22.A.2.	Other Public Sector.	248
5.22.A.3.	Private Sector.	248
5.22.B.	Pension Funds. Actual Assets held at Market Values. Relative Terms. Values Adjusted According to Changes in the Cost of Living.	250
5.22.B.1.	Local Authorities.	250
5.22.B.2.	Other Public Sector.	251
5.22.B.3.	Private Sector.	251
5.22.C.1.	Retail Price Indices.	252
5.22.D.1.	The Largest UK Pension Funds.	253
5.23.1.	Annual Rates of Return Percentage.	255
5.24.1.	Company Profits	258
5.25.1.	Property Yields Percentage.	259
5.25.2.	Property Unit Trust Indicators.	260

Table Number	Title	Page Number
5.27.1.	Annual Time Weighted Rates of Return on the total assets of Individual Funds.	263
5.28.1.	Equivalent Annual Time Weighted Rates of Return for Fixed Interest and Equity sub-section of Assets of Individual Funds.	264
5.31.	Equivalent Annual Time Weighted Rates of Return for Fixed Interest and Equity sub-sections of Assets of Individual Funds.	267
5.31.1.	Large Funds.	267
5.31.2.	Medium Funds.	267
5.31.3.	Small Funds.	267
6.17.1.	Size of Managed Funds.	294
6.19.1.	Managed Funds. Dates of Commencement.	295
6.21.1.	Equity Managed Funds. Annual Rates of Return Percentage.	299
6.23.1.	Fixed Interest Managed Funds. Annual Rates of Return Percentage.	300
6.25.1.	Property Managed Funds. Annual Rates of Return Percentage.	302
6.27.1.	Managed Funds. Annual Rates of Return Percentage on Median Funds.	303
6.28.1.	Managed Funds with Full Investment Discretion by the Life Office. Annual Rates of Return Percentage.	304
6.36.1.	Exempt Unit Trusts. Equity Funds. Annual Rates of Return Percentage.	310
6.38.1.	Exempt Unit Trusts. Fixed Interest Funds. Annual Rates of Return Percentage.	312
6.39.1.	Exempt Unit Trusts. Property Funds. Annual Rates of Return Percentage.	313
6.41.1.	Exempt Unit Trusts. Mixed Funds. Annual Rates of Return Percentage.	314
6.45.1.	Managed Equity Funds of the two largest Individual Offices. Distribution of Holdings by Market Value Percentage.	318
6.47.1.	Managed Equity Funds of the two largest Individual Offices. Annual Rates of Return Percentage.	320

Table Number	Title	Page Number
6.48.1.	Managed Equity Funds of the two largest Individual Offices. Percentage Holdings in the Equity of the other office.	321
6.49.1.	Managed Fixed Interest Funds of the two largest Individual Offices. Distribution of Holdings by Market Value Percentage.	322
6.50.1.	Managed Fixed Interest Funds of the two largest Individual Offices. Annual Rates of Return Percentage.	323
6.52.1.	Managed Property Funds of the two largest Individual Offices. Annual Rates of Return Percentage.	324
6.54.1.	Managed Property Funds of the two largest Individual Offices. Size of Funds, Market Values.	325
6.55.1.	Managed Property Funds of the two largest Individual Offices. Distribution of Funds according to Class of Investment. Percentages based on Market Values.	326
6.56.1.	Managed Mixed Fund of Office No.1. Proportion of Investments according to category percentage.	327
6.61.1.	Managed Funds with Full Investment Discretion by the Life Office, in the two largest Individual Offices. Annual Rates of Return Percentage.	329
7.2.1.	Estimated Population of the UK 1976.	331
7.5.1.	Population of the UK.	335
7.5.2.	Population of the UK.	336
7.6.1.	Population of the UK.	337
7.8.1.	United Kingdom. Effects of Variant Futility Assumptions. Percentage of "retired" population to "active" population.	339
7.10.1.	United Kingdom. Estimated Effects of Variant Fertility and Mortality Assumptions. Percentage of "retired" population to "active" population.	341

Table Number	Title	Page Number
7.14.1.	Projected ratios of Occupational Scheme Pensioners (including widow pensioners) to "active" population.	344
7.16.1.	Projected ratios of Occupational Scheme Pensioners (including widow pensioners) to active members of Occupational Pension Schemes.	345
7.17.1.	Projected rates of increase in the ratio of (a) Occupational Scheme Pensioners (including widow pensioners) to "active" population, and (b) Occupational Scheme Pensioners (including widow pensioners) to active members of Occupational Pension Schemes.	346
7.20.1.	Projected rates of increase in the ratios of (a) Funded Occupational Scheme Pensioners to "active" population. (b) Unfunded Occupational Scheme Pensioners to "active" population. (c) Funded Occupational Scheme Pensioners to active members of funded Occupational Schemes. (d) Unfunded Occupational Scheme Pensioners to active members of unfunded Occupational Schemes. Pensioners include widow pensioners.	349
7.22.1.	Projected ratios of Occupational Scheme Pensioners (including widow pensioners) to "active" population. (Assuming pension age reduced from 65 to 60 for men, as for women, with effect from 1981).	351
7.24.1.	Projected ratios of Occupational Scheme Pensioners (including women pensioners) to active members of Occupational Pension Schemes. (Assuming male normal pension age reduced from 65 to 60 with effect from 1981).	352

Table Number	Title	Page Number
7.26.1.	Projected rates of increase in the ratio of (a) Occupational Scheme Pensioners (including widow pensioners) to "active" population, and (b) Occupational Scheme Pensioners (including widow pensioners) to active members of Occupational Pension Schemes. (Assuming male normal pension age reduced from 65 to 60 with effect from 1981).	353
7.112.1.	Shell Pension Fund. Yields on Categories of Investments.	403
7.113.1.	Shell Pension Fund Investments. Percentages based on Market Values.	405
7.114.1.	Shell Pension Fund. (i) Ten largest ordinary shareholdings (by market value). (ii) Percentage of UK Ordinary Share Portfolio.	406
7.128.	Expectation of Life in Years - English Life Tables.	416
7.128.1.	Males.	416
7.128.2.	Females.	417
7.134.1.	Capital Cost of £1000 p.a. single Life Pension based on PA(90) pensioners mortality and 8% interest.	422
7.137.1.	Capital cost of a £1000 p.a. single Life Pension based on PA(90) pensioners mortality, 8% interest and allowing for pensions to be increased at 8% p.a. because of assumed inflation.	425
7.140.1.	Capital cost of a £1000 p.a.single Life Pension making no allowance for inflationary increases, relative to the corresponding capital cost making allowance for inflationary increases. Assumptions PA(90) pensioners mortality 8% compound interest 8% p.a. compound inflationary increases to pensions.	427

Table Number	Title	Page Number
7.142.	Relative Capital Costs of Pensions, for various retirement ages, according to real yield. PA(90) pensioners' mortality.	429
7.142.1.	Males.	429
7.142.2.	Females.	429
7.143.1.	Population of the UK.	431

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ABSTRACT

The detailed analyses, which include an examination, based on sample surveys, of the features of occupational schemes within the existing environment, show that statutes and regulations now bear significantly upon pensions provision within the UK. However, occupational schemes are still not generally proving to be wholly effective in the areas of preservation rights and index-linking and further relevant legislation, as proposed by the OPB is, on balance, supported. Also financial recording and reporting have been found, with some notable exceptions, to be generally unsatisfactory and the position needs to be rectified.

Analyses of the various possible financing systems indicate that the different existing types of arrangement within the UK are all properly financed. But notional funds could be adopted for public service schemes and would be appropriate for local government schemes. Within the private sector it has been found that financing practice has developed merely deterministically but that it is working effectively; although scheme solvency is frequently measured against a low contractual winding-up scale.

Analyses show that investment principles, in connection with funded schemes, are applied largely arbitrarily. Nevertheless, a general sense of responsibility prevails and it is concluded that calls for a new investment facility and other means to enable pension scheme resources to be channelled to purposes extraneous to the direct interests of members, as well as criticism of a measure of overseas investment, lack justification. Analyses do show, however, that there is not appropriate equity investment diversification into the smaller companies so that a vital sector of the economy is being neglected.

Detailed regard has been paid to the financial burden of current arrangements. It is concluded that the present system is not sustainable for long into the future. The need, based on social and emerging cost considerations, for modifications is presented, leading to the conclusion that the solution lies in a gradual raising of retirement ages.

KEY TO ABBREVIATIONS

AGIRC	Association Générale des Institutions de Retraites des Cadres (France)
ARP	Accrued Rights Premium
ARRCO	Association des Régimes de Retraites Complémentaires (France)
Cmnd	Command
DHSS	Department of Health and Social Security
EEC	European Economic Community
ERISA	Employees' Retirement Income SEcurity Act.1974 (United States of America)
FT	Financial Times
FTA	Financial Times - Actuaries (used in connection with share and stock indices)
GMP	Guaranteed Minimum Pension
HMSO	Her Majesty's Stationery Office
NAPF	National Association of Pension Funds
NHS	National Health Service
NI	National Insurance
OPB	Occupational Pensions Board
PAYG	Pay As You Go

PBGC	Pensions Benefits Guarantee Corporation (United States of America)
PRP	Pensioner's Rights Premium
PSBR	Public Sector Borrowing Requirements
SFO	Superannuation Funds Office
SI	Statutory Instrument
SN21 Orders	Orders made under Section 21 of the Social Security Pensions Act, 1975. These require certain state pensions to be increased, on a percentage basis, broadly in line with the movement of national average earnings
TUC	Trades Union Congress
UK	United Kingdom of Great Britain and Northern Ireland
USA	United States of America

CHAPTER I

INTRODUCTION

(a) The Importance of Pensions

(b) Literature Survey

(c) Purposes of this Thesis

(d) Areas of Research

(e) Method of Research Adopted

(f) Method of Presentation

CHAPTER I

INTRODUCTION

(a) The Importance of Pensions

1.1. Pensions are important for a number of reasons one of these being that virtually all United Kingdom citizens have a direct interest in them. Within the UK pensions can arise from state provision; they can also arise from occupational pension schemes arranged on a group basis or from privately contracted individual pension schemes. Under state provisions coverage is practically universal it being quite exceptional for no pension at all to become payable because of an inadequate record of National Insurance contributions paid over working life.[1] Also some 11½ million employees within the UK[2] representing approximately 50% of the total number of employees[3] are members of occupational pension schemes.

1.2. There are also financial reasons why pensions are important. To indicate broadly the scale of retirement provision in the UK, budgeted public spending on social security benefits in 1981-82 is of the order of £27,000m. This budget is by far the largest single item of public expenditure in the whole of government.[4] And out of this total of £27,000m the budgeted cost of national insurance and supplementary pensions for elderly people is approximately £11,000m, which represents over 17% of all public expenditure in the UK and over 5% of the country's gross national product.[5] Moreover the funds accumulated in respect of pension schemes arranged outside direct state provision

are estimated as at mid-1981 to be of the order of £50,000m in aggregate.[6] It is, of course, true that money terms do not by any means reflect the total effort being made. A substantial contribution is additionally made to the support and care of elderly people by families and friends and by a wide range of private, voluntary and religious organisations. Nevertheless the figures quoted indicating expenditure on state pensions and the funds built up by occupational schemes are relatively impressive.

1.3. Moreover there are important economic factors. Whilst all consider good pension schemes from the state to be desirable, there is always the question of what can be afforded or, perhaps, what society determines it is prepared to afford. Possibly some too may raise the question of equity between generations. In the event expenditure on pensions in the UK has increased by some 60% in real terms during the ten years preceding 1981, a percentage far out-stripping the rate of economic growth.[7] An increase in pensions results in an increase in claims on resources by those who have retired at the expense of the active section of the community. This may affect the take-home pay of active employees and possibly result in increased prices. Concurrent economic growth is thus relevant. It was stated by government in 1974 in connection with the current state pension scheme that,

> ". . . the full costs will accrue only gradually and will be far outweighed by the improvement in living standards generally resulting from economic growth."[8]

In the event economic growth has only been 6% over the seven years following 1974[9], when the statement was made, thereby suggesting that the economic growth envisaged may not have been based on true premises. The consequences might include modifications to pensions. Relevantly there has already been some cut-backs for state pensions which under the Social Security Act 1973 were to be linked with the greater of the earnings index or the cost-of-living index[10] and are now, by the action of the 1979 government, linked only to the retail price index.[11] Indeed some, such as the current Chancellor of the Exchequer, refer to arguments that changes in indirect taxes or the rising price of energy are not changes for which wage earners should seek compensation.[12] The implication seems to be that real falls in the standard of living may, at times, be inevitable and that there may be a case for uprating pensions to a price index which excludes indirect taxes and energy prices.

1.4. Whilst occupational pensions are, of course, in a different category from state pensions it is permissible, subject to a number of stipulated safeguards, for members of a group occupational scheme to be contracted-out of the additional wage-related component of the state scheme and, in general, it is the state which bears the burden of inflation proofing the contracted-out pensions.[13] Relevantly, the arrangement commenced only in 1978 and will not fully mature until 1998; nevertheless government has estimated that the cost to the National Insurance Fund of inflation

proofing contracted-out pensions was some £1¼m for 1980-81 and, as indicating the likely build-up of costs, the cost for 1981-82 has been estimated at £4m and that for 1982-83 as £8m.[14] Again there may be a hint here that the financing of the scheme as it matures may be dependent on assumed economic growth which may, in practice, be difficult to achieve so that unless the scheme be modified, other sections of public spending may be affected.

1.5. Pensions can impinge on social problems. For example, the general position of inflation proofing occupational pensions broadly depends on whether they arise in the private sector or alternatively in the public and public service sectors. The normal rule in the private sector is for the inflation proofing, if any, of occupational pensions, contracted-out pensions apart, largely to be on a discretionary basis. Occupational pensions in the public and public service sectors are influenced by statute which broadly means that they are linked to the retail price index.[15] There is thus some incompatability which may be difficult to eradicate. Public service employees can claim, to justify continuation of their pensions being index-linked, that comparison with others should be on an overall pay-package basis. On the other hand, inflation proofed pensions in the private sector could involve an open-ended commitment which many companies could not reasonably be expected to provide. Nevertheless, the incompatability is regrettable for it gives rise to what has been described as a two-national attitude,[16] a feature which is always to be regarded as socially undesirable.

1.6. Pensions can react upon the important matter of mobility of labour. Under the state arrangements no problem arises. However, when a person in the private sector is contemplating changing his job the benefits to be granted under the group occupational scheme he is thinking of leaving may influence his decision. If the terms available to those who withdraw from a private sector scheme are not fully equitable some restriction on mobility of labour undesirably can result. It is of relevant interest that in the United States a President's Commission has recently concluded that serious consideration should be given to the establishment of a minimum advance funded pension system.[17] Such a programme could be thought of as an advance funded tier of social security which could permit contracting-out, or as a universal employee pension system with a central portability clearing house. A central clearing house to cope with transfers between occupational schemes could aid the movement of employees in the private sector but the establishment of such a clearing house is not under active consideration in the UK.

1.7. Important financing issues arise in connection with the provision of pensions. The non-funding of state pensions in the UK leads to a consideration of the methods of financing occupational schemes in the public service sector. Is it, say, justifiable to question the desirability of funding nationalised industry schemes involving the accumulation of assets on a large scale? As an indication of magnitude it is estimated that as at March 1981 the assets of the pension funds of the Post Office were

approximately £3,200m, those of the National Coal Board £2,600m, British Rail £1,800m, Electricity Supply £1,500m, and British Steel £1,100m.[18] The following statement is relevant to the question although broader issues can be involved.

> ". . . there can be no absolute certainty that any industry will always continue to exist or that it will always be able to meet pension payments. It may well be that in the event of difficulty, no government would ultimately disclaim responsibility for the pensions of a declining industry, and some help has already been given to the National Coal Board and to British Rail. But it would be difficult to ask members of schemes to rely on this. Provided that the lower immediate cost of pension provision was not absorbed by lower prices or higher wages, the main advantage of a move away from funding for the nationalised industries' schemes would be an immediate substantial reduction in The Public Sector Borrowing Requirements. We find it difficult to determine, however, whether the effects would be other than presentational, given that the public sector's demand for real resources would not be directly affected." [19]

1.8. British pension schemes in the private sector are normally funded. Funding is usually interpreted as a means of saving although there may be the question as to whether funding of occupational pension schemes, in general, is more likely than assessmentism to help in restricting current consumption given the particular set of social conditions within which the UK economy operates. And funding is itself an imprecise term. Under funding a rate of contribution is payable but the determination of this rate must involve assumptions . In practice the particular set of assumptions adopted might significantly affect the

resultant contribution rate. The issue is thus raised of whether some choice of funding pace may be available in individual cases so that some schemes are more funded than others. This could mean that funding pace might be able to pay some regard to the overall circumstances of the employing company rather than only to the circumstances of the company pension scheme. Important considerations of solvency nevertheless would have to be borne in mind.

1.9. The funding of occupational pension schemes leads on to investment considerations of fundamental importance. The current position in practice is that pension schemes are generally set up as trusts so that the running of such schemes is circumscribed both by the general body of law relating to trusts and by the particular terms of the deeds under which they are established. In equity a trustee's duty is to manage a scheme's assets solely in the interests of its beneficiaries and contingent beneficiaries. There are, however, those who tend to accept this position less readily than others on the grounds that there is a divergence of interests between the members of any individual fund and the interests of the community as a whole. The implication thus is that trustees follow an investment policy which does not conform with the overall national interest. The fact that occupational pension schemes cover some 50% of all employees (see 1.1.) does seem, however, to detract from the force of this argument for it is difficult to see how the interests of such a large proportion of society can be effectively

divorced, in such manner, from the interests of the remainder.

1.10. Nevertheless as long ago as 1931 the Labour Party Conference passed a resolution calling for the nationalisation of the banks and the direction of investment. Again, in 1976 the Labour Party National Executive called for the nationalisation of parts of the financial sector, including the four largest clearing banks, a merchant bank and the seven largest insurance companies. The stated aim was

> ". . . to provide funds for industrial investment on which jobs and real incomes depend in the long term, instead of being syphoned off into speculative property ventures and the like. This would promote the interest of savers, depositors, borrowers and investors alike."[20]

Moreover in 1977 the Communist Party called for the nationalisation of pension funds as well as the nationalisation of banks and insurance companies.[21]

1.11. There can be no doubt that those who hold in their hands pension fund money for investment can weild financial power. And concentration of power can be a worrying phenomenon. Transfer of responsibility from numerous individual pension funds to government would, however, involve further concentration of power. In such connection it has been suggested that,

> "If there is any danger from government, it is from an excess of control not from a change of ownership."[22]

Also the Governor of the Bank of England has stated in connection with criticisms of Great Britain's financial institutions and the priorities they adopt that,

> "You will hardly be surprised that my general view is that the ability of financial engineering to transform economics is nothing like as great as such criticisms tend to suggest. Comparisons with institutional attitudes and practice elsewhere are frequently over-simplified and misleading. For the total context, social economic and political, in which both industry and financial institutions operate is what counts. Financial arrangements in other countries, lifted out of their national context, can be made to appear seductively attractive, while good features of our own arrangements are overlooked."[23]

Thus there are differences of opinion. But the fact remains that in investment matters occupational pension schemes, with investments in 1980 running at the rate of approximately £5,000m a year[24] have a role to play which is of considerable importance. These important investment matters coupled with the important financing issues involved, as well as other relevant considerations, justify a sustematic study of pension arrangements in the UK.

(b) Literature Survey

1.12. The importance of pensions has meant that much attention has, in the past, been paid to them but whilst the quantity of attention may have more than matched its need the same has not invariably been true of the quality. And the legislators have not been entirely free from blame. The passing of statutes from time to time is consistent with the evolutionary development of state pensions yet the number of statutes passed since the Old Age Pensions Act, 1908 has indicated that some acts could have been avoided if pensions legislation had been more carefully prepared or if there had been a will to have been less expressive of political dogma of one shade or another. Occupational pensions are naturally inter-related with state pensions and as a result of legislative vacillations the pensions industry has, at times, been kept in a state of flux. To exemplify, relative to recent times, the National Superannuation and Social Insurance Bill 1969 did not become law owing to a change of government. This was despite the substantial effort which was put into its construction and the extensive consultations with numerous persons and bodies which were involved. Also the Social Security Act 1973, which actually received the Royal Assent was, nevertheless, largely abandoned owing to another change of government.

1.13. Government has, however, ensured that its pension legislation has received adequate back-up treatment. For those directly involved in the administration of pension-

arrangements regulations such as those dealing with contracting-out and preservation of benefits have been published as statutory instruments.[25] And publications of the Department of Health and Social Security have included numerous leaflets explaining, in broad terms, particular aspects of state pensions and how occupational pension schemes can be affected thereby. These leaflets have valuably included, as examples, a guide to employers on occupational pension schemes and an employer's guide to national insurance contributions.[26] Legislation, to be enforceable, has to be supervised by a number of civil servants and the more extensive the legislation, the more civil service supervision is required. A survey of pensions literature indicates that many government departments have become involved in one way or another. It would be reasonable to think that all those departments have a valuable role to play and this is, of course, mainly the case. The Superannuation Funds Office does, however, seem to be an exception. Memoranda, for example, have been issued by it but whilst the memoranda have proved very valuable they are joint publications with the Occupational Pensions Board.[27] The need for the continuation of the Superannuation Funds Office as a separate entity is questioned.

1.14. Pensions analyses necessarily depend on statistics and much financial information dealing with British pensions is published by government. These publications,[28] extremely valuable as they are, necessarily show merely aggregate figures and the same is true of the relevant publications

of the Bank of England[29]. Aggregate figures can, however, blur important issues such as the particular characteristics of individual schemes. A full analysis thus requires more detailed consideration to ascertain, for example, different attitudes of different boards of trustees to their financing and investment responsibilities. Unfortunately many pension schemes do not make reports of any type available even to their own members.[30] Of the remainder who do, copies have generally been made available on request. The standard of these varies considerably. Some reflect genuine attempts to be as forthcoming as can be reasonably expected; these indicate the financing approach adopted, the financial state of the scheme and give some details of investment policy and individual investment holdings.[31] Others are sketchy in the extreme. The unsatisfactory nature of the financial reporting of pension schemes in general, and particularly those transacted through life offices has been commented upon in some publications.[32]

1.15. Pensions financing has to pay regard to demographic factors and government, through its publications,[33] valuably assists by making mortality and other relevant statistics available. These published statistics are, however, on an aggregate basis. In the financing of individual pension schemes it is the mortality experience of those individual schemes which is relevant but the mortality experience of individual schemes, even those large in size, is not, in general, made publicly available in any detail. The

actuarial profession does compile mortality tables. These include, for example, the PA (90) tables based on forecast rates for the experience of life office pensioners in 1980. It regards these tables as being broadly suitable for calculating premium rates and reserves for life office pensioners during the 1980's.[34] Again, however, these are standard tables based on aggregate experience and it is to be expected, due to the varying composition of their business, that the experience of different offices shows significant variations.

1.16. Government reports on pensions are published from time to time. These tend to take the form of indicating the thinking of the governement of the time and as such they are important. But, in general, they tend to reflect political bias and to stress the claimed superiority of new proposals over previous systems. The ensuing extracts exemplify the point and indicate that claims by government regarding pensions sometimes need to be treated with circumspection. The following statement relates to the proposals of the governemnt of 1969:

> "Like the original flat-rate scheme as planned in the Beveridge Report, the present scheme is static, and the existing structures of both benefits and contributions have failed in their purpose. The only real way forward, which tackles the problem at its roots as well as having great merits of its own, is to create a comprehensive scheme of fully earnings-related benefits and contributions, as descrived in the following chapters /of Cmnd.3883/".[35]

The following statement relates to the proposals of the government of 1971:

> "The present contribution structure of the national insurance scheme has developed through changes which, though justifiable in themselves, have failed to produce a sound and sufficiently buoyant source of income. Equity and good administration alike demand the establishment of a simpler and better system which will enable the scheme to meet rising costs without having to put up the rates of contribution every time benefits are increased."[36]

The following statement relates to the proposals of the government of 1974:

> "The proposals set out in this white paper /Cmnd 5713/ will fulfil the government's pledge to bring to an end the massive dependence on means-tested supplementary benefit which is the sad hallmark of old age today. The new schems will provide better pensions in retirement, widowhood and chronic ill-health. It will bring security at the end of working life to the many millions who at present lack the advantages and cover of a good occupational scheme."[37]

And even the associated memoranda by the government actuary on the finances of the proposals contain some noteworthy statements. For example, in connection with the proposals of the government of 1969 it is stated that,

> "The estimates of growth in the fund . . . are necessarily speculative since its progress will be very sensitive to changes in benefit costs and contribution yields . . ."[38]

Moreover in connection with the proposals of the government of 1971 it is stated relative to estimated costs of benefits

of the basic scheme that,

> "On government instructions a rate of unemployment of 2¼% has been assumed"[39]

which statement seems to imply that the government actuary declines to accept full responsibility for all the assumptions his estimates involve. Also the following statement made in the government actuary's memorandum in connection with the proposals of the government of 1974 again refers to speculation:

> "It is estimated that the average pension in payment in 2008-09 will still be some 10% below the ultimate level under the scheme and, other things being equal, the rate of contribution would have to be increased by about a further 1½% over a period of 20 years after 2008-09. The rate of contribution required at any time will, however, depend not only on the level of benefits but also on the relative number of pensioners and contributors, and any estimates of contributions so far into the future would be very speculative."[40]

Thus, highly technical as they are, memoranda dealing with the financial implications of some government proposals seem to contain enforced assumptions and to involve some speculation.

1.17. Other government reports are of a different nature in that they tend to deal with broad issues. These reports do not always reach definite conclusions. In the important matter of the investment of pension fund monies the "Wilson Report", for example, revealed a three-way division of opinion amongst the 18 members of the committee.[41] And,

again for example, the "Scott Report" which although it dealt with the specific issue of inflation protection of public sector pensions controversially, did not fully heed a recommendation, made to the connittee, that in estimating the value of the pension scheme, cash flows should be discounted at a rate which reflects the riskiness of those cash flows, despite the apparent validity of the recommendation.[42]

1.18. Much relevant literature emanates from the actuarial profession. The literature is broadly of three types. First, there are publications intended for public reading. An illustration of this type is, "Financing Occupational Pensions" which draws attention to some of the problems involved in setting up and running a pension scheme, for example, problems of funding and solvency.[43] Secondly, there are published books intended mainly as educational matter for students. The book on pension schemes, for example, explains in detail the principles and applications of relevant basic actuarial techniques.[44] Thirdly, there are the published transactions of the profession which contain submitted articles. These intensely important articles are, in general, highly specialised. As an example, the published article on pensions and company finance tended to concentrate on a particular aspect of a very broad overall problem.[45]

1.19. Others also tend to specialise. The Double Century Club in its published Proceedings broadly limits attention to overseas pension arrangements, particularly

those in continental Europe. Publications such as the Journal of Finance, the Journal of Risk and Insurance and the Harvard Business Review tend to consider the theory underlying practical financial problems; articles on capital asset pricing models and the rating of management of investment funds are quoted as examples.[46] The principles enunciated in such articles are not invariably strictly applicable to pension schemes in the UK.

1.20. It is natural for individuals who hold certain positions to comment on pensions. Such persons include the Chancellor of the Exchequer, the Secretary of State for Social Services, the Secretary of State for Trade and Industry and various under secretaries. The published remarks of these persons are generally illuminating although often they reflect a personal political outlook.[47]

1.21. A variety of books have been published on pensions. Some of these attempt to cover a large sphere in a broad way so as to be of general interest to a wide readership.[48] Some others deal with specific aspects with the intention of being a practical guide for those directly concerned with particular forms of pension provision.[49] Other books specialise, for example, on institutional investment matters and deal theoretically with items such as the behaviour of the market and the valuation of securities;[50] much of this literature emanates from the United States of America and whilst of intense interest its practical relevance to UK pension funds is in some ways debatable.

Some books appear to adopt sensationalism. As an example, Drucker (1976) writes of an unseen revolution in the USA arguing, confusingly, that because employees of American business owned 25% of its equity capital through their pension schemes, which he regarded as more than enough for control, the USA has developed into the first truly socialist country.[51]

1.22. A wide variety of other publications relate to pensions. In pension matters generally the National Association of Pension Funds plays a prominent role for amongst other things, this association is a member of the council for the securities industry and of the institutional shareholders committee and its chairman is a member of the City panel on take-overs and mergers. It also has one of the foremost investment protection committees. Important amongst its publications are its annual surveys of pension schemes which, although in some respects they are restricted in scope, are well compiled, and its suggested codes of practice.[52] Publications of relevance also emanate from some pension scheme advisers such as consulting actuaries are stock brokers. Sometimes, however, publications of these advisers are presented as being of general interest and not as a substitute for the detailed and comprehensive advice desirable in particular circumstances.[53] The pension scheme field is one in which some life assurance offices and others, such as banks, operate and some of these issue publications directly concerned with their managed fund business. In some ways

these reports of the life offices and, for example, banks, sometimes, but by no means invariably, contain important relevant information such as the broad composition of their funds; in other ways, for example the reasoning behind their investment decisions and their investment policies, information is given, if at all, in the vaguest of terms.[54] Publications from some others, amongst which is for example the City Capital Markets Committee[55], whilst meriting serious consideration sometimes tend to draw conclusions the reasoning leading to which is inadequately expressed. The Trades Union Congress through its many publications, some of which are of direct relevance to pensions whilst others have an indirect relevance through their attention to finance and industrial investment matters, generally advances well reasoned arguments although they tend to express, perhaps naturally, a specialised point of view.[56]

(c) Purposes of this Thesis

1.23. The literature survey has revealed that in modern times much legislation has borne upon pensions; and not only on state pensions for occupational pension schemes are now subject to a significant amount of statutory and regulatory control. But the enactments, regulations and comments upon them have been found to be diffuse. An appreciation of British pensions is dependent on knowledge as to how and why they have developed into their present form as well as on a detailed knowledge of the existing arrangements. A purpose of this study has been to bring together the relevant facts and to give analyses of them within a single presentation so that a proper understanding of the current pensions scene can be readily gained.

1.24. More particularly this thesis is concerned with financing and investments. It may well be that pensions arising from occupational schemes can be regarded as deferred pay but whether pensions arise from occupational schemes or from state schemes, the question arises as to how the effective transfer of claims on resources from the active to the retired sections of the community can best be brought about. The literature survey has indicated that some publications have dealt well with specialised forms of financing in isolation but writings attempting to be more comprehensive have been found to be cursory. The method of financing pensions is, however, extremely important.

It may not, or it may, involve the accumulation of a fund and if the latter the fund may be actual or notional. And even an actual fund may not, or it may, be ploughed back, in the case of an occupational scheme, into the employer's business. The financing of pension arrangements can have far-reaching effects. In the case of state and public sector schemes the method of financing can impinge upon national economic affairs; in the case of private sector schemes the method of financing can not only call into question scheme solvency and ability to meet pension promises made but problems in overall company finance can become involved. A purpose of this study has been to analyse the various possible financing methods and to consider their respective implications, effectiveness and applicability.

1.25. Apart from some public sector schemes the general rule in practice is for occupational schemes in the UK to be funded with external assets. The literature survey has indicated that writings on associated investment problems have been piecemeal; also frequently they have been biased. Relevant published statistics too have been found to be scattered over many publications and often to be expressed in inconvenient form. A purpose of this study has been to analyse theory underlying pension fund investment whether the schemes be self-administered or alternatively transacted through life offices; to bring together relevant investment statistics and to analyse objectively pension fund investment practice; and then to deduce whether investment policies have been effective and appropriate.

1.26. Pensions are dependent on the environment within which they are provided, accordingly different types of pension arrangements have been found to emerge with changing circumstances. The literature survey has revealed that there has been no systematic study of pensions along the lines of describing the issues currently facing the pensions industry and the factors which might influence the future structure and costs of pensions. A purpose of this study has been to fill that gap and thereby to ascertain whether pension arrangements as they exist today in the UK can be regarded as sustainable into the future; and to ascertain what modifications, if any, to present arrangements are to be regarded as desirable or necessary.

(d) Areas of Research

1.27. Numerous factors impinge on pensions. The arrangements as they exist in the UK involve virtually a comprehensive system of state provision of a complex nature, as well as numerous individual pension schemes within the public and private sectors. The consequent need for effective administration of all these arrangements cannot be overstressed but it has not been considered part of this study to detail a technical account of the minutiae of pension scheme administration.

1.28. Again the legal basis of pension arrangements is of extreme importance. For example, the usual method of giving a private pension scheme the status of a separate legal entity is to establish it under a trust deed with a set of rules defining the conditions of the scheme. This study has not been concerned with many of the legal matters which might be dealt with in the documents nor with the intricacies of trust law, generally, as it impinges on pension arrangements.

1.29. This study has been concerned with the development of pension schemes in the UK and with analysing current arrangements. Research areas thus have included the history of pension schemes; the statutes, regulations and controls to which current arrangements are necessarily subject; the manner in which current arrangements comply with statutory and regulatory controls; government and other reports as well as writings and stated opinions of different bodies and individuals which are relevant to the current scene.

1.30. Particular regard has been given in this thesis to financing and investment. Research has consequently been carried out into the various financing methods which may be possible; their individual applicability to different types of pension arrangements; the implications and consequences of those various methods; and to the safeguards which are necessary under them, for example, to maintain the solvency of private sector occupational schemes.

1.31. As regards the investment area research has been carried out into the individual practices of numerous occupational schemes; the overall pattern of investment resulting from the practices of individual schemes when aggregated; the theory and the factors in practice which affect investment policies; and the consequences of different investment practices. This area of research has related to both the investments of self-administered occupational schemes and to investment through life offices.

1.32. This thesis has been concerned with the development of pension arrangements in the UK, not only their historical development but also their likely future development. Research has thus been undertaken in regard to the issues facing the pensions industry and the factors, both internal and external, which may impinge upon future developments. In particular, those factors which bear upon the financial aspects of pension arrangements in a way as to bring into question the need for modifications to current arrangements to enable them to meet likely future circumstances, have been investigated.

(e) Method of Research Adopted

1.33. The method of research adopted has been

(1) to scan a number of libraries to enable a comprehensive study of relevant publications to be undertaken. These libraries have included those of the following bodies:

(i) The City University (Main Library);

(ii) The City University Business School;

(iii) The Corporation of London (City Business Library);

(iv) The National Association of Pension Funds;

(v) The Royal Statistical Society;

(vi) The Faculty and Institute of Actuaries;

(vii) The Chartered Insurance Institute;

(viii) The Prudential Assurance Company.

(2) To consult with a number of government departments and offices. These have included,

(i) The Department of Health and Social Security;

(ii) The Inland Revenue;

(iii) The Superannuation Funds' Office;

(iv) The Occupational Pensions Board;

(v) The Office of Population Censuses and Surveys;

(vi) The Central Statistical Office;

(vii) The Government Actuary's Department;

(viii) The National Institute of Economic and Social Research.

(3) To consult with a number of organisations. These have included,

(i) The Confederation of British Industry;

(ii) The Trades Union Congress;

(iii) The British Insurance Association;

(iv) The Life Offices' Association and Associated Scottish Life Offices;

(v) The Unit Trusts Association;

(vi) The Association of Pensioneer Trustees;

(vii) The Double Century Club.

(4) To consult with numerous individuals. These have included,

(i) pension scheme managers, trustees and investment managers;

(ii) politicians and government officers;

(iii) academics;

(iv) industrialists;

(v) pension consultants and advisers such as officers of investment management companies and unit trusts, stockbrokers, officers of assurance offices and banks, insurance brokers, accountants, actuaries and lawyers.

1.34 This thesis is the result of research work carried out specifically for its purpose over approximately the past three years. Relevantly, acting as a professional adviser to many occupational pension schemes for a considerable

period of years has facilitated certain aspects of the research activities, in particular in the analyses in detail made of the construction, financing and investment of numerous individual occupational pension schemes. Relevantly also being a member of council of the National Association of Pension Funds, a member of its Parliamentary Committee, and a member of the executive committee of the Pensions Research Accountants Group has facilitated some of the research, in particular with regard to the consultations with politicians and government officers, and in the analyses made of the annual reports and accounts of numerous individual occupational pension schemes. Many of the annual reports and accounts analysed were obtained upon request from the individual pension schemes and they include the ones to which specific reference is made in the text; many others were examined in the reference library of the NAPF in which a vast number of annual reports and accounts are deposited by members of the association.

(f) Method of Presentation

1.35. Preceding this introductory Chapter 1 there is a title page; a table of contents; a list of tables; acknowledgements; a declaration; an abstract of the thesis; and a key to abbreviations.

1.36. Following this introductory Chapter 1 the text has been divided into eight chapters numbered consecutively 2 to 9. All chapters have been approximately sub-divided into sections lettered (a), (b), (c), etc. Paragraphs have been numbered consecutively throughout the whole of each chapter as for example, 6.18., meaning that it is the 18th paragraph of chapter 6 irrespective of section.

1.37. References have been identified by numbers typed as superscripts following the relevant phrase in the text. References have been listed in numerical order separately for each chapter following the main body of the text.

1.38 Tables have been numbered to show the chapter and paragraph in which they occur. If only one table has been given for any one paragraph it has been shown as, for example, Table 5.14.1. meaning that it is the sole table occurring in paragraph 14 of Chapter 5. If more than one table has been given for any one paragraph then the tables have been numbered consecutively for their paragraph, for example, Table 5.16.1, Table 5.16.2, Table 5.16.3. The source of each table has been shown at the foot of each table.

1.39. The thesis concludes with a bibliography. This has been appropriately divided into sections lettered (a), (b), (c), etc. As examples, one section, namely section (a), lists statutes, another section, namely section (h), lists articles. Items in sections such as statutes, government reports etc., have been listed chronologically. Items in sections such as books, articles, etc., have been listed alphabetically according to author's name.

CHAPTER 2

THE HISTORICAL DEVELOPMENT OF PENSION SCHEMES IN THE UNITED KINGDOM

(a) Origins

(b) State Pensions 1908 to 1939

(c) State Pensions 1940 to 1946

(d) State Pensions 1947 to 1964

(e) State Pensions 1965 to 1974

(f) Occupational Pensions:
Public and Public Service Sector Schemes

(g) Occupational Pensions:
Private Sector Schemes

(h) Taxation

CHAPTER 2

THE HISTORICAL DEVELOPMENT OF PENSION SCHEMES IN THE UNITED KINGDOM

(a) Origins

2.1. Within the United Kingdom there have been developments throughout the ages in the design of arrangements aimed at providing benefits for the elderly in need.

2.2. Social security in a primitive sense doubtless existed in Britain pre 1066 through institutions such as the family and clan. However in Anglo-Saxon areas of Britain societies developed away from clans into manors and boroughs within which relief of a charitable nature was extended through guilds to those, including the aged, in distress. These early Saxon guilds had a strong religious motivation.[1]

2.3. Closely following the Norman conquest of England guilds merchant organised bodies of burgesses of a town to form primarily economic institutions, although, like the religious guilds, they included amongst their activities charitable relief to the aged in need. Craft guilds developed almost simultaneously with guilds merchant but quite independently. Circumstances resulted in craft guilds being more vigorous than guilds merchant so that they superseded them. Craft guilds had two sides; one related to the industry or craft of the members, the other, reflecting the influence of the Church, was fraternal and this latter ihcluded the granting of help to those in distress and old age.[2]

2.4. The system of social insurance through the guilds was essentially mediaeval in character. With the growth of centralised Government under the Tudors, treatment of vagrancy and relief of the poor became a national matter and continued efforts were made to work out a uniform national solution taking advantage of previous experiments in relief of poverty made in London and other large towns. In 1597 an Act was passed for the relief of the poor. All the main principles of Tudor relief of the poor had been laid down before the passing of this Act but what it did was to draw them together and embody them in a comprehensive and coherent manner.[3] Under this Act and that of 1601 known as the Elizabethan Poor Laws each local authority was made responsible for raising the necessary funds by means of a poor rate and for administering what was called Poor Law Relief in cash or in kind as and when it was required.[4]

2.5. In the later years of the eighteenth century acceptance of relief under the poor law system became abhorrent to a growing proportion of the artisan class because of a lack of humanity in which the system was applied. One result was a new movement among the better class of artisans, through which they sought to solve the problem for themselves by a system of democratic insurance, through friendly societies, against sickness and old age.[5] The useful character of friendly societies was admitted in the Friendly Societies Act of 1793 which gave some measure of recognition and legal protection to those friendly societies which took the necessary steps to submit their rules and fulfil the measures prescribed by the Act.[6]

2.6. The Poor Laws themselves were the subject of investigation by a Select Committee in 1817[7] followed by a Royal Commission in 1832-34.[8] A result was the Poor Law Amendment Act of 1834. Except in one respect the Act introduced no new principles which had not been embodied in previous legislation at some point in the history of the poor law. The exception was the setting up of a permanent centralised authority to administer the law throughout England and Wales and to make mandatory rules and orders.[9] There were various other investigations. For example, a Royal Commission on the position of the aged poor under the existing poor law drew attention in 1895 to the unsatisfactory character of the relief granted to this class of the population. In 1896 a Treasury Committee was appointed to consider any scheme for encouraging the industrial population by State aid or otherwise to make provisions for old age. In 1899 a Select Committee of the House of Commons considered the best means of improving the conditions of the aged deserving poor. This committee recommended that pensions should be payable to all British subjects at age 65 subject to a number of provisos including that they should be payable only to those whose income did not exceed 50p a week. There was another Royal Commission in 1905-09 entrusted with reporting on the Poor Laws.[11] Thus new ideas towards old age pensions began to mature and, without awaiting the Report of the Royal Commission still investigating, the first important step in the transition from Poor Law relief to the modern system of State

pensions was taken by the passing of the Old Age Pensions Act of 1908. The Act applied to Scotland and Ireland as well as to England and Wales.[12]

(b) State Pensions 1908 to 1939

2.7. The Old Age Pensions Act of 1908 provided a maximum pension of 25p a week to people over age 70 whose other income was less than 40p a week. Smaller pensions were provided where other income was between 40p and 60p a week. These figures are to be related to an average weekly wage which at that time was about £1.50 a week. The 1908 Act pensions were paid for entirely out of general taxation and administered by H.M. Customs and Excise where administration remained until it was transferred to the National Assistance Board by virtue of Sn.46 of the National Assistance Act of 1948. The qualifying conditions for receipt of pensions were modified in 1911 the chief alteration being that the capital resources of an applicant were to be brought into account in assessing his income.[13] In 1916 an additional 12.5p weekly was given to all pensioners and in 1920 the pension was raised to 50p a week and a sliding scale introduced. Relevantly, however, 50p in 1920 was worth only about two-thirds of the 1908 pension.[14] The 1908 Act clearly reflected the general mood of the country at the time, being brought in by a Government pledged to social reform. Opposition in Parliament was based mainly on the grounds that the scheme was non-contributory. Within three months of commencement date about half a million persons were receiving pensions.[15]

2.8. A further step in the evolutionary process occurred in 1925 with the passing of the Widows', Orphans' and Old Age Contributory Pensions Act. The benefits under the Act comprised,

(i) a pension of 50p weekly to the widow of an insured man dying thereafter, with an addition of 25p for the eldest child under age 14, and 15p for each further child until age 14.

(ii) a pension of 37½p weekly, to be payable to the guardian of each motherless orphan child of an insured man till it reached 14

(iii) a pension of 50p weekly as from 2nd July 1926, without means test, to all persons then over 70, or who attained that age between such date and 2nd January 1928, if they had been insured under the National Health Insurance Scheme before attaining age 70

(iv) a pension of 50p weekly as from January 1928 to insured persons then between the ages of 65 and 70; thereafter each insured person, as he reached age 65 would receive the pension of 50p until age 70. After age 70 the pension merged into the non-contributory old age pension of like amount, but subject to no means test. The wife of an insured man, if, and as soon as, she attained 65, should her husband be in receipt of a pension, was also to receive a pension of 50p, so that a couple both over 65

would receive weekly without means test £1, provided that the man had been insured.

For children under (i) and (ii) the benefit was to continue beyond age 14 until age 16 so long as they remained in full time education.

The weekly contribution for insured men under the age of 65 was 3.75p, half to be paid by the employer and half to be paid by the employee. The women's rates were approximately half the male rates. Contributions under the 1925 Act were to be paid as one contribution with those under the National Health Insurance Act but that portion relating to the pensions benefit was to be carried to the Pensions Account, the source from which pensions under the Act were to be paid. Pensions continuing beyond age 70 were a charge on the non-contributory old age pension fund.[16] As pensions under the 1925 Act were paid out shortly after the Act was passed to people who had contributed very little, there was a large deficiency in the fund which had to be made good by an Exchequer contribution. By the late 1930's the Exchequer contribution was more than either the employees or employers collectively were paying per annum.[17]

2.9. During the 1930's the complexities that surrounded existing legislation resulted in Parliament devoting a large amount of time to questions of social insurance. The Local Government Act of 1929 had necessitated a new consolidated Poor Law Act in 1930. Then between the Poor Law Relief and the social insurance

schemes there was much overlapping both in payments and administration so that by 1935 the position had become sufficiently urgent to necessitate a consolidation of existing insurance legislation. The consolidation measures were Unemployment Insurance Act 1935, Old Age Pensions Act 1936, National Health Insurance Act 1936, and Widows', Orphans' and Old Age Contributory Pensions Act 1936.[18]

2.10. In the year following the four consolidating Acts a further measure was passed, the Widows' Orphans' and Old Age Contributory Pensions (Voluntary Contributors) Act, on 1st July 1937. The object of this Act were clearly stated by the Minister of Health at the time. He pointed out that the persons who had the benefits of insurance under the existing Contributory Pensions Act were broadly the persons who were compulsorily insured under the National Health Insurance Act, or who having once been insurably employed had elected afterwards to be Voluntary Contributors. The existing system of pensions was certainly incomplete so long as it excluded persons who, though of the same economic standard as those embraced under it, were outside the defined insurable employment. The 1937 Act extended the scope of the Contributory Pensions Act to include people not included under the basic National Health Scheme, small shopkeepers, plumbers, free lance journalists and so on, in fact any man earning less than £400 or woman earning less than £250 a year. Higher contributions were required under this scheme which became

known as the black-coated workers' scheme. For the initial entrants a flat rate contribution for all ages was payable of 6.25p for men and 2.5p for women per week; for other than initial entrants the rates of weekly contributions varied with the age at entry. For these pensions a "Special Pensions Account" was kept by the Treasury, into which the special voluntary contributions were paid and out of which were paid the pensions secured by this class of insured person except for those pensions due after age 70 which were a charge on the non-contributory old age pension fund. Decennial valuations were to be made by the Government Actuary whose report was required to state what contribution was required to be made by the Treasury to maintain solvency. By 1938, the extension of the 1937 Act had brought the total numbers insured for State pensions to over twenty millions, or some forty per cent of the total population.[19]

(c) State Pensions 1940 to 1946

2.11. The Old Age and Widows' Pension Act 1940 constituted another important development by reducing the pension age for women from 65 to 60.[20] The reasons for this are often misunderstood for the choice of these respective pension ages, namely 65 for men and 60 for women was not, as is frequently suggested, to give some sort of preference to women. Under the Contributory Pensions Act of 1925, insured men and insured women both got their pension at the same age of 65. It needs to be recalled that at times following 1925 there were periods of severe unemployment and the idea developed during such periods that a reduction, when a convenient opportunity presented itself, of the normal pension age for women would ease male unemployment. Also by the Contributory Pensions Act of 1925, an insured man got his pension at 65 and an insured woman got hers at 65, and a pensioned man got an additional pension for his wife, when she herself attained the age of 65. Payment of these pensions was, of course, not dependent on retirement from work. In the course of time it was appreciated as something of a grievance that owing to the spread of the relative ages of husbands and wives, a large proportion of married men who reached the age of 65 could not get a double pension but had to wait perhaps for several years until the wife also reached the age of 65. In order to bring into pensions a substantial proportion of the younger wives, the pension age for wives was reduced to 60 by the Act of 1940. But it was thought

that to give a man's wife a pension at age 60 whilst having a retirement age of 65 for insured women would raise further grievance; so at the same time the insured woman's pension age was reduced to 60.[21]

2.12. By 1941 developments in the different spheres of social insurance had resulted in irritating differences of interpretation, the overlapping of benefits, inconsistencies in the rates of benefit, the use of more than one contribution card, different bodies administering the benefits and so on. There was also a fundamental difference between the cash benefits derived from contributory insurance in its various forms and those made from funds towards which the claimant made no contribution, but which were derived from public money. In the schemes of national insurance, windows' orphans' and old age contributory pensions insurance, and the similar schemes for voluntary contributors, the benefits were all paid out of funds to which the claimants had contributed and to which they had a legal right without means test. On the other hand, the old age pensions which were non-contributory, unemployment assistance, and public assistance under the poor law were all payable from funds payable by the public, and proof of need was essential under a means test.[22] Thus in 1941 Beveridge (Sir William later Lord) was appointed chairman of an inter-departmental committee to conduct a survey of existing schemes of social insurance and allied services and to make recommendations. The Beveridge Report was presented to

Parliament in November 1942.[23] Apart from recommending a consolidation of all the separate branches of national insurance into one unified system with one card and one stamp,[24] the report suggested improvements in most benefits, including pensions, so that everyone who contributed would be assured of a minimum subsistence income by right and without any question of a means test.[25] Beveridge made his assessment of what was needed to provide minimum subsistence on the basis of social surveys carried out in the 1930's. He then took 1938 as a starting point and added 25 per cent to what he deemed to be the 1938 subsistence level in order to allow for war-time inflation.[26] This produced a pension of £1.20p a week for a single man and £2 a week for a married man and his wife.[27] The report clearly indicated that two important aspects of the problem were not covered in the recommendations namely, continued inflation, and the wide differences in rent which made a figure for minimum subsistence difficult to arrive at. Beveridge considered that these were problems which would have to be tackled after the war.[28] The report was debated three days in the House of Commons. It was moved

> ". . . that this House welcomes the report of Sir William Beveridge on Social Insurance and Allied Services as a comprehensive review of the present provisions in this sphere and as a valuable aid in determining the lines on which developments and legislation should be pursued as part of the Government's policy of post-war reconstruction."

The debate showed generally very strong support for the proposed resolution. It was carried by 335 votes to 119. There was, however, some criticism mostly directed to its universality, which would involve public and private revenue being directed towards providing benefits for those not needing them.[29]

2.13. There were two features of the plan recommended in the Beveridge Report which were particularly in tune with general thinking of that time and which contributed much to its generally enthusiastic reception. These were, the provision by insurance of a minimum standard of subsistence, and the legal right to enjoy it by virtue of its contributory nature without any means test. Accordingly the National Insurance Act 1946 came to be passed. This fixed the level of what was now called retirement pension at £1.30p a week for a single man and £2.10p for a married man and his wife.[30] The Act provided on a compulsory and contributory basis insurance up to age 65 for men and 60 for women during unemployment or sickness, and retirement pensions from age 65 for men and 60 for women, together with certain other benefits set out in the Act.[31] Under the Act a Fund was created, under the control and management of the Minister. All contributions payable under the Act by employers and insured persons and moneys provided by Parliament were credited to the fund and all claims for benefit were paid out of the fund.[32] Following the passing of the Act benefits and contributions were increased from time to time largely because of inflation.

2.14. The 1946 Act departed from the Beveridge recommendations in that it gave the new levels of pensions to National Insurance pensioners immediately and to others after a short period of qualifying contributions, whereas Beveridge had envisaged 1965 as the first year in which pensions at the new rate were to be paid in full.[33] The decision was political and probably inescapable but clearly the finances of the new arrangements were thereby affected. Moreover Beveridge had intended enlarging Exchequer contributions to about half the total cost but in practice the Treasury subsidy broadly remained around the original level of eighteen per cent of the combined contribution from employers and employees.[34]

(d) State Pensions 1947 to 1964

2.15. In 1948 the National Assistance Act was passed. This Act was stated to be

> "An Act to terminate the existing poor law and to provide in lieu thereof for the assistance of persons in need by the National Assistance Board and by Local Authorities, to make further provision for the welfate of the disabled, sick, aged, and other persons and for regulating homes for disabled and aged persons . . ."[35]

The National Assistance Act, 1948, consolidated the provision of a guaranteed standard of living for the aged but the benefits payable, in most cases, were well above the level of national insurance benefits and supplementation of their National Insurance pensions was needed by hundreds of thousands of pensioners. The frequency and extent of these supplements were hardly merely exceptions as the Beveridge Report proposed.[36]

2.16. The concept of minimum subsistence is related to a person's basic needs, not his previous earnings, and implies flat rate benefits. The Beveridge Report suggested that it should be left to individuals to provide benefits beyond subsistence level.[37] Some imagined that the National Insurance Act 1946 would cause some decline in occupational pensions, at least for the lower paid employees, because there would be less need for them and because some employers could not be expected to afford both occupational scheme contributions and the increased National Insurance contributions. In the event the 1946

Act increased pensions consciousness and occupational pension schemes tended to increase rather than to decline. Indeed in 1953 the Government appointed a Committee to look at the problems associated with providing for the elderly and that Committee considered the development of occupational schemes to be desirable on grounds of social policy.[38] On the other hand, in 1955 the Fabian Society was suggesting that the investment policies of pension funds should be investigated to see whether they were operating against the public interest[39]; and nationalisation of pension funds seemed to be implicit in their proposals. Whilst the Fabian Society's proposals had little impact in general, there was the suggestion in them of a new State scheme to provide wage related pensions and in 1957 this suggestion became embodied in a Labour Party policy document. However, in that document there was no declared intention of nationalising the assets of occupational pension schemes and contracting out was accepted as an essential feature.[40]

2.17. Considerable publicity was given to the Labour Party's proposals. The fact was that by 1958 employers in many industries had adopted private pension schemes covering both staff and wage earners to supplement the retirement benefit under National Insurance. Indeed, it was estimated in 1958 that the numbers covered for occupational pensions were about $8\frac{3}{4}$ millions, half of whom were manual workers (7 million men and $1\frac{3}{4}$ million women) so that by then nearly half of the employed males were members of an occupational scheme.[41] Perhaps naturally

the remainder looked for an earnings-related extension to the State scheme retirement pension. As well as such popular demand there were relevant financial considerations. It was estimated that if the then existing scheme were to be left unchanged from its conditions of contributions and benefits there would arise a rapidly growing excess of expenditure over income, increasing over 20 years to £400m a year.[42]

2.18. The National Insurance Act 1959 was therefore introduced (by a Conservative Government) the declared aims of the Act being,

(i) to put the National Insurance Scheme on a sound financial basis

(ii) to institute provision for employed persons who cannot be covered by an appropriate occupational scheme to obtain some measure of pension related to their earnings

(iii) to preserve and encourage the best development of occupational schemes.[43]

For adult occupied persons the 1959 Act set a dividing line in earned wages at the level of £9 a week. Those earning £9 a week or less received the existing flat rate benefits; those earning more than £9 a week, unless contracted out, ranked for earnings related pension in addition to the normal flat rate benefit.[44]

2.19. This additional section of the State scheme became known, generally, as the "graduated State scheme". It covered everyone over age 18 who was employed and was earning £9 a week or more and provided earnings-related

benefits in return for earnings-related contributions according to a formula related to earnings between £9 and £15 a week.[45] The £15 limit was extended to £18 by the National Insurance Act 1963.[46] Additionally to introducing, for the first time an element of earnings-related pensions and contributions a new feature was the facility for contracting-out. Employers with suitable private schemes were permitted to opt out of the graduated part of the State scheme, provided their schemes contained a guarantee that the pension for contracted out employees would be at least equal to the maximum graduated pension which could have been earned for the same period of membership.[47] Employees who were contracted-out remained entitled to the basic flat rate State pension and they and their employers continued to pay the flat rate contribution, although at a slightly higher level than for employees participating in the graduated element.[48] It was intended to raise all National Insurance contributions in April 1965 and at five yearly intervals thereafter up to 1980. The graduated State scheme was somewhat trivial (graduated pensions were at the rate of 2.5p a week for each unit of graduated contribution paid by the employed person. Originally these units were £7.50p paid by a male employed person and £9 for a female).[49]

2.20. Under the 1959 Act the Exchequer grant was fixed, broadly speaking, at one-quarter of the National Insurance portion of the minimum rates contribution in respect of contributions of employed adults; one-quarter of the National Insurance portion of the contribution in respect

of employed juveniles; and one-third of the National Insurance portion of the contribution in respect of self-employed and non-employed persons. Financing on the overall principle of maintaining an equilibrium between income and expenditure was adopted with all contributions and Exchequer grants being paid into one fund without hypothecation. The rising costs of retirement pensions was to be met by the quinquennial increases in the contributions.[50]

(e) State Pensions 1965 to 1974.

2.21. The National Insurance Act 1965 consolidated and re-enacted previous National Insurance legislation. Also the National Insurance Act 1966 introduced earnings-related supplements to the basic sickness, unemployment and widows' benefits. The cost of these benefits involved additional graduated contributions payable by both employers and employees. Both the range of earnings on which graduated contributions were payable and the percentage payable were progressively increased by subsequent Acts; also legislation has affected the levels of the flat rate benefit.

2.22. The National Superannuation and Social Insurance Bill 1969 did not become law, owing to a change of government. Nevertheless it is of significant interest from the viewpoint of the historical development of State pensions in the UK. The scheme (known as the "Crossman Scheme") proposed fundamental changes in social security although, because earnings-related benefits for the first six months of sickness, unemployment and widowhood had been introduced in 1966, such changes concerned pensions and other long-term benefits only.[51] It was thought at the time that the then existing arrangements were inadequate there being some 2 million pensioners, that is about 3 out of every 10, dependent in some degree on means tested supplementary benefits, and nearly half of all widow pensioners being on supplementary benefit.[52] It was considered that the flat-rate system

was not proving entirely suitable because the level of contribution could not be set high enough to provide adequate pensions without placing too great a burden on the lowest paid contributors; whilst the then graduated scheme was unsatisfactory on the score that emergent pensions were not inflation proofed. Thus the "Crossman Scheme" proposed eight basic objectives.

(i) Rights to benefit must be earned by the payment of contributions. The reasoning was that if pensions were to be financed wholly by taxation their level would be bound to be too low because, so it was argued at the time, people are prepared to pay more in a contribution for their own personal or family security than they would ever be willing to pay in taxes.

(ii) Benefits and contributions must be related to the contributor's earnings. In this regard it was suggested that although most people accept the need for some drop in their living standards at retirement, there is a limit to the reduction which is tolerable. Earnings-related pensions may ameliorate the position. It was thought that earnings-related benefits meant that contributions too must be related to earnings because higher benefits to higher earners are justifiable only if higher contributions have been paid. And interestingly the view was held that earnings-relation should not mean that however large a person's earnings the State scheme

should be extended to cover the whole of them. The holding of this opinion meant that the State scheme would continue to leave sufficient room for employers' pension schemes and other ways of providing for old age.

(iii) Benefits must normally be sufficient to live on without other means.

(iv) Benefits must take into account changes both in price levels and in general living standards.

(v) Women should contribute on the same basis as men and earn similar benefits.

(vi) The scheme should be run on the principle of assessmentism. The scheme was to have had two separate funds to replace the then existing funds, namely the National Superannuation Fund to cover retirement pension, widows' benefit and death grant, and the Social Insurance Fund to cover all other benefits, unemployment, sickness, etc.

(vii) The State scheme should work in partnership with the employers' schemes. The sponsors of the proposed "Crossman Scheme" admitted that employers' pension schemes have an important part to play in partnership with the State scheme. It was stated that the new scheme had been designed to assist the long-term development of employers' schemes. How such assistance arose was not, however, made clear, unless it was thought that pensions consciousness generally would be increased by the new State scheme.

(viii) People changing their employment will be legally entitled to have their pension rights from their employer's scheme preserved.[53]

2.23. The contributions payable under the 1969 Bill were to have been fully earnings related aggregating 6.75% for employees on earnings up to £1900 a year and 7% for employers on total payroll with no upper earnings limit.[54] The subdivision for employees' contributions was 4.75%, 1.70%, .30% for the National Superannuation Fund, the Social Insurance Fund and the National Health Service respectively, the corresponding figures for employers being 4.50%, 1.70%, and .60% plus .20% for the Redundancy Fund.[55] Employees who were members of occupational pension schemes fulfilling certain minimum requirements could have been partially contracted out of the State scheme. They would have paid reduced contributions to the National Superannuation Fund and would have received a personal retirement pension reduced accordingly.[56] Contributions for the self-employed were to have been on a flat rate basis.[57] The National Superannuation Fund and the Social Insurance Fund were both to have received a Treasury supplement equal to 18% of their income from contributions; for the National Superannuation Fund that amount would have been calculated on the gross contributions before abatements under the provisions for partial contracting-out.[58]

2.24. Retirement pensions under the proposed "Crossman Scheme" were to have been 60% of earnings up to £630 a year and 25% of earnings between that amount and the upper limit of £1900 a year; there being a build-up period with

full pensions not becoming payable for the first 20 years of the scheme, that is the maturity date was April 1992. It was provided that benefits would have been reviewed biennially so that they at least kept pace with inflation. The upper earnings limit was approximately one and a half times national average earnings.[59]

2.25. Further interesting developments occurred in 1973 with the passing of the Social Security Act of that year. However although this Act received the Royal Assent in July 1973 and the main provisions of the Act were to have taken effect in April 1975, a general election in February 1974 resulted in a change of government from Conservative to Labour and the new Government announced that the Act, in the main, was to be abandoned. However, the new Government did accept certain provisions of the Social Security Act 1973:

(i) the termination of the graduated scheme from April 1975.[60]

(ii) A change in the contribution structure of the State scheme. Instead of being part flat rate and part graduated, this was put on a wholly earnings-related basis. But this did not affect pension benefits which remained flat rate except for any graduated pension already earned.[61]

(iii) The establishment of the Occupational Pensions Board (OPB).[62]

(iv) The principle of preservation.[63]

2.26. The objectives underlying the 1973 Act are of historical interest. They were stated at the time to be:

(i) To clarify the essential differences between State and occupational provision and to establish conditions in which both can develop in the way best suited to future obligations and opportunities.

(ii) To provide through the State scheme a firm foundation of basic benefits paid as a right in return for contributions, with additional benefits for special groups so that priority needs are met by priority action.

(iii) To safeguard the living standards of pensioners and other beneficiaries in the State scheme by a system of regular increases in benefit rates which will, as a minimum, maintain their purchasing power.

(iv) To establish the finances of the State scheme on a sound basis by providing an equitable and buoyant source of contribution income without the need to put up the contribution rates every time benefits are increased.

(v) To simplify the collection and recording of contributions in the State scheme, taking full advantage of labour-saving techniques.

(vi) To give every employee the opportunity to build, on the foundation of the State scheme, an earnings-related pension for himself or his widow through an occupational pension scheme or failing that, a State reserve scheme.

(vii) To ensure that a change of job does not mean the loss of occupational pension rights.

(viii) To set up an Occupational Pensions Board for the effective and flexible administration of the new provisions affecting occupational pensions.[64]

2.27. As an indication of the outlook of the Government of 1973 it may be mentioned that it was stated by them that the central issue for the future was how to shape the relationship between the State scheme and occupational schemes so that both forms of provision are free to develop in the way which suits their essential characteristics. It was the Government's view that this issue would only be resolved satisfactorily by a partnership in which the State scheme provided basic pension and occupational schemes provided pensions related to earnings.[65]

2.28. Contributions under the Basic Scheme of the 1973 Act, which actually replaced the previous system of flat rate and graduated contributions by fully earnings related contributions, were broadly payable on earnings between £8 and £48 a week. The latter figure was approximately one and a half times national average earnings at the time. In general the rate of contribution was 5¼% by employees and 7½% by employers, both being on relevant earnings.[66] The Exchequer Supplement remained at about 18% of the combined contributions of insured persons and employers.[67] The flat rate benefit under the National Insurance Fund remained unchanged but was to be reviewed annually.[68] The Basic Scheme continued to be financed by assessmentism.[69]

2.29. It was originally intended, by the Social Security Act 1973, generally known as the "Joseph Scheme", that in addition to the Basic Scheme a State Reserve Scheme would be set up, although as indicated previously due to a change of Government the State Reserve Scheme was abandoned. The Reserve Scheme was to have been entirely separate from the State Basic Scheme. A particular feature of the State Reserve Scheme was that it was to have been funded and run on the lines of an occupational scheme by an independent Board of Management.[70] Reserve Scheme pensions would have been assessed by reference to the contributions paid on behalf of each contributor to ensure a fair return however long or short the period for which he and his employer contributed. Pension scales would have been laid down showing by age and sex the amount of pension the scheme guaranteed to pay for each contribution unit. The scheme would also have included a profit sharing element enabling the benefits on the age-related scales to have been enhanced periodically by bonuses. It was suggested at the time that there was a reasonable expectation that these bonuses would have proved sufficient in amount to offset any price increases, and thus to maintain the real value of the pensions, though there was to have been no guarantee of this. Contributions to the Reserve Scheme were set at 4% of the same range of earnings as Basic Scheme contributions, the employer to pay 2.5% and the employee 1.5%. The Reserve Scheme was to have provided both personal and widows' pensions such benefits being assessed on the money purchase principle. Personal pensions would have commenced at the age of 65 for a man and 60 for a

woman irrespective of retirement. It was thought essential to the purpose of the Reserve Scheme that it should be demonstrably self supporting. The scheme was therefore to have been fully funded and financed solely by contributions from employers and employees and the income from its investments without any Government subsidy. The Reserve Scheme fund was not to have been available for Government use, hence the proposal to place responsibility for investing the fund in the hands of an independent Board of Management.[71] However, how independent from subsequent Governments an independent Board of Management would have continued to remain is probably conjectural.

(f) Occupational Pensions: Public and Public Service Sector Schemes.

2.30. The more the State has provided in the way of National Insurance, for pensions in retirement, the more people have provided for themselves. Indeed the development of State pensions and occupational pensions has gone hand in hand throughout the ages.

2.31. The pension schemes of the mediaeval guilds were, in a sense, occupational schemes and as such preceded State pension schemes. These schemes of the guilds which provided income for members in infirmity or old age, when their service as craftsmen had declined, involved the building-up of substantial funds. Such funds were, however, taken over by Central Government in Tudor times along with most of the property of the Church.

2.32. A significant development occurred in 1671 with the setting up of H.M. Customs and Excise which soon became the largest branch of the public sector, and retirement problems within this branch presented themselves. Initially the problems were dealt with by each officer appointing a successor and requiring him to pay half his salary to the previous holder of the office. Difficulties developed in getting successors to pay and a Superannuation Fund was set up in 1712, by Treasury Warrant, into which certain officers paid 2½% of their salaries. The fund, effectively operating on a pay-as-you-go system, soon got into deficit and by 1725 the Receiver General of Customs was making good the deficiencies out of public money. During the eighteenth century the fund was extended to more

and more employees and by 1765 a fund surplus was being used to buy 3% annuities. To assist the finances of the fund emphasis was placed on the need to recruit young employees and a qualifying period of ten years' service, before any pension could become payable, was introduced. As a result of a Government Review of H.M. Customs and Excise in 1810 pensions in this branch were made non-contributory and became payable out of public funds, the assets of the earlier Superannuation Fund being taken over by the Receiver General of Customs.[72]

2.33. Non-contributory pensions were extended to the whole of the Civil Service under the Superannuation Act 1834. It was the passing of this Act which really marked the beginning of occupational pensions as they are generally understood today. Under the 1834 Act those with entry date pre-1829 could draw a pension equal to full salary after 50 years' service; those of later entry date qualified for a maximum pension of two-thirds of their salary after forty five years' service, payable from age 65.[73] The basis was changed in 1859 to provide a pension equal to one-sixtieth of salary for each year of service, subject to a maximum of forty-sixtieths and the retirement age was then reduced to 60.[74] The Superannuation Act of 1909 introduced a death benefit equal to one year's salary and enacted the payment of a cash lump sum on retirement with a reduction of the pension scale to one-eightieth.[75]

2.34. The Civil Service was emulated by local authorities some of whom such as the London Council and Edinburgh set up schemes by means of private Acts of Parliament. In 1922 the Local Government and Other Officers' Superannuation Act, although it did not enforce local government superannuation, established a pattern for local authority schemes and provided a transferability basis within local government. Pension provision within local government was made compulsory by the Local Government Superannuation Act of 1937.[76]

2.35. Also a number of statutory schemes, that is schemes set up by Act of Parliament or by Statutory instruments, came to be established. These included as examples an early scheme for the Metropolitan Police in 1829, a scheme for school teachers set up in 1898, for the Fire Service in 1925, and for the National Health Service in 1948. Schemes for the industries nationalised post 1945 such as coal, gas and electricity, were also established.

2.36. By 1975 employment in the public and public service sectors had become largely to be associated with membership of an occupational pension scheme. In that year 74% of such employees were thus covered, 84% of men and 59% of women, as indicated in the following table.[77]

Table 2.36.1.

Pension Scheme Coverage 1975

Public and Public Services Sectors - Civilians

Figures in millions

	Males		Females		Total	
	Employees	Members	Employees	Members	Employees	Members
Public Corporations	1.6	1.5	0.4	0.3	2.0	1.8
Central Government	0.9	0.8	1.0	0.7	1.9	1.5
Local Authorities	1.5	1.1	1.5	0.7	3.0	1.8
Total	4.0	3.4	2.9	1.7	6.9	5.1

Source: Occupational Pension Schemes 1975, Fifth Survey by the Government Actuary, p.8, HMSO, London 1978

(g) Occupational Pensions; Private Sector Schemes.

2.37. It is quite apparent that State pensions in the past provided only a minimum income. Occupational schemes within the public and public service sectors augmented such State pensions and for commercial reasons, if for none other, the private sector in its need to compete for labour with the public and public service sectors had to offer as far as possible comparable conditions of employment. Additionally there has been throughout some feeling of responsibility amongst many of those who employ labour towards those they engage. Perhaps such feeling by an employer has been partially assisted at times by the thought that arrangements which would enable him, with a clear conscience, to relieve himself of the duties of an employee at an age at which efficiency might be thought to be on the wane, might have some advantages. The rise in occupational pensions in the public and public service sectors has thus seen the growth of occupational schemes in the private sector. Indeed private sector companies such as the East India Company and the Bank of England quickly followed early Government precedent in the setting up of occupational pensions. And, as later examples, the Gas Light and Coke Company established a contributory scheme for its staff in 1842 and for its manual workers in 1870, the Prudential Assurance Company had a retirement pension scheme in 1872, Lever Brothers in 1904 and Rowntree of York in 1906. Such schemes were set up under the control of independent trustees and funded under actuarial advice.

2.38. Pension schemes transacted by private sector employers through the medium of insurance companies came about in the UK in the 1920s. They had previously been developed in the United States and were introduced into the UK by the Metropolitan Life of New York. The British business of that insurance company was taken over by the Legal and General Assurance Society which is still today the largest British pension scheme insurance office. There has been a tendency in the past for smaller schemes to go to insurance offices and for larger schemes to be self-administered, but the rule has by no means been invariable. By 1975 nearly all schemes with less than 100 members invested their contributions with insurance offices whilst about half of the largest schemes invested their funds through trustees without recourse to insurance offices. Classification of schemes according to their insurance status is problematic but the Government Actuary's 1975 Survey suggested that about 1700 schemes, covering 2.5 million members in the private sector and 5.3 million in the public and public service sectors, are completely self-administered, and 1500 schemes, covering 1.6 million members nearly all in the private sector, pay over part of their income to insurance companies, sometimes insuring only the death benefits payable by the scheme. The rest of the schemes, about 20,000 covering 1.9 million members pay over virtually all the contributions to insurance companies.[78] Insurance schemes have an average of about 100 members each as compared with 2800 for other schemes although this latter figure would be reduced to about 1300 if public service sector schemes were excluded.[79]

2.39. In general the private sector has lagged behind the public and public service sectors in making occupational pensions available to its employees. In 1975 about 38% of employees employed in the private sector were members of schemes, 52% of men and 17% of women.[80] The relative position is illustrated in the following table.

Table 2.39.1
Pension Scheme Coverage 1975 - Civilians
Figures in Millions

	Males		Females		Total	
	Employees	Members	Employees	Members	Employees	Members
Private Sector	9.5	5.0	6.3	1.1	15.8	6.1
Public & Public Service Sectors	4.0	3.4	2.9	1.7	6.9	5.1

Source: Occupational Pension Schemes 1975, Fifthe Survey by the Government Actuary, p.8, HMSO, London 1978.

2.40. Within the private sector some schemes, usually those of the larger well-established propserous companies, have been able to offer occupational pensions broadly on a par with public and public service sector pensions. However, the type of scheme which a private employer can arrange for his employees is clearly dependent on business circumstances and many private sector schemes have not

been able to offer benefits at the levels available in the public and public service sectors. For example, in 1975, virtually all, that is over 98% non-manual scheme members in the public and public service sectors were in schemes providing pensions based on final salary of one-sixtieth for each year of service with a widow's pension based on at least one-one hundred and sixtieth for each year of service, the corresponding figure for manual scheme members being over 69%. On the other hand, the figures in the private sector were only 44% and 20% respectively.[81] Also in the public and public service sectors in 1975 increases to pensions in possession generally automatically followed the cost of living under the Pensions (Increase) Act 1971 arrangements. The position in the private sector was difficult to quantify precisely but it can be said that it was definitely much less favourable. Business circumstances permitted only a few private sector schemes to follow closely the cost of living although many were able to give some percentage increase.

(h) Taxation.

2.41. British history demonstrates that provision for those in old age has always been largely motivated by a natural and highly commendable concern amongst the population at large, for those in need of aid. Sometimes the aid has come from family associations, from religious organisations or from economic groups acting on a mutual basis, and the Church has played an influential role. But there have been periods when outlook has changed in its emphasis. The Reformation, for example, exercised a profound influence on the religious guilds; indeed an Act of Edward VI provided for the transfer to the Crown of all property held for spiritual purposes.[82] Again in the late 18th Century outlook changed towards the Elizabethan Poor Laws partly as a result of the inhuman way they were sometimes applied[83] and the call developed for central administration rather than for local authority responsibility. This mood continued and the Old Age Pensions Act of 1908 introduced pensions paid for entirely out of general taxation. Outlook has continued to develop and has resulted in a desire for pensions to be regarded as a right rather than as charity thereby involving the contributory principle as exemplified by the 1925 Widows' Pensions and Old Age Contributory Pensions Act and maintained, as a principle, in State Insurance Schemes ever since.

2.42. The general growing demand for security in old age has not been confined historically to a call for adequate State social security. It has been the successive Governments of the UK which have continued to blaze the trail in the sphere of occupational pensions, since the

Superannuation Act of 1834 extending pensions to the whole of the Civil Service. Occupational pensions in the public sector necessarily have resulted, for competitive reasons, in the development of occupational schemes in the private sector. That trend has, however, also been greatly assisted by a genuine desire by employers, in general, to answer the pensions call from employees. Thus occupational pensions have developed alongside State social security pensions. But the influence of successive governments in the growth of the occupational pension movement in the private sector is not to be underestimated. Not only has there been the indirect incentive set by example but additionally reactions of Governments to taxation points have been a direct incentive.

2.43. Before the Great War 1914-18, there was no legislation directed expressly to the taxation of Superannuation Funds. Cases were dealt with on their merits and generally employers' contributions ranked as an expense for tax purposes; the interest income of the fund, was however taxed in the normal way. Relevantly, rates of tax were then low. By 1918, tax rates had increased to a relatively significant level. Employees' contributions pre-1918 were not subject to relief of tax except when they took the form of assurance policy premiums and in certain circumstances full relief was then allowed. The Income Tax Act 1918 limited that relief; relief from tax at the standard rate could ordinarily then be claimed on only about two-fifths of any premium paid by employees.[84] The Finance Act 1921 by virtue of Sn.32 allowed ordinary

annual contributions paid to approved pension funds by both employees and employers to qualify for full tax relief and the investment income of the fund was also freed from all liability to tax. On the other hand, under the 1921 Act refunds of contributions to employees on withdrawal were taxed at one-third (amended to one-quarter by the 1930 Finance Act) of the current rate of income tax on the net amount of refund; whereas under the 1918 Act refunds of employee contributions remained tax free. Thus in practice there were two channels of approval, that is either through the 1918 Act or the 1921 Act. From the joint viewpoint of tax relief on employee contributions paid and the taxation of employee contributions refunded on withdrawal the 1921 Act was advantageous to higher paid employees whereas manual workers preferred 1918 Act approval.

2.44. The 1921 Act required retirement benefits to emerge in pension form and to be taxed as earned income whilst under the 1918 Act a measure of tax free lump sum benefits at retirement was permissible. By the 1947 Finance Act, which was intended to curb the provision of tax free cash benefits at retirement, the nature and limits of pension scheme benefits were laid down. An overall scale was adopted of one-sixtieth of final salary for each year of service up to a maximum of forty-sixtieths, with the right to convert one quarter of the overall pension into an equivalent lump sum, tax free.

2.45. The Income Tax Act 1952 consolidated earlier legislation so that 1921 Act funds then became Section 379 funds and 1918 Act schemes, Section 388 schemes under the 1952 Act.

2.46. The Finance Act 1956 freed from income tax the investment income of insurance companies in respect of their Section 379 pension fund business.[85] It also allowed immediate annuities to be taxed only on their interest content and this applies to pensions purchased with permitted lump sum cash payments arising from pension schemes.[86] As a result the normal practice grew up, with respect to pension arrangements transacted through assurance offices, of obtaining approval as to one-quarter of the scheme through Section 388 and three-quarters under Section 379. This usually maximised tax advantages. Theoretically a private self-administered fund could have been set up in the same manner to obtain a similar result but administratively this was difficult for them and in consequence not popular.

2.47. Historically taxation treatment of occupational pension schemes thus has reacted very favourably towards them and stimulated their development. Favourable tax treatment has been perpetuated into the current scene by the Income and Corporation Taxes Act 1970 and by the Finance Act 1970 as amended by the Finance Act 1971. Through this legislation the former twin approval structure of occupational pension schmes has been replaced by a single new code of Inland Revenue approval.

CHAPTER 3

CURRENT LEGISLATION, ENVIRONMENT AND STRUCTURE OF PENSION SCHEMES

(a) Social Security Act 1973

(b) Social Security Pensions Act 1975

(c) Approval of Occupational Pension Schemes

(d) Self-administered and Insured Occupational Schemes

(e) Surveys of Occupational Schemes

(f) Schemes for the Self-employed and Key Personnel

(g) Small Self-administered Pension Schemes

CHAPTER 3

CURRENT LEGISLATION, ENVIRONMENT AND STRUCTURE OF PENSION SCHEMES

(a) Social Security Act 1973.

3.1. Although the Social Security Act 1973 was largely abandoned, the provisions of the Act, regarding the establishment of the OPB[1] and the principles of preservation,[2] which were accepted (see 2.25), are of high importance to the current pensions scene.

3.2. As regards the OPB the 1973 Act gives the Board four main functions,

(i) To advise pension scheme administrators whether scheme rules conform with the requirements for the preservation of benefits for members who leave before normal pension age; to advise on amendments proposed or needed to enable rules to conform;[3] and where appropriate to make a determination whether the rules do conform.[4]

(ii) In specified circumstances, to authorise or make modifications to scheme rules, or to authorise or direct the winding up of schemes, if administrators do not themselves possess the necessary powers to carry out the amendments or winding up, or if they can do so only by using procedures which are unduly complex or cumbersome.[5]

(iii) To advise the Secretary of State, when asked to do so, on general questions affecting occupational pension schemes.[6]

(iv) To advise the Secretary of State for Social Services on proposals to make regulations under the Act which affect occupational pension schemes.[7]

3.3. Thus by the 1973 Act occupational pension schemes, including those in the private sector, have become within the direct purview of a statutory body. It is true that the functions of the body are largely, although not entirely, advisory and that the OPB carries out its duties discreetly; nevertheless its establishment by the State marks an important development impinging on the current operations of occupational schemes.

3.4. As regards preservation the main object of the statutory requirements is to ensure that members of occupational pension schemes who leave employment before normal pension age are entitled to benefits representing an equitable proportion of the benefits they would have received at or after normal pension age if they had stayed in employment until then. Normally a scheme's rules for calculating benefits on retirement at normal pension age can be used to calculate preserved benefits but some schemes are framed in such a way that to apply the normal rules to an early leaver would not be practicable, or would not produce an equitable proportion of the benefit he/she would have received at normal pension age. In such cases the preserved benefits must, in general, be calculated on the basis of uniform accrual, that is as though benefits accrued uniformly over the member's entire pensionable service.[8] Members leaving before normal

pension age must be entitled to preserved benefits so long as they satisfy the qualifying conditions for preservation, namely: he/she must have reached the age of 26 years, and he/she must have completed a minimum of 5 years' qualifying service.[9]

3.5. The preservation requirements of the 1973 Act apply to,

(i) Occupational pension schemes whether or not they are approved by the Inland Revenue Superannuation Funds Office for tax purposes.

(ii) To all schemes or arrangements in force at or after the 6th April 1975 under which there is a legal obligation to provide benefits for members or their dependants on retirement or death at or after normal pension age, provided that an employer is liable to bear at least part of the cost whether of the benefits or administration or both.[10]

3.6. Occupational schemes are not, in general, permitted to make a refund of a member's own contributions as an alternative to preserved benefits where a member has satisfied the qualifying conditions. Members may, however, opt for a refund of contributions paid in respect of qualifying service (including service linked by a transfer of rights from another scheme) before the 6th April 1975.[11]

3.7. Superficially the principles of preservation laid down by the 1973 Act appear reasonable. But the fact remains that transferability rights on change of employment are an area in which private sector occupational

pension schemes are not currently proving to be as effective as desirably they should be. Customarily a person's pension is related to final salary. A change of jobs during a person's career which involves preservation for prior service based on only the salary as at the date of change of employment clearly results in a shortfall of pension expectations. However, there is no clear cut case for requiring either the past employer or the new employer to make good the shortfall. Perhaps it is up to the transferring employee to ensure that the overall terms of his new employment are adequate to compensate for such loss of pension rights. Nevertheless there is the view that the rigidities caused by people who have been led to believe that they are entitled to the same job for life lie at the heart of much of Britain's industrial and economic malaise; and that thus there should be encouragement to people to tackle new jobs not necessarily only once but perhaps several times during their working lives.[12] It is to be added in comment that statutory preservation principles which involve loss of potential pension hardly conform with such encouragement.

3.8. Importantly the 1973 Act imposes an obligation on the Secretary of State to review the rates of all social security benefits yearly, and to put before Parliament proposals for any increases he considers necessary.[13] These increases, as originally laid down, must at least take account of the changes in the index of average earnings since the previous review or in the cost of living if this is greater.[14] Faced with its considered need to stabilise public spending the Government of 1979

announced that the link with earnings was to be broken.[15] Nevertheless the remaining link with the retail price index is important consequentially. Not only does it affect state pensions directly, but indirectly it casts some reflection on occupational schemes in the private sector which, in all but rare exceptional circumstances, can not match such an open ended commitment.

(b) Social Security Pensions Act 1975.

3.9. The Social Security Pensions Act 1975 came into force in April 1978 and is currently the dominating enactment affecting social security pensions with wide repercussions on occupational pension schemes. Under this Act retirement, widows' and invalidity pensions are made up of two parts.

(i) A basic flat rate pension

(ii) An additional pension related to earnings in excess of the qualifying earnings limit for the basic pension.[16]

3.10. When there is an occupational pension scheme the Act imposes certain obligations on the employer as to whether or not his employees are to be contracted out of the additional part of the state scheme.[17] In either event the state scheme will continue to provide a universal basic flat rate pension, the amount of which will be reviewed from year to year in line with the retail price index (see 3.8.).

3.11. The 1975 Act continues the traditional British contributory approach to state pensions. The main feature of the contribution system under the Act is that it will broadly follow the pattern introduced by the 1973 Act i.e. it will be earnings related. No contributions will be required from those earning less than the specified lower earnings limit which will be approximately equivalent to the current amount of the basic weekly state pension.[18] In November 1980 the basic weekly state pension

for a single person was re-fixed at £27.15 a week.[19] Contributions in respect of those earning more than the specified lower earnings limit are currently 16½% for employed persons on all earnings up to a specified higher earnings limit of approximately 7 times the lower limit.[20] The contributions are shared between the employee at 6½% and the employer at 10%, such contributions being supplemented by exchequer grants.[21] At present the employer's national insurance contribution rates are, in general, subject to a 3½% surcharge.[22] Contracting out reduces the contributions for employees and employer to 4% and 5½% respectively, although these reductions of 2½% to employees and 4½% to employers apply only to upper tier earnings, the contributions for earnings up to the lower earnings limit remaining at the full amount.[23]

3.12. In return for these contributions the state will provide the basic flat rate pension plus, for non contracted-out schemes, an "additional component" of earnings related pension. This latter will be calculated as 1¼% of earnings between the lower and upper limits in each tax year from April 1978 onwards, subject to the following qualifications,

(i) Not more than 20 such years may be taken into account, that is the pension will build up to a maximum of 25% of upper tier earnings[24]

(ii) The relevant earnings in each year will be revalued in line with the change in the general level of earnings from then until retirement age[25]

(iii) Where more than 20 years' contributions to the new scheme have been paid, that is for those reaching retirement age after 1998, the pension will be based on the 20 years in which earnings, after revaluation, were highest.[26]

The single person's pension is increased by a prescribed amount in the case of a married couple.[27] If both the husband and wife have worked the wife may also have earned an "additional component" in her own right.[28] On the death of a husband after retirement the widow will normally receive a pension at least equal to that payable to her husband during his lifetime; possibly higher if she were already receiving some earnings related pension herself.[29] Additional component pensions will be revalued annually in line with the retail price index.[30]

3.13. When an occupational pension scheme is contracted out the basic pension will be provided by the state scheme and the additional pension by the occupational scheme. To qualify for contracting out the rules of the occupational scheme must promise "requisite benefits"[31] the minimum level for these being

(i) a personal pension of 1.25% of salary per year of service[32]

(ii) a widow's pension on death of the member either before or after retirement of .625% of salary per year of service.[33]

For such purposes "salary" must be either final pensionable salary, according to one of several permitted definitions,[34] or pensionable salary in each relevant year of service subject in the latter case to revaluation on the same basis as with the state scheme.[35] Graded occupational pension schemes and other "average salary" schemes are not therefore suitable for contracting out unless they contain this revaluation feature. Money purchase, discretionary or flat rate schemes are not able to qualify for contracting out at all.

As a fall back for an occupational scheme to contract out it must contain a special rule promising a guaranteed minimum pension (GMP) in all cases. The GMP for the member will be calculated on the same basis as the second tier pension under the state scheme, that is 1.25% of earnings, between the upper and lower limits, in each year with such earnings being revalued. But for those reaching state retirement age after 1998 the percentage per year will be revalued to provide an overall maximum of 25% and the "best 20 years" feature will not apply.[36] Occupational schemes will, if they wish, be able to limit their liability to revalue the GMP rights of an early leaver to 5% per annum compound, leaving the state responsible for providing the balance, if any, required to maintain the value of the preserved pension in line with the growth of earnings generally, in return for an employer's once and for all payment to meet the estimated cost.[37] As an alternative, schemes may arrange for revaluation at a rate of 8.5% per annum compound without payment of a premium to the state.[38] The widow's pension

provided by a contracted out occupational scheme must be at least half the husband's guaranteed minimum pension at the time of his death.[39] The balance needed to bring this up to the full rate of additional pension will be made up by the state scheme.[40] After an employee's retirement the state will protect the GMP and widow's GMP against price rises so that a contracted-out employee will have at least the same protection as one who depends entirely on the state pension scheme.[41] The GMP must be available to the member at the age of 65 for men and 60 for women and must be increased by 1/7th of one percent a week if a member postpones retirement beyond ages 65 for men, 60 for women, provided retirement is postponed for at least 7 weeks.[42]

3.14. The regulations require schemes administered wholly in the UK to provide that the GMP should be secured by one or more of an irrevocable trust, a policy of insurance or annuity contract.[43] Moreover, schemes must have a certificate to enable them to contract out[44] and the Social Security Pensions Act 1975 gives the OPB the function of issuing contracting out certificates to employers when the requisite benefits are provided by occupational pension schemes[45] and to supervise the financial resources of contracted out schemes.[46] This supervisory power of the OPB also exemplifies an important development impinging, at least potentially, on the operations of occupational schemes (see 3.3.). Before the OPB can issue a contracting out certificate they must be satisfied about the sufficiency of resources in the scheme concerned. For this purpose the OPB will

place considerable reliance on certificates from the scheme's actuary covering the situation that would arise were the scheme to be wound-up within a 5 year period. In such regard before a scheme can be contracted out, it must satisfy the OPB that in the event of winding-up at any time in the next 5 years, or such shorter period as actuarially certified, it will, in the normal course of events, have the necessary resources to buy all its members back into the state scheme. Alternatively, the OPB will be satisfied if at least some of the scheme's resources are in the form of an insurance contract with a life office which will provide, in the event of winding-up, all members' accrued GMPs at termination revalued to pensionable age at 8½% per annum compound. Where a scheme is wound up or ceases to satisfy the conditions for contracting out, all members must be bought back into the state scheme, or, with the OPB's approval, the member's GMP can be preserved or transferred to another contracted out scheme.[47] Employers proposing to contract out must give their employees notice and any recognised trade union representing the employees must also be consulted.[48]

3.15. Relevantly, there are certain basic requirements relating to equal access to membership of occupational pension schemes, whether contracted out or not, for men and women. These requirements are contained in the Social Security Pensions Act 1975, the equal access requirements, and the parallel provisions in the Equal Pay Act 1970, as amended by the Sex Discrimination Act 1975 and the Employment Protection Act 1975. With effect from the 6th April 1978 the law now requires men and women to be

given equal access to membership of occupational pension schemes, that is, in general, membership of the scheme must be open to both men and women on terms which are the same as to the age and length of service needed for becoming a member and as to whether membership is voluntary or obligatory. Schemes which have different normal pension ages for men and women are permitted to provide for different maximum age limits for admission to apply to men and women.[49] The Social Security Pensions Act 1975 gives to the OPB the function of advising whether schemes give equal access to men and women and, where appropriate, to determine whether the scheme's rules conform with the equal access requirements, again exemplifying (see 3.3. and 3.14.) an influence of the OPB over private sector occupational schemes.[50]

3.16. The foregoing indicates that apart from the very small benefits that have emerged from the graduated scheme the state, until April 1978, provided only a modest, relative to national average earnings, flat rate pension on retirement. As at December 1980 the flat rate pension was £27.15 per week for a single person and £43.45 per week for a married couple.[51] The new state scheme commenced to provide earnings related pensions from April 1978 but it does not fully mature until April 1998. Clearly therefore there is currently still wide scope within the economy for occupational pension schemes and this would be so even if no contracting out facilities were in being. However an occupational pension scheme must have some regard to the state scheme, integrating with it or

living on top and methods of doing so with reference to a final salary occupational scheme can be first illustrated by reference to the state flat rate scheme.

3.17. One method would be for the employer when fixing his overall benefit objective to bring into account the broad range of earnings of his employees and the broad extent to which the state is pensioning them, the benefit formula being devised accordingly with no explicit relationship between occupational scheme and state scheme benefits being expressed. For example, if the pension objective were 60% of final salary and the flat rate state pension could be regarded as representing broadly a 20% pension, the occupational scheme could then provide on top a final earnings accrual, over 40 years, of 1% p.a. The overall benefit objective, for individual employees is, however, clearly not achieved when earnings are spread other than normally relative to the assumptions made. On the other hand, if the benefits of the occupational scheme be defined as the desired overall percentage of final earnings less state benefits actually payable, anomalies can arise unless adjustment is made for increases in state benefits in course of payment. Relevantly the OPB has recommended, to avoid over-deduction, that only the state benefits payable to a single person be brought into account;[52] and then only to the extent that service with the particular employer is concerned by deducting, say, 2½% of the state pension for each year of service in other employment. Another approach is to define pensionable earnings on a basis which allows for a deduction in earnings on account of the state scheme. However under this last method it can be administratively awkward to keep the deduction in

line with frequent changes in the state scheme benefits.

3.18. In general British practice has veered to that of occupational pension schemes living on top of flat rate state pensions. This does not affect permitted approvable maximum benefits, indeed many schemes have provided under their own rules one-sixtieth of final salary for each year of service and still live on top of the flat rate state pensions. The fact that this has resulted in the occupational scheme pension and the flat rate state pension combined, reflecting different proportion of final salary for full career personnel with different final salaries is regarded as entirely acceptable by all parties concerned. Indeed relevant surveys show that currently within the UK some 45% of all occupational pension schemes make no allowance for the basic flat rate state pension; the method of integration by deduction from salary to rank for pension purposes accounts for approximately 34% of all occupational pension schemes; and the integration method by deduction of the state flat rate benefit or some proportion of it from the scheme pension accounts for approximately 21%.[53]

3.19. Broadly the same line of reasoning still applies now that the state scheme consists of a flat rate pension component plus an earnings related pensions component, for, in practice, many occupational schemes have contracted out of the second tier element to live on top of the flat rate element. In fact some 11½ million employees within the UK, representing approximately 50% of the total number of employees are members of occupational pension schemes and out of this total number of 11½ million, some 10 million

or more have been contracted out of the additional earnings related element of the state scheme.[54] These contracted out schemes normally make no direct allowance in their scheme benefits structure for the flat rate state scheme. As regards the occupational schemes which have contracted in, and in the main these are small schemes, the procedure generally is for the occupational pension scheme to provide relatively small additional pensions to those obtainable from the state. However, there are a few large contracted in schemes which provide occupational pensions even up to the limit permitted by the Inland Revenue Authorities so that these pensions are then on top of both the flat rate component and the earnings related component of the state scheme.

3.20. Thus whilst the occupational pension scheme could operate on an integrated basis with the state scheme, such integration is seldom adopted in practice despite its intuitive appeal. The reasons are largely administrative. For example, there is difficulty in knowing just what state benefits will emerge for members who transfer from one employer to another; state "earnings related" benefits will be based on the best 20 years earnings and will be subject to revaluation so that perfect integration will be virtually impossible to achieve. Also there is the point as to what extent integration should apply to early and late retirements and to widows' and other benefits.

3.21. Indeed, the whole question of whether an occupational pension scheme should contract out or not has developed into a subjective issue. Occupational pension schemes are independent units with their own features and refinements and generally they are funded. In contrast, the state system is financed by assessmentism. Not least because of these different systems a satisfactory facility for contracting out is not easily determinable.

3.22. There are financial considerations. Class 1 National Insurance contributions, when an occupational pension scheme contracts out, are reduced by a total of 7% of relevant earnings (2.5% from employees and 4.5% from employers), although it is the intention to cut back this reduction at 5 yearly intervals probably to about 4.5% in total in about 30 years from 1978.[55] Employees' contributions to the National Insurance Fund do not attract tax relief whereas contributions to an exempt approved occupational pension scheme can be offset for tax purposes.[56] Thus if the standard rate of income tax be 30%, reduction in employees' contributions to the state scheme is effectively equivalent to an employee's contributions of over 3.5% to an occupational scheme and the total initial contribution reduction of 7% is worth more than 8%. Relevantly some 80% of schemes are contributory by the employees.[57]

3.23. The contracting out terms (before allowing for the tax relief point, see 3.22) imply that the overall return on investments, including changes in capital values as well as incomes, will be some 0.5% p.a. compound in excess of earnings accrual until employees reach retirement.[58] A key issue as to whether an occupational scheme should contract out or not is whether the occupational scheme can achieve such a real rate of return in future. The greater the real rate of return the more attractive do the contracting out terms tend to become and vice versa. Moreover the Government's stated intention to cut back the reduction in Class 1 National Insurance contributions because of contracting out is devoid of guarantees so that the speed in which this may be done presents an unknown factor.[59]

3.24. The contribution reductions for contracted out schemes were also assessed in relation to membership of occupational schemes as a whole and apply to individual schemes irrespective of their specific age and sex distributions.[60] As a result there tends to be a relative financial advantage for a scheme with a low age distribution and a high proportion of male members to be contracted out whereas there will be the opposite tendency in the case of a scheme with a high age distribution and a predominantly female membership.

3.25. There is the further point that with a final salary type occupational scheme an employer can discontinue contributions but when the scheme is contracted out there is no escape from the need to provide adequate security

for guaranteed minimum benefits and, in certain circumstances, contributions due to a contracted out scheme and not paid can be treated as a priority debt due from an insolvent employer.[61] However, the following measures have been introduced which substantially reduce the risks falling on employers.

(i) On a scheme's ceasing to contract out the liabilities could be bought back into the state scheme. In these circumstances the relevant earnings factors over the previous five fiscal years will be increased by not more than 12% per annum compound.[62]

(ii) The standard table for buy back premiums payable to the state must assume an average yield on investments not less than the assumed earnings increases.[63]

(iii) The buy back premiums will be varied to reflect investment conditions at the time thereby giving protection to employers buying back when market values of assets are depressed.[64]

(iv) Any alterations in the buy back terms will be effective not earlier than the second fiscal year after that in which the alterations were tabled; thus employers will have between 12 and 24 months notice of any changes.[65]

(c) Approval of Occupational Pension Schemes.

3.26. The current statutory basis for the approval of occupational pension schemes is contained in the Finance Act 1970 and some amendments to that Act introduced by the Finance Acts of 1971 and 1973.[66] "Approval" ensures that an employer's contributions are not treated as part of the employee's taxable remuneration.[67] However it is normally "exempt approval" which is sought as this gives considerable additional advantages.

3.27. Indeed, in practice, exempt approval is highly desirable permitting income tax exemptions on income derived from investments or deposits held for the purposes of the scheme and on underwriting commissions; whilst a gain arising from the disposal of investments held for the purposes of the scheme is exempt from capital gains tax. That is, exempt approval broadly valuably extends to pension schemes the privileges of a gross fund. And under exempt approval, an employer's contributions may rank as a business expense for tax purposes, the employer's contributions in respect of any individual employee do not rank as current remuneration of that employee and attract tax in his hands accordingly; also employee's contributions are normally allowed as an expense for income tax purposes.[68]

3.28. Exempt approval of an occupational pension scheme necessarily requires the fulfilment of certain conditions which include the Inland Revenue being satisfied that the funds which accumulate tax free are reasonable

in amount in relation to the benefits to be provided.[69] Moreover an exempt approved scheme for most purposes means an approved scheme established under irrevocable trusts. This does not mean that the scheme necessarily must be operated by means of a formal trust deed. It does mean that assets must be set aside to provide relevant benefits for employees, and must be held by a trustee or trustees, who may be, or include, the employer on trusts which ensure that, except as to any residual surplus, they are not available to the employer.[70] Also generally a pension scheme actually promises a level of benefits set out in detail in its trust deed and rules, and frequently the trust deed contains a clause which has the effect of prohibiting any reduction in rights already acquired by past service.

3.29. In practice there is considerable freedom in the manner in which assets of pension schemes may be invested. And the general view that pension liabilities desirably should be divorced from the overall assets of the employer so that pensions are secure from the employer's possible insolvency receives some support from the OPB. That Board, before they will issue a certificate under the Social Security Pensions Act 1975, to enable an employer to contract his employees out of the second tier earnings related element of the State Scheme, by himself providing a suitable occupational pension scheme, require details of self investment a maximum level of 10% of the pension scheme's assets in the employer's business being implied.[71] Moreover the investment of the assets must conform with all the restrictions which are imposed by law and if the

trust deed of the pension scheme does not specifically lay down powers of investment then the position is governed by the Trustee Investment Act 1961. However it is more customary, it generally being considered most desirable, for the pension scheme trust deed specifically to grant broader investment powers than envisaged by the Act, and it is these broader powers which enable a pension scheme to be transacted through a life assurance office. Nevertheless, one provision of the Act is that in the exercise of his powers of investment a trustee shall have regard to the need for diversification of the investments of the trust in so far as is appropriate in the circumstances of the trust;[72] and such sentiments are to some extent echoed in the requirements of the OPB before issuing a contracting out certificate. Such requirements refer to "concentration of investment" which broadly means investment exceeding 10% of the schemes resources in one undertaking. The requirements are that the scheme administrator must ensure, when the scheme is self administered, that the actuary to the scheme is supplied with a statement giving details of each concentration of investment who must then attach such statement to his certificate. The appropriate memorandum states that the OPB on receipt of the certificate with statement attached, may decide to make further enquiries.[73]

3.30. If a scheme is to contract out of the second tier component of the state scheme then it is a prerequisite that the occupational scheme must provide certain minimum benefits.[74] However, approval by the Inland Revenue Authorities requires that certain maximum benefits must

not be exceeded. The reason for this is largely historical and related to the benefits provided in the original pension schemes for civil servants. In fact there does not appear to be any real need for a maximum pension since all benefits payable in pension form are taxable as earned income in the hands of the recipient. Possibly it has been argued that the rate of tax payable on pensions is, overall, less than the rate of tax conceded by allowing a gross roll-up of the pension fund, also that some pension can be commuted for cash and thereby excape taxation altogether, so that from a possible national tax loss viewpoint a restriction on pension is desirable.

3.31. The normal maximum approvable pension on retirement at normal retirement age, which must be reasonable for example ages 60 to 70 for men and 55 to 65 for women,[75] generally speaking is one-sixtieth of final remuneration for each year of service with a maximum of 40 years to count thus giving an overall limit of two-thirds of final remuneration.[76]

3.32. If a separate tax free lump sum retirement benefit is required then the normal approvable limit on the cash sum is 3/80ths of final remuneration for each year of service with a maximum of 40 years to count thus allowing maximum cash of one and a half times final remuneration.[77] If such a separate lump sum retirement benefit is provided on this 3/80ths rule the pension should not exceed 1/80th of final remuneration for each year of

service.[78] Retirement benefit may be paid wholly in cash form if

(i) the member is retiring in exceptional circumstances of serious ill-health, or[79]

(ii) the amount of pension, including any pension from other schemes of the employer, is trivial.[80]

3.33. Benefits in excess of those which would be produced by a basic rate of 1/60th of final remuneration for each year of service can normally be approved under the Inland Revenue discretion for employees who cannot, by reason of their date of entry into the scheme, complete 40 years' service before normal retirement age. A pension of two-thirds of final remuneration cannot be approved for very short periods of service but, subject to any reduction required for retained benefits from previous employment, approved schemes may provide a pension of two-thirds of final remuneration for service of not less than 10 years to normal retirement date, with a run in from 5 to 10 years.[81] If it is not desired to give every member an entitlement to the maximum pension consistent with Inland Revenue approval, the rules may prescribe a general accrual rate, but give the trustees or employer power to augment benefits, within approvable limits, either for selected individuals or for the membership generally in specified circumstances.[82] Where a pension which is being paid is less than the maximum which would have been approvable at the date of retirement, it may be increased subsequently up to this level.[83]

Moreover, it may be increased beyond this level in proportion to the rise in the cost of living since the date of retirement, in fact a fixed rate of up to 3% p.a. may be used without reference to the index.[84]

3.34. For death in service lump sum benefits the limit is an amount not exceeding £5000 or, if greater, four times the deceased employee's final remuneration.[85] Any contributions paid by the employee may be refunded in addition.[86] In addition to any lump sum a widow's or dependant's pension may be provided of up to two-thirds of the maximum pension which could have been provided for the employee if he had remained in service until the normal retirement age at his current remuneration. This pension may be provided whether or not the maximum is being provided for the employee.[87] In addition to benefits payable to a member a scheme may provide for a widow's or dependant's pension to be payable on his death after retirement; the amount of such pension payable may be up to two-thirds of the maximum permissible pension which could have been provided for the member, whether or not this amount of pension is actually provided for him.[88]

3.35. Membership of an approved scheme must be confined to employees of the employer or employees participating in the scheme. Employee includes, where the employer is a company, any officer, director or manager of the company. It is not necessary that membership should be open to all the employees in the employer's service or to any particular category of them. A scheme

may, in fact, relate to a single employee or to individuals selected on a discretionary basis, but every employee who is eligible for membership of a scheme must be notified of his rights under it. There is not normally any objection to membership of a scheme being extended to part-time or temporary employees.[89]

3.36. It makes no difference to the approval of a scheme whether its members are or are not required to contribute.[90] The aggregate of a member's annual contributions whether voluntary or otherwise, to all exempt approved schemes must not exceed 15% of his remuneration.[91] It is a condition of approval of a scheme that the employer must contribute to it.[92] Any ordinary annual contribution paid by an employer is deductible as an expense for tax purposes.[93] If the contribution is not an ordinary annual contribution but a special contribution, usually made to provide benefits for back service or augmented benefits already secured or to make up a deficiency in the fund, the revenue may require that the tax allowance be spread over a period of years.[94] It is not sufficient, however, for approval that the rules of a scheme should limit the amount of the benefits appropriately. The Inland Revenue must also be satisfied that the basis of funding, i.e. the rate at which money is being accumulated for the purposes of the scheme is not excessive.[95] The reason for this seems to be concern by the Inland Revenue over possible loss of tax revenue, for example by an employer debiting excessive amounts of ordinary annual contributions as business expenses thereby avoiding or at least deferring tax liability.

3.37. An important feature regarding the approval of occupational pension schemes is that, to some extent, the statutory basis, in effect, merely gives the broad principles leaving substantial discretionary powers to the Inland Revenue Authorities. These Authorities act largely through the Superannuation Funds Office who, in many respects, have codified their discretionary practice in published "Practice Notes".[96] Additionally they publish "Memoranda" in series form which valuably indicate approvable practice on specified items.[97] Procedures in connection with the exempt approval of a new scheme and its continued exempt approval are transacted by the authorities concerned in a most commendable spirit of co-operation with the scheme's trustees and their advisers.

(d) Self-administered and Insured Occupational Schemes.

3.38. An occupational pension scheme can be transacted either as a self-administered scheme or through a life office.

3.39. Self-administered schemes are operated by trustees who are entirely responsible for the investment of the contributions paid by the employer and the employees and for the payment of the benefits as they fall due (see 3.28.). Normally the position is similar for a scheme transacted through a life office, the payment of contributions to the life office reflecting a broader investment power of the trustees (see 3.29).

3.40. Group pension schemes transacted by the life offices (see 2.38.) have now largely moved away from the endowment assurance system and the non-profit group deferred annuity approach to with-profits schemes and deposit administration. With profits group deferred annuity business has taken a number of different forms; for example one form has been to allow annual rebates each year from the outset the amount of which was determined with reference to current investment conditions on the date when each premium was paid, coupled with a right to share in other disposable surplus; broadly another form has been to apply a reversionary bonus system contributions on a recurrent single premium basis being applied to purchase guaranteed amounts of pension with bonuses being declared at each actuarial valuation of the office as a percentage addition to all pension secured. Further development involving deposit administration results in cash being

paid by the policyholder to the life office which invests it so that it can accumulate the office then crediting, perhaps under the terminology of bonuses, the trustees of the pension scheme with excess interest above a generally fairly low guaranteed rate. Expenses can be dealt with separately and scheme benefits can be provided by drawing on the deposit account.

3.41. When the life offices were transacting their group pensions business largely on a non-profit group deferred annuity basis with certain guarantees attached emphasis was clearly on the insurance principle which would not appear to be entirely out of keeping with their function. Under with profits contracts there was less insurance because, relative to non-profit contracts, the amount of guaranteed benefit secured for a given amount of premium was less. In practice the extent of the discretionary bonus element additional to the guaranteed element of benefit, for premiums paid, generally secured better value for money than under non-profit contracts, but at the loss of some guarantees.

3.42. It is apparent that under the further development of deposit administration it may be that the insurance office does not insure the mortality risk at all that is until an employee retires and not necessarily even then if the benefit is taken in cash form. Indeed by working away from non-profit group deferred annuity contracts to with profits contracts the life offices diminished their insurance role and the further move to deposit administration has diminished it even further.

3.43. The question of whether an occupational scheme should be transacted on a self-administered basis or through a life office is one of personal preference by the trustees. It would seem that size is an important factor for consideration in such connection. Whilst a pension scheme of a large company may well be very suited for self-administration, that of a very small company, which would build up a relatively small portfolio of assets in its pension fund, might be regarded as less suitable for self-administration and better transacted within a life office pool. However some large schemes are well transacted through life offices and some very small schemes are well transacted on a self-administered system (see 2.38).

3.44. In recent years managed funds which permit pension scheme money to be placed with a life office for investment on behalf of the trustees on an explicit basis have made considerable progress. The method of operation is for contributions available for investment to be applied to all or any of several unitised funds some insurance offices managing three such unitised funds with their investments in equities, fixed interest securities and property respectively although sometimes life offices will also manage a mixed fund; income from the investments is reinvested thereby increasing the value of the units. The apportionment of investments, between the funds, can be delegated to the management of the life office or it can be decided by the trustees and often a cash deposit facility is also made available by the life office. Thus

managed funds provide pension scheme trustees with the opportunity for general control of investment policy yet enabling a spread of investments to be achieved through pooled investment portfolios. A self administered scheme need not, of course, apply all its investments to a managed fund; it can just place a certain amount at a certain time or a certain proportion of its contribution income each year. By their nature managed funds have thus converted life offices, in their association with pension schemes, to not necessarily anything more than the providers of purely investment services on a fee paying basis. Currently the extent to which schemes previously transacted through life offices are switching to self administration but retaining a managed fund investment service with the life office, is considerable.

(e) Surveys of Occupational Schemes

3.45. It has been estimated that the number of occupational pension schemes within the UK has risen to approximately 90,000.[98] Naturally these 90,000 schemes vary considerably in size ranging from small schemes of only a member or two up to schemes such as those of the Post Office comprising some 420,000 members, the National Coal Board of some 320,000 members, British Rail with some 225,000 members and within the private sector ICI with approximately 80,000 members, Imperial Group with some 60,000 members and with the Universities Superannuation Scheme consisting of approximately 52,000 members.[99] Naturally schemes can possess individual characteristics but by survey general features can be revealed. To ascertain these general features examination has been made of the surveys carried out by the National Association of Pension Funds.[100] These surveys have been chosen for examination because they have been carried out annually since 1975 thus permitting consistency checks, for year to year published results, to be applied; and because they have been carried out by relatively sound methods in respect of adequately sized samples. The 1980 survey, for example, analyses the replies to a comprehensive questionnaire completed in respect of 104 schemes in the public sector and 1107 schemes in the private sector. The employers operating these schemes had an estimated 9.5 million employees of whom 5.8 million, that is 61%, were currently members of pension schemes, there were 2.3 million pensioners and 438,000 deferred pensioners.

The survey includes about half the total members of occupational pension schemes.[101] Additionally, to ascertain the general features of occupational schemes, two private sample surveys have been carried out, one being an extensive sample survey of schemes transacted through the Prudential Assurance Company and the other being a survey of a random group of fifty self administered pension schemes. The results of the 1980 survey of the NAPF and those of the corresponding two private surveys have been found, where relevant, to be in broad conformity and the estimates given in the following paragraphs 3.46 to 3.59 reflect, except where otherwise indicated, those broad results.

3.46. For the vast majority, approximately 90%, of pension schemes for groups of employees, membership is compulsory on these employees but with a minimum age requirement the mode value being age 21. Subject to any minimum age, there is a continuing trend towards immediate eligibility on commencement of employment and more than half of schemes do not now require any minimum period of service before the member becomes eligible to join the pension scheme. Where there is a service requirement the great majority of schemes adopt one year as the relevant period. The vast majority of occupational schemes, approximately 90%, have a normal retirement age of 65 for men and 60 for women, although it is an item of interest that local authority schemes set up under the Local Government Superannuation Regulations, i.e. County Councils, the Greater London Council, London Borough Councils and the National Water Council, have, for women,

a normal retirement age of 65.[102] It is usual for a maximum elegibility age to be imposed and when imposed this is typically five years before the normal retirement age that is a maximum eligibility age of 60 for men and 55 for women. Although this is usual the rule is not invariable, a small minority of schemes permit eligibility up to one year preceding the normal retirement age.

3.47. The trend is for the benefit structure to move more and more towards a final average basis so that by 1980 only some 5% to 10% of all group occupational pension schemes are estimated to have benefits calculated on a basis other than final or final average pensionable earnings. By far the most popular is now the average of the best three consecutive years, ending during the last ten years. This trend to a final average pensionable earnings basis can be assumed to be caused by inflation. By relating pension to final average pensionable earnings, a realistic basis is secured on the assumption, valid to date, that earnings increase broadly in line with inflation so that benefits are broadly inflation proofed to date of pension commencement. But also the contracting-out provisions of the Social Security Pensions Act 1975 are relevant for under the contracting-out rules career average salary schemes are unsuitable unless they contain the stipulated revaluation feature (see 3.13).

3.48. By far the majority, around 85%, of schemes for staff employees provide benefits at retirement equivalent to pensions of one-sixtieth of eligible pensionable earnings for each year of service, subject to a maximum

of 40 years counting. However in respect of schemes for works personnel on their own, that is when not a combined scheme for staff and works, somewhat more than half now provide a fraction less generous than one-sixtieth. The minimum benefit level must, of course, be adequate to provide requisite benefits (see 3.13) when the scheme is contracted-out so that in these circumstances an effective minimum fraction of one-eightieth tends to apply in practice.

3.49. Only about one in three of group occupational schemes actually guarantee to increase pensions in possession and where such guarantee is given the most common rate of increase over recent years has been of the order of 3% to 4% per annum. During the three years 1977 to 1979 inclusive only around one in five of those schemes which guarantee to increase pensions in possession actually increased pensions in excess of the guarantee level, moreover in the private sector not more than approximately 2% of schemes gave increases which matched the retail price index. However as is stated in the "Scott Report" (see also 2.40)

> ". . . there is no doubt that the occupational pension schemes of the vast majority of public sector employees are superior to the schemes in which nearly all private sector employees find themselves. In particular, an assurance of full inflation protection is a feature common to a very high proportion of public sector schemes which only a handful of private sector schemes can match, and even these have strong connections with the public sector." [103]

Also it is stated in that report that amongst the various assumptions made was that

> ". . .increases in analogue pensions in payment will be at about the same proportion of the inflation rate as in the recent past; this amounts to assuming that, over the long term, protection will be given against 62% of the rate of inflation for the analogue schemes as a whole (50 to 55% if only the private sector analogues are considered)."[104]

It would seem, after giving regard to the results of surveys as mentioned earlier in this paragraph, that this assumption is not unfavourable to the civil service. This is particularly so bearing in mind the guarantee aspect for it is generally accepted that reward is an inadequate consideration in isolation; to achieve reward some degree of risk may be involved. Thus in making relative assessment of different rewards it would be reasonable to bring into account the different levels of risk required to achieve them. However it is stated in the "Scott Report" that

> "The Standing Commission on Pay Comparability (the 'Clegg Commission') was asked to consider job security but was unable to come forward with any evaluation; nor were we."[105]

No statement could be more praiseworthily forthright but it clearly exemplifies the difficulty of the problem to which the Committee was asked to direct its attention. For one sector of the community to be provided with more security and guarantees than another is a substantial factor in its favour and is indeed a factor which has a financial price. The fact that the "Scott Committee", like others, has been unable to assess that price, whilst understandable is nevertheless particularly unfortunate for to omit it is to leave out of account a factor of very high relevance in any comparability study of relative overall rewards in the public and private sectors.

3.50. It is customary for schemes to provide for an immediate pension to be paid on early retirement due to ill-health and in practice there are exceptionally few schemes, that is 1% to 2% which fail to do so. The most common practice is for actual service completed up to date of retirement to be counted for pension purposes with more of such schemes not discounting because of early retirement than discounting. About one in four schemes bring into account full service which the member could have completed had he remained up to normal pension age whilst a small percentage extra of schemes allow for a proportion, such as one-half, of such additional notional service. Approximately 95% of all schemes permit voluntary early retirement, at the employee's request, on grounds other than ill-health and then the benefit received is, in about three schemes out of four, the accrued pension reduced by normal actuarial factors; in the remainder a more favourable approach is applied. A somewhat lower percentage of schemes provide for non ill-health early retirement at the employer's request but when this is the case a rather more favourable benefit is in general granted than when early retirement is at the member's own volition. Thus, in general, non ill-health early retirements are treated very reasonably and ill-health early retirements are treated quite generously.

3.51. The vast majority of schemes, that is of the order of 90%, permit a member of a pension scheme to continue in service beyond the normal retirement date but almost invariably this is subject to the proviso, which is extremely effective in practice, that there is agreement

by the employer in all individual cases. On such deferment of retirement the normal practice is for payment of pension to be withheld and for an increased pension to be paid on eventual late retirement. In the public sector the practice is for contributions to continue and for pensions to be calculated in the normal way but as at the late retirement date with extra years counting, subject to statutory maximum. In the private sector the practice is for contributions to cease and for the normal retirement pension to be increased up to the late retirement date broadly in line with appropriate actuarial factors.[106] As indicated there are some schemes, of the order of 10%, which make no provision for late retirement. Whilst strictly speaking this is permissible, it does not seem to conform with the underlying spirit of pension arrangements and, in some circumstances, could be regarded as not conforming with overall interests.

3.52. As regards death in service benefits virtually all schemes now provide either a widow's pension or a lump sum benefit and approximately 90% of schemes provide an element of both. The most common level of widow's benefits is one-half the member's prospective pension and the most common level of lump sum benefit is twice pensionable earnings as at date of member's death. About one in four schemes provide a pension benefit to a widower of a member, similarly to widow's pension, and some three-quarters of schemes provide children's benefits in addition. There has been a marked increase in the extent of provision of death in service benefits over the last five years a relevant factor being the requisite benefit rules of the Social Security Pensions Act 1975 for contracted-out schemes (see 3.13).

3.53. About four-fifths of schemes provide for retirement pensions to be payable for a guaranteed period of years, the most common being five years. Virtually all schemes, that is about 95%, provide a death in retirement widow's pension as a right usually, that is in about 85% of cases, of one-half the member's pension. Again the contracting-out provisions of the Social Security Pensions Act 1975 have affected the issue (see 3.13). Within the limits permitted for exampt approval (see 3.32) schemes, with very few exceptions, provide members with the option to commute, at retirement, part of their pension for a lump sum.

3.54. As regards the financing of occupational pension schemes (a matter dealt with in detail in Chapter 4) most schemes are funded although schemes for such as the civil service and the armed forces which have the national credit behind them operate on a basis of assessmentism. Funded schemes are, of course, dependent on contributions being paid into the scheme from which, together with interest on the scheme's investments, a fund is built up to meet the payment of scheme benefits to members. In practice the payment of contributions may be confined to the employer or may be directly divided between the employer and the members. Some four out of five funded schemes are contributory by the employees and on average the contribution rate is around 4½% of pensionable earnings. It is surprising that such a high proportion of schemes are contributory. Most now accept the concept of occupational pensions representing deferred earnings; it is immaterial whether members directly contribute or contribute indirectly

by adjustment of pay, it being the overall package which is the relevant issue. And administrative simplicity suggests non-contributory schemes. Employers' contributions vary considerably, the benefit levels and the age and sex structure of the scheme being amongst the relevant factors. Moreover grants of past service and additional pensions are sometimes made involving extra contributions. Also inflationary increases to pensions in possession are frequently financed by special contributions from the employer. However, under contributory schemes the employer's annual contributions are, on average, approximately 16% to 17% of pensionable earnings of members. For contributory schemes the employer's contributions are, of course, lower broadly to the extent of the employees' contributions. To exemplify specifically the feature of extra contributions reference is made to the case of ICI the largest operator in the private sector of the UK. ICI has two funds one for staff and another for workers both schemes being contributory. The company has been paying normal annual contributions at the rate of 18.8% and 12.3% of pensionable pay for staff and workers respectively. For the year ended 31st March 1980 company contributions amounted to approximately £49.0 millions for staff and £32.8 millions for workers, the corresponding contributions from members amounting to £12.2 millions and £11.4 millions respectively. However the company has accepted the recommendation that it pays special extra contributions of £7.1 millions a year for 3 years to the staff fund and £5.6 millions a year for 3 years to the workers' fund primarily to provide pension increases to retired members. Also ICI guarantees the solvency of both funds and an annual income yield of 5% in

the case of the staff fund and 4% in the case of the workers' fund, although in current conditions no payments under the guarantees are necessary.[107] It is a matter of corporate management interest that ICI should have adopted a three year spread for the required extra contributions for strict pre-funding principles could indicate single lump sum payments. It is to be surmised that cash flow considerations were a relevant consideration and that retention of money in the company was regarded as more profitable than investment in the pension funds.

3.55. Considerations of the financing of occupational pension schemes involve not only regard being given to the levels of contributions payable into the scheme but also, in the case of funded schemes, to the manner in which the funds built up by those contributions are invested (a matter dealt with in detail in Chapter 5). The investment of the money of a pension scheme necessarily has to conform with any legal restrictions but in the UK these are normally very limited (see 3.29) so that in practice there is wide discretion. However, the ultimate responsibility for the investment of pension fund money rests with the trustees and it is their duty and moral obligation to conform strictly with trust law. The manner in which those responsibilities are fulfilled is, to some extent, reflected in the results of the 1980 Survey of the National Association of Pension Funds, the estimated market value of funds participating in that survey being £36,860 millions.[108] The portfolio distribution reveals approximately 5% of the funds to be held in cash, 23% in fixed interest securities, 44% in equities

(including convertibles), 22% in property (including property unit trusts) and 6% in overseas securities (mainly equities). Such percentages indicate appreciation of the need for a diversified portfolio amongst the various broad categories available. Naturally investment policies can differ, in detail, from fund to fund, but extensive examination of trustees' reports and statements of accounts of individual schemes reveals a sense of trustee responsibility. ICI the largest company in the UK private sector has already been used as a financing example in paragraph 3.54 and to continue this reference is made to their recent investment procedure. The appropriate reports for the year ended 31st March 1980 indicate that the funds for staff and workers between them invested most of their available money for the year in stock market securities in the UK and abroad. Stock markets experienced sharp fluctuations in prices in 1979 and advantage was taken of periods when prices were falling to invest £10 millions net in the UK gilt edged market, £43 millions net in the UK equity market and £13 millions in the US equity market. In addition £5 millions was invested in rights issues during the year whilst switches between securities were made where considered appropriate both in the UK and USA. As well as investing in stock market securities the funds also invested in property but because of the strength of the property market the funds' activities in the property sphere during the year were limited to a progressing and completion of development schemes in the UK and to the provision of further finance of continental European properties. The borrowings for overseas investments were made against sterling deposits.[109] As indicated ICI is the

largest British company and in consequence it is appropriate also to refer to a company rather more at the middle of the scale. To exemplify the procedure of such a company the BBA Group pension fund has been chosen at random, this pension fund having assets of approximately £25 millions. The distribution of the portfolio, as at April 1980, was broadly 10% in cash and short term investments; 16% in fixed interest securities, 32% in equities, 38% in property and 4% in overseas securities. The amount invested in property reflects an exceptional view. Moreover for the year ended 5th April 1980 new money available for investment amounted to £3.4 millions which was applied £0.1 millions to cash and short term investments; £2 millions to fixed interest securities; nil to equities; £0.3 millions to property and £1 million to overseas securities. It is added in the BBA report that during the first half of the financial year short term investments were built up until they reached 11% of the fund. Thereafter money was put into UK governement stocks to gain advantage from the high yields and, as a new departure, into Deutschemark - denominated bonds as protection against a feared fall in the value of the £. With the recession gathering pace, no ordinary shares were purchased since it was expected to see more depressed share prices in the future as companies faced more difficult conditions.[110]

3.56. It is apparent that the trustees of pension funds need to guard against temptations to adopt an over venturesome investment policy or to give undue regard in such matters to individual opinion. It is satisfying that there is general appreciation of this point. For example,

continuing consideration of the BBA Group pension fund, referred to in paragraph 3.55, the point is covered by the statement in the annual report to the effect that new arrangements have been made for the day to day management of the fund's UK equities. Previously the choice of stocks to invest in was made by the investment manager with the advice of a stated firm of stockbrokers. The new arrangement is for one-third of the portfolio to be managed by a stated bank and two-thirds by the firm of stockbrokers but in both cases with complete discretion as to the choice of stocks and the timing of any changes. The investment committee which includes both the bank and the firm of stockbrokers plus a firm of chartered surveyors and four in-house executives will continue to exercise overall control and in particular will decide when and to what extent money will be put into or withdrawn from the various market sectors.[111] And extensive examination shows that similar arrangements exist throughout the private sector, for example the assess of Ford Salaried contributory pension fund are managed by six merchant banks whilst the assets of the Ford Hourly Paid contributory pension fund are managed by four merchant banks. These arrangements have led, as at 31st March 1980, to a portfolio distribution in the Salaried contributory fund of approximately 6% in cash and short term accounts, 30% in fixed interest securities, 47% in equities, 5% in property and 12% in overseas securities. The corresponding figures for the Hourly Paid contributory pension fund were practically identical.[112] Nor are such investment management arrangements typical only of the pension funds of companies in the private sector for extensive examination shows they are generally adopted throughout all sectors.

There is thus general conformity with the provisions of the Trustee Investments Act 1961, even though they may not be directly applicable to pension funds which normally have wider powers conferred on their trustees through their individual trust deeds, that before making any investment it is necessary for the trustees to obtain and consider proper advice.[113] In exemplification of the adoption of the committee approach, with external advisers, to investment matter in funds outside the company sphere reference is made to the National Water Council's Superannuation Fund. In the annual report of that fund for the year ended 31st March 1980, it is stated that overall responsibility for the fund has been entrusted by the council to its investment management panel composed of four council members and officers, four representatives of the water industry's employees and three investment advisers. The chairman of the council is ex-officio chairman of the panel. In the year to 31st March 1980 the fund's security investments were managed by a stated firm of stockbrokers and by the council's direct investment management unit. The securities portfolio was re-allocated at the start of the year in such a way that following the adjustment the firm of stock-brokers managed two-thirds of the fund's securities and the direct investment management unit one-third. New money for investment in securities was distributed to these managers in the same proportions during the year. One-fifth of the new money available for investment was allocated to the property portfolio during the year, the fund's portfolio of property investments being managed by

a firm of chartered surveyors. These arrangements have led as at 31st March 1980 to a portfolio distribution of approximately 4% in cash and short term deposits, 24% in fixed interest securities, 40% in equities, 22% in property and 10% in overseas equities.[114]

3.57. Examination of the investment reports of numerous funds shows that the feature brought out by examples referred to in paragraph 3.56, of more than one fund adviser and manager in a specified sphere is prevalent. This may have advantages in that by so doing breadth of outlook may be extended and more investment diversification may be obtained. There is the point, however, that more than one investment manager in one specified sphere, such as equities, may give an impression that competition between them is being encouraged. Such conclusion might be deducible from, for example, the National Water Council's Superannuation fund report. The money of that fund is distributed in a certain proportion to a firm of stock-brokers and a direct investment management unit. It is added in the report that the activities of these two investment managers are coordinated by the investment panel's secretariat which is responsible for providing the panel at its regular quarterly meetings with statistical information about the activities of the managers and their investment performance.[115] However, apart from the careful interpretation which needs to be placed upon investment performance measurements, the general investment policy of such a fund should give consideration to the future long term nature of the liabilities and the likely future flow of cash available for investment. By considering

investment performances of different managers restricted to a short past period of time a distorted picture can be obtained.

3.58. Reference has already been made (see 2.40 and 3.48) to the fact that schemes for works personnel tend to be granted a less favourable scale of benefits than schemes for staff personnel which differentiation is apart from any differences in absolute scales of pay. The normal retirement age also tends to be higher for works personnel than for staff personnel, for example, it is estimated that in respect of males some 15% to 20% of purely staff schemes have a normal retirement age lower than 65 relative to a corresponding figure of some 5% for purely works schemes. And there is more coverage of staff personnel than works personnel, in the private sector it being estimated that on average staff personnel still have some twice as much relative availability to occupational scheme membership as manual workers. Differences in such treatment reflect differences in the nature of the respective occupations, manual workers tending to be associated with jobs of a more casual nature. Moreover there is some universal coverage under the state pension arrangements by the provisions of the Social Security Pensions Act 1975 (see section 3 (b)). Nevertheless, at least to some extent, some of the differences in treatment, under occupational pension arrangements between staff and works personnel do not seem entirely to accord with the spirit of occupational pension provision. However there is, in fact, a drift towards more comparability, a point which can be specifically illustrated by reference to the case

of Leyland the major British motor manufacturer.

3.59. Within the Leyland Corporation there were, in 1973, thirty different pension schemes of which twenty-seven were staff schemes and three works schemes. The BMC Retirement Benefits Fund, one of the works schemes, provided even in 1973 a benefit of only a £12.50 lump sum at retirement for each year of service up to a maximum of twenty years counting. Such arrangements were clearly capable of improvement, a fact fully appreciated by the corporation particularly as it was apparent at the time that both of the major political parties had intentions of introducing legislation to extend pensions provision either through a state scheme or by an approvable contracted-out occupational scheme. Consequently in November 1973 the corporation set up a joint working party on pensions for hourly paid employees with representatives from management and the trade unions having membership with the corporation. As a result new occupational pension arrangements for hourly paid employees were introduced from 1st September 1975. Broadly these new arrangements, compulsory on new employees and with eligibility ages of 18 to 64 for men and 18 to 59 for women, provide for a normal retirement pension at age 65 for men and 60 for women of one-eightieth of final pensionable earnings for each year of service. Final pensionable earnings are, in general, the average of pensionable earnings in the best three consecutive years in the last ten years of membership. There is provision for early and late retirement and for a lump sum disability benefit of broadly twice pensionable earnings. There is provision to commute

retirement pension within the regulatory maximum for exempt approval purposes (see 3.32). The death in service benefit is broadly twice pensionable earnings, payable as a lump sum, plus a return of the member's own contributions. On the death of a male member after retirement there is an automatic contingent widow's pension of one-half and the member's normal retirement is guaranteed for five years. The scheme is contributory, employees paying contributions at the rate of 3% of pensionable earnings. This scheme for hourly paid workers is thus favourable and is indicative of the steady improvement in pensions provision for such employees over recent years, the basic state pension being payable additionally to the occupational pension. Even so the one-eightieth's basis of retirement pensions for the hourly paid employees is still lower than the one-sixtieth's basis granted by the majority of occupational pension schemes for staff employees (see 3.48). However, the scheme which is managed by the trustees and the scheme administrator with broadly equal representation from the corporation and the employees does reflect how much can be achieved by cooperation.[116]

(f) Schemes for the Self Employed and Key Personnel

3.60. Previous consideration has been largely confined to pensions under the state social security system and to occupational pensions for groups of employees. The social security system of the UK is highly developed and most have to pay National Insurance contributions. Not all, however, come within the category of a group of employees and even for some of those who do membership of a group occupational pension scheme may not be open to them.

3.61. Class 1 National Insurance contributions (see 3.22) relate to employed persons. A person who is self-employed must pay Class 2 National Insurance contributions unless he/she has applied for or been granted exception because the earnings are below the exception limit for Class 2 contributions which for the 1980/81 tax year was £1250.[117] Class 2 contributions payable by the self-employed who are not over 65 if a man or 60 if a woman are flat rate, generally £2.50 a week.[118] The National Insurance benefits obtainable in return for the payment of Class 2 contributions include the basic flat rate retirement pension (see 3.9 and 3.16). Self-employed persons whose profits or gains are above a certain limit may have to pay Class 4 contributions as well as Class 2 contributions. Class 4 contributions are earnings related at 5% of profits or gains between, in 1980/81, £2650 and £8300 a year.[119]

3.62. Thus the self-employed, like employees, become entitled, on meeting the contribution conditions, to the state flat rate retirement pension. After that it is up

to each self-employed individual to make provision for his own retirement in a manner he regards appropriate. Nevertheless the favourable reactions of governments to taxation points in connection with group occupational schemes (see 2 (h)) apply as well to approved retirement annuities. The Finance Act 1956, Sections 22 and 23, introduced provisions whereby the self-employed or those in non-pensionable employment could receive tax relief on the whole of the premiums paid to provide a retirement annuity, subject to certain conditions of approval, thus putting them in the same position as employees contributing to a company pension scheme. The Income and Corporation Taxes Act 1970, Sections 226 to 229, incorporated the provisions of the Finance Act 1956 and added the provisions that the tax relief could be received on the whole of the premiums paid for a widow's or dependant's annuity and/or lump sum benefit payable on the death of the policyholder subject to certain conditions expressed in the Act. The Taxes Act of 1970 has been amended by the Finance Act 1971 the main relevant feature of the latter Act being the introduction of the provision that part of the pension may be commuted for a tax-free lump sum.[120] A further amendment was introduced by the Finance Act 1976 which extended the maximum age at which the annuity may be taken from age 70, as provided in the Finance Act 1956, to age 75.[121] The maximum amount of contributions has been amended by various Finance Acts since 1970 and the Finance Act 1980 removed the absolute upper limit for premiums.[122]

3.63. Under group occupational schemes approval depends on specified maximum benefits not being exceeded (see 3.31 to 3.34). Approval of retirement annuities for the self-employed and for those in non-pensionable employment depends on limits being placed on the premiums payable. From April 1980 the premium limit for persons born in 1916 or later is 17½% of net relevant earnings rising in stages to 32½% for persons born in 1907 or earlier. Where part of the premiums are applied towards the widow's annuity benefit and/or the lump sum death benefit these premiums are limited to 5% of net relevant earnings irrespective of the year of birth.[123] Net relevant earnings is an expression defined in Section 227 of the Taxes Act 1970. Broadly it means the individual's income from the occupation or employment in question, after deductions such as capital allowances and after deductions of charges such as covenants and interest, if these be allowable for tax, to the extent that such charges cannot be offset against investment or other income.

3.64. Persons eligible to effect a retirement annuity contract are those in receipt of net relevant earnings who are self-employed, or members of a business or partnership, or directors or employees who are not members of a company pension scheme, or employees who are members of a company pension scheme with additional income from non-pensionable employment (the two job person).[124] It would not seem imperative that benefits under retirement annuity contracts should be restricted in individual cases by limiting premiums rather than, as is the general rule, by specifying

explicitly maximum approvable benefits. The nature of the occupations of some of those involved, such as the self-employed, possibly however suggests that the basis of limiting premiums may be generally appropriate. Moreover the normal restriction of 17½% (see 3.63) is not out of line with the average overall contribution rate payable under group occupational pension schemes (see 3.54). But there is the point, that maximum approvable benefits can, in some circumstances, be built up under group schemes even for short periods of service (see 3.33). The method of limiting premiums under retirement annuities can preclude such favourable emergent benefits even allowing for the higher percentages of net relevant earnings permissible for persons born before specified calendar years (see 3.63). The self-employed, partners and the like, who are restricted to retirement annuity contracts, may thus in some circumstances be at a disadvantage relative to some of those who become members of a group occupational scheme.

3.65. The pension under a retirement annuity contract is treated as earned income of the annuitant whether the annuitant be the policyholder or a widow or other dependant to the extent to which it is payable in return for premiums on which tax relief has been given. At retirement part of the annuity may be commuted to provide a tax free lump sum provided the lump sum be not more than three times the reduced annuity. Premiums paid in respect of a retirement annuity can effectively accumulate on a gross basis. Thus tax considerations in connection with retirement annuity benefits correspond broadly with those for group occupational scheme benefits.[125]

3.66. Provisions regarding retirement annuities for the self-employed and the like mean, in practice, that they need to be contracted as policies through life assurance offices. Life offices valuably meet this need further exemplifying the important role they play in the UK in pensions provision (see 3 (d)). Moreover British life offices between them offer a range of contracts so that there is a choice of different financing methods available.

3.67. Retirement annuities can still be effected by means of non-profit policies. These contain substantial guarantees and under them emphasis is on the insurance principle (see 3.41). But associated investment policy by the life office may involve a broad matching of assets to liabilities by term thereby introducing some inflexibility into investment strategy and possibly having a stultifying effect on investment performance. The choice by the issuing life office of the interest element underlying its premium calculations reflects this feature and thereby the value-for-money aspect of non-profit policies relative to other types of contract is affected. Retirement annuity policies may, for example, be effected by means of deposit administration under which the life office, after deducting expense charges etc., deposits the premiums to the member's account to which interest is regularly added. These interest additions will result from investments made under a strategy which is not constrained in a manner as it necessarily is for non-profit policies. Also unit linked policies are available under which not only are charges and expense deductions

explicitly stated but each premium buys units in a selected fund. The fund selected by the policyholder can be that which most reflects his own appraisal of an appropriate investment strategy. The policy may provide a fixed annuity rate or an annuity dependent on market rates at the time of retirement.

3.68. The self-employed, partners and the like, are not eligible for sponsored superannuation schemes which are confined to employees (see 3.35). The self-employed and partners must therefore make corresponding provision by way of individual retirement annuities. That is the general rule but there is an interesting exception. A doctor or dentist who is engaged in the National Health Service and who is assessable to income tax under Case 1 of Schedule D, for example a general practitioner receiving capitation fees, is a self-employed person. Such doctors and dentists are entitled to effect a retirement annuity in the same way as other self-employed persons. However they are, in addition, entitled to participate in the National Health Superannuation Scheme which means they can be in the most unusual situation of not being an employee yet still a member of a sponsored scheme. The NHS Superannuation Scheme contributions paid by such an individual do not rank for tax relief statutorily but by concession the Inland Revenue normally are prepared to allow such contributions from the earnings assessed to tax. Such doctors and dentists normally have two options in relation to the tax treatment of any retirement annuity premiums and the NHS Superannuation Scheme contributions

which they pay, namely either to claim retirement annuity relief up to the maximum by reference to net relevant earnings both from the NHS and private practice (this would mean that the NHS Superannuation Scheme contributions would not rank for tax relief), or, to claim relief on NHS Superannuation Scheme contributions against NHS earnings and to claim in addition retirement annuity relief up to the statutory maximum by reference to non NHS earnings only. The statutory maximum is then adjusted because the NHS earnings are regarded as pensionable if this option is selected. If a doctor or dentist chooses not to claim tax relief on all or part of the NHS Superannuation Scheme contributions his NHS Superannuation Scheme pension will still be treated as earned income for tax purposes.

3.69. Employers often set up pension arrangements for their employees on a group basis but even a single retirement benefit for one man can come within the provisions of the Finance Act 1970. Inland Revenue approval is obtainable provided that the normal requirements and limitations are complied with (see 3(c)). A small company may not wish or be able to become involved with pensions for employees overall yet may wish to make individual provision for one employee who has, for example, been with the company for many years and is in a key position. These contracts are insured and are usually financed on a money purchase basis. This method of finance means that they are not suitable for contracting out (see 3.13). Other schemes which have been designed by life

assurance offices to enable an employer to reward with attractive fringe benefits those directors, executives and key employees who have made a significant contribution to the profitability of the employer's business include schemes for small groups of members as selected by the employer. Such a scheme is constituted under irrevocable trusts by a trust deed and a group policy is issued by the life office to the employer as trustee and administrator of the scheme. The schemes under which there is generally considerable flexibility in the employer's choice of benefits and contribution levels for each selected employee are designed to qualify for exempt approval under the Finance Act 1970 and thereby gain the relevant taxation privileges (see 3.27). Again, however, the method of financing adopted is money purchase so that these schemes for small groups of key employees, like those for individual key employees, are unsuitable for contracting out of the second tier element of the state scheme (see 3.13).

3.70. It is concluded that private pension arrangements when considered in conjunction with the state social security system can provide appropriate pensions for those who are not eligible for membership of group occupational schemes. In general the state basic flat rate pension is available to all and above that retirement annuities can be contracted by the self-employed, partners and the like through life offices on terms which include taxation privileges. Life assurance offices provide also suitable forms of contracts for individual or small selections of key employees who are not otherwise covered by group occupational pension schemes.

(g) Small Self Administered Pension Schemes

3.71. The self-employed, partners and the like, are a vital sector of the overall economy and the important role played by life assurance offices in making appropriate facilities for pensions provision available to them has been referred to (see 3.66 and 3.70). There are also others, vital in the economy, such as controlling directors for whom special facilities are available. Again these facilities may be provided by life offices some of whom have introduced schemes involving self-administration coupled with an element of insurance. In practice, however, for controlling directors it is self administered arrangements not connected with a life office which predominate thereby exemplifying the complementary nature of insurance and self administration in overall private pension matters.

3.72. Prior to the Finance Act 1973 controlling directors were eligible to join only the equivalent of schemes for the self-employed but since April 1973 small self administered schemes for controlling directors have been available.[126] Interesting and valuable provisions can apply to small self administered schemes and in these regards Memorandum No.58 issued by the Joint Office of Inland Revenue Superannuation Funds Office and the Occupational Pensions Board is apposite.[127] It is stated in Memorandum No.58 that such schemes cannot be treated in the same way as other self administered schemes catering for large numbers of rank and file employees or insured schemes.[128] "Small" schemes are generally those with less than 12 members. However the Superannuation Funds Office

has taken the view that a scheme primarily for a few family directors to whom were added some relatively low paid employees with entitlement only to derisory benefits included as a make weight to bring the total membership to 12 or slightly more was nevertheless "small". Conversely it might not be necessary to apply "small scheme" treatment to one, albeit with fewer than 12 members, where all the members were at arms length from each other, from the employer and the trustees.[129]

3.73. Small self-administered pension schemes have special appeal in some circumstances. Many small self-administered pension schemes cater for the directors of family companies and small self-administered pension schemes have increased very significantly in numbers in recent years. The reasons for the increase in popularity of such schemes to controlling directors include the tax advantages. These correspond with those normal with exempt approval (see 3.27, 3.32, and 3.34). The tax concessions in the circumstances of a controlling director can be very valuable particularly, for example, that of permitting a part of the pension to be commuted for a tax free lump sum not exceeding one and a half times final remuneration; also that of permitting before retirement a lump sum benefit of up to four times remuneration to be paid on the director's death, which lump sum is not only free of income tax but may not be included in the estate for capital transfer tax purposes provided the trust deed is properly worded and the controlling director dies before age 75. As is normal with exempt approval relief from income tax is available on any contributions made by the

director out of his own income, up to 15% of the director's income without limit (see 3.36). The overall benefits are however restricted as for exempt approval (see 3.31, 3.32, and 3.33) but the facility to build up maximum benefits over a relatively short period of service (see 3.33) is frequently taken advantage of in the cases of small self-administered pension schemes for controlling directors. There is a general exempt approval requirement that if a director, either alone or together with his/her spouse and minor children, is or becomes the beneficial owner of shares which, when added to any shares held by the trustees of any settlement to which the director or his/her spouse had transferred assets, carry more than 20% of the voting rights in the company providing the pension or in a company which controls that company, then the scheme can not adopt for that director any definition of "final remuneration" which bases pension on remuneration of one year but must use another permissible definition under which remuneration is averaged over a period of at least 3 years. However, each year's remuneration may be increased in proportion to the increase in the cost of living for the period from the end of the year up to normal retirement date.[130] It is assumed that small self-administered schemes will not be contracted out under the Social Security Pensions Act 1975 but if exceptionally contracting out is involved, the OPB guidance on self-investment is relevant (see 3.29). It is a requirement that all death in service benefits be insured from the outset in so far as they exceed the value from year to year of the employer's interest in the fund based on his accrued pension and other retirement benefits.[131]

3.74. One of the special requirements attaching to small self administered schemes is that it is necessary for the trustee to be, or the trustees to include, an individual or body widely involved with occupational pension schemes, and having dealings with the Superannuation Funds Office, who is prepared to give an undertaking to the SFO that he will not consent to the termination of a scheme of which he is trustee otherwise than in accordance with the approved terms of the winding up rule. Such a trustee is customarily described as a "pensioneer trustee".[132] The object of the Inland Revenue's insistence on the appointment of a pensioneer trustee is that he should be able to block any request from the members of the scheme, or some of them, that the trust should be terminated and the funds distributed amongst them, subject perhaps to their giving the trustee an indemnity against the contingency of a claim by a remoter beneficiary having an interest on a member's death. It is accepted that the opposition of one trustee, or even of all, would be immaterial if all the persons having an interest under the trust were agreed in requiring the termination of the scheme. But such a concensus is unlikely in the context of a typical pension scheme except where all the members have retired and all interests have vested.[133]

3.75. It was previously Inland Revenue practice to require the rules to provide for any member's pension to be secured immediately on becoming payable by the purchase of a non-commutable non-assignable annuity from a life assurance

office, subject to certain exceptions for impaired lives and pension increases. This requirement was intended primarily as a safeguard against a situation in which the members would be able to demand the termination of the scheme in any way they chose since this situation is more likely to occur where all or most of the members have retired. But it is now accepted that a risk of this kind is no more significant during the first five years of retirement than it was during service, if the pension be guaranteed for 5 years minimum and there is a lump sum guarantee payment prospectively distributable to the dependants or legal personal representatives of the deceased pensioner. Thus in such a case the SFO will be content for the rules to provide for the purchase of an annuity at some time during the first 5 years of a member's retirement. This easement is intended to enable the trustees to choose a financially opportune time for the transaction and to avoid having to purchase at a moment when life office annuity rates may be relatively unfavourable, or the market value of the scheme's investments depressed.[134] This requirement to purchase an annuity through a life office and the requirement relating to death in service benefits being insured (see 3.73) again exemplify the complementary nature of insurance and self-administration in private pension matters.

3.76. As a condition of approval the SFO will expect actuarial reports to be made at intervals not greater than 3 years and will examine the assumptions which have been used as a basis for funding the scheme. In view also of

the significance attaching to the investment policy of the trustees the SFO will need to know, when the application for approval is first considered, and in conjunction with the examination of later actuarial reports, how the funds are to be or have been invested.[135]

3.77. The required actuarial reports (see 3.76) are important from the aspect of solvency but it is in the permissible investment of funds that small self administered pension schemes are of vast interest. In respect of pension schemes in general there is considerable freedom in the manner in which the assets may be invested (see 3.29). Nevertheless, small self administered pension schemes may be in a particularly favourable position. It is not necessary to include in the trust deed of a small self-administered scheme any special restrictions on the investment powers of the trustees, except for a prohibition on loans to members of the scheme or to any other individual for example, relatives of members, having a contingent interest under the scheme.[136] Thus in investment matters small self-administered pension schemes may be treated exceptionally from other approved pension schemes and an important point of principle becomes involved.

CHAPTER 4

ANALYSIS OF THE PRINCIPLES GOVERNING THE FINANCING OF PENSION SCHEMES

(a) The State and Public Schemes

(b) Private Sector Schemes

(c) The Principles of Assessmentism

(d) The System of Notional Reserves

(e) Desirable Funding Pace

(f) An Assessment of Funding Principles

(g) Special Points Relevant to Assurance Office Schemes.

Appendix:

Pension Funding under Dynamic Conditions

CHAPTER 4

ANALYSIS OF THE PRINCIPLES GOVERNING THE FINANCING OF PENSION SCHEMES

(a) The State and Public Schemes.

4.1. The current British state pension arrangements both the basic flat rate pension element and the second tier earnings related element, operate on the principle of assessmentism. This continues the traditional British approach. Only once, namely under the provisions of the Social Security Act 1973, has practical consideration been given to funding a British state scheme, in the real sense of the word. Under that act the proposed Reserve Scheme was to have been funded but in the event the scheme was abandoned before inception (see 2.29).

4.2. The fact that the current state schemes are broadly contributory (see 3.11) is said to suggest that pensions when they emerge thereby become a matter of right to individual pensioners. There is, however, an exchequer grant (see 3.11) and this together with the fact that no contributions are required from those earning less than the specified lower earnings limit clearly involves some element of cross subsidy. Moreover, the lack of an accumulated fund built up from contributions paid in the past in respect of pensions due in the future necessarily means that current pensioners are, in effect, relying on the current working force to fulfil obligations to them; and that pensions in the future are dependent on the efforts of the

then working force of the day. Pensions as a right under the current state system thus has a constricted meaning in which considerations of equity between generations are relevant in respect of both rates of contributions and levels of benefits. But with both contribution rates and benefit levels being subject to possible amendment from time to time; with a built-in system of inflation proofing broad in principle; and bearing in mind the contracting out provisions (see 3.13), equity between generations is not precise, nor in practice can it pretend to aim at anything more than broad justice between different generations.

4.3. The financing arrangements of the state pensions are thus a practical expedient. This, however, does not alter the fact that it is a method of financing not only generally accepted but one which, in general, is preferred by the British public to one involving the accumulation of immense funds in respect of state benefits; that in practice it is an expedient which works highly satisfactorily and that because of the vast taxation powers of the Government the lack of an accumulated fund does not impair the security of individual pensions.

4.4. As well as the state pension arrangements the principal public service schemes, which are those for the armed forces, the civil servants, police, fire services, the National Health Service, teachers and local government staffs, are all, with the exception of the schemes run by local authorities for their staffs, also unfunded.

4.5. One argument for not funding public service pension schemes corresponds with that for not funding the state schemes (see 4.3.) namely that since the government has the power to tax it can raise money to pay the pensions of its employees without the need for an accumulated fund. Thus funding would not improve benefits security of scheme members.[1]

4.6. Also, it can be argued, the pay-as-you-go system of financing public service pension schemes accords more closely with government accounting generally than would a capitalisation system because government accounts are, for the most part, on a cash basis not an accrual basis.[2]

4.7. Also, assessmentism may be regarded as proper for the public services which, so far as one can foresee, will always be required. They are not like businesses which may disappear with economic and technological change.[3]

4.8. Notional funds are, however, maintained for the National Health Service and teachers' schemes. Though contributions by employees, and employers such as local government and health authorities, are paid into the exchequer as an appropriation-in-aid and benefits are paid from the exchequer, an account is kept of these contributions and benefits, (though not of pension increases, pensions being fully inflation proofed under the provision of the Pensions (Increase) Act 1971, for the public services, including local authority employees) with notional investment in government securities being assumed.[4]

4.9. The existence of these notional accounts means that contribution rates for employers can be calculated on a capitalisation basis and these are the rates which the employers have to pay from rates and government grants. Thus a proper charge is imposed as part of the current running costs of the health and education services.[5]

4.10. The local government superannuation funds are an exception, each major authority maintaining a pension fund, with real investments, for its employees and those of the minor authorities in its area. It can be argued that there is no more compelling reason for local government schemes to be funded, bearing in mind the powers of local governments in the levying of rates, than the schemes of some of the other public services. Nevertheless, the funding discipline desirably does ensure that ratepayers are charged, in this respect, a proper amount for current services.[6]

4.11. There are also the public sector schemes outside the public services. These are largely the nationalised industry schemes and these possess some of the characteristics of both private sector employers and the public services. These schemes are, virtually without exception, final salary schemes with benefits closely akin to those of public service schemes. Few of them have an absolute commitment to give pension increases in line with those provided in public service schemes under the Pensions (Increase) Act 1971, irrespective of the financial state of the fund concerned, but in almost all casses pensions in payment have in practice been increased in line with the cost of living index. Almost all of the nationalised industry schemes are funded with

external investment, the most notable exception being the schemes of the United Kingdom Atomic Energy Authority which have only notional funds similar to those maintained for teachers and National Health Service employees. Their market value in 1980 was of the order of £10,000 millions.[7]

4.12. The necessity or desirability of funding nationalised industry schemes involving accumulating assets on such a large scale somewhat naturally has been questioned in some quarters, notably by the Carter Committee on the Post Office and by the Public Accounts Committee in relation to the British Rail funds.[8]

4.13. On the one hand, a nationalised industry scheme might be regarded as one that, despite its public ownership, is to be operated as nearly as possible like a private sector concern so that the prices it charges for its products or services are to be determined by normal commercial considerations and its financial results judged by ordinary commercial tests such as return on capital employed. In such a case it would seem to be clear that a capitalisation system of finance is appropriate as it would be for a private sector company, otherwise prices and financial results might well be distorted.[9]

4.14. On the other hand, a nationalised industry might be regarded as a public service of a nature such that its pricing and financing policy might be determined by the government on a basis other than a commercial one. In such a case assessmentism could be a reasonable method of providing

for pensions, provided that the government were to stand fully behind the industry and were to guarantee its liabilities, including those for pensions.[10]

4.15. As an intermediary course, for the nationalised industries, external investments might be dispensed with and a system of notional contributions coupled with notional funds, as already exists for the UK Atomic Energy Authority, might be adopted. This system could overcome the distortion of prices and financial results as associated with assessmentism. It would, however, involve the government in being prepared to guarantee the scheme benefits of a nationalised industry to ensure the security of benefits to members.

4.16. There is another possibility not involving a government guarantee for scheme benefits and yet still dispensing with external investments. A balance sheet provision might be set up resulting in a reduction in the amount of capital the industry has to raise from the market or obtain from the government. Unless, however, the government were to guarantee such internal investment a balance sheet provision would prove an illusory asset if the industry were overtaken by financial problems or outmoded by technological change.[11]

4.17. Thus the system of funding with external investments, which currently exists for the bulk of the nationalised industries, might not be regarded as essential. But it does not follow that it is, on balance, undesirable. Without the imposed discipline of funding the nationalised industry

schemes invoking the system of each scheme having its own external investments, extensive guarantees by the government, imposing obligations on future governments, become involved.

(b) Private Sector Schemes.

4.18. The normal case for funding a private sector occupational scheme centres largely around the need of benefits security to scheme members. This could hardly be a more important consideration for without security of benefits the viability of pension schemes virtually lapses. Indeed, if there is to be associated with employment an implication of pensionable retirement then it is right that practicable means be set afoot to ensure the fulfilment of pensions expectations. With funding the fulfilment of pension expectations of the occupational scheme are independent of the continued existence of the business and of its ability to meet a pension burden unrelated to its current financial position and scale of operation: the promise of pensions is backed by the earmarking of reources to pay them.[12] Indeed in the private sector the case is clearly very different from that of the public sector in which schemes, such as that for the civil service, have the national credit behind them.

4.19. There is a further point in favour of the funding of a private sector occupational pension scheme. This is that for a trading company it would seem proper, from the viewpoint of accounting practice, for the cost of future pensions to be met concurrently with the incidence of their accrual forotherwise a distortion could arise in the assessment of profits.

4.20. Additionally certain statutory requirements currently are relevant. There are the requirements of the Inland Revenue Authorities, for tax approval purposes, that funding does not go beyond a reasonable level (see 3.28). Also exempt approval involves assets being set aside to provide relevant benefits for employees (see 3.28). Funding should always be adequate to provide preserved benefits as stipulated by the Social Security Act 1973 (see 3.4). Also the funding of a scheme contracted out under the provisions of the Social Security Pensions Act 1975 (see 3.10) has always to be adequate to enable the actuary to the scheme to certify such adequacy of the scheme's resources as to satisfy the OPB (see 3.14).

4.21. There is, further, the relevant consideration that if a national pension policy is to achieve its objectives then desirably it should make a positive contribution to economic growth so that the increasing burden of pension payments can be met out of the production of future generations of employees without restricting their own consumption to unacceptable levels.[13] In such regard it may be uncertain to claim that funding in the private sector necessarily results in productive investment which would not be achieved under assessmentism, for lower current pension costs falling on employers under a pay-as-you-go system could be reflected in higher retained earnings available for productive investment. The latter is, however, subject to employees and shareholders showing sufficient restraint; whilst on the other hand, it is certain that assessmentism in place of funding would not, of itself, make any additional resources

available to the economy.[14] Thus there is no clear case for any assumption that a switch from funding to assessmentism in the private sector would be of national economic benefit.

4.22. However the funding of a private sector occupational pension scheme does lead on to the consideration that the contributions by the employer might be regarded as being financed in one of a number of different ways.

4.23. One concept is that contributions by the employer to the pension scheme are financed by a reduction of dividends to shareholders. Suppose the company is due to make a contribution to its pension fund of $(1+r)^n$ in n years' time. Then there is the thought that it might choose either to make a payment of 1 from profits before tax into the pension scheme immediately or to defer making any arrangements for the payment of the contribution until it is due. The net cost to the company of the former would be $1(1-t)$ now, t being the rate of tax and the net cost of the latter would be $(1+r)^n(1-t)$ in n years' time. From the shareholders' point of view the early payment of contribuitons, considered as a reduction in dividends, would be financially worthwhile if the discounted value of $(1+r)^n(1-t)$ were to be greater than $(1-t)$ where the discounting is at the net rate of interest earned by the shareholder. That is r must be greater than the net return the shareholder would expect to earn if he were to invest the money himself.[15] If the contribution were to be financed by a reduction in retained profits a similar relationship would

hold but the discount rate would be the yield after tax, ρ say, which the company expects to obtain on its projects. If r were to be greater than ρ, this would be to suggest that it would be financially worthwhile to pay the contribution now, and vice versa.[16]

4.24. If loan capital were to be raised to finance the contribution then were the pension fund to earn gross, more than the net cost of servicing this loan capital, it would be worthwhile to fund. From the shareholders' point of view there would be the choice between reducing profits available for dividends by $1(1-t)$ now or by $(1-t)(1+j)^n$ in n years' time, where j is the borrowing rate. The discounted value of the latter would be at net interest rate i if dividends were to be reduced or at rate ρ if retentions were reduced. Thus if the choice were to be between reducing dividends now or borrowing it would be preferable to borrow if i were greater than j; or if retentions were to be reduced it would be preferable to borrow if ρ were greater than j.[17]

4.25. If the consideration were to be the raising of new equity capital to finance the contribution, it would be thought that companies would probably wish to maintain their dividends on the new money and have a margin to spare. If it were not for the margin it would be a matter of indifference to the shareholders whether or not the pension scheme were to be financed by a rights issue since j would then equal r. But under the concept of a margin j would be greater than r to suggest that, in such circumstances, it would be not financially worthwhile to fund.[18]

4.26. The foregoing considerations regarding the methods of financing contributions to pension schemes must be of interest to company directors concerned with the financial side of their company's operations. It is considered, however, that to some extent they leave something to be desired from a practical viewpoint for, for example, the raising of new loan capital or new equity capital to finance contributions to a pension scheme may involve complications and not be practically convenient. Rather the more normal practical concept that contributions by the employer, like salaries and wages, should be taken out of revenue as they fall due for payment so that contributions like salaries and wages rank as an offset against profits, would in general appear to be preferable. And there is the matter of good accounting practice (see 4.19). What actual effect an employer's contributions have on company profits may, in any event, be to some extent debateable. Conceivably, there is the subjective point that rather than being a drain on profits, the knowledge by employees that pension scheme contributions are being made by the employer may affect profits favourably by improving employer/employee relationships. Nevertheless, some consideration of the rate of return on contributions when paid into his pension scheme, relative to the rate of interest necessarily to be paid by the employer properly to finance his company's operations, may in some circumstances be of temporal significance so as marginally to affect the desirable pace of funding without affecting the major consideration of benefits security to members.

(c) The Principles of Assessmentism.

4.27. Whilst within the private sector funding is the norm for financing occupational pension schemes it would be practicable, if not desirable, and subject to certain safeguards being imposed as well as some legislative amendments, to operate a system of assessmentism.

4.28. The system of assessmentism under which the actual payments of pension as and when they fall due are met out of current income clearly involves a different incidence of cost from the funding system under which it is the capital value of future pensions and other benefits earned by current service which is set aside out of current income. For example, if a new occupational scheme were set up for those in service the immediate cost to the employer under assessmentism would be far smaller than under a capitalisation system, for the outgo would be much less than the capital value of the liabilities being created by current service. However, as the scheme matured the difference in cost would narrow and ultimately assessmentism would impose the higher charge for there would be no interest income from the invested fund to meet part of the pensions being paid.[19] It is an important point, however, that the position is affected by inflation for under a final salary occupational pension scheme assessmentism will be cheaper if a real rate of return, net of inflation, cannot be earned by the fund.

4.29. Basically assessmentism as an alternative to funding implies an equation of equilibrium of a form such that yearly contributions, netted down for expenses, are equated to the year's pension payments.

4.30. Thus in a broad sense the technique of assessmentism involves the basic assumption that pensions represent a transfer of resources from the working element to the retired element. It may also involve the assumption that the standard of living of the retired element should be related, where related does not necessarily mean equal but rather a percentage which could differ for different categories, to the standards of living of the working element. If, for example, in a given category there are 5 workers to every 1 pensioner and if each worker pays, either himself or jointly with his employer, a graduated contribution of 8% of his earnings the whole contributions being paid out concurrently in pensions, then the average pension would be equivalent to 40% of average earnings. With pensioners' pensions being directly related to workers' earnings relativity in overall standards of living is maintained.

4.31. More generally, and where pensions to surviving spouses and children are involved, the basic equation can be expressed as,

$$(1-\theta)\sum_{i=1}^{A} C_i = (1+k)\sum_{j=1}^{R} P_j$$

where,

C_i = the year's contributions from the i'th contributor.

P_j = the year's pension payments to the j'th pensioner.

A = total number of contributors.

R = total number of retired contributors.

θ = proportion of contributions required to meet expenses.

k = average ratio of pensions of surviving spouses and children to pensions of retired contributors.[20]

4.32. The simplest formula for determining benefit payments each year would be to divide the total amount available equally amongst all beneficiaries, but clearly there are other possibilities. For example in a manufacturing industry in which workers' earnings are approximately uniform, the amount available in respect of that category could be divided in proportion to the number of years worked by each beneficiary in that category.

4.33. Another possibility would be to adopt points, using a point as a parameter to compare a member's contributions each year with a reference salary for the year.

4.34. In a scheme operating by points, if n were to be the number of years during which the j'th pensioner paid contributions, then the total number of points q_j attributed to him during his career would be $\sum_{i=1}^{n_j} q_i$. If the value of a point is p , the amount of his pension for the year would be pq_j. Hence with S being the reference salary for a given year,

$$(1-\theta)\sum_{i=1}^{A} q_i S = \rho(1+k)\left[\sum_{j=1}^{R}\left(\sum_{t=1}^{nj} q_{jt}\right)\right].$$

which assuming that θ and k remain constant becomes

$$(1-\theta)A(t)\bar{q}_R(t)S(t) = (1+k)\rho(t)R(t)\bar{n}(t)\bar{q}_r(t)$$

where

$\bar{q}_R$ is the average number of points acquired per contributor during the year.

$\bar{q}_r$ is the average number of points acquired by all existing retired contributors during each year of contributory service, and

$\bar{n}$ is the average number of years during which they contributed.[21]

4.35. Assessment by points means apportioning net contribution receipts in proportion to revalued total career salary or contributions. Alternatively to using points, available funds might be partitioned in proportion to the product of the number of years of service and a defined salary such as, for example, final salary.

4.36. It is apparent that a system of assessmentism could be operated so as to provide benefits on bases comparable with those under funded schemes; so as to permit pensions being revalued regularly to maintain at least approximate parity with rates of salary increases; and to permit inflation proofed pension scheme rights on cessation or change of employment. There are, however, clear objections when considering the private sector. An individual member's

benefit security would obviously be dependent on the continuation of the employing company; moreover in effect it is implicit under the whole system, it being dependent on the equation of equilibrium, that the membership involved in the scheme is relatively large so that it is not really applicable to the vast number of small UK schemes or even to medium size schemes. In practice application of assessmentism in the private sector would need to be limited to the very large UK industrial companies unless, that is, there were to be a complete change away from pension schemes for individual companies to schemes for, say, an entire industry or for groups of companies. Such would involve axiomatic conditions, including compulsory membership for all income earners eligible for membership of the scheme with a correspondence being maintained between the group of contributors and the group of persons entitled to benefits; the contributors would need to represent a group of income earners for whom continuity of income is assured and whose members can be relied upon to be continually replenished by recruitment; and either benefits or contributions or both would need to be adjustable to enable the scheme to meet its commitments from the resources provided by contributions. But, over time, industries or sectors may decline or become interwoven with other industries or sectors and it would therefore probably prove necessary in practice to have interlocking financial arrangements between the various schemes so that not only would individual company independence be affected but desirable flexibility would be reduced.[22]

(d) The System of Notional Reserves.

4.37. Mention has been made (see 4.8) of notional funds being maintained for the National Health Service and teachers' pension schemes, and for the scheme of the of the United Kingdom Atomic Energy Authority (see 4.11). The question arises as to whether such a system might have any place in the private sector.

4.38. Under present British practice when calculating costs for a final salary type scheme, which is the norm, concern, generally speaking, is with keeping costs constant as a percentage of the total pensionable salaries of the scheme members. If j represents the assumed rate of growth in salaries and assuming a fixed salary scale, and i is the absolute rate of return earned on assets A then the funding rate f under a projected benefit cost approach can be represented as,

$$f F_4 \left(\frac{1+i}{1+j}\right)^{-1} = F_1 \left(\frac{1+i}{1+j}\right)^{-1} F_2 \left(1+i\right)^{-1} + F_3 \left(1+i\right)^{-1} - A$$

where, $F_4 \left(\frac{1+i}{1+j}\right)^{-1}$ represents the value of salaries of current staff,

$F_1 \left(\frac{1+i}{1+j}\right)^{-1} F_2 \left(1+i\right)^{-1}$ is the liability of existing staff

and $F_3 \left(1+i\right)^{-1}$ represents the liability of current pensioners.[23]

4.39. A purpose of funding is to provide security for members' benefits (see 4.18) but clearly funding can give no absolute guarantee of this. As the expression in 4.38 indicates the degree of solvency is highly sensitive to the rate of increase in earnings expected in the future, as well as, of course, to fluctuations in the value of assets. Moreover there are other considerations. The normal practice is to calculate funding rates assuming pensions in payment do not increase, or increase at a low fixed rate. The adequacy of this is questionable when significant inflation in the future is to be expected but to incorporate predicted inflation when determining a funding rate not only raises problems of estimation, it raises basic practical problems of general acceptance by employers. Also, whilst the point is irrelevant in general to vested rights, since British legislation requires preservation of benefits vested prior to withdrawal only in current money terms (see 3.3, 3.4 and 3.5), there is the particular case of contracted out benefits. For the latter any revaluation of vested rights would pose problems similar to those for post retirement pension increases; but there is, for example, the provision to buy back into the State Scheme (see 3.13, 3.14 and 3.25).

4.40. The setting up of an external reserve consisting of a fund controlled by trustees is tacit in the considerations of paragraphs 4.38 and 4.39. That is normal practice but the setting up of an internal reserve within the company so that the cost of pensions is met in advance possibly could be an alternative. This again raises the interesting taxation point for an employer's contributions to an exempt

approved scheme rank as expenses for taxation purposes (see 3.27).

4.41. Let it be assumed that a company is due to make one pension payment of $(1 + r)^n$ in n years' time. If r be the gross rate of interest expected to be earned by a pension fund then instead of making the payment in n years' time the company could make an immediate payment of 1 into the pension fund from profits before tax. Alternatively, if it be assumed that on any allocation to reserve (retained profits) the company could earn p, net of corporation tax, then it could make an immediate allocation of $(1 - t)(1 + r)^n/(1 + p)^n$ to reserve from profits after tax. This allocation to reserve would accumulate to $(1 - t)(1 + r)^n$ in n years' time, i.e. each year p% net of corporation tax would be earned on the accumulated reserve and would be allocated to the reserve. In the n'th year the net cost of the pension payment would be met from the accumulated reserve while the balance would be met from the tax relief which the pension payment attracts. Thus the profits available for distribution to shareholders in the first year would be reduced by $1\ (1-t)$ if a contribution were made to a pension fund or $1\ (1-t)(1+r)^n/(1+p)^n$ if an allocation were made to an internal reserve for pensions. It has been suggested that external funding is thus advantageous only if r be greater than p.[24] This suggestion may seem plausible but abandonment of external funding would hardly appear to be justified on grounds of such tenuous assumed relationship

between r and p . And it could be asked how meaningful is p bearing in mind that it reflects an expected rate which the company could earn on new projects over the future lifetime of the pension scheme assuming that the company remains in existence for that period of time, say 40 years.

4.42. The retro-investment of pension scheme money, that is contributions paid by the employer being reinvested as reserves in the employer's business so as to provide him with working capital is however a point of interest. In fact, the extent of the interest which a number of employers now have in such a concept either by direct or indirect means, is considerable probably as a result of the currently prevailing economic circumstances within the UK. It is the important consideration of the continued financial well-being of the sponsoring company which has appeal. However, although retro-investment is a process which may be attributable to pension schemes it is, in some respects, rather akin to the profit sharing schemes as have been operated by a number of international concerns under which the profit sharing benefits emerge in deferred form from previous allocations of credits, and under which some vesting is normally offered under the scheme after a very few years' service leading up to full vesting after, say, 10 or 15 years' service. In fact although a specific formula is sometimes adopted a great advantage of the method, from the employer's aspect, is in the flexibility allowed in his contributions. Considered in complete isolation , the profits sharing method thus seems to

satisfy, even more effectively than the pension scheme lending-back approach, the financial well-being of the sponsoring employer ingredient. But there is the question as to whether it would be valid to consider such point in complete isolation. Indeed, this is a crux of the matter for when the company's well-being and the interests of the members are considered conjointly, and there is inter-relationship, the overall desirability of retro-investment and profit sharing methods loses ground to the traditional types of pension scheme under which the funded liabilities are matched by a properly diversified external portfolio of assets to provide adequate benefits security.[25]

4.43. In any event whilst there is, in practice, considerable freedom in the manner in which assets of pension schemes may be invested, there are currently the relevant provisions of the Trustee Investment Act 1961 to be considered (see 3.29); the provisions regarding assets implicit in an irrevocable trust, as necessary for exempt approval (see 3.28); and the requirements of the OPB regarding concentration of investment and self-investment (see 3.29) in respect of contracted out schemes.

4.44. Whilst requirements regarding 'self improvement' and 'concentration of investment' refer to contracted out schemes they reflect the general unease towards retro-investment. It is, of course, generally appreciated by the employer, as well as by the members of the occupational pension scheme, that the continued good fortunes of the employing company and the build-up of future pension accruals

under its sponsored pension scheme, largely go hand-in-hand. It may be that if a company, for financial reasons, necessarily has to close down then pension accruals up to that point of time might have been fully secured by the wise external investment of an adequate fund. But in fact, those in pensionable employment have rather more than that in mind; indeed, pensionable employment tends to be linked with the concept of a continuing pension scheme under which pension accruals for future service as well as for past service up to any date are secure. However, with self-investment the assets of the pension scheme could, to some extent, fluctuate in value in accordance with the fortunes of the employing company, the resulting effect on the proper diversification of a pension fund's assets not only impinging adversely on investment performance but also weakening the degree of the pensions security to members which otherwise would be obtained by external funding. There is also the viewpoint that the finances of a private pension scheme are not independent of the economic well-being of the society in which they operate and under the UK's current economic position interest rates remain high with some resultant inhibition on industry to borrow for development. In such circumstances permissible adoption of retro-investment might appear to have some appeal on national economic and individual company development grounds, whilst security of members' benefits could be achieved by appropriate credit insurance. Nevertheless, funding involving investment external to the parent employer's business means a recycling of capital back into

investment through the capital market resulting in an appropriately diversified portfolio of external investments whereas a balance sheet pension reserve method means a recycling of capital back into investment directly through the employer. In such regard not only is there the major consideration of security of benefits for the employees but there is also the point that, unmodified, the capital generated by an internal provision may not correspond with the company's capital needs. In practice there thus may well be advantages in a funding system with external investment which interposes an outside scrutiny, such as that supplied by the investment market, between the supply of capital generated to meet pension commitments and those who will use that capital.[26]

4.45. Considerations such as those in paragraph 4.44 involving internal reserves tacitly assume non contracted out benefits; they are hardly relevant to benefits contracted out of the state second tier earnings related scheme. But the contracting-out facility could be reconsidered if such were to be seen clearly to be desirable on national economic grounds. Contracted out benefits could be bought back into the state scheme, to some extent relatively simply at this early stage, thereby providing the government with resources to ease cash flow problems in much the same way as such problems can be eased by the sale by the government of nationally owned shares such as those of BP; and continuation on a pay-as-you-go principle would be appropriate. Nevertheless this would result in greater involvement by the state in pension scheme matters and reduce the role of individual employers in pensions provision for their own employees.

4.46. What is more, because of the overriding need of members' benefits security under private pension scheme arrangements, the retro-investment of pension scheme money into the sponsoring employer's business would need to be associated with some form of credit insurance against the possible failure of the employer's business. Such would be practicable but necessarily it would incur some state involvement in its provision. In fact the funding of occupational pension schemes with investments external to the sponsoring employer's business is the system which most preserves pension scheme individuality. It is funding with external investments which maximises an individual employer's influence over his own company pension scheme. Other systems would be practicable but they require either interlocking financial arrangements between groups of companies (see 4.36) or credit insurance necessitating state intervention, or both.

(e) Desirable Funding Pace

4.47. In general, outside the requirements caused by preservation provisions, and the requirements concerning contracted out schemes, an employer within the UK may fund his occupational pension scheme at any discretionary pace, subject to the proviso that for tax approval purposes funding must not go beyond a reasonable level (see 4.20). As regards the last item no objection would be raised to reasonable reserves against such contingencies as depreciation in the value of investments. But, if large surpluses are held approval of the scheme may, in the last resort, be withdrawn unless acceptable proposals are forthcoming for dealing with the situation, usually by reducing contributions or using the surplus to provide further benefits within approvable limits. Exceptionally surpluses may have to be returned to the employer and taxed. There is, thus, official concern in preventing overpayment by an employer to obtain excessive tax reliefs in any year, as well as with underfunding in respect of contracted out schemes, and in connection with preservation. However, importantly, terms such as 'reasonable' with regard to contributions, funds and reserves, and 'large' in relation to surpluses are not defined specifically.[27] Considerations which arise in practice depend on the nature of the scheme and there are substantial discretionary powers (see 3.37).

4.48. There is, in consequence, the viewpoint that not only is it generally desirable to fund an occupational pension scheme, and to ensure that the fund is invested

appropriately, but that the size of the fund to be built up at any point of time relative to the liabilities involved is a matter of considerable importance. The promise of a pension sets up an obligation to each employee which should be provided for during his working lifetime, it being important for good personnel morale and staff recruitment that funding should be seen to keep up with pension expectations as they accrue year by year throughout service. Thus there is the reasonable concept that, unless there are special reasons to the contrary, the aim should be to maintain, for the scheme as a whole, a reasonably uniform yearly level of outlay, measured as the ratio between the employer's pension contributions and his wage and salary bill, for as long as possible, the significance of pension cost in relation to the financial results of business now being such that failure to make proper provision in advance for pension commitments may give a false impression of a company's financial position.[28]

4.49. The pace of funding cannot be uniform for an indefinite period because most benefit scales are earnings related and if earnings increase on account of inflation future contributions increase proportionally but the accumulated fund may not, and some shortfall may itself have to be funded.[29]

4.50. In fact many pension scheme problems differ from those which arise in the normal conduct of business in that the usual discipline of measuring the result of each

year's operation by the profits made, does not apply to the long term financial exercise which the provision of pensions involves, for as soon as a promise to provide future pensions is made an immediate liability is assumed, but the amounts which will actually become payable as pension and other benefits from time to time cannot accurately be known for many years. Hence the extent of the liability assumed can only be estimated at the outset and must be reviewed from time to time in the light of changing circumstances.[30]

4.51. It thus becomes apparent that an employer not only has a certain range of choice as to the level at which he can aim to fund his pension scheme but also that, apart from some cases of fully insured schemes, after having made his choice, the nature of the estimates involved precludes an exact contribution rate being quoted to him which can be regarded as certain to meet his stated funding aim precisely.

4.52. To exemplify, simplistically, past service pensions or additional grants of pensions are often met by contributions being paid by the employer under some form of indefinite funding arrangement, the indefinite funding period generally lying between 10 and 20 years, the former often being required to meet Inland Revenue requirements and the latter to ensure that the annual contribution to be paid is adequate to buy the entitlement of each employee before he reaches normal retirement age. The procedure normally adopted takes the following form. For each individual member the number of years past service to rank

for pension is multiplied by the percentage of salary to be earned as pension for each year of past service, which product is multiplied by current salary. However pension schemes are generally on a final salary basis so that the liabilities should be converted to a final salary basis, on an appropriate assumed rate of salary increase. This clearly raises problems for the assumption may well differ markedly from what actually transpires. When the assumed rate of salary increase is less than the accrual rate a deficiency on this score will arise which has not been funded and which may need to be met out of future ordinary annual contributions, adjusted appropriately, payable under the scheme. Also the device may be adopted of artificially restricting the number of years of salary accumulations to bring out a lower liability. However, there may be some offset. The level annual outlay obtained by costing by single contribution the aggregate final salary past service liability and spreading it by an annuity-certain over a period of years is generally equated to a percentage of pay-roll. Assuming the employer pays this percentage then the actual outlay increases with salary increases thereby providing some safeguard to the pension scheme. But the point does remain that the liability in respect of past service, allowing for the liability to be fully adjusted for salary increases which actually occur in the future may or may not be met completely over the indefinite funding period originally suggested.

4.53. An employer may therefore conceivably think that some degree of permissiveness is available to him in the pace of pensions funding and that this factor can be aligned with what his company may be attempting to achieve which may be subjective, such as maximisation of market value of its equity or the rate of return on its assets, appreciating as well that in any investment project timing is important. Nevertheless the general desirability of accrual funding remains; if the initial rate of funding is too low, the shortfall, accumulated with compound interest, will have to be made good subsequently and thus be a charge on profits in later years.

4.54. The nature of the problems involved in costing private pension schemes may raise the question of the desirability of statutory regulations which might lay down, say, specific minimum and maximum funding bases. Statutory regulations, however, are generally to be associated with rigidity, whilst the current approach allows some degree of flexibility and discretion to meet special individual circumstances. Moreover the past record of solvency of pension schemes has been excellent; failure of a British funded private sector pension scheme to meet its liabilities being virtually unheard of. There is, therefore, no pressing need for statutory funding bases.

(f) An Assessment of Funding Principles

4.55. The fact that the funding of private sector occupational pension schemes has general desirability and that it is the method of financing adopted in the UK, raises questions as to how realistic methods of funding actually are in practice.

4.56. In funding calculations the following elements become involved,

(i) Multiple decrement tables for active members

(ii) Scales for estimating members' future earnings

(iii) Mortality tables for pensioners

(iv) Compound interest functions

whilst if widows' and children's benefits are to be provided, the following further elements are involved:

(v) Mortality tables for the wives and widows of active members and pensioners

(vi) At each age proportions married amongst active members dying and active members retiring

(vii) Age differences of husbands and wives and other family statistics.

4.57. In the multiple decrement table l_x represents the number of active members of a scheme at exact age x and w_x, d_x, i_x, and r_x represent the numbers out of l_x who withdraw, die in service, retire on grounds of ill-health and retire on grounds of age at x last birthday. These numbers are derived from dependent probability ratios

$^{w}q_x$, $^{d}q_x$, $^{i}q_x$ and $^{r}q_x$ where $w_x = l_x \times {}^{w}q_x$ etc., the multiple decrement table being built up by the repeated use of the relationship $l_{x+1} = l_x - w_x - d_x - i_x - r_x$[31]

4.58 As regards the scales for estimating members' future earnings the type of function generally used in practice is a relative scale, i.e. a scale representing the ratio of average earnings in each future year to present average annual earnings. It consists of a series of numbers S_x defined for all x such that for a group of members of exact age x, S_{x+t}/S_x is the assumed ratio of the average earnings in the year of age $x + t$ to $x + t + 1$ to the average earnings in the year of age x to $x + 1$. When the pension is based on the average annual earnings during the m years preceding retirement the function $z_y = \frac{1}{m}\left[S_{y-m} + S_{y-m+1} + \ldots + S_{y-1}\right]$ can be introduced. Clearly z_{x+t}/S_{x-1} represents the ratio of the expected average annual earnings during the m years preceding attainment of age $x+t$ to the annual earnings in the year of age $x-1$ to x. The function $\frac{1}{2}(z_x + z_{x+1})$ is conventionally written as $z_{x+\frac{1}{2}}$.[32]

4.59. With regard to mortality tables for pensioners these purport to reflect furture experience of the scheme; compound interest functions are necessary because regard needs to be given to the likely build-up of the fund in future years and the future yields on the investments and reinvestments.

4.60. To exemplify, simplistically, consider a new scheme being set up to provide a pension of 1/60th of final average earnings for each year of future membership (with parts of a year counting proportionately and with not more than 40 years membership counting) on retirement at age 65 or on earlier ill-health retirement. On death before retirement a lump sum is paid equal to the amount of the member's own contributions to the scheme with interest. The company is to pay a contribution equal to the total contributions paid by the members. The question is what rate of contribution is to be paid. Assuming that the multiple decrement table ends at age 65, and that retirements at ages less than this occur half way through the year of age, functions can be defined as follows: where v^n is the present value of unity n years hence allowing only for the effect of compound interest, i.e. $v^n = (1 + i)^{-n}$ where i is the rate of interest; $\bar{a}_x^{(1)}$ is the present value, allowing for compound interest and mortality, at age x of an annuity of 1 per annum payable continuously throughout the year of age to a pensioner aged x.

$$ {}^{z}C^{ra}_{y} = v^{y+\frac{1}{2}} \cdot r_y \cdot {}^{z}_{y+\frac{1}{2}} \cdot \bar{a}'_{y+11/2} \qquad (y \leq 64) $$

$$ {}^{z}C^{ra}_{65} = v^{65} \cdot r_{65} \cdot {}^{z}_{65} \cdot \bar{a}'_{65} $$

$$ {}^{z}M^{ra}_{x} = \sum_{t=0}^{65-x} {}^{z}C^{ra}_{x+t} $$

$$ {}^{z}\bar{M}^{ra}_{x} = {}^{z}M^{ra}_{x} - \tfrac{1}{2} \cdot {}^{z}C^{ra}_{x} \qquad (x \leq 64) $$

$$ {}^{z}\bar{R}^{ra}_{x} = \sum_{t=0}^{64-x} {}^{z}\bar{M}^{ra}_{x+t} $$

$$ D_x = v^x l_x $$

$$ \bar{D}_{x+t} = \tfrac{1}{2}\left(D_{x+t} + D_{x+t+1}\right) $$

$$ {}^{s}D_x = v^x S_{x-1} l_x $$

$$ {}^{s}\bar{a}_x = \sum_{t=0}^{64-x} S_{x+t} \cdot \bar{D}_{x+t} \Big/ {}^{s}D_x $$

$$ {}^{j}C^{d}_{y} = v^{y+\frac{1}{2}} \cdot (1+j)^{y+1/2} \cdot d_y \text{ ; assuming members' contributions are returned on death at rate } j. $$

$$ {}^{j}M^{d}_{x} = \sum_{t=0}^{65-x} {}^{j}C^{d}_{x+t} $$

$$ {}^{j}\bar{M}^{d}_{x} = {}^{j}M^{d}_{x} - \tfrac{1}{2} \cdot {}^{j}C^{d}_{x} $$

$$ {}^{sj}\bar{R}^{d}_{x} = \sum_{t=0}^{64-x} S_{x+t} \cdot v_{(j)}^{x+t+\frac{1}{2}} \cdot {}^{j}\bar{M}^{d}_{x+t} $$

Thus in the question being asked the value of the prospective pension benefits can be written as

$$\frac{100}{60}\left[\frac{{}^{z}\bar{R}_{x}^{ra} - {}^{z}\bar{R}_{x+u0}^{ra}}{{}^{s}D_{x}}\right] \quad ; \left(x < 25\right)$$

$$\frac{100}{60}\left[\frac{{}^{z}\bar{R}_{x}^{ra}}{{}^{s}D_{x}}\right] \quad ; \left(x \geqslant 25\right)$$

The value of the contribution of one per cent of earnings by the member and an equal contribution by the company, less the value of the death in service payments is

$${}^{z}{}^{s}\bar{a}_{x} - {}^{sj}\bar{R}_{x}^{d} \Big/ {}^{s}D_{x}$$

The quotient of the appropriate first or second expression, and the third represents the percentage contribution rate theoretically required to be paid by the company for a member at age x at entry.[33]

4.61. It would be possible to set up the scheme with contribution rates for each age at entry equal to the rates calculated by such method. Indeed the approach of paragraph 4.60 to arrive at a time value equation of benefits to be paid out in the future to contributions to be received forms the broad basis underlying the methods often adopted for determining contribution rates for self-administered pension schemes in general. Naturally modifications would be required in practice to meet individual circumstances for example an element of cash benefits on

retirement, preservation rights to be granted on withdrawal, and widows' benefits. Also at the inception of a scheme there may be a grant of past service pensions the cost of which is normally spread over a term of years (see 4.52). Nevertheless such additional factors do not affect the basic approach and despite its apparent theoretical nature the outlook needs to be both realistic and practicable. It would not be wished to over assess the initial contribution rate for that unnecessarily may involve the substitution of a less suitable scheme; on the other hand it would not be wished to under assess it for this would be misleading to an employer, undesirably involving him in a scheme which could become financially onerous in future years.

4.62. Much therefore hinges not only on the approach adopted but also on the bases utilised. Funding, of course. has regard to the future being adopted to assess contribution rates to be payable in the future to meet benefits accruing and payable in the future and to ensure the solvency of the scheme on a prospective as well as on a winding-up basis. Thus the multiple decrement table adopted in the calculations purports to reflect future experience of the scheme and in fact future experience over a long period of years. It is apparent that however well the multiple decrement table may be chosen the actual experience of the pension scheme can be expected to differ from that implied by a strict application of it. Similar remarks apply to pensioners' mortality and to the other bases;

inflationary increases can clearly affect the salary structure of the scheme relative to the salary scale adopted.

4.63. As regards the rate of interest this factor enters into the funding calculations because in pension schemes money is accumulated against future liabilities. The rate of accumulation of the assets from time to time is of prime importance to the finances of the scheme and although this rate is conventionally referred to as the rate of interest it purports to represent, in the calculations, the assumed rate at which money paid into the scheme will accumulate, by whatever means, no distinction being made, in general, between fixed interest income, dividend income, growth by sale at an enhanced market value, etc.[34] The average rate at which pension scheme money invested in the future can be expected to accumulate depends on numerous factors such as the future investment policy to be adopted for the particular fund, the future constraints to be placed upon the investment management as well as on future national and international economic conditions and official fiscal policies. Thus the choice of an appropriate rate of interest to be adopted in pension scheme funding calculations is not an easy one and it is of relevant interest that for an average membership of a typical scheme a difference of 1% in the assumed interest basis alters the suggested contribution rate for future service pensions by approximately 16%.

4.64. The preceding remarks indicate that practice has developed deterministically with chance fluctuations probably being implicitly considered by using conservative assumptions. However instead of considering, for example, functions such as the value of a pension of 1 per annum to a life aged x as a fixed quantity, such functions can be regarded as really representing the mean or expected values of random variables which are functions of the length of time to death of a life aged x. In a sense, the mean is inadequately descriptive, information on other aspects of the probability distribution, such as the variability would be useful.

4.65. For example knowledge of the expected number of years to death may be regarded as informatively incomplete without an estimate of the associated variance. But the number of years to death can be considered as a discrete random variable. With T being defined as the number of full years to death of a randomly selected person aged x and with $f(t)$ being the probability distribution so that

$$f(t) = Pr[T=t] = {}_t|q_x = \frac{d_{x+t}}{l_x} \text{ for successive values of } t$$

where d_x is the number of deaths at age x last birthday and l_x is the number of survivors at exact age x. Then

$$\sum_{t=0}^{\infty} f(t) = 1 \quad \text{and} \quad f(t) > 0 \quad \text{for all } t$$

$$E(T) = \sum_{t=0}^{\infty} t f(t) = e_x \text{ the curtate expectation of life at age } x.$$

$$\sigma_T^2 = E(T^2) - [E(T)]^2 = \sum_{t=0}^{\infty} t^2 \cdot {}_t|q_x - e_x^2.$$

Assuming $q_x = 1/(100-x)$

$$E(T) = (99-x)/2 \quad ; \quad \sigma_T^2 = (99-x)(101-x)/12$$

This implies that the standard deviation is relatively high expressed as a percentage of the mean. For example, at age 65 the expectation is 17 years and the standard deviation is 10 years.[35]

4.66. Consideration can now be extended from a life only function to a combined life and compound interest function namely to a life annuity, or pension, with annual payment 1 , denoted by a. First consider a whole life assurance A on a life aged x where benefits are paid at the end of the year of death.

If a life aged x has T curtate years to death the present value of the benefit is v^{T+1}. ($v = 1/(1+i)$ i being the rate of interest).

The mean of this random E(L), say, is

$$E\left[v^{T+1}\right] = \sum_{t=0}^{\infty} v^{t+1} \; {}_{t|}q_x = A_x$$

The variance is

$$E\left[v^{2T+2}\right] - A_x^2 = \sum_{t=0}^{\infty} (v^2)^{t+1} \cdot {}_{t|}q_x - A_x^2$$

$= A'_x - A_x^2$ where A'_x is at rate of interest $i' = (1+i)^2 - 1$

Now consider an immediate life annuity Y say = $a_{\overline{T}|}$

$$Y = \frac{1 - (1+i)L}{i}$$

$$E(Y) = \frac{1}{i} - \frac{(1+i)}{i} \cdot E(L) = a_x$$

$$\sigma_Y^2 = \frac{A'_x - A_x^2}{d^2} \qquad \left(d = \frac{i}{(1+i)}\right)$$

Again this implies that the standard deviation is relatively high expressed as a percentage of the mean. For example, taking i=.03 and assuming $q_x = \frac{1}{(100-x)}$, calculations indicate that at age 65 the standard deviation of the present value of a pension of 1 per annum is approximately 50% of that value.[36]

4.67. Stochastic considerations clearly can add valuably to knowledge of pension scheme funding approaches. Nevertheless the technical adviser to a pension scheme must arrive at a specific basis which he considers to be reasonable taken as a whole. In practice this leads to the concept that the basis for the typical pension scheme is not to be considered as a group of independent assumptions each of which must stand or fall in isolation. It is rather a set of assumptions which have been chosen in the hope that deviations from the expected experience will tend to be financially compensatory and which must be judged as a whole.[37] The validity of this concept obviously rests on the existence of appropriate correlations between the principal economic factors concerned. To exemplify, the salary scale for a final salary scheme and the rate of interest basis tend to be considered conjointly on the assumption that both are correlated with inflation, and appreciating that it is the difference between the assumed rate of interest and the assumed rate of escalation of salaries which is of consequence in the financial calculations rather than the two actual rates separately. For example, in a final salary scheme the joint effect of using

in the funding calculations relative to the period of deferment a rate of interest of 9% coupled with a 7% rate of escalation of salaries can produce results almost identical with those based on corresponding assumptions of 6% and 4% respectively. Thus whilst it is desirable to adopt reasonably realistic levels the problem in practice can virtually reduce, so far as salaries and interest are concerned, to consideration of an estimated future real rate of return.

4.68. It remains apparent, however, that whilst the assumptions involved in pension scheme funding calculations must purport to relate to a long period of years in the future it is unlikely that the combined overall financial effect of all the factors involved will produce actual results identical with those which the assumptions would suggest. It thus becomes imperative, as part of the funding procedure, for occupational schemes to be investigated periodically, say every three or five years. Such an investigation, which involves a valuation of the assets and liabilities of the scheme at the chosen date, can be regarded in several ways; for example as a test of solvency of the scheme, as a test of the position on winding-up, or as a regulator of the pace of funding possibly leading to suggestions for revised standard contribution rates or even to the injection of special extra contributions from the employer.[38] The specific purpose clearly might affect the valuation bases, for example, as a test of the position on winding-up the value placed upon the liabilities might

represent the cost of the immediate purchase of appropriate policies from an assurance company, whereas more generally the liability valuation might adopt an approach somewhat similar to that adopted when initially calculating the appropriate contribution rates (see 4.59). The opportunity might be taken at each successive investigation to modify, if thought desirable, the actual multiple decrement table, pensioner mortality bases, salary scale or interest bases because of changed conditions. On the understanding that the pension scheme be a continuing one, such bases might be utilised and a discounted cash flow approach adopted to enable a value to be placed upon the accrued and future benefits of the then existing members of the scheme as at the valuation date, and of the future contributions to be paid into the scheme, by and in respect of those members, to arrive at a net liability. The adoption of such process at frequent intervals might be regarded as intuitive appreciation of the fact that whilst, in practice, specific individual valuation bases have to be utilised they are essentially probabilistic in nature.

4.69. Whilst pension scheme funding is a practical exercise, practical necessities do not eliminate out of hand the desirability of a study of theory. A natural approach to such theoretical mathematical research lies in the building up of models utilising, of course, a number of assumptions. In order to maintain a sense of reality the assumptions underlying the results need to be of dynamic form.

An example of such a model is given in the appendix to this Chapter 4. By consideration of the working of the model insight into the effects of different components can be increased and different relationships examined. For example, the first derivative with respect to t of the accrued liability of the scheme at time t is shown in a form which might be regarded as that of the customary equation of equilibrium although with dynamic growth of the components during time it is expressed as a liability growth equation. Many of the conclusions obtainable from analyses of such mathematical mdoels tend to confirm what might well be regarded as otherwise self-apparent, rather than as presenting new revelations; the fact that the unfunded liability remains stationary if the contribution rate equals the normal cost rate plus interest on the unfunded liability is indicative of this. A simple way to represent long term growth in a mathematical dynamic model is by exponential functions and interpretation of the resultant liability growth equation leads to an interpretation of the extent of the assumed interest being available to meet current pensions and that available for liability growth. Implication can then be drawn as to the effect of long term salary inflation persistently exceeding the long term investment income rate.[39]

4.70. Nevertheless pension schemes continue to thrive. But the fact that terminations through financial difficulties have been exceptionally very rare indeed might, to some extent, be due to the fact that very few, if any, private

sector schemes actually guarantee protection to pensioners from inflationary conditions, and the problems which schemes experience have therefore been less on that account (see 2.40 and 3.49). There is the point that if it be assumed that high rates of inflation tend to be associated with high rates of interest, the relationship being causal, then an employer who in inflationary times is having the benefits in possession under the pension scheme valued at a high rate of interest but makes no inflationary increases to pensions is, in this particular regard, achieving a reduction in his contribution rate.

4.71. A pension scheme cannot necessarily be left in the position as last mentioned in paragraph 4.70 for inflation does introduce problems. For example, as regards the concept that funding should be seen to keep up with pensions expectations (see 4.48) the question arises as to what are pensions expectations in inflationary times. Most pension schemes being in final salary form there is some protection against inflation during service because each salary increase correspondingly augments the pension earned by past service. But when, as is customary in the private sector, there are no guarantees and no specific promises of inflationary increases to pensions in possession (see 2.40 and 3.49) is there still some expectation of them? With many private sector schemes any such expectation would be unjustified but most scheme members in the private sector probably do have good reason for some such expectation. Indeed it would seem that some inflationary pension increases are necessary if private sector schemes, in the form as

currently understood, are to be seen to be fully effective.[40]

4.72. The problem needs to be considered from a practical outlook. The practical approach often adopted of leaving post retirement increases to be paid for by a commuted lump sum payment at the time of award is not the neatest of solutions for it results in fluctuations year by year in the proportion of the company's resources which are devoted to the provision of pensions. Additionally to this point schemes are seen to be more effective with some pre-funding.[41] Thus, if at all practicable in individual schemes from the viewpoint of the employer's buisness, some pre-funding of inflationary increases of pensions in possession, so as to try to arrange that pension cost be more spread over the working life of a member, would be desirable.

4.73. Insight into the cash flow characteristics of pension schemes might possibly be enhanced by specific pension cost projections. Such an approach could be utilised to assess a funding rate; in fact the general concept of such a method theoretically differs only in detail from the traditional approach of determining the contribution rate (see 4.60). When, in practice, projected costs are given to an employer they are provided as augmented information and customarily based on expected value models. Clearly such a single projection cannot be regarded as complete in itself. Thus a stochastic model could be adopted under which not only are pension cost determinants (such as the

number of decrements due to a given cause and the fund accumulation factor) assumed to be distributed stochastically, but the parameters upon which these determinants depend are themselves assumed to be distributed stochastically. However it could be argued that this degree of refinement of pension cost projections is not justified because pension costs are funded sequentially over a number of years so that periodic valuations will uncover underfunding problems before they can affect materially the solvency of a scheme. The implication is that ex ante pension cost projections should be viewed as only broad estimates of future costs; the fact that such projections may not convey an accurate picture being regarded as only marginally relevant.[42] If projected costs, in absolute terms, are given some indication of their reliability would, however, seem to be important. For practical purposes it would appear adequate to provide not only projected costs based on expected values but also projected costs based on alternative conservative and optimistic assumptions to reveal some band of values in which future costs might lie, and in view of the nature of the assumptions involved it would be desirable for the projections to extend over a very limited number of years into the future only. But whilst the nature of the problem precludes a funding rate being quoted under the traditional, or any other, approach (see 4.51) which can claim precision, the traditional approach of quoting a relative rate, i.e. a rate relative to salary and wage roll (see 4.48) does imply that future costs in absolute terms are out of place.

4.74. The calculation of the funding rate under pension schemes transacted through an assurance office can, however, veer towards that of an examination of estimated projected costs. The methods of costing non-profit group deferred annuity schemes have been straightforward, customarily the life office giving separate regard to future service pensions and past service pensions. Future service pensions would be costed by the recurrent single premium method, the pension accruing in any year being bought in that year so that, due to the incidence of mortality and compound interest as a member's age increased so would also the cost of a unit of pension in respect of him. Alternatively future service pensions could be costed by an annual premium method. Under this latter approach an annual premium, payable throughout his service, could be calculated for each individual when he enters the scheme and could remain constant until a change in the member's pension benefits occurred. As regards past service pensions the employer usually met the cost by a series of level annual payments, the indefinite funding method (see 4.52) generally being adopted under which the lump sum cost would be spread over a period of years, for example 20 years, on an interest only basis. The successive payments when received would be treated as single premiums and applied to those nearest retirement age first, to buy their past service in full. Each purchase would be made at the single premium rate corresponding to the attained age of the member at the date of purchase. The method is indefinite because some deaths or withdrawals could occur before the past service pension of those members were

purchased and these being removed from the transactions would thereby affect the term of years over which the funding was to be made. The funding of non-profit group deferred annuity schemes resulted in contributions expressed in absolute terms being quoted, those in respect of future service pensions generally being accompanied by projected costs. The bases of the projections usually were those underlying the premium rates adopted but with a constant in-service membership, those reaching normal retirement age over the period of the projections being replaced correspondingly at a young age of entry, for example 25.

4.75. Because of the unknown profits element, benefits under a with profits group deferred annuity scheme cannot be costed with precision and in consequence the assurance office concerned puts forward a suggested funding rate based on an aggregate costing system. When past service pensions are treated separately they are usually costed by an indefinite funding method, the emergent level annual amounts being equated to a percentage of payroll. As regards future service pensions the approach is to cost the first year's future service benefits on the recurrent single premium method; then to project forward the membership of the scheme into the second year replacing those due to retire by members at a young age and then to re-cost by the recurrent single premium method for the second year repeating the process for a number of years to obtain the average recurrent single premium cost for the future service pensions over that span of time, this average cost being

expressed as a percentage of payroll. This percentage together with that for past service pensions and any other benefits represents the rate of contribution to be paid into the fund until the finances of the scheme are reviewed. A number of points arise. The span of years over which the average future service cost is to be obtained should be long enough to give proper regard to solvency adequacy, at least during the inter-review period, whilst too long a period gives undue weight to the largely unknown membership of the future relative to the almost known membership of the scheme in early years. A ten year control period is often of the right order; a longer period can prove unsatisfactory, for example, when the age membership of the scheme is high. As regards the premiums to be adopted in the aggregate costing calculations, whilst it is generally justifiable to incorporate discounts in respect of likely future bonuses it would seem desirable for the assurance office not to discount in excess of bonuses it expects to allow should the scheme be discontinued, considerations of solvency and possible scheme termination at any time always being important in assurance office aggregate costing calculations. In the projections of membership into the future it is also necessary to allow for mortality and in this regard it is customary and logical for the life office to assume that mortality likely to be experienced in the future by the scheme members will correspond with the mortality assumptions underlying the premium basis. An important factor to be allowed for in the aggregate costing calculations

is that of future salary increases. This should not only reflect likely age to age salary increases but also give some regard to likely superimposed increases due to inflation and economic growth. However the assumption in this respect is not to be regarded as entirely independent of other factors such as the implicit interest basis of the premiums adopted in the costing after making allowance for discounted bonuses. A practical point arises in connection with final salary schemes. Here the benefit accruing to a member in any scheme year is a percentage of his final salary and it is thus realistic, when costing, for the assurance office to bring into account the assumed final salary as at normal retiring age. Such is general practice but some offices choose to clip off assumed salary increases after a limited period, say 10 years. This device may reduce the resultant outlay to be suggested to the employer but it does not seem completely to accord with the desirable principles of accrual funding. Full allowance needs to be made in the costing for any statutory benefits as may occur, for example, with contracted out schemes and also with preservation, to which the actuary needs to give regard in his certifications. Because in aggregate costing a number of assumptions necessarily are involved, the financial position of an assurance office pension scheme funded on such a basis needs to be reviewed every few years. Such a review normally involves the suggestion of a revised contribution rate due to changed circumstances notwithstanding the fact that the initial rate aimed at stability. One concept at a review is to calculate a fresh new scheme rate on appropriate revised

assumptions and to adjust this rate by an allowance for the difference in value, probably on a scheme discontinuance basis but allowing for the continuation of any indefinite funding contributions, of pensions purchased and of those earned by service to date.

4.76. The problems involved in costing deposit administration schemes, which can in effect be on a with profits basis (see 3.40), differ in detail from those involved in costing with profits group deferred annuity schemes but in calculating the contribution rate the same essential features are relevant and in practice a similar procedure of aggregate costing is adopted (see 4.75) but utilising a hypothetical set of recurrent single premium rates. These hypothetical premium rates would be built up on a combined compound interest and mortality basis with both items being assessed according to the circumstances of the scheme concerned and, when appropriate, loaded for expenses and profit. Alternatively to utilising a hypothetical premium approach a life office could adopt a similar approach, for determining a recommended funding rate, as utilised when a self-administered scheme is concerned (see 4.60).

4.77. It is of relevant interest that in a survey made, responses to a questionnaire sent to British life offices indicated that they would recommend initial contribution rates, in respect of a supplied identical model final salary scheme, which ranged from 10½% of payroll to 15%. This wide variation arose both from utilisation by the various assurance offices, of different assumptions, salary

increases, interest etc., and from different approaches to determination of the recommended funding rate.[43]

4.78. In practice and when required to do so, an assurance office would probably cost its managed fund business (see 3.44) on lines similar to those indicated for deposit administration business (see 4.76), utilising an aggregate costing approach incorporating appropriate hypothetical recurrent single premiums to determine a suggested funding rate. Sometimes an assurance office quotes alternatively for different types of contract and in these circumstances it might aim for a degree of consistency between its quotations.

(g) Special Points relevant to Assurance Office Schemes

4.79. The preceding references to the calculation of the funding rates under pension schemes transacted through assurance offices (see 4.74 to 4.78) lead on to broader financing considerations. When an individual pension scheme is fully self-administered its finances are directly dependent on the experience of that individual scheme that is to the expenses it incurs, the mortality it experiences, and the yield it obtains on its fund and so on. On the other hand, when a pension scheme is transacted through an assurance office a certain amount of pooling may be involved and this applies in general to the various types of assurance office schemes (see 3.40 to 3.42 and 3.44) and to the various types of assurance office policies under which retirement annuities may be effected (see 3.67).

4.80. Under non-profit types of contract a specific amount of premium secures a specific amount of benefit on guaranteed terms. There is thus strict conformity with insurance principles. However in practice the guarantees have to be paid for. This normally means that better value for money is obtained from those types of contract such as with-profits contracts or unit linked contracts under which there is relatively less by way of precise guarantees (see 3.41). Under unit linked contracts emergent benefits, for a given premium paid, are to some extent dependent on future experience. Under with-profits contracts emergent benefits, for a given premium paid, are to some extent dependent on future profits as declared by the assurance office concerned.

The point is important in inflationary times when capital gains on investments can be significant.

4.81. A main purpose of unit linking is to enable equitable participation in investment profits from the dual aspect of amount and timing. Thus relevantly the question arises as to the extent to which this purpose might be achieved under traditional life assurance office with-profits deferred annuity systems. There has, in the past, been some criticism of the traditional British forms of with-profits contracts on the score that the normal practice of life offices has been to retain some capital profits in reserve, the policyholders whose premiums are paid to make the investments not receiving directly full benefits from related equity capital profits. In fact, there is the point as to whether full capital appreciation can be distributed to with-profits contract holders when in the event of depreciation, there is no power to reduce the benefits under existing contracts. If difficulties do arise in distributing to with-profits contracts all elements of surplus in times when inflation profits accrue then it would seem reasonable to conclude that the case for index linking in such times is a strong one.

4.82. With-profits schemes transacted through life offices for groups of employees can, however, at least partially, cope with the requirement of equitable distribution of capital profits. This is so, for example, under group contracts which allow annual premium rebates determined with reference to current investment conditions (see 3.40) either by an unspecified formula or by specific reference to the published gross yield on the assurance office's funds, or varying directly with the yield on a low coupon British

government security with no final redemption date. It is, indeed, customary for these types of contract to share additionally in the profits as declared from time to time, of the issuing assurance office and the dependence of chargeable rates on some yield index goes some way towards index linking. But clearly these chargeable rates with-profits systems whilst appropriate for group schemes, under which it is the approvable benefits to members which are fixed are not so directly appropriate for individual retirement annuities under which it is the approvable premiums which are fixed (see 3.63). With retirement annuities the policyholder may well wish to pay the maximum approvable premium and a system under which premium rebates are given effectively to reduce the premium payable below the approvable maximum loses some of its appeal. It thus becomes necessary under such systems to permit re-application of the premium rebate to purchase extra benefits. This poses no insuperable problems any more than the reversionary bonus system (see 3.40) does for group schemes. When group schemes are being transacted through a life office by means of a with-profits reversionary bonus system the bonuses are expressed as a percentage addition to pension but the additional pensions are utilised to reduce pension to be purchased. Thus the chargeable rate system for retirement annuities permits an element of index linking as it also does for group contracts.

4.83. More frequently in practice retirement annuities when contracted on a with-profits basis are transacted under the reversionary bonus system. The reversionary bonus system

customarily gives annual bonuses which are dependent on declared profits and which are expressed as percentage bonus additions to pensions secured; plus a final bonus granted at the time of pension commencement and which in effect is a commutation of the future annual bonuses which are not allocated to pensions in course of payment; plus a further terminal bonus which makes some allowance for capital profits which have accrued during the in-deferment period and which have not been allowed to trickle out as part of the annual bonuses. It is apparent that the reversionary bonus system, relatively to the chargeable rate system, tends to delay surplus emergence by the life office a feature favourable to its own financing operations but not to the advantage of policyholders. In fact any sharing in life office declared surplus must be related to the method adopted to value the liabilities and this is often the net premium method which aims primarily to ensure office solvency and secondly to allow an equitable emergence of surplus into revenue. A valuation method and method of calculation of life office premiums necessarily must accord and this is achieved, although the overall result as far as pensions business is concerned is that, in modern conditions of an unstable currency, a net premium valuation does not capitalize surplus, nor are bonuses declared from it which are in the main dependent on the experience of the inter-valuation period with an allied crediting of investment results. Even when consideration is given to a chargeable rate system with participation in valuation surplus and when that valuation for surplus can give regard to assets taken at market value with liabilities

valued using chargeable rates net of expenses and with surplus distributed as a percentage of the current premium valuation reserves, capital appreciation in equities may not be distributable until regarded as reasonably certainly permanent.[44] Therefore, on balance, a unit linked approach for pensions in general and retirement annuities in particular offers a neater financial solution than a chargeable rates with-profits system which in turn is more appropriate than the traditional with-profits reversionary bonus system as is generally more available for retirement annuities.

Appendix.

Pension Funding under Dynamic Conditions.

The principles applicable to pension funding under dynamic conditions of population growth, inflation and automamtic adjustment of benefits might well be considered by adopting a model. Assume that under such model the active group extends over the ages a to r with all new entrants coming in at age a and all retirements occurring at age r and that there are benefits on retirement only. Also assume for both the active and the retired participants that survivorship is in accordance with the life table function l_x and that this does not depend on the time variable. At time o the density of participants aged r is l_r and thereafter this density increases by a factor $g_1(t)$. This establishes a generation pattern of growth for the participants. Salaries at time o are represented by the function $s_{(x)}$ and thereafter they increase by a factor $g_2(t)$ which establishes a year of experience pattern of growth for salaries. Assume that initial pensions are a fixed percentage of final salaries and increases during retirement by a factor $\beta_{(x)}$ dependent on age x. For $a \leq x < r$, the density of new pensions to be incurred at time $t+r-x$ with respect to the survivors of participants aged x at time t is given by the function $h(t+r-x)$. For $x \geq r$, $h(t+r-x)$ is the density of new pensions incurred at time t for those who were then aged r and who may or may not be surviving at age x or time t. The function $h(t+r-x)$ is proportional to the product $g_1(t+r-x)g_2(t+r-x)$.

Now let $M_{(x)}$ represent an accrual of liability function; $0 \leqslant M_{(x)} \leqslant 1$, for all $x \geqslant a$ If this function be defined in terms of a pension purchase density function $M_{(x)} = \int_a^x m(y)dy$ then, for an individual participant of the model scheme aged x at time t and with salary at the annual rate $g_2(t)\, S_{(x)}$, the normal cost rate defined by the accrual function $M_{(x)}$ is $bg_2(t+r-x).S_{(r)} \cdot A_{(x)} \cdot m_{(x)}$ and the accrued liability is $bg_2(t+r-x).S_{(r)} \cdot A_{(x)} \cdot M_{(x)}$ where b is pension expressed as a flat percentage of final salary;

$A_{(x)}$ denotes the present value of future payments for each unit of initial pension from age r payable while a participant aged x survives.

The contribution with respect to this individual may then be fixed by the normal cost rate and by some amortisation process for the unfunded accrued liability.

Now, $F_{(t)}$ the fund on hand for the scheme at time t can be defined by the equation,

$$d/_{dt} \cdot F_{(t)} = C_{(t)} + \delta F_{(t)} - B_{(t)}$$

where

$B_{(t)}$ is the annual rate of pension outgo at time t viz,

$$B_{(t)} = \int_r^\infty h(t+r-x) \cdot \frac{l_x}{l_r} \cdot \beta_{(x)}\, d_x$$

and

$C_{(t)}$ is tha annual rate of contribution at time t to the fund of the scheme; and assuming that $C_{(t)}$ covers the normal cost rate and interest on the unfunded accrued liability

$C_{(t)} = P_{(t)} + U_{(t)}$

where

$P_{(t)}$, the normal cost rate

$$= \int_a^r h(t+r-x) \frac{l_x}{l_r} \cdot P_{(x)} \, dx$$

$P_{(x)} = A_{(x)} \cdot m_{(x)}$; $a \leqslant x < r$

$P_{(x)} = 0$; $a > r$

The accrued liability of the scheme at time t can be expressed as $V_{(t)} = \int_a^\infty h(t+r-x) \frac{l_x}{l_r} \cdot V_{(x)} \, dx$

(where $V_{(x)}$ is the accrued liability for a unit of initial pension from age r in respect of a participant aged x i.e. $V_{(x)} = A_{(x)} \cdot M_{(x)}$).

so that $\frac{d}{dt} \cdot V_{(t)} = P_{(t)} + \delta V_{(t)} - B(t)$

and as this equals $\frac{d}{dt} \cdot F_{(t)}$ (because $U_{(t)} = V_{(t)} - F_{(t)}$),

$\frac{d}{dt} \cdot U_{(t)} = 0$

i.e. the unfunded liability remains stationary if the contribution rate equals the normal cost rate plus interest on the unfunded liability.

If long term growth be represented by exponential functions then let

$g_1(t) = e^{\alpha t}$; $g_2(t) = e^{\gamma t}$

and $\beta_x = e^{\beta(x-r)}$ where on the right hand side β represents a constant rate of increase.

To consider the effect of growth rates $h_{(t)}$, which represents the density at time t of the amount of newly incurred age r pensions and is equal to

$g_1(t) \cdot g_2(t) \cdot l_r \cdot s_{(r)} \cdot b$

can now be written as $e^{(\alpha+y)t} \, l_r \cdot s_{(r)} \cdot b$

Thus a change in α is equivalent to a corresponding change in y as far as $h_{(t)}$ is concerned, and the same applies in respect of functions defined by means of $h_{(t)}$, viz, $B_{(t)}, A_{(t)}$ which equals $\int_d^\infty h(t+r-x) \cdot \frac{l_x}{l_r} \cdot A_{(x)} \, dx$, $P_{(t)}$ and $V_{(t)}$

As regards the accrued liability of the scheme at time t, since under the exponential growth case $\frac{d}{dt} \cdot V_{(t)} = (\alpha+y) V_{(t)}$, the liability growth equation $\frac{d}{dt} \cdot V_{(t)} = P_{(t)} + \delta V_{(t)} - B_{(t)}$ leads to $P_{(t)} + (\delta - \overline{\alpha+y}) V_{(t)} = B_{(t)}$.

This can be interpreted to mean that only $(\delta - \overline{\alpha+y}) V_{(t)}$ of the assumed interest is available to meet current pension outgo the remaining assumed interest income namely $(\alpha+y) V_{(t)}$ being required for the growth of liability.

If $(\alpha+y)$ exceeds δ then the growth of liability absorbs more than the assumed interest income and $P_{(t)}$ exceeds the assessmentism cost $B_{(t)}$ as to be expected under growth conditions.

Whilst the situation in which a pension scheme has a long term investment income δ less than the long term growth rate in salaries y may appear artificial this phenomenon has arisen short term in some pension schemes. The implication is that if such condition persists long term, i.e. if the long term salary inflation rate exceeds the long term investment income rate assessmentism results in lower cost than funding (see 4.28).

It might thus be argued that investments with indexed yield rates to keep $\delta - y$ positive are essential if funding of pension schemes is to remain a viable policy. Interestingly, the £1000m issue of 2% Index Linked Treasury Stock 1996, marketed in March 1981, relates both interest on the stock and principal repayment to the general level of retail prices. It is however the salary index which is relevant so that for a pension scheme whose assets were to be invested entirely in this stock, funding is financially advantageous (relatively to assessmentism), only if salary increases do not exceed retail price increases by more than 2% annually.[45]

CHAPTER 5

THE INVESTMENT OF PENSION FUND ASSETS

(a) Fundamental Considerations.

(b) The Magnitude Involved.

(c) The Net Acquisition of Assets.

(d) Proportionate Distribution of Funds according to Investment Class.

(e) Ownership of Equity.

(f) Activity and Assets Held.

(g) Rates of Return.

(h) Analysis of Individual Funds.

(i) Indexed Funds.

(j) Contracted-out Schemes.

(k) Small Self-administered Pension Schemes.

CHAPTER 5

THE INVESTMENT OF PENSION FUND ASSETS

(a) Fundamental Considerations.

5.1. Consideration of important matters such as those of solvency and of the likely adequacy of future contribution rates involves consideration also being given to the valuation of the investments of the scheme which have been built up from contributions paid in the past in respect of and related to benefits which have accrued in the past. Thus attention becomes directed to appropriate investment policy.

5.2. Clearly the case for funding private occupational pension schemes, however desirable on theoretical considerations, would lose much of its practical force if such schemes were intended to operate in a society in which investment opportunity was somewhat restricted. This is not the case as far as the UK is concerned for the stock exchange is particularly well developed facilitating the buying and selling of certain categories of securities. Not only is there a wide range of stocks available but also they exist in good quantity. British government securities, for example, are extremely marketable. Indeed the ease with which they can be dealt with compares very favourably with that of any other stock exchange securities in the world. Moreover they have, in aggregate, a very wide range of maturity dates thus permitting an investment

portfolio to be built up in such a manner that a high degree of matching of assets to liabilities by term can be effected if so desired. Again, for example, the British stock exchange provides an extraordinarily good market for the buying and selling of ordinary shares; moreover within the UK investment in property can be effected without undue bother. Thus the British economic set-up is particularly well adapted for the successful financial funding of occupational pension schemes, and this is accompanied at the present time by a virtual absence of exchange control regulations so that the advantage can be taken, if so desired, of some investment overseas appropriate from the aspects of diversification and yield considerations.

5.3. It would appear to be a fundamental requirement of all investment policy that the purpose of the investments be kept clearly in mind and in settling their investment policy the trustees of a pension fund desirably need to bear in mind both the length and the nature of the liabilities. If no pre-scheme service credits are to be granted to existing employees there will be an initial period of growth of perhaps 40 years before pensions in respect of a full working lifetime begin to be paid out and the scheme reaches a measure of maturity. If credits are given for pre-scheme service the pension outgo will build up more quickly and so will the fund because the employer will pay extra contributions in respect of the initial liability.

However, in general, a self administered pension fund has a continuous flow of contributions paid into it which are necessary to meet pension liabilities which are to be paid out in the future, often in the relatively distant future. In a broad way it is, in fact, possible to formulate in respect of an individual pension fund and working on its existing membership and benefit conditions the amounts of money which will need to be paid out by way of benefits to members in successive future years. If this were to be done then these pension liabilities could be matched by assets appropriately invested so that investment redemptions become repayable at the appropriate times. The question of matching the liabilities by assets of appropriate term, thereby avoiding the possibility of a capital loss by reason of an enforced sale can be an important consideration, for example, in a pension fund closed to new entrants. However, in practice the particular circumstances of the individual pension fund need fully to be appreciated when framing an investment policy for it and generally there is the broad principle that the liabilities of a pension fund are long term by nature and the assets should therefore also be invested long. In fact there is the consideration that the trustees of a new scheme usually have no grounds for expecting other than a continuing flow of new entrants, and they may well believe that some degree of escalation is likely to persist. It may be therefore that the normal expectation is that the benefits can be paid from income throughout the foreseeable future, the assets accumulated in respect of these benefits passing to new generations of contributors, from

which it may be thought that there is no date at which it is expected that investments will have to be realised or at which it is desirable that investments should mature, to pay benefits. Moreover pensions are normally related to earnings and if the liabilities of a private pension scheme are to be increased by inflation then there is a case for the related assets to be invested in a manner which can enable them to have growth potentialities in an inflationary economy.

5.4. There is thus the suggestion that whilst special factors can arise in certain circumstances such as when a closed fund is invested, in general formulation of investment policy appropriate for an open pension scheme involves considerations of risk and of expected return with a remote time horizon necessarily in mind. One of the aims of funding is to provide security of benefits for the members and this is dependent not only on contributions adequate in amount being paid into the scheme at the appropriate times but also on the nature of the investments chosen to back the benefits being appropriate. It would seem that this need for security to members to influence the choice of investments should generally confine trustees to the normal range of investments such as stock exchange securities and property. In an emergency such investments would either be readily marketable or would be acceptable to other trustees taking over the liabilities. On the other hand direct investment in metals, for example, such as gold and silver bullion, tin,

etc., involves dealing in highly volatile markets; and investments in objets d'art, paintings etc. involves dealing in very thin markets in which individual buying and selling interest can significantly affect market values.

5.5. But ordinary shares can be advocated as investments for pension schemes when it is considered that they are matched to the liabilities in the sense that the dividend levels will tend to be affected by general economic conditions in broadly the same way as earnings levels. Within the fixed interest sector gilt edged securities have the advantage of marketability with the consequent possibility of policy and anomaly switches, whilst the trustees will need to consider the extent to which the yields on debentures and loan stocks should exceed those on gilts in order to offset the disadvantages of their comparative lack of marketability and security. The attraction of property as a direct investment is due to the thought that it reflects a hedge against inflation; but specialised knowledge is needed in its acquisition and management and only large schemes can buy on a direct basis sufficient high class properties to obtain an adequate spread to give an acceptable level of risk.

5.6. With further regard to this investment by pension funds in property there are those who feel that this form of investment has been overplayed resulting in, for example, too many office blocks some of which tend to lie idle over a long period, at the expense of an investment strategy aimed at arresting the relative decline of the UK's manufacturing industry. However, whilst property can be regarded

as a suitable medium for large funds to obtain the necessary diversity of risk and opportunity within the total investment portfolio and a secure investment with a prospect of an adequate real return in line with a pension fund's total return objectives, there is also the concept that some property investment such as in industrial units can obviate the need for manufacturing companies to tie up their capital in long term assets thereby making more money available for operating capital purposes. Such property investment does not therefore necessarily conflict with satisfying the needs of manufacturing industry but might, in practice, substantially indirectly assist it. Moreover whilst pension funds are equity orientated since gilts and cash have not exhibited the same inflation hedge characteristics as equity investments including property have shown historically, pension funds generally do have in practice significant amounts of money awaiting suitable investment. Although these sums are placed principally in the money markets they are subsequently recycled via the banking system to produce a useful flow of short term funds to industry and commerce.[1]

5.7. One area of investment activity which gives rise to criticism in some quarters concerns the willingness of pension funds to invest part of their assets outside the UK which they are free to do (see 5.2.). Such quarters point to a continued tendency for there to be an imbalance. The book values of net assets abroad attributable to the UK grew from £3,400 millions in 1962 to over £11,000 millions by 1978; growth of outward investment was particularly strong

in Western Europe with the book value of investment growing from £455 millions in 1962 to over £3,000 millions in 1978. In contrast the book value of inward investment into the UK was £1,400 millions in 1962, of which £300 millions was from Western Europe countries, and of the order of £7,000 millions in 1978 of which £2,000 millions was from Western Europe.[2] There is therefore some validity in this viewpoint that institutional investors such as pension funds are supporting overseas industry by such investment and of course there are additional risks involved in investment overseas such as exchange rate fluctuations. However, it is to be noted that overseas investment by pension funds is usually a small percentage of the total; that overseas investment can add diversity to the portfolio; and that overseas investment can improve the yield on the fund to the benefit of the trust.

5.8. It is often suggested that the primary objective of pension funds is to maximise the rate of return by investments which involve an acceptable level of risk having regard to the nature of the liabilities which in general are long term; long term assets thus being indicated. It is to be appreciated also that pension funds are trustee funds and that trustees are bound by legal restraints and cannot take too wide a view.[3] Indeed it would appear to be by such criteria that pension fund investments in ordinary shares, fixed interest securities, property, cash, overseas securities and the like are professed to be decided upon but the question arises as to how meaningful these criteria actually are in practice.

5.9. First, as regards the rate of return it is customary to have regard to an approach which is basically time weighted thereby desirably permitting in its calculation the rate of return to vary over the period being measured so that distortions caused by injections of new money into the fund tend to be reduced. This results in a return r_x over the whole period n as given by an equation basically of the form

$$(1 + r_x) = \prod_{k=1}^{n} (1 + r'_k)^k$$

where r^1_x is such that

$$V_k (1 + r'_k) = V_{k+1}$$

with V_k and V_{k+1} respectively representing market values just after one cash flow and just before the next.[4] There is the implication here of a market valuation of all the assets each time there is an injection of new money into the fund so that modifications become necessary in practice, for example a valuation say once a month might prove acceptable. But the fact remains that a rate of return does not mean very much by itself. Over a long period it may be of interest although even this may be doubtful in times when inflation and rates of interest vary substantially. Indeed when it is suggested that the primary objective of pension funds is to maximise the rate of return, how does one know how successfully or otherwise such an objective is being achieved; for performance assessment rates of return must be compared with something and that something is other possible outturns. There is the possibility of comparisons with other similar funds but in this connection

the word "similar" has some significance for in practice funds are often subject to some constraints of management which may affect the rates of return achievable. Also, for example, for a 100% equity fund with no discretion to depart from this policy and with all investments in the UK a notional fund could be constructed of the Financial Times - Actuaries All Share Index with dividends ploughed back and this could be used for comparison. However, in practice, pension funds are generally diversified between groups. Thus it would be logical to build a complete notional portfolio so that we would then have the return on the total portfolio broken down between groups together with the returns on the notional groups. But to construct a complete notional portfolio it would be necessary for comparison purposes, to assume that the portfolio is invested in certain proportions and then there is the awkward question as to what proportions. Perhaps in a certain pension fund where the trustees lay down certain percentages as normal these could be used as the notional portfolio but in practice it is doubtful whether many supervisory boards of pension funds would lay down percentages as tightly as this, in fact if they did so it might have a stultifying effect on investment management. Thus in practice comparison for most funds might be best restricted to a comparative notional portfolio based on the circumstances of the actual fund, and to the rates of return on each notional group individually. However, even the performance of an actual fund against a notional fund broken down to show where the differences arise by a breakdown into several groups, say fixed interest, cash, equities

and property is far from devoid of complexities because of the practical difficulties involved in determining appropriate indices for the groups. There are therefore difficulties in attaching meaning to measurements of pension fund performances as shown by rates of return, particularly bearing in mind that performance desirably needs to be evaluated in two dimensions namely rate of return and risk.

5.10. Indeed, the objective as often suggested of maximising the rate of return includes the proviso of investments which involve an acceptable level of risk. Lack of definition of the words "acceptable" and "risk" appears implicitly to suggest that rate of return and risk be separately assessed without regard to the one parameter measures of an asset or a portfolio which have been developed. However, on the assumption that the capital market is in equilibrium it has been shown that the expected return for asset or portfolio i $E(R_i)$ is related to the expected return on the market portfolio $E(R_m)$ by the equation $E(R_i) - R_f = \beta_i [E(R_m) - R_f]$ where R_f is the risk free rate for borrowing or lending and β_i which is a measure of systematic risk, is defined as $Cov(R_i, R_m)$ divided by $Var(R_m)$.[5] To recognise explicitly that not all securities are in equilibrium the equation can be re-written as

$$E(R_i) - R_f = \eta_i + \beta_i [E(R_m) - R_f]$$

where η_i is a measure of disequilibrium. If $\eta_i > 0$ this would represent, in market terminology, an undervaluation

and vice versa. By dividing both sides of the equation by β_i we obtain

$$\frac{E(R_i) - R_f}{\beta_i} = \frac{\alpha_i}{\beta_i} + [E(R_m) - R_f]$$

the ratio on the left of the equation being a reward to volatility ratio measure of investment performance.[6] There is no implication in this ratio that the portfolio is efficient, unlike a reward to variability ratio in which β is replaced by the standard deviation which assumes that $\rho(R_i, R_m) = 1$ where ρ is the coefficient of correlation, thereby implying that portfolios i are only taken to be efficient portfolios. But such stipulation of an explicit functional relationship between risk and return is itself not devoid of complication. There is the point as to whether a development in terms of ex ante measures validly can be re-written ex post, whilst on empirical grounds there may be some suggestion of introduced bias with the magnitude of the bias related to portfolio risk,[7] and with inconsistencies over time of the relative rankings of funds based on such a measure.[8] Also interestingly Friend, I., (1977) has written,

> "I know of no direct evidence supporting the almost universal academic conclusion, based on normative methods and not too impressive empirical tests, that beta is the relevant measure of market risk." [9]

Moreover, appositely, the liabilities of most pension funds are long term and the aim in general is to balance these with appropriate long term investments so that it follows, therefore, that pension funds have a long term investment

horizon in mind when deciding their investment strategy. Capital asset pricing models, on the other hand, are based on short term investment horizons and their emphasis on price volatility over the short term thus raises questions on this score as to the validity of their application to pension funds. Again, by definition, theoretical capital asset pricing models have regard to equity portfolios and are not applicable to the wider market surrogate which includes property investment, whereas pension funds aim at a diversified portfolio in which property investment generally plays an important role. Thus the very limited respect which UK pension fund investment managers, in general, have in practice for the principles underlying capital asset pricing models is not entirely to be dismissed as necessarily reflecting a general want of knowledge on their part.

5.11. It is, however, almost impossible for a pension fund to balance exactly its liabilities and its assets so that investment policy must incorporate some degree of risk, where risk is used in the sense of a risk of possible financial strain due to the investors of a pension fund departing from a policy of matching the assets to liabilities by term, and not in a volatility or variance sense (see 5.10). Moreover, statements such as that

> "Pension funds have policy objectives which determine the split of their portfolio as between fixed interest investments, equities and property. This policy reflects the degree of risk which trustees are prepared to take. The percentages will vary from fund to fund since trustees of different pension funds are willing to take different degrees of risk " [10]

are difficult to interpret precisely. The difficulty arises because of the lack of clarity as to what sense risk is being referred to, e.g. a volatility or variance sense due to impinging economic factors or a mismatching by term sense. Moreover with statements such as,

> "Pension funds do look at the relative rates of return of these three basic outlets and do try to calculate a discounted cash flow rate of return from these outlets and then relate that estimated return to the level of risk involved, . . . for gilts the discounted cash flow rate of return is given by the gross redemption yield. For equities the DCF calculation is a summation of gross dividend yield plus the estimated rate of growth in dividend. In the case of property the DCF rate of return is based upon the intitial rental plus the expected rate of growth in rental income,"[11]

there would seem to be an implication that individual investments are considered without regard to covariance of each security with each other security, a factor relevant from the aspect of diversification. And with a statement such as,

> "Investment policy will be based upon a comparative study of the actual or likely DCF rates of return from these various outlets. The main yardstick will be the return from gilts,"[12]

the impression is given that the return on gilts presumably at the long end, is regarded as a relatively risk free rate which the expected return on other investments must exceed, if they are to be chosen for the fund, by an amount arrived at largely by subjective reasoning. Subjectivity, in practice, would seem also to be involved in fixing the extent to which investments are chosen by individual funds

to hedge against inflation. Statements such as

> "The liabilities of pension funds are geared to earnings which are subject to inflation and therefore pension funds are conscious of the inflationary environment and are anxious to make investments which provide some cushioning against inflation" [13]

are not particularly explicit.

(b) The Magnitude Involved.

5.12. An indication of the extent of growth of occupational pension funds is their net acquisition of assets over recent years. In the year 1965 these amounted to £489 millions, in 1970 they were £725 millions, in 1975 £2511 millions and in 1978 £3946 millions.[14] Such figures, however, represent growth in absolute terms. With continuous inflation a more valuable indicator is to consider the growth in the net acquisition of assets in relative terms. One such measure is the percentage of net acquisition of assets relative to wages and salaries. Such asset percentage was 2.56% in the year 1965, 2.69% in 1970, 4.24% in 1975 and 4.68% in 1978.[15] Thus the approximate 2.5% of total wages and salaries represented by the pension funds' net acquisition of assets in the 1960s rose sharply over the period 1970 to 1975 to 4.24%. There was a substantial increase in the asset percentage in 1976 to 4.93% falling back somewhat in 1977 and 1978 but still some 4.68%. Such increase in the asset percentage over those years has probably been due, in the main, to the expansion of private pension schemes which occurred and which expansion has not been discouraged by the introduction of the new State scheme in 1978 and from which the vast majority, namely some 90%, of the total membership of all schemes have elected to contract out.[16] Another factor to influence the asset percentage particularly in years such as 1975 and 1976 has been the heavy cost of funding liabilities which have grown in line with inflationary rises in levels of remuneration

compared with more modest returns earned in the investment sectors; this forced many companies to reconsider the funding levels appropriate to their pension funds and in some cases to make special payments to cover deficiencies which have arisen.[17] Figures for recent individual years are indicated in the following table.

Table 5.12.1.

Pension Fund Inflows and Wages and Salaries

Year	Pension Funds Net Acquisition of Assets (i)	Wages and Salaries (ii)	Asset Percentage (i) as % of (ii)
	£ millions	£ millions	%
1965	489	19,111	2.56
1966	533	20,389	2.61
1967	516	21,173	2.44
1968	575	22,566	2.55
1969	572	24,188	2.36
1970	725	26,994	2.69
1971	876	29,691	2.95
1972	1,083	33,163	3.27
1973	1,374	38,079	3.61
1974	1,663	45,916	3.62
1975	2,511	59,176	4.24
1976	3,299	66,870	4.93
1977	3,426	74,047	4.63
1978	3,946	84,383	4.68

Sources: Central Statistical Office, London.
Annual Abstract of Statistics, HMSO, London.
Business Monitor, HMSO, London.
Financial Statistics, HMSO, London.

(c) The Net Acquisition of Assets.

5.13. The net acquisition of assets by pension funds has not been consistent according to sector. The following table which compares 1968 with 1978 shows that growth has been greatest in the public sector over this period of years. The reason has been that of some shift in employment and a change in the funding arrangements for some public corporations to a fully funded basis resulting in an increase in contributions.[18]

Table 5.13.1.

Pension Funds. Net Acquisition of Assets.

	1968 £mns	1978 £mns	Growth p.a. %
Local Authorities	100	591	19.4
Other Public Sector	178	1,669	25.1
Private SEctor	297	1,686	19.0
Total	575	3,946	21.2

Sources: Central Statistical Office, London.
Annual Abstract of Statistics, HMSO, London.
Business Monitor, HMSO, London.
Financial Statistics, HMSO, London.

5.14. The net acquisitioning of assets by pension funds has also not been consistent according to the major investment sectors. Over recent years investments in gilt edged securities have tended to be somewhat volatile, but increased by massive amounts in 1975 and thereon relative to years prior to 1975, as a result of the Government's

heavy funding programme.[19] Investment in property has shown a marked increasing trend over recent years. Such investment has been principally in offices, industrial units, and retail premises including shopping centres. Frequently pension funds are partners with developers, such as local authorities in city centre developments, new town developments and mixed developments. One of the significant features of property investment is the relative lack of volatility in property yields, the median level of prime yields on rented property selling at around 6% over a relatively long period of past years with only minor, relatively speaking, oscillations.[20] In accepting an initial return of say 6% from a rented commercial property the institutional investor has made a judgement concerning the level of future income from the property. One technique adopted in practice is based on a discounted cash flow analysis. The analysis discounts the flow of income over a long period making assumptions on the likely level of the rate of increase in rents on each rent review based on analysis and research. In using this technique the discounting rate is normally the level of undated gilt yields with an allowance of say one or two per cent for risk, management, etc.[21] Clearly the likelihood of being able to achieve the growth rate assumed in the initial decision is critical. But property investment is to some extent an intended hedge against inflation and in fact the indications are that in a typical pension fund property portfolio the actual growth in rents has tended to equal if not outpace the rate of inflation.[22] Pension fund invest-

ment in company securities tended to increase over the period 1966 to 1974; there was a vast increase in equity investment in the year 1975 accompanying the overall expansion of funds (see 5.12.) and this has tended further to increase since then. The distribution of the net acquisition of assets according to type of investment during individual years in the relatively recent past is shown in the following Table 5.14.1.

Table 5.14.1.

Pensions Funds. Distribution of Net Acquisition of Assets.

Year	British Government Securities £mns	Other Public Sector Investments £mns	Company Securities £mns	Property £mns	Short Term Assets £mns	Loans and Mortgages £mns	Total £mns
1966	37	- 5	352	48	15	86	533
1967	68	6	302	79	- 5	66	516
1968	15	1	347	116	19	77	575
1969	3	- 6	375	132	12	56	572
1970	-18	-29	483	115	134	40	725
1971	296	-69	514	129	-64	70	876
1972	15	-30	690	175	158	75	1,083
1973	190	1	471	292	287	132	1,374
1974	86	2	209	322	786	258	1,663
1975	930	18	1,197	426	-307	247	2,511
1976	1,176	72	1,120	571	40	320	3,299
1977	1,116	47	1,420	670	-67	240	3,426
1978	1,305	18	1,429	641	358	195	3,946

Sources: Central Statistical Office, London.
Annual Abstract of Statistics, HMSO, London.
Business Monitor, HMSO, London.
Financial Statistics, HMSO, London.

5.15. The distribution of the net acquisition of assets according to type of investment tends to vary, in individual years, according to type of fund, local authority, other public sector and private sector. The figures for the four individual years 1975 to 1978 are shown in the following table. The heavy reduction in liquidity in the year 1975 in both the local authorities and private sector is particularly noticeable, and this tended to persist notably with local authorities into subsequent years.

Table 5.15.1.

Pension Funds. Net Acquisition of Assets by Class of Fund.

Year and Class of Fund	British Government Securities	Other Public Sector Investment	Company Securities	Property	Short Term Assets	Loans and Mortgages	Total
	£mns	£mns	£mns	£mns	£mns	£mns	£mns
1975							
Local Authorities	195	-27	225	41	-79	-	355
Other Public Sector	284	35	313	185	100	246	1,163
Private Sector	451	10	659	200	-328	1	993
Total	930	18	1,197	426	-307	247	2,511
1976							
Local Authorities	247	-22	232	53	-27	-	483
Other Public Sector	314	91	491	270	71	340	1,577
Private Sector	615	3	397	248	-4	-20	1,239
Total	1,176	72	1,120	571	40	320	3,299
1977							
Local Authorities	198	-22	344	63	-42	-	541
Other Public Sector	344	58	576	279	-65	238	1,430
Private Sector	574	11	500	328	40	2	1,455
Total	1,116	47	1,420	670	-67	240	3,426
1978							
Local Authorities	232	-6	249	51	65	-	591
Other Public Sector	344	28	618	403	122	154	1,669
Private Sector	729	-4	562	187	171	41	1,686
Total	1,305	18	1,429	641	358	195	3,946

Sources: Central Statistical Office, London. Annual Abstract of Statistics, HMSO, London. Business Monitor, HMSO, London. Financial Statistics, HMSO, London.

(d) Proportionate Distribution of Funds according to Investment Class.

5.16. By showing also the proportion of pension funds held in each sector an indication is obtained of the separate investment policies and performances of the different sectors. These proportions are given in the following table in respect of a period of past recent years.

Table 5.16.

Pension Funds. Actual Assets held at Market Value.

Percentage Distribution.

5.16.1. Local Authorities.

Year "31st March"	British Government Securities	Other Fixed Interest Securities	Equities	Property	Loans and Mortgages	Cash
1966	22	8	32	-	35	3
1967	23	9	33	-	32	3
1968	20	9	41	-	27	3
1969	17	8	49	-	23	3
1970	20	10	45	-	22	3
1971	19	9	48	1	19	4
1972	18	9	56	1	12	4
1973	17	9	55	2	12	5
1974	18	8	47	3	13	11
1975	21	6	42	3	11	17
1976	24	4	53	4	8	7
1977	31	3	50	5	5	6
1978	29	2	54	7	3	5
1979	28	2	56	8	1	5

5.16.2. Other Public Sector

Year "31st December"	British Government Securities	Other Fixed Interest Securities	Equities	Property	Loans and Mortgages	Cash
1966	14	18	36	10	21	1
1967	13	17	42	10	17	1
1968	10	14	51	10	14	1
1969	8	15	49	12	15	1
1970	7	14	50	14	13	2
1971	7	11	60	12	8	2
1972	7	8	64	12	6	3
1973	8	8	52	21	5	6
1974	8	6	31	33	6	16
1975	12	5	46	23	7	7
1976	16	4	47	22	5	6
1977	17	3	49	24	3	4
1978	16	2	48	23	6	5

5.16.3. Private Sector

Year "31st December"	British Government Securities	Other Fixed Interest Securities	Equities	Property	Loans and Mortgages	Cash
1966	19	26	47	4	1	3
1967	17	23	52	5	1	2
1968	13	20	58	6	1	2
1969	13	20	55	9	1	2
1970	12	20	53	10	1	4
1971	13	16	58	10	1	2
1972	10	14	62	10	1	3
1973	11	13	53	15	1	7
1974	13	12	40	19	1	15
1975	15	9	55	15	-	6
1976	20	8	51	15	-	6
1977	22	6	52	15	-	5
1978	22	5	52	16	-	5

Sources: Tables 5.16.1, 5.16.2, and 5.16.3.
Central Statistical Office, London.
Annual Abstract of Statistics, HMSO, London.
Business Monitor, HMSO, London.
Financial Statistics, HMSO, London.

A significant feature of Table 5.16 is the proportionate increase in property assets, over the years shown, in respect of local authorities; an increasing trend in property assets, as a proportion of total assets, is also indicated for other public sector and for private sector funds. The proportion of actual assets at market values held by all three classes of funds in British Government

securities tended to show a declining trend over the period 1966 to 1972, with an increasing trend thereafter. The proportion held by local authorities in equities increased over the years 1966 to 1969, but thereafter has tended to oscillate around the median; the latter feature tends to apply to other public sector and to private sector funds in respect of the whole period shown in the tables. The sharp fall in the equity proportion in December 1974 and March 1975 reflects principally the decline in market values which occurred at that time. There has been a steady decline in the weighting of debentures and other fixed interest stocks over the period and the significance of internal loans in the portfolio of local authority and other public sector funds has also fallen sharply. It is to be mentioned that local authority funds are the only ones which have imposed on them statutory restrictions on investment. In particular these funds alone are required to invest a minimum of 25 per cent in British government securities and a maximum of 25 per cent in total in properties and overseas investments combined.[23] These restrictions have an effect on the distribution of these funds as compared with the private sector funds.

5.17. The extent of the pension funds' net acquisition of assets, in absolute terms, has been indicated for recent years in Table 5.12.1. Also indicated therein was the extent of net acquisitions relative to wages and salaries. In order to keep the extent of the net acquisitions of pension funds in

perspective their net acquisitions relative to some other institutional investors is shown in the following Table 5.17.1. The dominance of pension funds and insurance companies is very noticeable.

Table 5.17.1.

Net Acquisitions of Assets by various groups of Institutional Investors.

Year	Pension Funds	Insurance Companies	Investment Trusts	Unit Trusts	Building Societies
	£mns	£mns	£mns	£mns	£mns
1972	1,083	1,642	551	289	40
1973	1,374	1,663	- 35	196	288
1974	1,663	1,909	-202	34	1,003
1975	2,511	2,524	- 37	211	1,244
1976	3,299	3,028	- 7	141	132
1977	3,426	3,906	21	91	2,319
1978	3,946	4,856	35	251	- 200

Sources: Bank of England, London.
Central Statistical Office, London.
Business Monitor, HMSO, London.
Financial Statistics, HMSO, London.

(e) Ownership of Equity.

5.18. An important development has been the recent abolition of exchange control which from 1979 now enables pension fund investment managers for the first time for 40 years to consider investing their funds almost anywhere in the world without any exchange control consequences. This development can clearly be of advantage to pension funds although some, for example, the TUC, criticise the willingness of pension funds to invest part of their assets outside the UK (see 5.7.). However, with freedom to invest overseas it may be possible to select countries in which to invest where economic growth might be expected to be greater than that of the UK, also it might be possible to select some individual companies overseas which might be expected to show greater growth than their UK counterparts. The extent to which investment by pension funds in share markets and in property overseas will eventually develop is difficult to assess but initially there has been no dramatic rush to take advantage of the abolition of controls. Amongst the reasons which are causing a conservative approach are that the management of overseas investments can be a more difficult operation than that of home investments; also that the liabilities of UK pension funds are in sterling so that investment overseas involves an assets to liabilities currency mismatch thereby imposing a currency risk due to possible exchange rate fluctuation.

5.19. It has been indicated previously (see 5.16.) that pension funds are consistent purchasers of UK quoted equities. Ownership of ordinary share capital is of particular interest because the votes attached to such securities give the holders legal powers to influence management through general meetings. Also, institutional investors have, on occasions, had their own nominees appointed to the boards of directors and have insisted on the removal of other directors. The growth in share ownership by institutional investors has, indeed, been accompanied by a good deal of exhortation on those institutions to involve themselves in corporate management. For practical reasons institutional investors tend to be long term holders of securities and consequently they have a vital interest in the quality of the management of the companies in which they will invest. There are important investment protection committees such as that of the National Association of Pension Funds and that of the Life Offices' Associations which have in mind the interests of their respective members in aggregate. However, financial institutions have been generally unwilling to act collectively in the use of their voting strength, preferring individual action behind the scenes. But whilst their general attitude has been that in the ordinary way good management should be allowed to get on with the job they accept that institutional investors must be prepared to take other forms of action if and when necessary.[24] Institutional investors must clearly have some influence over corporate management and with increasing purchases of equities it would seem logical to assume that that influence will increase. An indication of the trend in ownership of UK

equities is indicated in the following Table 5.19.1. The significant increase in the proportionate ownership by pension funds is particularly noticeable.

Table 5.19.1.

Ownership of UK Equity. %.

31st December	1963	1969	1973	1978	1979
Pension Funds	7.0	9.4	12.2	21.0	23.0
Insurance Companies	10.6	13.8	16.2	19.5	21.0
Investment Trusts	6.7	7.0	6.5	5.5	5.5
Unit Trusts	1.2	2.9	3.4	4.5	4.5
Total Institutions	25.5	33.1	38.3	50.5	54.0
Persons	58.8	47.0	42.0	30.5	27.0
Charities	2.6	3.6	4.4	2.0	2.0
Financial Cos.	2.3	3.6	3.3	4.0	4.0
Industrial & Commercial Companies	4.8	4.6	4.3	4.0	4.0
Government	1.6	2.5	2.5	4.0	4.0
Overseas	4.4	5.6	5.2	5.0	5.0
Total	100.0	100.0	100.0	100.0	100.0

Sources: Years 1963, 1969 and 1973; Royal Commission on the Distribution of Income and Wealth, Report No.2., Cmnd. 6171, HMSO, London, 1975.
Years 1978 and 1979; Phillips and Drew, London.

5.20. As regards the general role of pension funds in the economy, with their increasing ownership of company shares, whilst traditionally pension fund managers have

seen their essential business as being to secure the best return for their members there is the growing demand for more consideration of the social impact of their investments. This demand comes from those politically interested in economic planning and from supporters of market enterprise interested in stronger action by shareholders to ensure its efficiency. If pension funds, as investors in companies, could help to bring about more efficient management then this assistance would clearly be in overall interests including the interests of the members of the pension funds. Also there is some incentive for pension fund investment managers to attempt to strengthen the national economy because the general state of the national economy can impinge on the interests of their members. However, enforced steering of pension fund money to assist some national policies of, for example, regional development, might not necessarily accord with the interests of the pension fund members.

(f) Activity and Assets Held.

5.21. The investment markets for shares and gilt edged securities have tended to display degrees of volatility which over recent years have fluctuated substantially. This feature can be demonstrated by considering activity where activity is defined as the lesser of purchases and sales divided by the mean of the four quarterly values over the year of the sector and therefore represents the proportion of the fund switched within the sector. On this basis the percentage activity of local authority funds was as low as 40, 4 and 6 for gilts, debentures and equities respectively in 1968, the corresponding figures for the year 1976 being 274, 26 and 14 respectively. On the same basis the percentage activity of private sector funds was 48, 12 and 9 in 1968, the corresponding figures for the year 1975 being 235, 31 and 25 respectively.[25] Possibly the increasing proportion of total investments held by pension funds, following the continuing net sales of financial assets by personal holders has markedly affected volatility; on the other hand the volatility of the stock market may be no more than a reflection of varying uncertainty about the economy, changes in government fiscal policy, exchange rates, rates of inflation and interest rates. In the event no firm evidence has been traced to support the one or the other of these possibilities. As has been indicated, however, activity reached very high levels in the years 1975 and 1976. But since then activity overall has declined significantly. For

the year 1979 percentage activity had in fact fallen to the following levels. In respect of local authority funds the figures for gilts, debentures and equities were 47, 19 and 9 respectively; in respect of other public sector funds the corresponding figures were 92, 78 and 12 respectively; and for private sector funds the corresponding figures were 75, 26 and 14 respectively.[26] These figures for 1979 relative to the peak figures of the years 1975 and 1976 may suggest that stock market activity is more affected by economic conditions than by an increasing proportion of stocks and shares being held by institutions such as pension funds. The very much higher activity rates for gilts than those for debentures and equities reflect the fact that it is thought possible to profit from anomalies in the gild-edged market and that transaction costs in gilts are relatively low.

5.22. The percentage distributions, for the three classes of funds, of actual assets held according to investment sectors has been indicated in Table 5.16. The following Tables 5.22 are now given to indicate the magnitude of the values of those assets.

Table 5.22. A.

Pension Funds.

Actual Assets held at Market Values.

Absolute Terms. Figures in £'s millions.

5.22.A.1. Local Authorities

Year "31st March	British Government Securities	Other Fixed Interest Securities	Equities	Property	Loans and Mortgages	Cash	Total
1966	182	68	270	-	295	23	838
1967	210	79	299	-	293	26	907
1968	213	94	453	-	291	36	1,087
1969	202	97	606	-	282	34	1,221
1970	243	124	567	6	270	36	1,246
1971	253	125	623	12	251	53	1,317
1972	327	163	1,037	25	228	65	1,845
1973	336	177	1,072	32	224	93	1,934
1974	282	123	741	44	216	181	1,587
1975	339	93	688	52	187	285	1,644
1976	555	97	1,243	104	177	154	2,330
1977	937	103	1,542	157	150	183	3,072
1978	1,146	82	2,081	274	109	175	3,867
1979	1,461	100	2,907	375	83	197	5,123

Sources: Tables 5.22.A.1., 5.22.A.2, and 5.22. A.3.

Central Statistical Office, London.

Annual Abstracts of Statistics, HMSO, London.

Business Monitor, HMSO, London.

Financial Statistics, HMSO, London.

5.22. A.2. Other Public Sector

Year "31st December"	British Government Securities	Other Fixed Interest Securities	Equities	Property	Loans and Mortgages	Cash	Total
1966	163	217	426	115	250	11	1,182
1967	187	240	608	143	248	8	1,434
1968	172	240	900	173	250	11	1,746
1969	134	250	834	215	251	15	1,699
1970	126	258	925	264	228	43	1,844
1971	183	279	1,517	308	212	36	2,535
1972	211	254	1,964	377	172	90	3,068
1973	212	218	1,471	601	140	171	2,813
1974	201	155	783	831	160	391	2,521
1975	513	230	2,002	991	303	294	4,333
1976	931	235	2,732	1,261	306	330	5,795
1977	1,432	215	4,042	2,027	276	326	8,318
1978	1,708	165	5,045	2,491	616	557	10,582

5.22. A.3. Private Sector

Year "31st December"	British Government Securities	Other Fixed Interest Securities	Equities	Property	Loans and Mortgages	Cash	Total
1966	621	877	1,580	144	47	96	3,365
1967	637	854	1,917	180	53	79	3,720
1968	551	838	2,496	273	41	82	4,281
1969	544	883	2,377	383	46	95	4,328
1970	552	921	2,477	489	46	188	4,673
1971	785	1,000	3,577	602	40	116	6,120
1972	684	1,005	4,353	724	45	218	7,029
1973	668	849	3,299	927	46	410	6,199
1974	673	647	2,036	967	33	751	5,107
1975	1,150	711	4,201	1,155	32	457	7,706
1976	1,865	690	4,728	1,415	42	499	9,239
1977	2,905	770	6,654	1,960	27	614	12,930
1978	3,387	727	8,102	2,513	72	712	15,513

The tables indicate the relative sizes of the funds of the three different classes. The private sector has remained the largest of the three, although "other public sectors" have grown in size relatively more than "private sector" over the period of years covered by the tables; the latter feature is true also of "local authorities" although not to such marked extent. The tables indicate also the marked increases in the sizes of the pension funds of the three classes as measured in absolute terms, over the period of years covered by the tables. However, during the period there has been extensive inflation so that absolute values may, in a sense, be misleading. It would be appropriate to show the sizes of the funds relative to "Wages and Salaries" as in Table 5.12.1. but wages and salaries are not subdivided according to the three classes; thus the amounts have been adjusted for changes in the cost of living and are thus shown in the following Table 5.22.B.

Table 5.22. B.

Pension Funds.

Actual Assets held at Market Value.

Relative Terms

Values Adjusted According to Changes in the Cost of Living.

(1966 taken as 1). Figures in £'s millions.

5.22. B.1. Local Authorities.

Year "31st March"	British Government Securities	Other Fixed Interest Securities	Equities	Property	Loans and Mortgages	Cash	Total
1966	182	68	270	-	295	23	838
1967	204	77	290	-	285	25	881
1968	198	87	421	-	270	33	1,009
1969	178	86	534	-	249	30	1,077
1970	202	103	472	5	225	30	1,037
1971	191	94	470	9	190	40	994
1972	233	116	738	18	162	46	1,313
1973	219	115	698	21	146	60	1,259
1974	157	69	414	25	121	101	887
1975	150	41	305	23	83	126	728
1976	216	38	484	40	69	60	907
1977	310	34	510	52	50	60	1,016
1978	353	25	641	84	34	54	1,191
1979	404	28	803	103	23	54	1,415

Sources: The figures in Tables 5,22. B.1., 5.22. B.2., and 5.22. B.3. are based on the corresponding figures in Tables 5.22.A.1., 5.22.A.2. and 5.22.A.3., but have been adjusted by the changes in the index of retail prices (see Table 5.22.C.1.).

5.22.B.2. Other Public Sector

Year "31st December"	British Government Securities	Other Fixed Interest Securities	Equities	Property	Loans and Mortgages	Cash	Total
1966	163	217	426	115	250	11	1,182
1967	182	233	590	139	241	8	1,393
1968	160	223	836	161	232	10	1,622
1969	118	221	735	190	221	13	1,498
1970	105	215	770	219	190	36	1,535
1971	138	211	1,145	233	160	27	1,914
1972	150	181	1,397	268	123	64	2,183
1973	138	142	958	391	91	111	1,831
1974	112	87	437	464	89	219	1,408
1975	227	102	887	439	134	130	1,919
1976	362	92	1,063	491	119	128	2,255
1977	474	71	1,337	670	91	108	2,751
1978	526	51	1,553	767	190	171	3,258

5.22 B.3. Private Sector.

Year "31st December"	British Government Securities	Other Fixed Interest Securities	Equities	Property	Loans and Mortgages	Cash	Total
1966	621	877	1,580	144	47	96	3,365
1967	619	829	1,862	175	51	77	3,613
1968	512	778	2,318	254	38	76	3,976
1969	480	778	2,096	338	40	84	3,816
1970	460	767	2,062	407	38	157	3,891
1971	593	755	2,700	454	30	88	4,620
1972	487	715	3,097	515	32	155	5,001
1973	435	553	2,148	603	30	267	4,036
1974	376	361	1,137	540	18	420	2,852
1975	509	315	1,861	512	14	202	3,413
1976	726	269	1,840	551	16	194	3,596
1977	961	255	2,201	648	9	203	4,277
1978	1,043	224	2,494	774	22	219	4,776

The tables again are based on market values and the depressed state of the market in 1974 and 1975 is clearly reflected by the figures in the tables for those years. The tables indicate that the sizes of the funds for the three different classes, revalued in accordance with the retail price index, have still all shown marked increase in "real" terms over the period of years covered by the tables. The increases have been just over 3 per cent per annum, just under 9 per cent per annum, and just under 3 per cent per annum, on average, for local authorities funds, "other public sector funds" and private sector funds respectively. The cost of living indices on which Tables 5.22 B have been based relate to the official statistics for retail prices and have been taken as follows:

Table 5.22. C.1.

Retail Price Indices

Year	Retail Price Index		Year	Retail Price Index	
	1919 =100	1966 =100		1919 =100	1966 =100
1966	246	100	1973	378	154
1967	253	103	1974	441	179
1968	265	108	1975	556	226
1969	279	113	1976	632	257
1970	296	120	1977	744	302
1971	326	132	1978	799	325
1972	346	141	1979	890	362

Source: Department of Employment, London.
Annual Abstract of Statistics, HMSO, London.

It is estimated that the total assets of pension funds in 1981 exceeded £50,000 millions in absolute terms.[27] The largest pension fund in the UK is that of the Post Office with estimated assets in 1981 of £3,200 millions, followed by the National Coal Board with estimated assets of £2,650 millions.[28] These figures are clearly substantial both in absolute and relative terms. The largest UK pension funds are listed in the following Table 5.22.D.1.

Table 5.22. D.1.

The Largest UK Pension Funds.

Name of Group of Funds	Estimated Value of Assets as at March 1981	Name of Group of Funds	Estimated Value of Assets as at March 1981
	£'s mns		£'s mns
1.Post Office	3,200	11.NatWest Bank	641
2.National Coal Board	2,650	12.Universities SS	623
3.British Rail	1,850	13.Imperial Group	615
4.Electricity Supply	1,550	14.Shell	604
5.British Steel	1,100	15.Unilever	521
6.ICI	1,050	16.Lloyds Bank	486
7.Barclays Bank	763	17.Merchant Navy	475
8 Airways	751	18.Greater London Council	368
9.British Petroleum	743	19.British Broadcasting	360
10.British Gas	716	20.Midland Bank	352

Source: Pension Schemes and their Advisers,(1981),p.161. A.P. Financial Registers Ltd., London, 1981.

(g) Rates of Return.

5.23. It is apparent from pervious tables in this Chapter 5, and as is otherwise naturally to be expected, that over the years indicated pension fund investment policy in aggregate has involved substantial purchases of both gilt-edged securities and equities. As regards the relative attractions of these two types of investment to pension funds it is to be appreciated that equities have produced a much higher return for pension funds than gilts reflecting a long post-war period of generally rising interest rates accelerated since the 1960s by a sharply increased rate of inflation. The following Table 5.23.1. shows the annual rates of return for gilts, equities and cash from 1963 to 1979, this period having been chosen because the Financial Times-Actuaries Indices were started in 1962.

Table 5.23.1.

Annual Rates of Return - Percentages.

Year	(a) Gilts	(b) UK Equities	(c) Cash
1963	2.5	19.7	4.2
1964	- 2.6	- 6.1	5.4
1965	2.9	11.4	7.0
1966	4.5	- 4.4	6.9
1967	2.6	35.0	6.4
1968	- 4.4	48.5	8.2
1969	- 1.8	- 12.0	9.1
1970	4.2	- 3.6	8.1
1971	27.5	47.1	6.3
1972	- 6.8	15.8	6.4
1973	-10.7	- 28.8	11.5
1974	-17.9	- 51.7	13.4
1975	41.8	150.9	10.8
1976	12.3	1.7	12.1
1977	50.1	48.8	8.4
1978	- 3.3	8.2	9.1
1979	4.5	11.1	14.6
Average 1963-1979	4.9	10.5	8.1

Sources: (a) Financial Times-Actuaries "Over 15 Years Price Index", Financial Times, London.
Phillips & Drew, 25 Year Stock Index up to 1975, Phillips & Drew, London.
(b) F.T.A., "All Share Index", Financial Times, London.
(c) Local Authority 7 day rate, Central Statistical Office, London.

Over the period 1963-1979 the average annual return for equities was 10.5% and those for gilts and cash were 4.9% and 8.1% respectively whilst over the same period the average annual rate of wage and salary inflation was 11.4%[29] so that on such comparison none of the three types of investment provided a "real" return. Over the 17 years in Table 5.23.1. UK equities gave the best return on 7 occasions, cash on 8 occasions and gilts on 2 occasions. Indeed, over the period of years 1963 to 1975, there was no year in which gilts produced the best return, suggesting, on such a rate of return consideration alone that an appropriate investment policy would have been to have switched between equities and cash. Since 1974 when stock markets slumped, gilts produced the best return in 1976 and again in 1977, and over the period 1976-79 investment policy as between gilts and equities, from the viewpoint of average annual rate of return alone, has not been all that material. Consideration of Table 5.14.1 showing the distribution of net acquisition of assets, according to investment sector, Table £.15.1. showing the net acquisition of assets by class of fund, Tables 5.16 showing the percentage distribution according to investment sectors of actual assets held, and Tables 5.22. showing actual assets held according to investment sector, suggests that respective prevailing rates of return at any particular point of time significantly affect pension funds' practical investment policies at that time in their attitudes to gilts and equities. Over the period indicated in Table 5.23.1

the years up to around 1974 indicate an investment policy geared to equities rather than gilts, coinciding with equity rates of return being on the whole better than rates of return on gilts. The pattern of pension fund investment over the period shows the increased proportion of cash flow from the pension funds invested in gilts since 1974, and this has not been in conflict with respective prevailing rates of return on gilts and equities. However, the higher proportionate investment in gilts since 1974 indicates also that practical considerations such as a huge rise in the government borrowing requirements, other than prevailing rates of return, affect the issue of choice between gilts and equities.

5.24. As mentioned in Section 5.23 investors in recent years have been faced with difficulty in achieving a "real" rate of return, a feature which may tend to frustrate the whole basis of funding pension schemes. Attempts to control inflation by restrictions on wages and prices appear to have largely failed for other than short periods. The policy in 1979-81 is for inflation to be attacked by strict monetary discipline which if maintained vigorously could possibly weaken, in the short term, companies' ability to pay both higher dividends and higher wages. The relative progress of gilt edged and equity indices could thus follow a different course in the future from that of the past 15 years of so. Whilst the more natural investment for a pension fund is an equity type security, because pension funds have real liabilities so that real assets

appear appropriate, the capacity of company profits to keep pace with wage inflation is a relevant issue. As regards the recent past some relative figures in respect of company profits are indicated in the following Table 5.24.1.

Table 5.24.1.

Company Profits.

The figures indicate average increase - per cent per annum.

	Years 1968-73	Years 1973-78
Company Profits	13	14
Dividends per Share	9	13
Earnings per Share	12	11
Retail Prices	12	16
Wages and Salaries	14	17

Sources: Central Statistical Office, London.
Annual Abstract of Statistics, HMSO, London.

5.25. Tables such as Table 5.14. illustrate the increasing importance of property investment for pension funds and property may be regarded as a form of equity investment alongside ordinary shares. Moreover Table 5.16 shows that for local authorities property investment as a percentage of total assets rose from nil in 1966 to 8% in 1979, the corresponding figures for other public sector funds being 10% in 1966, rising to 23% in 1978 and for private sector funds 4% in 1966, rising to 16% in 1978. Large funds have been important direct participants in the property market and the smaller funds have been able to invest in property using unit trust and managed funds. Property

investment, however, presents certain difficulties with regard to measurement of investment performance for property valuation may depend on the views of the individual valuer and on the precise purpose for which the valuation is made. To indicate the order of yields available from property investments the following Tables 5.25. are given. Table 5.25.1. shows that, in general, a significant feature of property investment is the relative lack of volatility in property yields and stability is a factor to be favoured by pension funds.

Table 5.25.1.

Property Yields Percentage.

Year	Offices	Shops	Industrial
1960	7	6½	10
1961	7	7	10
1962	6	6¾	9
1963	6	6¾	9
1964	6½	6¾	9
1965	6½	7	8¾
1966	6¾	7	9
1967	6¼	6½	9
1968	6	6¼	8¾
1969	5¾	6	8
1970	6	6¼	9
1971	6½	5½	8½
1972	5	5¼	8
1973	4½	4½	7½
1974	7	7¼	10½
1975	6½	7	9
1976	5¾	6	8¼
1977	5½	5¾	7½
1978	5	5½	7
1979	4½	5¼	6¾

Source: Allsop & Co., London.

Table 5.25.2.

Property Unit Trust Indicators.

Year 31st December	Index	Yield %
1972	100.00	5.68
1973	116.95	4.93
1974	88.56	6.51
1975	87.59	6.40
1976	85.82	6.88
1977	101.07	5.95
1978	114.14	5.34
1979	131.74	5.02
1980	148.05	5.10

Source: Phillips & Drew, London.

Table 5.25.2. gives an arithmetic index of the prices of eight leading exempt property unit trusts weighted by the value of the funds. The constituents of the index are as follows: Fleming Unit Trust, Hanover Property Unit Trust, Hill Samuel Property Unit Trust, Lazard Property Unit Trust, New Court Unit Trust, Pension Fund Property Unit Trust, Public and General, Schroders Property Unit Trust.[30]

Relative to, for example, the annual rates of inflation property yields in recent years have been low. In accepting an initial return of say 6% from a rented commercial property the pension fund has made a judgement concerning the level of future income from that property, a situation which has some similarity to an investment in equities. Investment decisions by pension funds in connection with property are sometimes arrived at in practice by adopting a discounted cash flow analysis (see 5.14.). Relevantly a

most important point is that individual property valuations are subject to a degree of statistical variance whilst assumptions regarding rental growth rates in the future are clearly probabilistic in nature. Consequently with practical property investment some subjectivity is involved. Thus it may not be appropriate to examine property performance over short periods of time and of course there are also the inherent dangers of arguing ex post from ex ante figures. However, but subject to such provisos, a comparative review of performance carried out by the National Association of Pension Funds, made between 1966 and 1972 indicated that the achieved growth rate in rents up to 1976 was well above 10% p.a. and their review appeared to give some indication, albeit of a limited nature, that property investment has been well justified.[31]

(h) Analysis of Individual Funds.

5.26. Paragraphs 5.12 to 5.25 inclusive have had regard to the investments of pension funds in aggregate. Therein has been illustrated, amongst other items, the net acquisitions of assets by pension funds over a period of years according to investment sectors and the distribution of total assets according to categories of investment actually held during those years. Consideration of such aspects in aggregate is important to enable overall investment strategy to be detected relative to the nature of the liabilities involved as well as from considerations of impact on the national economy.

5.27. The investment policies of individual pension funds are however also of importance for such are vital to the particular fund involved. It therefore becomes relevant to give consideration to such an individual analysis. In the following table median annual time weighted rates of return on the total assets of a sample of individual funds are shown for a period of past years, and then, to indicate individual characteristics the quartiles and maximum and minimum values are given also.

Table 5.27.1.

Annual Time Weighted Rates of Return on the Total Assets of Individual Funds. Percentage.

(Excluding Property and unquoted securities).

Year	Number of Funds	Maximum	Upper Quartile	Median	Lower Quartile	Minimum
1970	25	4.5	1.1	.7	- 2.8	- 5.9
1971	34	50.6	41.3	37.7	36.2	25.5
1972	52	21.3	15.8	13.3	10.6	5.6
1973	66	- 10.3	-20.3	-22.1	-24.8	- 29.4
1974	87	1.4	-24.8	-30.9	-35.3	- 47.2
1975	96	103.8	79.5	67.3	57.1	11.7
1976	102	11.1	6.3	3.8	1.8	- 4.1
1977	117	65.1	45.2	41.0	35.2	17.0
1978	140	12.2	6.8	5.1	3.8	- 1.8
1970-78 combined	19	11.6	9.9	9.6	8.7	6.7

Source: Bacon & Woodrow, London.

It is apparent from Table 5.27.1. that the annual rate of return on individual funds can differ very markedly in individual uears. One year is, however, a short term in which to make a comparison, and the nine year period 1970-78 affords a more satisfactory indication. With nineteen funds included in the figures for this period of time, the maximum and minimum equivalent annual rates of return range from 11.6 to 6.7 around a median of 9.6; and whilst less marked a difference than for individual years this range of values is still very marked. Even the difference between the upper and lower quartiles is 1.2 around a median of 9.6. The figures relate to complete calendar years.

5.28. The return on the total fund gives a measure of the yield which has been obtained on the whole of the assets and this is, in general, the most useful measure. However, it can be that the performance of a whole portfolio, relative to other portfolios, is influenced more by the split between fixed interest securities and equities than by the performance of the portfolio's holdings in these classes relative to the market. This split may indeed be subject to constraints imposed by the trustees so that it becomes of relevant interest to assess the effect on the overall performance resulting from such constraints. Thus in Table 5.28.1 the rates of return for the sub-sections, total fixed interest securities, for UK equities, and for total equities, are given in respect of the period 1970-78. As in Table 5.27.1, property investments and unquoted securities are not included in the figures. Total fixed interest investments are inclusive of cash, whilst other equities amongst total equities include gold coin and silver bullion.

Table 5.28.1.

Equivalent Annual Time Weighted Rates of Return for Fixed Interest and Equity Sub-sections of Assets of Individual Funds. Percentages.

		Total Fixed Interest Securities	UK Equities	Total Equities
Period	Maximum	12.2	11.3	10.9
1970-78	Upper Quartile	11.4	10.0	9.9
combined	Median	10.9	9.0	8.8
19 funds	Lower Quartile	10.1	7.5	7.3
	Minimum	8.4	6.9	5.8

Source: Bacon & Woodrow, London.

Table 5.28.1. indicates that dispersion around the median for the total fixed interest sub-section tends to be less than the corresponding dispersion in respect of total assets as indicated in Table 5.27.1. whilst that for equities tends to be greater. This, as might be expected, suggests that more risk attaches to equity investment than to fixed interest investment; and moreover that the split between the fixed interest sector and the equity sector may markedly affect yield performance overall.

5.29. The question arises as to whether size of fund has influence on yield performance. The data on which Tables 5.27.1. and 5.28.1. have been based relate to large, medium and small funds combined where large is used in the sense of the total assets of the fund being in excess of £20m, medium relating to funds which individually have funds of. between £5m and £20m, and small funds being those whose total assets are individually less than £5m. The data, as indicated in Tables 5.27.1. and 5.28.1., comprise nineteen funds in respect of the period 1970 to 1978 combined. Of these one only was small and working on the equivalent annual time weighted rates of return in respect of total assets, the yield was 6.7%. The data comprises three medium funds for whom the corresponding yields were 7.7%, 8.1% and 9.3%. The data further comprises fifteen large funds, the median yield was 9.6%, the maximum 11.6%, the upper quartile 10.1%. the minimum 7.8% and the lower quartile 8.1%.[32] Such data are regarded as too scanty from which to draw specific conclusions but at least it does not disprove any idea that yield performance increases with size of fund, where size is as previously defined.

5.30. It is possible to obtain larger data by restricting the period of years under observation. If the period of years be confined to the three years 1976-78 combined, then attention can be focussed on 100 funds of which 36 are large, 37 medium and 27 small. Again working on equivalent annual time weighted rates of return in respect of the total assets the figures are as follows. For large funds the median was 15.5%, the maximum 20.1%, the upper quartile 16.6%, the minimum 11.9% and the lower quartile 14.6%. The corresponding figures for medium funds were median 15.1%, maximum 18.5%, upper quartile 16.5%, minimum 11.1% and the lower quartile 14.0%. The corresponding figures for small funds were median 14.2%, maximum 21.4%, upper quartile 15.5%, minimum 9.8% and lower quartile 12.8%.[33] Such figures again may be based on too scanty data to be conclusive yet they may suggest that yield performance may increase with size of fund, where size is as previously defined.

5.31. The figures in paragraph 5.30 relate to total assets. As in paragraph 5.28 it becomes of relevant interest to consider also the rates of return for the sub-sections, total fixed interest securities, for UK equities and for total equities.

Tables 5.31.

Equivalent Annual Time Weighted Rates of Return for Fixed Interest and Equity Sub-sections of Assets of Individual Funds. Percentages.

5.31.1. Large Funds (Assets in Excess of £20m).

		Total Fixed Interest Securities	UK Equities	Total Equities
Period	Maximum	20.0	23.2	21.7
1976-78	Upper Quartile	17.8	18.5	16.8
combined.	Median	16.7	16.8	15.6
36 Funds	Lower Quartile	15.1	15.4	14.0
	Minimum	11.8	11.7	10.7

5.31.2. Medium Funds (Assets between £5m and £20m).

		Total Fixed Interest Securities	UK Equities	Total Equities
Period	Maximum	20.7	24.2	19.5
1976-78	Upper Quartile	17.5	18.6	17.3
combined.	Median	16.5	16.6	15.5
37 Funds	Lower Quartile	15.3	15.7	13.5
	Minimum	13.4	13.5	9.7

5.31.3. Small Funds (Assets less than £5m).

		Total Fixed Interest Securities	UK Equities	Total Equities
Period	Maximum	18.1	22.0	20.9
1976-78	Upper Quartile	17.7	18.0	15.4
combined.	Median	16.1	15.5	14.3
27 Funds	Lower Quartile	14.3	14.1	12.3
	Minimum	11.5	9.7	7.3

Source: Tables 5.31.1, 5.31.2, and 5.31.3
Bacon & Woodrow, London.

Tables 5.31 indicate similarly to Table 5.28.1, that dispersion around the median for the total fixed interest sub-section tends to be less than the corresponding dispersions for equities; and further that this applies irrespective of whether the group of large, medium or small funds be considered. Considering the three sub-sections, total fixed interest, UK equities, and total equities separately, the figures in Table 5.31. reveal that large funds, as there defined, outperformed over the period 1976-78 small funds as there defined. The figures suggest, but somewhat less significantly, that the yield performance of medium funds, as there defined, lay between the corresponding performances of large and small funds for all three sub-sections individually. Thus again there are indications that in practice size of fund may influence yield performance on an overall basis but also that this may apply within fixed interest and equity sub-sections of investments respectively, with increasing size of fund increasing yield performance.

(i) Indexed Funds.

5.32. It is of interest that in respect of the combined period 1970-78 about three-quarters of the funds included in Table 5.27.1 achieved a lower return on their UK equity portfolios than the return on the F.T.-Actuaries All Share Index adjusted for dividends but with no allowance for expenses. One reason for this may be that institutions including pension funds appear to favour investment in a selection of about the top two hundred largest companies which offer a reasonable level of marketability. Smaller company shares are often ignored by pension funds. This probably means that pension funds tend, on average, to achieve a lower return on their UK equity portfolios than the FT-Actuaries All Share Index but that the pension funds' equity portfolios are subject to a lower degree of risk than that of the index. Moreover, the effectiveness of switching operations in the equity market can be affected by the high dealing expenses involved in the UK.

5.33. Nevertheless, the considerations of paragraph 5.32. raise the question of the desirability of indexed funds designed so that they deal in equities according to some pre-determined formula, the goal being a return on an index for example the FT-Actuaries All Share Index. In practice, the indexed fund would tend slightly to underperform the index because of the significant expenses incurred on the investment of new money.

5.34. One approach would be to employ a sampling technique which would be employed to choose a selection of shares which would closely follow the FT-Actuaries All Share Index which index comprises some 670 companies. Alternatively, a practical solution would be to buy as many constituents of the index as possible.

5.35. Under either of the approaches mentioned in 5.34 the result would be the inclusion of a higher proportion, than is normal at present, of smaller companies and this could well be a more effective investment strategy from the aspect of the national economy. Not only this but indexing must seem to have some attraction to those pension funds which consistently underperform the market.

(j) Contracted-out Schemes.

5.36. The question arises as to whether schemes which are contracted out (see 3.10 and 3.13) under the provisions of the Social Security Pensions Act 1975 should desirably pursue a policy of investment different from those that are not.

5.37. The point is directly relevant in the areas of self investment and concentration of investments for with contracted out schemes the OPB may impose levels of self investment and concentration of investments (see 3.29). Thus in these regards contracting out may inflict some restrictions on investment policy. However, the restrictions (see 3.29) are not regarded as being in any way severe but rather do they tend to reflect prudent investment policy desirably to be followed whether a scheme be contracted out or not. Thus whilst contracting out specifically imposes levels of self investment and concentration of investments, which necessarily have to be respected, it is doubtful whether, in practice and in general, such impositions actually result in any significant divergence of investment policy.

5.38. When a pension scheme continues to be contracted out the qualifications for such require the provision of requisite benefits or as a fall back a special rule promising a GMP (see 3.13). There is nothing untoward in the nature of these requisite benefits or GMPs (see 3.13),

indeed they conform with pension scheme benefits as normally provided under British pension schemes in general. Thus, in this regard, investment policy is unaffected by the mere fact of contracting out.

5.39. Where a contracted-out scheme is wound up or ceases to satisfy the conditions for contracting out, all members must be bought back into the state scheme, or, with the OPB's approval the member's GMP can be preserved or transferred to another contracted-out scheme (see 3.14). Buying back into the state scheme is done by the payment of Accrued Rights Premiums (ARPs) for those who have not become entitled to a GMP, or by the payment of Pensioner's Rights Premiums (PRPs) for those who are already entitled to receive a GMP (including any who are not in receipt of a GMP because payment has been postponed, e.g. where they are continuing to work after pensionable age).[34]

5.40. As regards the ARP for those in employment when the scheme ceases to be contracted out, the amount of GMP for premium costing purposes (the "accrued rights factor") will be calculated at the point of cessation. All contracted out earnings factors up to the cessation will be included and revaluation will be applied to the earnings factors in all tax years before that in which the cessation takes place. However, for the last five tax years before the tax year of cessation a revaluation rate of 12% will be substituted for the revaluation rate applied to those years by Section 21 Orders unless the person liable to pay the premium elects that 12% revaluation will not apply, when normal revaluation by reference to Section 21 Orders will be used.[35]

(To ensure that earnings factors maintain their value the general level of earnings will be reviewed each year by the Secretary of State. If earnings factors for previous tax years have not maintained their value, this value will be restored in line with the increase in earnings generally. The rates of revaluation will be set out in an order made under Section 21 of the 1975 Pensions Act (this is known as a Section 21 Order). The general movement of earnings on which such a Section 21 Order will be based will be the yardstick for revaluing earnings paid in the tax year before that in which the order is made as well as earlier earnings factors to which earlier Section 21 Orders had previously been applicable).[36] Thus the 12% provision is valuable being designed to ensure that maximum revaluation liability is known at any time, should the scheme cease to be contracted out within the next 5 years.[37]

5.41. Also as regards a PRP, to determine such a premium the amount of the GMP will be recalculated to apply the 12% revaluation rate to any of the last 5 complete tax years before the scheme ceased to be contracted out to which Section 21 Orders applied, unless the scheme elects otherwise.[38]

5.42. ARPs and PRPs are meant to represent the cost of providing the benefits for which the state scheme is accepting liability.[39] In 1980 the premiums were based on an assumed yield on long-term gilts of 9% p.a., and an assumed gross dividend yield on equities of 4% p.a.[40]

However, a market level indicator is introduced to determine the actual premium payable, the purpose of the indicator being to ensure that the amount of premium reflects the current yield on investment and thus give schemes protection against short-term fluctuations in market prices.[41] For ARPs the market level indicator is made up of two components based on the yields on equities and fixed interest government securities respectively weighted in the ratio 65 to 35. For PRPs the market level indicator is derived wholly from the yield on government securities.[42]

5.43. An investment policy could therefore be adopted for that part of the fund which represents GMPs which would virtually immunise it from profit or loss if it were decided to cease to contract out. At present, however, GMPs generally represent a small proportion of the fund because they only started to build up from April 1978. Thus currently the point may not normally be of practical consequence; when exceptionally the GMPs form a major part of the scheme's benefits, regard to the bases on which premiums for buying back into the state scheme on cessation of contracting out are calculated, is relevant in associated investment policy.

5.44. In the case of an early leaver from a contracted out scheme there is entitlement to a GMP for service before leaving. In certain circumstances this GMP liability may be discharged by the payment of a Contribution Equivalent Premium to the State or by making a transfer payment to another contracted out scheme.[43] In most cases the GMP will remain in the fund and it is necessary to revalue this preserved GMP between the date of leaving and 65 for

men and 60 for women by one of three methods (see 3.13): viz, in line with the general level of earnings; at 5% p.a. compound (or in line with earnings if lower than 5% p.a.) subject to the payment of a premium to the State; or at 8½% p.a. compound. Whilst equities may appear to be a suitable investment medium to cover the liabilities if the first of these three methods be adopted, the last two methods would seem to indicate fixed interest investment to cover the liabilities involved.

5.45. It is concluded that the implication of contracting-out is one of the factors which should be borne in mind when the investment policy of a contracted-out scheme is being framed. Since GMPs accrue only from April 1978 the point is, however, not of prime importance for most schemes at the present time but when GMPs form a significant part of the liabilities, and this will become increasingly so with the passage of years, associated investment policy for the contracted out scheme may become less flexible than if it were not contracted out.

(k) Small Self-Administered Pension Schemes.

5.46. Although it is not generally necessary to include in the trust deed of a small self-administered scheme any special restrictions on the investment powers of the trustees, there is the need for a prohibition to be placed on loans to members and certain other individuals having a contingent interest under the scheme (see 3.77). This restriction is considered necessary in small schemes in particular because of the possibility, arising from the less than arm's length relationship of all the parties, that such loans would become in reality a charge on the retirement benefits and that the pension scheme would be used in this way so as to avoid the tax liability arising on loans direct from close companies or their participators.[44] On the other hand, however, it has been made absolutely clear that there is no outright objection to loans out of scheme funds to the employer on commercially reasonable terms provided that either the employer's contributions are not returned to him in this way with such frequency, or the preparation of the total assets lent to the employer is not so great as to suggest that a scheme which is being presented as a funded scheme is in reality an unfunded or partly funded one.[45] Moreover, the SFO is unlikely to question the bona fides of a scheme on the grounds just mentioned if the loans to the employer do not exceed one-half of the assets, unless, exceptionally, this situation appears to be inconsistent with the imminent cash needs of the scheme for purchasing annuities.[46]

5.47. It does not follow that the SFO will necessarily regard any form of investment, however unconventional, as consistent with approval of the scheme just because it is not ultra vires. For example, investment in land or holdings may be a good long term investment for a scheme where the members are many years from retirement, but even so, questions would be asked if the property purchased appeared to be an important part of the employer's own commercial premises and thus potentially difficult to realise.[47] Also, it is unlikely that the SFO will be prepared to approve a small self-administered scheme which invests a significant amount of funds in works of art or other valuable chattels or non-income producing assets which would be made available for the personal use of scheme members and lead to transactions between the trustees and the members otherwise than on a purely commercial basis.[48]

5.48. The Inland Revenue does, in order to determine that the scheme is not an exercise in tax planning, request a list of initial investments and continues to do so at intervals during the life of the scheme. Nevertheless, the availability with a small self-administered pension scheme of loans to be made to the employer which do not exceed one-half of the scheme's assets unless they are inconsistent with the cash needs of the scheme is an important feature. Clearly ancillary advantages to the sponsoring company can result. And this provision applicable to small self-administered pension funds does not conform with the general provision required for exempt approval

that assets are not in general available to the employer (see 3.28). Moreover, whilst small self-administered pension schemes are not customarily contracted out of the second tier earnings related element of the state pension under the Social Security Pensions Act 1975, the lending back facilities available to them do not conform with the self-investment and concentration of investment principles stipulated for contracting out approval (see 3.29 and 4.44). Because of their special nature the exceptional treatment, in investment matters, of small self-administered pension schemes may be understandable when those schemes are considered in isolation. However, small self-administered schemes should also be looked at within the broader spectrum of occupational pension schemes in general and it is submitted that it is unfortunate that one category of arrangements should be treated so exceptionally.

CHAPTER 6

ASSET MANAGEMENT BY ASSURANCE OFFICES AND EXEMPT UNIT TRUSTS

(a) Fundamental Assurance Office Concepts

(b) Managed Funds; Magnitude

(c) Managed Funds; Performance

(d) Exempt Unit Trusts

(e) Managed Funds; Detailed Consideration of the Two Largest Offices

CHAPTER 6

ASSET MANAGEMENT BY ASSURANCE OFFICES AND EXEMPT UNIT TRUSTS

(a) Fundamental Assurance Office Concepts.

6.1. Life assurance offices play an important investment role in the sphere of occupational pension schemes. The extent of this role can not be precisely quantified because assets relating to group pension business may be aggregated by the individual life offices with their other ordinary long term business without sub-division. But as a general guide the membership of schemes which pay over virtually all their contributions to life offices is approximately one-quarter of the membership of those schemes which are entirely self-administered (see 2.38). As a further general indication the total assets of life offices as at 31st December 1979 amounted to £42,200 millions and whilst, as just previously mentioned the amount of this attributable to pension business alone is not explicitly known it is estimated that the sum of £11,000 millions was of the right order.[1] Additionally it is estimated that the total assets of self administered pension funds as at 31st December 1979 amounted to £34,000 millions.[2] On the basis of these estimates life offices are responsible for the investment of approximately one quarter of the total of all pension fund assets. On the basis of membership numbers the corresponding proportion is one fifth. Thus it is reasonable to consider that some 20 to 25 per cent or so of all pension scheme assets are currently held by the life offices.

6.2. For all practical purposes present involvement by the life offices with occupational pension schemes need be extended back along the evolutionary chain to no further than the non-profit group deferred annuity approach. With this type of contract for any contribution received by the life office a certain amount of pension is guaranteed. Although these guarantees may specifically apply only in respect of contributions as and when received without necessarily a commitment in respect of future contributions, the extent of the guarantee is clearly considerable. The rate basis of the contributions involves interest, mortality and expense elements which overall must not be fixed too favourably to the policyholder if the life office is not to sustain a loss. It is the interest element which appositely is related to appropriate investment policy for a life office needs to earn on its investments a yield at least adequate to cover the interest element assumption adopted by it in its corresponding contribution rates. This principle when applied to non-profit contracts issued on guaranteed terms involves a broad matching of assets to liabilities by term; indeed a particular form of matching has credence amongst the life offices, namely that under which the assets are invested in such a way that the existing business is immune to a general change in the rate of interest, their basic reasoning being along the following lines.

Consider the concept that assets and liabilities are a series of items of income and outgo spread over future years.

Let A_t = asset income at time t and V_A = the present value of asset income discounted at force of interest δ and let there be corresponding symbols L_t and V_L for liability outgo.

Assuming that initially $V_A = V_L$ and that then the force of interest changes marginally from δ to $\delta + \xi$ causing V_A and V_L to change to V^1_A and V^1_L then by Taylor's theorem

$$V'_A - V'_L = (V_A - V_L) + \xi \frac{d}{d\delta} \cdot (V_A - V_L) + \frac{\xi^2}{2!} \cdot \frac{d^2}{d\delta^2} \cdot (V_A - V_L)$$

ignoring higher powers of ξ.

Thus for there to be no profit or loss from a change in δ the successive derivatives must vanish (V_A being equal to V_L by definition).

For $\frac{d}{d\delta} \cdot (V_A - V_L)$ to be equal to 0, $\Sigma t v^t A_t = \Sigma t v^t L_t$ where $v^t = e^{-\delta t}$ (because $V_A = \Sigma v^t A_t$ so that $\frac{d}{d\delta} \cdot V_A = -\Sigma t v^t A_t$) Similarly for V_L, i.e. the mean term of the value of the asset income must equal the mean term of the liability outgo.

For the second derivative to be equal to 0, $\Sigma t^2 v^t A_t = \Sigma t^2 v^t L_t$, that is the spread of the value of the asset proceeds and the spread of the value of the liability outgo about the mean term must correspond.

If the second derivative is positive any change in δ will result in a profit to the fund so long as the change is not so large that the higher terms in the Taylor expansion begin to take effect suggesting that $\Sigma t^2 v^t A_t$ should be

greater than $\Sigma t^2 v^t L_t$ or broadly that the spread of the value of the investment proceeds should be greater than the spread of the value of the liability outgo about the mean term.[3]

6.3. A number of practical difficulties are to be associated with this so called immunisation theory. For example, there is no satisfactory way of dealing with options in assets and liabilities, and there may be differences in the yield obtainable on similarly dated assets. Also the theory needs careful consideration for, for example, it requires that any future investment or disinvestment be of such a nature that the yield obtainable on those assets bought in the future be equal to the yield then enjoyed on existing assets and questioning may arise as to the validity of the implication of a level yield curve.

6.4. A relevant point is, however, that life offices are attracted to the theory in practice. They may not adhere to it completely in respect of their non-profit group pensions scheme business issued on guaranteed terms but it is a principle which they have constantly in mind and which has considerable influence over their associated investment policy. It is to be appreciated that non-profit group pensions business, with its guarantees, fulfils the insurance principle and there is much in favour of that. Nevertheless the guarantees involved inhibit associated investment policy. In other words the guarantees have to be paid for and the nature of the payment is largely by way of a yield basis on related assets lower

than otherwise would be the case resulting from an investment policy largely influenced by so-called immunisation theory. Additionally, the value for money aspect of non-profit group deferred annuity business may be affected by margins in the contribution bases being retained by the life office as subsidies to inner reserves, the holding of which are deemed necessary to maintain continued solvency.

6.5. Nearly all definitions of insurance hypothesise that capital insurances are based on the covering of losses (or on future capital demand) resulting from accidental circumstances so that, as a general characteristic of insurance, the claims are borne by many units which are threatened by those circumstances. Nevertheless, different classes of insurance business have their separate characteristics. With non-life insurance business a portfolio of contracts theoretically may be assumed involving a continuous inflow of premiums accumulated in a risk reserve, from which each of an outgo of claims random as to time and amount is paid. Insurance of group pension schemes, on the other hand, hinges largely around the acceptance of long term funding and such insurance, in the strict sense, involves, as at time of contribution payment, a guaranteed relationship between benefit secured and contribution paid. That is, strict insurance of group pensions business is on non-profit terms as indicated in paragraphs 6.2 to 6.4.

6.6. In a sense it may appear, at least at first sight, somewhat strange that such strict insurance of group pensions business is not favoured by insurance carriers. Despite their regard for immunisation theory in respect of matching assets by term to liabilities, life offices are averse to the long-term guarantees involved with non-profit group pensions business feeling that their financial stability can be better maintained through other forms of contract. Theoretically the feature of financial stability could be largely achieved by appropriate and rather heavy loadings to the contribution rates but such would render a life office uncompetitive in what is, in fact, a very highly competitive market. The practical result is that non-profit group pensions business has now virtually been superseded.

6.7. The initial replacement of non-profit group pensions business was by contracts which granted a share in the distributable surplus of the life office (see 3.40). It might be considered that an essential feature of insurance in all its forms (except immediate annuities) is the forgoing by individuals or corporations of current income in order to make a provision for a future possible need and clearly group deferred annuity business whether non-profit or with-profits possesses that feature. But it is apparent that under such with-profits contracts, relative to such non-profit contracts, the guaranteed benefit secured for a given amount of contribution actually paid is less precise because of the discretionary bonus element. Thus with-profits group pension contracts enable life

offices substantially to reduce the extent of their guarantees relative to those involved with non-profit contracts, implying a movement away from strict insurance principles. The extent of the lack of guarantee involved with with-profits group pensions business can be well exemplified by reference to the reversionary bonus system of contract under which the contractual element of the contribution currently may be assuming an investment yield on the related fund of the order of only 3% whereas the "realistic" investment yield on the appropriate fund may be currently of the order of 10% greater. The excess interest yield emerges as bonuses to the policyholders but the point is that these are non contractual and future declarations can be, if the life office deems desirable, at a much lower rate than currently. That is, contributions under with-profits pensions contracts contain, directly or indirectly, bonus loadings which are normally very substantial but as the bonuses themselves are non-contractual, the loadings provide a significant buffer to the life office against possible adverse experience and therefore bolster its financial stability.

6.8. Moreover, a consequence is that for with-profits contracts an associated investment approach somewhat more flexible than one which is almost entirely concerned with matching investments to liabilities by term may be adopted. For with-profits business a degree of necessary relationship between investment and liabilities by term still exists but with less emphasis than for non-profit contracts for matching

virtually applies only to the guaranteed element of the policies leaving investment strategy in respect of the major unguaranteed bonus element to have regard, in the holding of the free reserves, to the concept of maximisation of expected yield over the long term possibly involving some extra risk, but thereby maximising bonus earning capacity. The practical result has been that investment returns on with-profits pension business have tended to be greater than the returns on non-profit business, at the cost, of course, of some loss of guarantees by the policyholders.

6.9. However, not only has non-profit group pensions business virtually been superseded but with-profits group pensions business has also now become virtually obsolete. A major practical reason is that the return on such business tends to be obscure to the policyholders who now favour a more explicit approach. The resultant drift to deposit administration (see 3.40 and 3.42) has not resulted in the necessary adoption of any different investment principles from those applicable to with-profits group deferred annuity business, the guaranteed rate of interest on the fund corresponding with the contractual element of a with-profits policy and the crediting of excess interest earned on the fund corresponding with the allocations of bonuses under with-profits policies. Even, however, deposit administration is rapidly becoming obsolescent for the pressure now is for managed fund business (see 3.44) under which scheme trustees have much

more control over investment policy. Indeed existing business with life offices is rapidly being converted to managed fund form so that although very small funds may find they are unacceptable on such a basis, it is managed funds which claim attention.

6.10. Necessarily allied services such as administration, actuarial, secretarial, legal, etc. are not to be associated with managed funds so that perhaps some life offices, now that their association with pension schemes is largely in the role of investment advisers only, might look upon this as a factor which should limit the extent of their pension schemes business. There is the thought that managed funds could throw their overall business out of balance, possibly having consequential adverse effects on the development of traditional life assurance, perhaps even affecting the interests of individual with-profits life assurance policy-holders by diminishing bonus prospects. Maybe other insurance offices might regard the development of managed funds business as another step forward in the evolutionary chain leading the way towards a broader type of institution whose activities will continue to centre around insurance but which will provide desirable associated financial services to society. But whatever the views are the practical fact is that managed funds pensions business by life offices is growing apace at the expense of all other forms of group pensions contracts.

6.11. Pensions scheme business with life offices now having evolved into managed fund form, introduces interesting

investment concepts. Financial management of a composite insurance office has to bear in mind the requirements of the various factions involved. As regards the general viability of an insurance office the inter-dependence of shareholders, policyholders and employees constitutes a major factor, but particular concern needs to be directed to ensuring that financial resources are held at a level adequate to maintain the continued solvency of the office. But what meaning has solvency in respect of an isolated class of activity by an insurance office such as the transaction of managed funds, which may be devoid of insurance? When an insurance office transacts pensions business through managed funds it may have no direct responsibility for the adequacy, relative to anything, of such assets of a pension scheme as have been passed to it purely for investment, possibly in a designated fund. In such circumstances the concept of profit in the case of a proprietary office may be more related to return on shareholders' capital employed so that the extent of the adequacy of the fees charged is the relevant issue. There is a presumption here that the managed funds business of the life office is not to be subsidised by another class of activity or be required to contribute to another class of buisness such as, for example, by contributing to miscellaneous surplus distributable to participating policyholders. The last might, however, be regarded as a prime reason for arranging managed funds within a mutual office.

6.12. Insurance offices themselves submit that they exist in order to provide insurance services to the public,

their role as investors being essentially a result of the services they provide rather than the object.[4] Such, however, is a mere generality for clearly it does not apply to the rapidly increasing volume of managed fund business they transact. There is the question of the possibility of managed funds introducing on profitable terms to the insurance offic allied business, such as provision of death in service benefits and sickness business, the underwriting of which may take a form of discriminant analysis, the emphasis being on the insurance aspect of the contracts in the sense of protection against loss; and such business might complement managed funds business with its vastly different emphasis. However in isolation managed funds may be purely an investment service and not only this but, according to the insurance offices, in the case of managed funds it is the customer who determines the investment policy.[5]

6.13. The latter point needs some elaboration. Whilst the placement of money into one of the several different pools of investments managed by the life office is discretionary on the part of the pension scheme's trustees, as it normally is, so that the responsibility of the life office regarding broad class of asset choice, property, ordinary shares, fixed interest stocks, cash, tends for each individual pension scheme to be eliminated, the life office is normally left with the function of deciding upon the constitution of the separate investment pools. The last is, nevertheless, a function of high importance from a practical and competitive business viewpoint.

6.14. The Insurance Company Associations have also submitted that institutions help to maintain an efficient capital market.[6] The question arises as to how managed fund pensions business fits in with such a submission. Is the fact that within the UK institutions account for more than 65% of all equity purchases and 55% of all equity sales with the private investor continuing to become a less important market force,[7] relevant to consideration of managed funds; indeed, what does this growing domination of institutional investors in general in the equity market imply for the efficient functioning of the market and is the rapid expansion of managed funds tending to diminish even the number of institutional investors? In practice if a number of pension schemes have in the past invested as separate entities but henceforth transact all their investments through a managed fund of an established insurance office, the number of separate investors is clearly reduced. Moreover a view may be that a function of financial markets is to facilitate the efficient allocation of savings, and briefly the condition for such is that, at the margin, the present value of the future income contributed by every unit of saving is the same after difference in risk adjustment. In an efficiently operating financial market, information about a company's performance and prospects is quickly translated into valuation of the equity interest in companies and changes in these relative valuations are indications to savings investors as to changes in the composition of their investments which they can make in order to maximise the future income they can realise from their savings. The

question arises as to whether the managed fund facilities of life offices which could reduce the number of institutional investors over and above an already steadily declining number of private individual investors may add to or detract from the efficiency of financial markets. In fact, if economies of scale exist in the investment field then these large pools of assets may prove more acceptable and the extensive concentration of financial resources in the hands of relatively fewer institutions may be justified if these large institutions are in practice the best administrators of those funds.

6.15. Perhaps it may be that most pension scheme trustees appreciate that one of the aims of funding is to provide security of benefits for the members and that this is dependent not only on contributions adequate in amount being paid into the scheme at the appropriate times but also on the nature and diversification of the investments chosen to back the benefits being appropriate. Also, it may well be that most pension scheme trustees feel that, in general, formulation of investment policy appropriate for an open pension scheme involves consideration of risk and of expected return with a remote time horizon in mind. Nevertheless, there appears to be no evidence to suggest that particular choice of managed fund by pension scheme trustees is, in the main, influenced to a large extent other than subjectively.

6.16. In addition to life offices transacting a rapidly increasing proportion of pension funds business through the medium of managed funds, it is known that

considerable, although undisclosed, amounts of self-administered pension fund money are paid to the life offices by scheme trustees for investment in segregated funds. Clearly there must be a minimum size of segregated fund which any life office would deem it worthwhile to accept but otherwise the principle is that a self-administered fund hands over to the life office initially or periodically sums of pension fund money to be invested by the life office in a segregated fund for that scheme alone, generally in a manner at the discretion of the life office although sometimes the pension fund trustees may indicate certain items of investment they prefer. Thus in such segregated funds not only is there no insurance but also there is no pooling of assets with other funds to achieve a larger fund and hence probably greater diversification. Some diversification to the individual pension fund arises from the fact that the chosen life office will be acting in the role of merchant banker along with other institutional investors possibly including other life offices who also have been allocated a portion of the pension fund for investment. The idea is that, as well as the diversification point, the pension fund trustees can monitor the results of the different investors of portions of the fund. Because, however, concern is with the future rather than the past, the rate of return is inadequately descriptive without regard to risks involved, and because of an adequate length of time being desirable for the comparisons, the value of the segregated fund approach may be more apparent than real.

(b) Managed Funds - Magnitude

6.17. As at December 1979 there were 23 life offices in the UK which transacted managed fund pensions business, as indicated in the following table.

Table 6.17.1.

Size of Managed Funds - as at December 1979.

Life Office	Size of Fund £'mns	Proportion of Total %	Cumulative Proportion %
Legal and General	1279.5	43.38	43.38
Prudential	488.1	16.55	59.93
Scottish Widows	268.0	9.09	69.02
Standard Life	217.0	7.36	76.38
Scottish Amicable	106.8	3.62	80.00
Sun Life	89.7	3.04	83.04
Norwich Union	85.7	2.91	85.95
Equity & Law	75.8	2.57	88.52
Commercial Union	75.5	2.55	91.07
Eagle Star	60.1	2.04	93.11
Guardian Royal Exchange	29.1	.98	94.09
English	27.4	.93	95.02
Friends Provident	23.9	.81	95.83
Provident Mutual	23.3	.79	96.62
Royal	21.4	.73	97.35
Sun Alliance	18.9	.64	97.99
Colonial Mutual	15.2	.51	98.50
Scottish Life	10.4	.35	98.85
London Life	10.0	.34	99.19
Scottish Mutual	9.6	.33	99.52
Scottish Equitable	9.0	.31	99.83
National Provident Institution	4.7	.16	99.99
Yorkshire General	0.4	.01	100.00
23 offices	2949.5	100.00	

Source: Based on Individual Company's Reports and Accounts

6.18. It is apparent from Table 6.17.1 that the managed fund pensions business of the life offices in the UK is dominated, in quantitative terms, by just a few offices. Indeed the largest office accounts for over 43% of the total assets of managed funds whilst over three quarters of the assets of funds are in the hands of just four offices.

6.19. On the basis of the estimate of total assets of life offices in respect of pensions business being £11,000m (see 6.1) the proportion of such attributable to managed funds alone is some 27% and as at the 31st December 1979 the proportion of the total assets of life offices represented by managed funds was some 7%, notwithstanding that managed funds in the UK are of such recent origin as indicated in Table 6.19.1.

Table 6.19.1.

Managed Funds - Dates of Commencement

Life Office	Type of Fund	Date of Commencement
Legal and General	Mixed	9. 8.1971
	Composite	16. 4.1979
	Equity	28. 5.1971
	Fixed Interest	28. 5.1971
	Property	28. 5.1971
Prudential	Equity	1. 1.1971
	Fixed Interest	21. 4.1971
	Property	17. 3.1971
Scottish Widows	Mixed	1. 9.1958

(cont'd)

Table 6.19.1. (cont'd)

Managed Funds - Dates of Commencement

Life Office	Type of Fund	Date of Commencement
Standard Life	Mixed	13. 8.1974
	Equity	3. 5.1959
	Fixed Interest	14.12.1971
	Property	10. 9.1974
Scottish Amicable	Mixed	30. 4.1971
Sun Life	Mixed	29. 5.1973
	Composite	31.10.1979
	Property	31.10.1979
Norwich Union	Equity	4. 8.1972
	Fixed Interest	4. 8.1972
	Property	4. 8.1972
Equity and Law	Mixed	12. 7.1972
	Equity	14.11.1979
	Fixed Interest	10. 7.1978
	Property	9. 4.1975
	Cash	14.10.1979
Commercial Union	Mixed	9. 5.1972
Eagle Star	Mixed	12. 1.1972
	Composite	10.10.1979
	Equity	2.12.1971
	Overseas	10.10.1979
	Fixed Interest	21.12.1971
	Property	12.12.1979
	Cash	9. 7.1975
Guardian Royal Exchange	Mixed (Master)	14. 9.1971
	Mixed	9.10.1979
	Equity	9.10.1979
	Overseas	9.10.1979
	Fixed Interest	9.10.1979
	Property	9.10.1979
	Cash	9.10.1979

(cont'd)

Table 6.19.1. (cont'd)

Managed Funds - Dates of Commencement

Life Office	Type of Fund	Date of Commencement
English	Mixed	15. 3.1979
	Equity	1. 4.1974
	Fixed Interest	1. 4.1974
	Property	20.10.1979
Friends Provident	Mixed	21.10.1977
	Equity	21.10.1977
	Fixed Interest	21.10.1977
	Property	21.10.1977
Provident Mutual	Mixed	2. 1.1974
	Equity	2. 1.1974
	North American	1. 6.1978
	Fixed Interest	2. 1.1974
	Property	2. 1.1974
	Cash	2. 1.1974
Royal	Mixed	11. 7.1973
Sun Alliance	Equity	24. 2.1975
	Fixed Interest	7. 5.1975
Colonial Mutual	Mixed	10.10.1978
Scottish Life	Mixed	15. 2.1972
London Life	Mixed	21.10.1974
	Equity	21.10.1974
	Fixed Interest	21.10.1974
	Property	31.10.1977
Scottish Mutual	Mixed	28. 2.1977
Scottish Equitable	Mixed	26. 2.1979
	Equity	31. 7.1978
	Fixed Interest	31. 7.1978
	Property	30. 7.1978
National Prov. Inst.	Mixed	1.10.1973
Yorkshire General	Equity	15. 4.1975
	Fixed Interest	15. 4.1970

Source: Based on Individual Company's Reports and their other published literature.

6.20. Additionally to indicating the recent development of managed funds in general, Table 6.19.1 shows that overall a wide variety of types of fund is available including mixed, equity, fixed interest, property, cash, overseas and North American. Not all offices transact all types of fund, indeed according to Table 6.19.1. out of the 23 offices, 16 of them transact a mixed fund, 14 an equity fund, 14 a fixed interest fund, 12 a property fund, 4 a cash fund, 2 an overseas fund and 1 a North American fund; nevertheless the extent of choice of managed funds available to pension schemes is wide for most types.

(c) Managed Funds - Performances.

6.21. The rates of return on the various managed funds tend to differ from office to office. This is not necessarily an indication of fund management efficiency for the rate of return on any managed fund is not independent of the degree of risk involved. Rates of return tend also to vary according to the nature of the fund, equity, fixed interest, property, etc. and again the association of risk involved is a relevant consideration. However, the following Table 6.21.1. is given to indicate the equivalent annual rates of return, calculated on a time weighted basis, achieved on equity managed funds.

Table 6.21.1.

Equity Managed Funds - Annual Rates of Return - Percentages

	Period of Years				
	1975-79	1976-79	1977-79	1978-79	1979
Number of Funds	8	9	10	11	12
Maximum Return	39.9	22.2	33.1	16.5	15.5
Median Return	28.2	15.0	22.6	9.8	8.8
Minimum Return	22.3	10.6	13.1	5.0	3.7
FTA All Share Index	35.6	16.1	21.1	9.3	10.3
Retail Price Index	15.4	13.2	12.5	12.7	17.2
Earnings Index	14.5	13.3	14.0	16.3	19.3

Sources: Rows 1, 2, 3 and 4 - Willis Faber, London.
Row 5 - Financial Times, London.
Rows 6 and 7 - Central Statistical Office, Annual Abstract of Statistics, HMSO, London.

6.22. The figures in Table 6.21.1 indicate, for each of the periods of years chosen, a wide dispersion of rates of return for the various equity funds included. Relevantly the largest of the equity managed funds included showed results, for all periods considered, which corresponded very closely with the median returns. Whilst the maximum returns exceeded those of the FT Actuaries All Share Index, the median fund failed to do so in 1979, and for 1975-79 and 1976-79, and the minimum fund failed on all the periods indicated. Comparisons of fund returns with the retail price index and earnings index indicate that in 1979 equity funds failed to achieve a real rate of return, a feature which was broadly true also for 1978-79.

6.23. Figures relating to time weighted equivalent annual rates of return on fixed interest managed funds are now indicated in the following Table 6.23.1.

Table 6.23.1.

Fixed Interest Managed Funds - Annual Rates of Return Percentage

	Period of Years				
	1975-79	1976-79	1977-79	1978-79	1979
Number of Funds	8	9	10	11	13
Maximum Return	17.4	16.3	16.4	4.1	6.0
Median Return	16.1	13.8	13.8	2.6	3.3
Minimum Return	11.5	10.4	9.0	1.0	0.7
FTA Brit. Govt. All Stocks Index	17.3	12.4	12.4	2.0	4.9
Retail Price Index	15.4	13.2	12.5	12.7	17.2
Earnings Index	14.5	13.3	14.0	16.3	19.3

Sources: Rows, 1,2,3 & 4, Willis Faber, London.
Row 5, Financial Times, London.
Rows 6 & 7, Central Statistical Office, Annual Abstract of Statistics, HMSO, London.

6.24. The figures in Table 6.23.1. again indicate, for each of the periods of years chosen, a wide dispersion of rates of return. Relevantly the largest of the fixed interest managed funds showed results, for all periods indicated except 1978-79, which corresponded fairly closely with the median returns; for the period 1978-79 the largest fixed interest managed fund showed the minimum rate of return. Whilst the maximum returns exceeded those of the FT Actuaries British Government All Stocks Index, the median failed to do so in 1979 and over the period 1975-79; and the minimum failed on all the periods indicated. Comparisons of fund returns with the retail price index and the earnings index indicate that in 1979 fixed interest managed funds failed, by a very large margin, to achieve a real rate of return and this was also true of 1978-79.

6.25. In Table 6.25.1. which follows, figures are given relating to time weighted equivalent annual rates of return on property managed funds.

Table 6.25.1.

Property Managed Funds - Annual Rates of Return Percentage

	Period of Years				
	1975-79	1976-79	1977-79	1978-79	1979
Number of Funds	5	6	6	8	9
Maximum Return	21.1	22.6	25.2	26.6	27.4
Median Return	17.3	17.5	21.9	22.0	21.5
Minimum Return	13.2	16.2	18.5	18.2	17.3
Property Index	15.5	17.7	20.6	20.3	20.6
Retail Price Index	15.4	13.2	12.5	12.7	17.2
Earnings Index	14.5	13.3	14.0	16.3	19.3

Sources: Rows 1,2,3 & 4, Willis Faber, London.
Row 5, Metropolitan Pensions Association, London.
Rows 6 & 7, Central Statistical Office, Annual Abstract of Statistics, HMSO, London.

6.26. The figures in Table 6.25.1. indicate, as do those in Tables 6.21.1 and 6.23.1, a wide dispersion of rates of return. Table 6.25.1. suggests that over all periods of years therein indicated property managed funds secured, on the whole, a real rate of return relative to the retail price index and the earnings index, indeed this was always true of the median fund. Over the period 1975-79 the minimum fund failed to surpass either the retail price index or earnings index and failed to surpass the earnings index in 1979 but did surpass both these indices for the other periods indicated in the table.

6.27. The following Table 6.27.1. brings together, in respect of the median funds the equivalent annual rates of return for equity, fixed interest and property managed funds.

Table 6.27.1.

Managed Funds - Annual Rates of Return Percentage on Median Funds. (Number of funds indicated in brackets).

	Period of Years				
	1975-79	1976-79	1977-79	1978-79	1979
Equity	28.2 (8)	15.0 (9)	22.6 (10)	9.8 (11)	8.8 (12)
Fixed Interest	16.1 (8)	13.8 (9)	13.8 (10)	2.6 (11)	3.3 (13)
Property	17.3 (5)	17.5 (6)	21.9 (6)	22.0 (8)	21.5 (9)

Source: Based on Tables, 6.21.1, 6.23.1, and 6.25.1.

6.28. Equity, fixed interest and property types of investment are subject to different degrees of risk which reflect themselves in rates of return as indicated in Table 6.27.1. The figures in Table 6.27.1. in respect of the years 1978 and 1979 relate to a period of government monetary policy resulting in high inflation and high interest rates for those particular years; property as reflected by annual rates of return has withstood such influences whereas equities and fixed interest stocks have suffered therefrom. This suggests that choice of investment within the various sectors, equity, fixed interest and property, whilst clearly of importance in itself is, nevertheless, from considerations of rates of return alone, of consequence

alongside that of sector choice. It thus becomes of interest to consider those funds managed by life offices and under which the life office is given full investment discretion.

Table 6.28.1.

Managed Funds with Full Investment Discretion by the Life Office. Annual Rates of Return Percentage.

	Period of Years				
	1975-79	1976-79	1977-79	1978-79	1979
Number of Funds	18	19	21	22	22
Maximum Return	33.9	19.3	23.5	13.2	12.8
Median Return	22.3	15.6	20.1	8.7	7.8
Minimum Return	16.5	12.5	15.7	5.1	4.5
Retail Price Index	15.4	13.2	12.5	12.7	17.2
Earnings Index	14.5	13.3	14.0	16.3	19.3

Sources: Rows 1, 2, 3 and 4, Willis Faber, London.
Rows 5 and 6, Central Statistical Office, Annual Abstract of Statistics, HMSO, London.

6.29. It is apparent from Table 6.28.1. that when the life office is given full investment discretion there can still be wide variations in performance, as measured by annual rates of return, from office to office. Nevertheless according to the figures in Table 6.28.1. all managed funds with full investment discretion had an equivalent annual rate of return for the five year period 1975-79 in excess of the retail price index and the earnings index thereby securing, on such a comparison, a real rate of return. On

the other hand, the opposite is true for the single year 1979 and for most offices in respect of the two year period 1978-79. These considerations suggest that all managed funds can be very much victims of economic circumstances, a point which is otherwise obvious; that in comparing performance of funds against indices and relevant to each other the period of years chosen for comparison can be of significant relevance; and that the past is not necessarily a reliable guide to the future. The very wide variations in performance according to Table 6.28.1 would seem to suggest that choice of office is also a factor of high relevance; in such regard it is apposite to consider the experience of the individual fund which showed the maximum return for the period 1975-79, according to Table 6.28.1, for other periods of time; and similarly the experience of the corresponding fund which showed the minimum return for the period 1975-79.

6.30. In fact the individual fund which showed, according to Table 6.28.1, the maximum return of 33.9% for the five year period of years 1975-79, had returns for the period 1976-79, 1977-79, 1978-79 and 1979 of 13.7%, 20.3%, 5.1% and 6.1% respectively. This means that whilst it was top out of 18 offices for the period 1975-79, it was only 17th out of 19 offices for the period 1976-79, 10th out of 21 offices for the period 1977-79, last out of 22 offices for the period 1978-79, and 20th out of 22 offices for the single year 1979. The office which showed, according to Table 6.28.1. the minimum return of 16.5% for the five year

period of years 1975-79, had returns for the periods 1976-79, 1977-79, 1978-79 and 1979 of 14.8%, 18.8%, 6.4% and 4.5% respectively. This means that whilst it was last out of 18 offices for the period 1975-79, it was 13th out of 19 offices for the period 1976-79, 14th out of 21 offices for the period 1977-79, 19th out of 22 offices for the period 1978-79, and last out of 22 offices for the single year 1979. Such figures, but particularly those for the office which showed the maximum return for the period 1975-79, suggest that consideration of rates of return, on their own, relating to past periods of years can be regarded as of only limited value if of any value at all, as a guide to those offices which will perform best in future periods of years.

6.31. It is relevant to mention, in connection with the returns quoted for managed funds, that the assets of a managed pension fund relate to the life office's pensions business so that they are exampt from corporation and capital gains taxes.[8] The offices operating managed pension funds are able to reclaim any income tax deducted from dividends and interest directly from the Inland Revenue.

6.32. Most managed pension funds are normally operated by wholly owned subsidiary companies of the life offices. This means that they can be operated on a basis distinct from the parent office with segregation of assets from it. Managed funds are, in a sense, a defensive operation of the life offices to prevent group deferred annuity scheme policies being surrendered with a view to the setting up of self-

administered funds in which the life office may play no part. Thus most life offices offer an enhanced surrender value if such proceeds from the group deferred annuity contract are invested in the office's managed fund. Normally, accompanying such an enhanced surrender value, a five year locking-in clause and a minimum contribution requirement are imposed.

(d) Exempt Unit Trusts

6.33. As well as life office managed funds there are exempt unit trusts both authorised and unauthorised in which tax exempt investors only, such as exempt approved pension schemes, may invest. Exempt unit trusts are exempt from UK capital gains tax. Authorised unit trusts are those which have been approved by the Department of Trade;[9] unauthorised unit trusts are those which have not sought such approval. Approval permits the unit trust to advertise but the trustees must be acceptable to the Department of Trade and are required to have an issued capital of £500,000 one half of which must be paid-up. Authorised unit trusts are not permitted to invest in property. All authorised unit trusts are liable to corporation tax on the excess of any unfranked investment income, i.e. any distributed income in respect of which no corporation tax has been paid, such as deposit interest income from UK fixed interest stocks or from overseas securities, over management expenses. As a result authorised unit trusts normally invest predominantly in UK equities. Unauthorised unit trusts are not permitted to advertise which tends to inhibit their active marketing; but, their trustees do not have to be vetted by the Department of Trade, they are not subject to any investment restrictions and they are not subject to corporation tax on the excess of their unfranked investment income over management expenses. The result is that unauthorised unit trusts tend to specialise in investments other than UK equities, such as fixed interest stocks, overseas securities or property.[10]

6.34. There are also property unit trusts which are a specialised form of unauthorised exempt unit trusts. The Department of Trade tends to exercise discretion in allowing them to advertise and otherwise they are free from statutory regulation. Property unit trusts invest in property on a pooled basis and although exempt from development gains tax, they are liable to the development land tax and are therefore in the same taxation position as exempt approved pension funds. Investment in property unit trusts is restricted to exempt approved pension funds and occasionally to charities.[11]

6.35. It is apparent from paragraphs 6.33 and 6.34 that the existence of exempt unit trusts, authorised and unauthorised and property unit trusts provides an extra investment medium to exempt approved pension funds. Instead of such a self-administered pension fund investing directly in stock exchange securities through the advice of advisers such as stockbrokers, or directly in property on the individual advice of property experts, the unit trust approach permits investment on a pooled with others basis. In certain circumstances such as for example with small pension funds, this pooled approach can open up investment opportunities not otherwise available. Such trusts are comparable with managed pension funds although with the latter there are no specified investment restrictions and this coupled with a favourable tax exemption situation has the result that managed pension funds can invest in all types of investment.

6.36. As at 31st December 1979 there were in existence additionally to the managed pension funds transacted by the life offices as indicated in paragraph 6.19, 33 authorised exempt unit trusts which transacted pooled equity funds only, and 60 unauthorised exempt unit trusts comprising 23 pooled equity funds, 6 fixed interest funds, 24 property unit trusts and 7 mixed funds.[12] Equivalent annual rates of return in respect of these 93 exempt unit trusts, corresponding to those for managed pension funds given in Tables 6.21.1., 6.23.1, and 6.25.1. now follow.

Table 6.36.1.

Exempt Unit Trusts - Equity Funds - Annual Rates of Return %

	Period of Years				
	1975-79	1976-79	1977-79	1978-79	1979
Number of Funds	30	38	40	45	56
Maximum Return	43.7	35.4	42.6	33.7	57.5
Median Return	28.4	14.5	19.4	7.5	6.6
Minimum Return	7.7	- 7.0	-10.9	- 1.4	-27.0
FTA All Share Index	35.6	16.1	21.1	9.3	10.3
Retail Price Index	15.4	13.2	12.5	12.7	17.2
Earnings Index	14.5	13.3	14.0	16.3	19.3

Sources: Rows 1, 2, 3 and 4, Wyatt Harris Graham, London.
Row 5, Financial Times, London.
Rows 6 and 7, Central Statistical Office, Annual Abstract of Statistics, HMSO, London.

6.37. The figures in Table 6.36.1. indicate for each of the periods of years chosen, a particularly wide dispersion of rates of return for the various equity funds included, indeed a much wider dispersion than for managed pension fund equity

pools(see Table 6.21.1.1. This wider dispersion is due to the more heterogeneous nature of the exempt equity unit trusts relative to managed equity funds, some of the former being highly specialised, for example, investment in small companies, investment in high yielding companies, investment in recovery situations or in particular overseas markets such as the Far East, Europe, Canada, USA, Japan. Such specialised funds are offered to pension schemes on the attraction of a high yield but the variability of the returns, which is particularly wide even over the five year period 1975-79 suggests that whilst a high yield is possible this can be at the expense of a greater degree of associated risk. Consequently, it is considered that some of these highly specialised exempt unit trust equity funds are suitable for pension funds only if held in relatively small proportion within an otherwise well diversified portfolio.

6.38. As mentioned in 6.36. there were only 6 fixed interest funds as at 31st December 1979 transacted by exempt unit trusts but annual rates of return for such funds are given in Table 6.38.1. which follows,. Here we are working with paucity of data but the figures for the two periods 1979 on its own and 1978-79 again show wider dispersion than the figures for corresponding managed fixed interest funds (see Table 6.23.1.). There is thus the suggestion that exempt unit trusts relative to managed funds are attempting to achieve greater yields, which they may do; but at the expense of taking somewhat higher investment risks.

Table 6.38.1.

Exempt Unit Trusts - Fixed Interest Funds - Annual Rates of Return Percentage.

	Period of Years				
	1975-79	1976-79	1977-79	1978-79	1979
Number of Funds	2	3	3	5	6
Maximum Return	11.4	14.4	10.6	6.2	12.5
Median Return		10.6	10.4	0.9	5.6
Minimum Return	9.5	9.1	7.3	-0.8	- 0.3
FTA British Govt All Stocks Index	17.3	12.4	12.4	2.0	4.9
Retail Price Index	15.4	13.2	12.5	12.7	17.2
Earnings Index	14.5	13.3	14.0	16.3	19.3

Sources: Rows 1,2, 3 and 4, Wyatt Harris Graham, London.
Row 5, Financial Times, London.
Rows 6 and 7, Central Statistical Office, Annual Abstract of Statistics, HMSO, London.

6.39. In Table 6.39.1. which follows, figures are given relating to time weighted equivalent annual rates of return on property unit trusts. These figures correspond with those given in Table 6.25.1 relative to property managed funds.

Table 6.39.1.

Exempt Unit Trusts - Property Funds - Annual Rate of Return Percentage.

	Period of Years				
	1975-79	1976-79	1977-79	1978-79	1979
Number of Funds	16	20	24	24	24
Maximum Return	24.2	32.9	37.8	34.4	40.5
Median Return	17.5	18.4	22.2	20.9	22.7
Minimum Return	6.3	10.4	12.9	14.5	12.9
Property Index	15.5	17.7	20.6	20.3	20.6
Retail Price Index	15.4	13.2	12.5	12.7	17.2
Earnings Index	14.5	13.3	14.0	16.3	19.3

Sources: Rows 1, 2, 3 and 4, Wyatt Harris Graham, London.
Row 5, Metropolitan Pensions Association, London.
Rows 6 and 7, Central Statistical Office, Annual Abstract of Statistics, HMSO, London.

6.40. For all the periods of years given in Table 6.39.1 a wide dispersion in the rates of return is evident and again such dispersion is wider than the corresponding figures for managed funds (see Table 6.25.1.). There is, therefore, as with equity and fixed interest exempt unit trusts, the suggestion that relative to managed property funds it may be possible to obtain higher yields from investment in the property funds of exempt unit trusts but that greater risk may be involved.

6.41. As mentioned in paragraph 6.36, there were only 7 mixed funds of exempt unit trusts in being at 31st December 1979 but related figures are given in the following Table 6.41.1.

Table 6.41.1.

Exempt Unit Trusts - Mixed Funds - Annual Rates of Return

Percentage

	Period of Years				
	1975-79	1976-79	1977-79	1978-79	1979
Number of Funds	6	7	7	7	7
Maximum Return	20.9	16.7	20.1	12.6	13.7
Median Return	16.7	13.0	16.0	7.2	7.2
Minimum Return	11.6	11.0	11.7	1.9	- 0.6
Retail Price Index	15.4	13.2	12.5	12.7	17.2
Earnings Index	14.5	13.3	14.0	16.3	19.3

Sources: Rows 1, 2, 3 and 4, Wyatt Harris Graham, London.
Rows 5 and 6, Central Statistical Office, Annual Abstract of Statistics, HMSO, London.

6.42. The exempt funds included in Table 6.41.1 are able to invest in equities, fixed interest securities, properties, cash, etc. at the fund manager's discretion and consequently correspond with the managed funds included in Table 6.28.1. with which there is full investment discretion by the life office. Comparison of Tables 6.28.1 and 6.41.1 gives no indication that exempt unit trusts mixed funds have outperformed managed funds with full investment discretion.

However, over the five year period 1975-79, all but one of the 6 funds obtained a rate of return in excess of the retail price index and the earnings index, but for the period 1978-79 and for the single year 1979, all the 7 funds failed, relative to these two indices, to obtain a real rate of return.

(e) Managed Funds - Detailed Consideration of the Two Largest Offices.

6.43. As indicated in Table 6.17.1. relating to the point of time December 1979, the size of the managed pension fund of one life office was £1279.5 millions and this was, in fact 43.38% of the total managed funds of the life offices at that time. The second life office in the Table had managed pension fund assets of £488.1 millions giving a proportion of 16.55% of the total. Thus these two life offices between them had managed pension fund assets of £1767.6 millions representing some 60% of all life office managed funds. Moreover, in size, they were both far greater than any of the exempt unit trusts the total assets of the largest unit trusts being in the parish of the smaller life office managed funds as shown in Table 6.17.1.[13] In view of this dominating quantitative influence of these two life offices, the Legal & General denoted as No.1 office and the Prudential denoted as No.2 office, in pooled pension fund asset management, consideration will now be given in more detail to their investment policies over the period of five years 1975 to 1979. Such considerations are based on the published investment reports of these two offices, in respect of their managed fund business, for each of these five years.

6.44. In the Investment Report of No.1 office for 1975 it was stated that their investment policy is one of medium risk, but imaginative, adding that security and a good return are the major considerations in their

stewardship of pension funds.[14] Relevantly it is to be added that they give no indication of what they mean by risk nor do they give any indication that they make any measurement of it. Their stated investment policy as being one incorporating medium risk, imagination, security and good return is indeed in effect virtually meaningless. At the same time No.2 office stated the investment policy of its equity fund to be one of steady growth in both capital and income through investing in a selection of strong well managed companies both in the UK and overseas,[15] a statement hardly any more explicit than that of office No.1. On the basis of these two statements, on their own, as to their respective investment policies, there is no reason for any pension fund particularly to wish to utilise either of their services. However both the two offices do give much further information in other ways.

6.45. First, in Table 6.45.1. details are shown in respect of the two individual offices' managed pension equity funds, the percentage distribution of these two respective funds of their assets held according to investment group. These percentages are shown for the five separate years 1975 to 1979 inclusive.

Table 6.45.1.

Managed Equity Funds of the two largest Individual Offices.

Distribution of Holdings by Market Value %.

Year		1975	1976	1977	1978	1979
Component	Office No.					
Capital Goods	1	10.2	10.3	12.0	12.6	10.3
	2	15.7	12.9	17.8	16.6	12.4
Consumer Durables	1	1.5	1.7	2.7	1.5	2.1
	2	4.7	4.7	4.9	3.6	3.2
Consumer Non-Durables	1	20.4	18.5	27.8	24.0	20.0
	2	24.8	25.5	25.2	21.0	18.9
Other Groups						
Chemicals	1	6.8	6.0	6.2	4.4	2.5
	2	7.1	8.2	7.6	4.1	3.2
Oil	1	7.9	6.1	9.7	9.9	14.8
	2	11.1	11.8	8.2	9.2	11.6
Miscellaneous Other Groups	1	10.7	11.3	6.5	7.7	8.7
	2	11.3	10.8	12.8	13.9	10.7
Financial						
Banks	1	5.1	4.6	3.7	4.1	2.1
	2	6.8	6.4	4.8	4.2	4.1
Insurance Offices - Life	1	2.2	1.5	2.0	2.2	3.2
	2	1.3	1.0	.9	1.5	1.3
Insurance Offices - Composite	1	5.9	4.4	3.0	6.5	4.7
	2	4.4	3.8	4.9	3.6	3.2
Property	1	1.9	2.3	2.6	2.9	3.4
	2	3.0	2.0	2.9	3.3	3.3
Miscellaneous Financial	1	.2	.4	3.8	4.5	3.6
	2	2.3	1.1	.4	1.2	1.4
Investment Trusts	1	5.3	4.5	4.3	4.3	3.6
	2	.0	.0	.0	.8	4.0
Commodity Securities	1	3.7	4.7	3.2	2.9	3.2
	2	1.0	3.0	1.7	2.0	2.4
Overseas	1	11.2	11.2	9.1	8.7	10.5
	2	.0	.0	4.4	11.4	11.4
Cash	1	7.0	12.5	3.4	3.8	7.3
	2	6.5	8.8	3.5	3.6	8.9
Total	1	100.0	100.0	100.0	100.0	100.0
	2	100.0	100.0	100.0	100.0	100.0

Sources: Legal & General Assurance (Pensions Management) Ltd., London. Annual Reports.
Prudential Pensions Ltd., London. Annual Reports.

6.46. In No.1 office there were clearly defensive holdings of cash in years 1975 and 1976. These holdings caused a drag on yield in 1975 but not in 1976 (see Table 5.23.1.). The cash holdings of office No.1 were proportionately reduced in 1977, when UK equities had a marked excess yield over cash, but had increased again by 1979 to enhance the yield for that year (see Table 5.23.1.). No. 2 office tended to hold lower proportionate holdings of cash than office No.1, except in 1979 when cash was in fact giving a higher yield than UK equities (see Table 5.23.1.). Overseas holdings add diversity to a portfolio, a factor taken advantage of by office No.1 throughout the quinquennium considered, but not by office No.2 until the latter half of the quinquennium. These overseas holdings ostensibly for long term advantage as well as for diversification of risk have, however, proved a drag on performance over the period 1975-79.[16] On the whole there is nothing particularly striking in the comparison of the respective choices of investments by the two offices. Indeed in 1979 the UK equity content of office No.1 was in 67 companies whilst that of office No.2 was in 131 companies and these included 32 companies investment in which was common to both. As regards these 32 companies common to both, investment in them represented 51.7% and 35.7% of the total funds of No.1 and No.2 offices respectively in 1979. The two largest holdings in 1979 of office No.1 were British Petroleum and Shell Transport & Trading, both in the oils group, the holdings being 6.33% and 6.43% of the total 1979 funds

respectively. The same two companies showed the largest holdings also by office No.2 viz 6.28% and 4.53% respectively in 1979.[17]

6.47. The figures in Table 6.45.1 and those in paragraph 6.46 give nothing to suggest that performance of the managed equity funds of offices 1 and 2 should differ markedly. In fact the equivalent annual rates of return on the two funds as indicated in the following Table 6.47.1. tend broadly to confirm this. Table 6.47.1 which relates to the years 1975-79 also indicates the difficulty both funds experienced in matching the performance of the FTA All Share Index, and the lack of real return by them both in the period 1978-79 and for the single year 1979, particularly the latter.

Table 6.47.1.

Managed Equity Funds of the two largest Individual Offices.

Annual Rates of Return %

	Period of Years				
	1975-79	1976-79	1977-79	1978-79	1979
Office No.1.	26.9	13.9	22.6	9.8	7.3
Office No.2.	28.1	15.0	22.2	8.3	8.8
FTA All Share Index	35.6	16.1	21.1	9.3	10.3
Retail Price Index	15.4	13.2	12.5	12.7	17.2
Earnings Index	14.5	13.3	14.0	16.3	19.3

Sources: Rows 1 and 2, Willis Faber, London.
Row 3, Financial Times, London.
Rows 4 and 5, Central Statistical Office, Annual Abstract of Statistics, HMSO, London.

6.48. The extent, both absolute and relative, of the investment held by the two offices No.1 and No.2 in other insurance offices both life and non-life, as indicated in Table 6.45.1., is of interest. To add to this interest and perhaps to some extent to reflect the regard of both for each other, the following Table 6.48.1, is given showing the percentage of the overall managed equity funds held by the two offices in the equity of the other office. The figures also indicate financial inter-relationship of the two.

Table 6.48.1.
Managed Equity Funds of the two largest Individual Offices.
Percentage Holdings in the Equity of the other office.

Year	1975	1976	1977	1978	1979
No.1 Office in No.2	.98	1.46	1.63	.97	.63
No.2 Office in No.1	1.28	.95	.87	1.45	1.30

Sources: Legal and General Assurance (Pensions Management)Ltd. London, Annual Reports.
Prudential Pensions Ltd., London, Annual Reports.

6.49. As regards the managed fixed interest funds of the two individual offices figures showing the proportionate distribution of assets are given in Table 6.49.1. It will be noted that whilst office No.2 has concentrated on British government securities, office No.1 has included other fixed interest securities within its portfolio, although only to small extent. The extent of the preference by office No.1 relative to office No.2, to remain liquid, as indicated by percentage cash holdings is also noticeable and indeed in

general office No.2 tended to invest longer than office No.1. It is to be appreciated that within such fixed interest funds extensive switching operations can take place and the percentages of the investments in the various categories can fluctuate widely month to month. The figures in Table 6.49.1 relate to the holdings as at the end of each calendar year.

Table 6.49.1.

Managed Fixed Interest Funds of the two largest Individual Offices

Distribution of Holdings by Market Value %.

Year		1975	1976	1977	1978	1979
Component	Office No.					
British Govt. Securities						
Shorts	1	2.5	0.0	6.2	0.9	0.0
	2	18.9	15.6	0.0	0.0	0.0
Mediums	1	39.7	34.2	14.2	40.8	5.6
	2	29.8	0.0	0.0	0.0	0.0
Longs	1	35.9	58.3	56.4	42.1	85.1
	2	50.7	84.4	99.9	93.0	98.7
Municipal & County Securities	1	3.9	0.0	0.0	0.0	0.0
	2	0.0	0.0	0.0	0.0	0.0
Debentures	1	4.6	3.4	2.8	2.6	1.7
	2	0.0	0.0	0.0	0.0	0.0
Unsecured Loan Stocks	1	2.9	2.2	2.7	2.4	2.5
	2	0.0	0.0	0.0	0.0	0.0
Cash	1	10.5	1.9	17.7	11.2	5.1
	2	0.6	0.0	0.1	7.0	1.3
Total	1	100.0	100.0	100.0	100.0	100.0
	2	100.0	100.0	100.0	100.0	100.0

Sources: Legal and General Assurance (Pensions Management) Ltd., London, Annual Reports.

Prudential Pensions Ltd., London, Annual Reports.

6.50. The distribution of holdings as shown in Table 6.49.1 suggests that office No.1 with some, albeit proportionately small, investments in debentures, unsecured loan stock etc., tended, relatively to office No.2, to have a slightly less conservative approach. It is thus to be expected that office No.1 would tend to reveal a marginally superior yield, at the cost of slightly extra risk, and this is in fact indicated by the figures in the following Table 6.50.1.

Table 6.50.1.
Managed Fixed Interest Funds of the two largest Individual Offices.
Annual Rates of Return %.

	Period of Years				
	1975-79	1976-79	1977-79	1978-79	1979
Office No.1	16.4	14.4	15.2	3.2	-3.0
Office No.2	15.1	13.6	13.4	1.0	3.3
FTA Brit. Govt. All Stocks Index	17.3	12.4	12.4	2.0	4.9
Retail Price Index	15.4	13.2	12.5	12.7	17.2
Earnings Index	14.5	13.3	14.0	16.3	19.3

Sources: Rows 1 and 2, Willis Faber, London.
Row 3, Financial Times, London.
Rows 4 and 5, Central Statistical Office, Annual Abstract of Statistics, HMSO, London.

6.51. The figures in Table 6.50.1 indicate additionally that whilst over the quinquennium 1975-79 the annual rates of return for both offices were not unfavourable to the retail price index and the earnings index, the lack of a real rate of return in 1978-79 and 1979 is particularly marked.

6.52. Care is essential in considering any comparison of different property funds relating to a relatively short period of years because, for example, as stated by office No.1 in 1975, the underlying objective is long term substantial growth through investment in a broad spread of sound properties.[18] This statement by office No.1 is amplified in subsequent reports of theirs by the remark that the property fund is not a suitable vehicle for short term or temporary investment of monies[19] and reports of office No.2 contain similar statements such as that property remains a long term investment.[20] Nevertheless annual rates of return on the two property funds are indicated in the following Table 6.52.1.

Table 6.52.1.

Managed Property Funds of the two largest Individual Offices. Annual Rates of Return %.

	Period of Years				
	1975-79	1976-79	1977-79	1978-79	1979
Office No.1	13.2	16.2	18.5	18.2	17.3
Office No.2	16.8	17.5	21.9	20.7	20.5
Property Index	15.5	17.7	20.6	20.3	20.6
Retail Price Index	15.4	13.2	12.5	12.7	17.2
Earnings Index	14.5	13.3	14.0	16.3	19.3

Sources: Rows 1 and 2, Willis Faber, London.
Row 3, Metropolitan Pensions Association, London.
Rows 4 and 5, Central Statistical Office, Annual Abstract of Statistics, HMSO, London.

6.53. Whilst for the reasons stated in paragraph 6.52 too much should not be read into the figures in Table 6.52.1 it would seem that annual rates of return on the two offices' managed property funds for the various periods of years there indicated, have been more stable than the corresponding rates of annual return on the managed equity funds (see Table 6.47.1) and the managed fixed interest funds (see Table 6.50.1). And stability is a factor to be favoured in pension fund investment matters.

6.54. Property investment is highly specialised and numerous factors impinge. Size of fund may be a relevant consideration. The figures in Table 6.52.1 tended to suggest that over very recent periods of years, the annual rates of return were superior for office No. 2 than for office No.1; Table 6.54.1 indicates that such superiority of return was associated with the fund smaller in size.

Table 6.54.1.

Managed Property Funds of the two largest Individual Offices.

Size of Funds - £'s millions - Market Values.

Year	1975	1976	1977	1978	1979
Office No. 1	119	169	282	416	557
Office No. 2	34	53	97	143	183

Sources: Legal and General Assurance (Pensions Management) Ltd., London, Annual Reports.
Prudential Pensions Ltd., London, Annual Reports.

6.55. Another relevant factor is the respective attitudes of the investors to various types of property. Table 6.55.1 thus indicates the distribution of the managed property funds of the two individual offices according to investment class. Office No.2 which according to Table 6.52.1. tends to show higher returns than office No.1 over the short period of years considered has a somewhat larger proportion of its fund, albeit still a small proportion, in agriculture. Relevant to consideration of Table 6.55.1 is that of Table 5.25.1 showing property yields subdivided according to offices, shops and industrial. Consideration of these two tables jointly may suggest that respective choice of property within the separate classes is as an important factor as that of choice of class overall.

Table 6.55.1.

Managed Property Funds of the two largest Individual Offices.
Distribution of Funds according to Class of Investment.
Percentages based on Market Value.

Year	1975		1976		1977		1978		1979	
Office No.	1	2	1	2	1	2	1	2	1	2
Investment Class										
Offices	61	45	58	44	50	45	47	51	44	54
Shops	27	49	23	45	25	41	28	35	31	31
Industrial	12	6	13	8	11	9	10	10	11	11
Agriculture				3	2	5	2	4	3	4
Development							4		4	
Overseas									2	
Short Term Investments			6		12		9		5	
Total	100	100	100	100	100	100	100	100	100	100

Sources: Legal and General Assurance (Pensions Management(Ltd., London, Annual Reports.
Prudential Pensions Ltd., London, Annual Reports.

6.56. Office No.1 operates separate equity, fixed interest, property and mixed funds. As regards the mixed fund this is comprised of a mixture of stock exchange investments, i.e. ordinary shares and fixed interest securities including deposits but with no direct property holdings. The subdivision of the mixed fund over recent years has been as follows in Table 6.56.1. the proportions being based on market values.

Table 6.56.1.

Managed Mixed Fund of Office No.1.

Proportion of Investments according to category %.

Year	1975	1976	1977	1978	1979
Category					
Ordinary Shares	67	57	59	55	52
Fixed Interest	26	35	35	37	41
Cash	7	8	6	8	7
Total	100	100	100	100	100

Source: Legal and General Assurance (Pensions Management) Ltd., London, Annual Reports.

6.57. The figures in Table 6.56.1. indicate that when the office concerned has discretion between ordinary shares and fixed interest securities, including cash, there has been over the recent past a slight preference for ordinary shares. But by 1979 the office had the mixed fund approximately evenly divided between equities and fixed interest plus cash. The investment reports of the office do not justify this proportion and the broad choice of half and half may appear to be arbitrary. Somewhat naturally the yield on this mixed fund lay between those on the separate equity and fixed interest funds.

6.58. Office No.1 also operates, but only since April 1979 a composite fund invested in ordinary shares, fixed interest securities and units of the separate property fund. By the end of 1979 the percentage distribution of this fund, based on market values, was ordinary shares 26%, property fund 25%, fixed interest 43%, cash 6%. Counting property as an equity investment, the fund is thus divided half and half between equities and fixed interest. Again this may appear to be an arbitrary division for no justification for it is published by the office concerned.[21]

6.59. With Office No.1 policyholders may decide the proportions to be invested in each of the separate managed funds. Alternatively, the choice can be left to the office which would use the mixed and property funds, although no indication is given as to the extent of the use of the property fund unless the composite fund be regarded as a guide. The composite fund would be used for smaller pension funds.[22]

6.60. No.2 Office runs only separate equity, fixed interest and property funds. The choice of the proportion of investment can be left to the discretion of the office which is also prepared to switch the existing investments from one section to another and to utilise a cash deposit facility. When full discretion is left to the office the proportions applied to the separate funds are not disclosed.

6.61. Despite the non-disclosure of the proportions invested in the separate funds as mentioned in paragraph 6.59 for Office No.1 and paragraph 6.60 for Office No.2,

the rates of return obtained over recent years, when the offices have full discretion, are obtainable for both offices and are as indicated in the following Table 6.61.1.

Table 6.61.1.

Managed Funds with Full Investment Discretion by the Life Office of the two largest Individual Offices.

Annual Rates of Return %.

	Period of Years				
	1975-79	1976-79	1977-79	1978-79	1979
Office No.1	19.5	13.8	18.1	9.0	6.7
Office No.2	20.9	15.6	19.8	9.9	10.5
Retail Price Index	15.4	13.2	12.5	12.7	17.2
Earnings Index	14.5	13.3	14.0	16.3	19.3

Sources: Rows 1 and 2, Willis Faber, London.
Rows 3 and 4, Central Statistical Office, Annual Abstract of Statistics, HMSO, London.

6.62. As stated in paragraph 6.43, as at December 1979, Offices No.1 and No.2 had managed fund assets of £1767.6millions representing 60% of all life office managed funds. It is noteworthy from Table 6.61.1. that when given full discretion and free from any constraints and with no requirement as to matching assets to liabilities such large institutional investors have achieved, over recent periods of years, a real rate of return, but not so in the period 1978-79 nor in the single year 1979.

CHAPTER 7

FACTORS INFLUENCING FUTURE BENEFIT STRUCTURE AND COSTS

(a) The Age Structure

(b) Membership of Occupational Pension Schemes

(c) Expenditure under Occupational Pension Schemes

(d) Expenditure under State Schemes

(e) Economic Considerations

(f) Liabilities of Pension Schemes

(g) Potential Political Influences

(h) External Influences

(i) Multinational Company Considerations

(j) Retirement Ages

CHAPTER 7

FACTORS INFLUENCING FUTURE BENEFIT STRUCTURE AND COSTS

(a) The Age Structure.

7.1. Considerations of occupational pension schemes and of social security schemes cannot be divorced from the age structure of the population in which they operate.

7.2. The age-structure of the total population of the UK as at mid-1976 was estimated by the Registrar-General to be as follows.[1] The source of the estimate reflects a high degree of accuracy.

Table 7.2.1.

Estimated population of the UK, 1976 - figures in thousands

Age last birthday	Males	Females	Total
0 - 4	1,925	1,814	3,739
5 - 9	2,282	2,164	4,446
10 - 14	2,387	2,266	4,653
15 - 19	2,184	2,069	4,253
20 - 24	1,995	1,894	3,889
25 - 29	2,129	2,080	4,209
30 - 34	1,825	1,772	3,597
35 - 39	1,631	1,585	3,216
40 - 44	1,581	1,551	3,132
45 - 49	1,621	1,637	3,258
50 - 54	1,686	1,741	3,427
55 - 59	1,511	1,635	3,146
60 - 64	1,457	1,652	3,109
65 - 69	1,266	1,573	2,839
70 - 74	916	1,324	2,240
75 - 79	518	976	1,494
80 - 84	247	584	831
85 and over	129	395	524
All ages	27,290	28,712	56,002

Source: Population Projections, page 6, HMSO LONDON 1978

7.3. Projections into the future have been made by the Government Actuary's Department utilising the component method. The formula used has been,

$$ {}^{n}P_{x} = {}^{n-1}P_{x-1}\left(1 - {}^{n-1}q_{x-\frac{1}{2}}\right) \pm {}^{n}M_{x} $$

where

${}^{n}P_{x}$ = number of persons at mid-year n aged x last birthday

${}^{n}M_{x}$ = net number of migrants in the period mid-year $(n-1)$ to mid-year n who would be aged x last birthday at mid-year n

${}^{n-1}q_{x-\frac{1}{2}}$ = probability of death within a year for a person aged $(x-1)$ last birthday at mid-year $(n-1)$

The mortality of migrants between the date of the migration and mid-year should strictly be brought into account but it has been ignored by the Government Authority;[2] this is justifiable in view of its small size.

The number of births in a future year has been obtained by applying fertility rates to the total number of women in the population for each age between 15 and 45. The formula used has been

$$ {}^{n}B = \sum_{x=15}^{44} \frac{1}{2}\left({}^{n-1}P_{x}^{f} + {}^{n}P_{x}^{f}\right){}^{n}f_{x} $$

where

${}^{n}B$ = number of live births in period mid-year $(n-1)$ to mid-year n

${}^{n}P_{x}^{f}$ = number of women at mid-year n aged x last birthday

${}^{n}f_{x}$ = fertility rate for births in the period mid-year $(n-1)$ to mid-year n to women aged x last birthday at childbirth.

The total number of births has then been divided by sex in a constant ratio.

To obtain for each sex the number of survivors of babies born during the year the formula used has been,

$$ {}^{n}P_0 = {}^{n}B\left(1 - {}^{n-1}_{\frac{1}{2}}q_0\right) \pm {}^{n}M_0 $$

where,

${}^{n-1}_{\frac{1}{2}}q_0$ = probability that a baby of that sex born in the period mid-year $(n-1)$ to mid-year n will die before the end of that period.

${}^{n}M_0$ = net number of migrants of that sex in the same period who are under age 1 at mid-year

Thus the method adopted by the Government Actuary[3] involving four elements entering into the calculations, namely the base population, migration, fertility and mortality, whilst unsophisticated, can be regarded as reasonable.

7.4. However, it is necessary to be satisfied that the assumptions involved also are reasonable.

The migration element is obviously a problem in projecting populations into the future. The historical picture of the UK as a net exporter of population has influenced the long term overall assumption made that some 40,000 more people a year will leave the UK than will enter it.[4] Although one must regard the estimate as the best possible, the migration assumption must to some extent be regarded as arbitrary.

As regards fertility, the long term trend has been a movement from large families. The method used by the Government Actuary has been first to decide on the assumptions about the average level of fertility in the medium to long

term future in terms of the historically relatively stable generation fertility rate represented by the average size of completed families. The assumed generation fertility has then been broken down into rates at each age to give the timing of the births which make up the generation total.[5] In estimating the annual births for the immediate future, however, the main emphasis has been on period factors likely to affect fertility in the short term.[6] Again the reasonableness of such assumptions is not to be questioned but actual figures may prove quite different from those projected.

As regards mortality the approach of the Government Actuary has been first to determine current levels.[7] It has then been assumed that mortality rates at the various ages would decrease in geometrical progression, the proportion for ages 5 to 84 having regard to separate grouped causes of death, and then adding the results to obtain rates by all causes. For this purpose studies were made of mortality trends since 1950 and taking a view as to how these trends would develop.[8] As regards mortality rates from birth to age 5 it has been assumed that there will be a future fall of just under three-quarters of one per cent a year.[9] No one would deny the reasonableness of the estimates of future mortality adopted in the forecasts based as they are on deep statistical analysis and arrived at after international comparisons and investigations of the generation approach, although, of course, the probabilistic nature of the influences involved necessarily has to be borne in mind.

7.5. A summary of the actual populations for 1951, 1961 and 1971 and total populations as projected by the Government Actuary's Department in respect of the UK is as follows:

Table 7.5.1.

Population of the UK - figures in thousands

Year	Age				
	0 - 14	15 - 44		45 - 64	45 - 59
	Persons	Males	Females	Males	Females
1951	11,375	10,779	10,896	5,568	5,081
1961	12,359	10,560	10,428	6,394	5,467
1971	13,411	10,932	10,630	6,461	5,222
1981 Estimate	11,311	12,055	11,607	6,064	4,808
1991 Estimate	11,435	12,611	12,082	5,963	4,649
2001 Estimate	12,531	12,083	11,523	6,571	5,291
2011 Estimate	11,213	11,966	11,381	7,433	5,732

Year	Age				
	65 & over	60 & over	All Ages		
	Males	Females	Males	Females	Persons
1951	2,251	4,599	24,407	26,143	50,550
1961	2,385	5,362	25,672	27,282	52,954
1971	2,821	6,234	27,099	28,613	55,712
1981 Estimate	3,241	6,611	27,175	28,522	55,697
1991 Estimate	3,352	6,620	27,807	28,905	56,712
2001 Estimate	3,253	6,283	28,351	29,184	57,535
2011 Estimate	3,349	6,632	28,516	29,190	57,706

Source: Population Projections, p.119, HMSO, London, 1978

Taking the total population for 1951 as 100 the actual populations for 1961 and 1971 and the projected populations thereafter may be expressed as follows; and similarly taking the 1981 population as 100.

Table 7.5.2.

Population of the UK

Year (i)	Size of Population (Persons) (ii)	Relative Size (iii)	
1951	50,550,000		100
1961	52,954,000		104.76
1971	55,712,000		110.21
1981 Estimate	55,697,000	100	110.18
1991 Estimate	56,712,000	101.82	112.19
2001 Estimate	57,535,000	103.30	113.82
2011 Estimate	57,706,000	103.61	114.16

Source: Column (ii), Population Projections, p.119,HMSO, London, 1978

The projected growth, relatively small, is due to natural increase, it would have been greater but for the assumption that the net balance of migration would be outwards in future.

7.6. From the aspects of pension schemes and social security, changes in the age structure may be of more consequence than changes in overall size. The results of the projections for the UK are therefore shown in the following form.

Table 7.6.1.

Population of the UK Percentages

Age	Year				
	1976 (Base Year)	1981	1991	2001	2011
Males 65 and over to males 18-64	18.89	19.44	19.15	18.70	18.58
Females 60 & over to females 18-59	44.25	43.95	42.09	40.20	41.72
Males 65 & over plus females 60 & over to males 18-64 plus females 18-59	30.92	31.07	30.00	28.88	29.36
Persons 0-17 to males 18-64 plus females 18-59	49.83	44.58	40.63	45.34	40.37

Source: Based on Population Projections, pp.120-127, HMSO, London, 1978.

Taking the active population as males aged 18-64 and females aged 18-59, and the retired population as males 65 and over and females 60 and over, it is apparent that the proportion of the retired population to the active population is projected to decline from the year 1981 to the year 2001 and then slightly to increase from the year 2001 to 2011. The proportion of persons under age 18 to active population is projected to fluctuate over the corresponding period.

7.7. Projected populations are sensitive to the assumptions adopted in their construction. Indeed a single projection may be thought to imply that future population growth is in

principle determinable, or that at the very least, a probability can be attached to any particular projection. In recent years, however, the Government Actuary has published only one projection in the main but to counter misconceptions two additional projections have been made to illustrate the wide range of possibilities in regard to the level of births in the short term even within the framework of the same assumptions above the level of fertility in the longer term.[10] In the principal projection it was assumed that the period fertility rates would rise gradually from 1980 onwards to attain the assumed long term rate of 2.1 in 1987.[11] The higher births variant assumes that births rise from 1979 and incorporates such a large surge in postponed births that for a few years after 1981 the period fertility rates rise above the assumed long term average of 2.1.[12] For the lower births variant it was assumed that a rise in fertility will not begin until 1983 with the assumed ultimate level being attained in 1991.[13] On the basis of these particular variant fertility assumptions the total projected population over the years to year 2011 might be increased by just over 2% or decreased by about 2.8%.[14] By their nature the variant fertility assumptions do not affect the number of males over age 65 or females over 60 during the span of years of the projections. Indeed it is not until 1996 that the figures for those aged 18 or over may become affected. However, the figures in Table 7.6.1. indicating percentages of "retired population" to "actual population" as there defined and these shown as 28.88 and 29.36 for the years 2001 and 2011 respectively, become under the high fertility assumption 28.50 and 28.80 respectively, and under the low fertility assumption 29.26 and 30.24 respectively.

7.8. The Government Actuary has prepared further projections assuming long term fertility of 1.8 children per woman (the continuing low variant) and 2.3 (the continuing high variant) compared with 2.1 as in the principal projection.[15] Again taking the active population as males aged 18-64 plus females aged 18-60 and the retired population as males 65 and over plus females 60 and over the following table has been compiled.

Table 7.8.1.

United Kingdom. Effects of Variant Fertility Assumptions. Percentages of "retired" population to "active" population.

	Year				
	1976	1981	1991	2001	2011
Standard Projection	30.92	31.07	30.00	28.58	29.36
Short Term. High Variant	30.92	31.07	30.00	28.50	28.80
Short Term. Low Variant	30.92	31.07	30.00	29.26	30.24
Continuing High Variant	30.92	31.07	30.00	28.17	28.39
Continuing Low Variant	30.92	31.07	30.00	29.83	31.07

Source: Based on Table 7.6.1. Also on Population Projections pp.47,105 & 106, HMSO, London, 1978.

7.9. Table 7.8.1. illustrates the effect of an alteration in the fertility assumption on its own, that is leaving the mortality and migrant assumptions unaltered. As regards mortality, investigations made by the Royal Commission on Population 1949 indicated, as would be expected, that different appropriate assumptions have relatively greater effect for

retired ages than for active ages. In fact such investigations indicated that it would be reasonable to think in terms of a difference of approximately 3% in the "retired" to "active" ratio over a span of some 30 years, such as from the present time to the year 2011, as resulting from reasonable mortality assumptions thought likely to straddle actual experience.[16] Indeed results otherwise obtained are in accordance, and even a very extreme assumption made that an optimistic view of likely future mortality rates on which there is super-imposed further life saving on the supposition that all forms of cancer can be eliminated in the course of the next 40 years does not stretch the "retired" to "active" ratio, during the next 30 years from the current time by more than 4% away from the corresponding ratio based on the assumption of a continuation of current mortality rates.[17] The Government Actuary's projections have, however, utilised a single mortality assumption so that to a limited extent, the assumption can be regarded as a forecast and allows for reasonable improvements in mortality rates year by year in the future. It would thus seem reasonable to assume that the effects of mortality alone will not amend the "retired" to active" ratio over the next 30 years by more than $\pm$ 1½%.

7.10. The following table illustrates the effects of variant fertility and mortality assumptions. The figures in the last two rows of the table assume that the effects of variant fertility and variant mortality are additive.

Table 7.10.1.

United Kingdom. Estimated Effects of Variant Fertility and Mortality Assumptions. Percentage of "retired" population to "active" population.

	Year	
	1981	2011
Standard Projection. Standard Fertility, Standard Mortality	31.07	29.36
Continuing High Variant Fertility, Standard Mortality	31.07	28.39
Continuing Low Variant Fertility, Standard Mortality	31.07	31.07
Higher than expected Mortality, Standard Fertility	31.07	30.86
Lower than expected Mortality, Standard Fertility	31.07	27.86
Continuing High Variant Fertility, Lower than Expected Mortality	31.07	26.89
Continuing Low Variant Fertility, Higher than Expected Mortality	31.07	32.57

Source: Based on Tables 7.6.1., 7.8.1., and on paragraph 7.9.

The figures in Table 10.1. suggest that, with the question of migration apart, the "retired" to "active" ratio is unlikely to increase significantly over the next 30 years. Even with substantially continuing lower than expected fertility rates coupled with substantial higher than expected mortality, both operating simultaneously, the percentage for the year 2011 is 1.5% above the 1981 level.

7.11. There is still the question of migration. In the projections the assumption as to future migration has been based on recent past trends and what was thought most likely for the future. Nevertheless, the fact remains that the effects of different migration patterns could be of greater significance than likely variations in mortality particularly in regard to future numbers at the working ages. Possible patterns are however extremely diverse due to national policies and social considerations so that any attempt to place likely migration limits could be very misleading. But consideration of the migration factor does lend emphasis to the care necessary when interpreting population projections. Even so, the conclusion is drawn, and this is an important factor from the viewpoint of superannuation of the elderly, that the proportion of the "retired" population (that is males over age 65 plus females over age 60) to "active" population (that is males aged 18-64 plus females aged 18-59) will tend to remain fairly stable over the next 30 years or so.

7.12. At any point of time the payment of pensions to the retired is largely dependent on the efforts of those who are directly active. The conclusion drawn regarding "retired" to "active" ratio therefore suggests that pension arrangements both occupational and state at their present levels of payment and effective membership, which are valid on the current ratio, can be expected to be sustainable over the future 30 years or so if other conditions, such as economic and social, remain unaltered.

(b) Membership of Occupational Pension Schemes.

7.13. "Retired" to "active" ratios respective to the population as a whole are of consequence for the reasons stated in paragraph 7.12. But membership of occupational pension schemes broadly creates a privileged financial status in retirement and it thus becomes important to consider ratios of those within such privileged status relative to the total supporting active population.

7.14. Certain projections of the numbers of pensioners from, and members of, occupational pension schemes are given in Appendix 5 of Cmnd.7937.[18] In those projections the main assumptions made were as follows. The labour force projections made by the Department of Employment were used and the proportions of the labour force who will be employees were assumed soon to return to the levels current in 1971. It was assumed that the proportions of employees in the various sectors of employment will remain constant, and that the proportions of male employees covered by occupational schemes will show virtually no increase in the public sector (87%) but that there will be a considerable increase (from 52% to 59%) in the private sector. For women the coverage is assumed to increase slightly in each sector (to 62% in the public sector and 24% in the private sector) as equal access takes effect.[19] The number of pensioners was projected using the available information about the current age distributions of pensioners and active members. It was assumed that there will be no change in the state pension ages. The payment of widows' pensions was assumed to become almost

universal by the year 2000.[20] These assumptions, which although they necessarily contain an element of speculation, are clearly reasonable and the following ratios have been based on projections of numbers of pensioners of occupational pension schemes utilising corresponding assumptions. The denominators of the ratios utilise figures from the standard projections (see paragraph 7.5.).

Table 7.14.1.

Projected ratios of occupational scheme pensioners (including widow pensioners) to "active" population.

Year	Percentage
1976	11.3
1981	12.9
1991	15.3
2001	16.3
2011	16.3

Source: Based on Population Projections, HMSO, London 1978 and on Cmnd.7937, pp.539 & 540, HMSO, London, 1980.

7.15. Thus whilst it has been concluded (see 7.11.) that "retired" to "active" ratios will tend to remain fairly stable, it is now concluded that the ratio of those having privileged financial status of being occupational pension scheme pensioners to "active" population can be expected to increase significantly over the next 30 years or so. This suggests that the "retired" as a whole will need higher overall sustenance from the "active" element.

7.16. It can be argued that the ratios given in Table 7.14.1. are those of relevance when considering the "burden" of occupational scheme pensioners because it is the total "active" population which largely has to support them directly or indirectly. However, by replacing the denominator of those ratios by the active membership of occupational pension schemes, ratios result to indicate the "burden" of occupational scheme pensioners on the active membership of occupational schemes.

Table 7.16.1.
Projected ratios of occupational scheme pensioners (including widow pensioners) to active members of occupational pension schemes .

Year	Percentage
1976	29.9
1981	32.0
1991	37.8
2001	39.4
2011	40.1

Source: Based on Cmnd.7937, pp.538-540, HMSO, London 1980

7.17. Thus as well as the implicit conclusions of paragraph 7.15. that pensioners of occupational pension schemes will become an increasing "burden" on the "active" element of the population, it is now apparent from Table 7.16.1. that occupational scheme pensioners will tend to increase over the next 30 years or so relative to

the active membership of occupational pension schemes. However the rate of increase in the percentages of Table 7.14.1. being greater than the rate of increase in the percentages of Table 7.16.1., as given in the following Table 7.17.1. suggests that the "burden" of occupational scheme pensioners may increase relatively more on the entire "active" population than on the mere active membership of occupational pension schemes.

Table 7.17.1.

Projected rates of increase in the ratio of

(a) occupational scheme pensioners (including widow pensioners), to "active" population, and

(b) occupational scheme pensioners (including widow pensioners) to active members of occupational pension schemes.

Year	Percentage rates of increase	
	(a)	(b)
1976	100	100
1981	114	107
1991	135	126
2001	144	132
2011	144	134

Source: Based on Tables 7.14.1 and 7.16.1.

7.18. The point made in paragraph 7.12. that at any time the payment of pensions to the retired is largely dependent on the efforts of those who are directly active

is clearly apposite when state pensions involving a pay-as-you-go system of financing are considered. It may be thought to be not so relevant for funded occupational schemes for under these a fund is built up generally adequate in size to provide each member's pension in payment. If this fund were to be invested in some extraneous way such as in a foreign society independent of the British society then British occupational scheme pensioners could be regarded as being sustained by an extraneous work force. In practice, of course, this applies only to a very limited extent for the bulk of the investments are in the British economy. The building up of the fund has therefore staked an indisputable claim on goods and services of the future, but those goods and services to the "retired" still have to be provided by the "active" even though the efforts of the "active" are considerably assisted by the capital and expertise built up by their predecessors. But all in all it is considered that the funding of occupational schemes does assist future development of commerce and industry in a way that assessmentism does not and consequently that pensioners from unfunded schemes are, in a sense, more of a "burden" on future "active" populations than when funding has operated. Some comparisons are thus now given relative to funded and non funded occupational pension schemes in the UK.

7.19. Whilst private sector occupational pension schemes are normally funded this is not true of the public service and due to different growths in private sector and public sector schemes the projected ratios of occupational scheme

pensioners to "active" population differ for funded and unfunded schemes. The overall percentage of 11.3, for both combined, shown in Table 7.14.1 in respect of the year 1976 represents 8.4% and 2.9% for funded and unfunded schemes respectively the corresponding percentages for the year 1981 being 9.5 and 3.4. The projections for the years 1991, 2001 and 2011 are 11.1%, 11.8% and 11.8% respectively for funded schemes and 4.2%, 4.5% and 4.5% respectively for unfunded schemes,[21] to suggest that the "burden" on the "active" population of pensioners from unfunded occupational schemes may well increase more over the next 30 years or so than that of pensioners from funded occupational schemes. Indeed taking the percentages as relative to 100 for the year 1976 they become in respect of the years 1981, 1991, 2001, and 2011, 113%, 133%, 141% and 141% for funded schemes and 120%, 147%, 156% and 156% for unfunded schemes respectively.

7.20. The projected ratios of funded occupational scheme pensioners to active members of funded occupational schemes, corresponding to the figures in Table 7.16.1. for both funded and unfunded schemes combined are as follows: year 1976, 28.2%; 1981, 29.4%; 1991, 34.6%; 2001, 35.8%; and 2011, 37.0%. The ratios for unfunded schemes are respectively 36.0%. 42.4%. 50.0%. 53.6% and 53.6%.[22] The indications thus are that the "burden" of unfunded occupational scheme pensioners to active members of unfunded occupational schemes may be no less over the next 30 years or so than the corresponding "burden" of funded schemes.

Moreover as regards the point made in paragraph 7.17. that the "burden" of occupational scheme pensioners may increase relatively more on the entire "active" population than on the mere active membership of occupational pension schemes, the same may apply separately to unfunded occupational schemes and funded occupational schemes. Figures corresponding to Table 7.17.1. are as follows in Table 7.20.1.

Table 7.20.1.

Projected rates of increase in the ratios of

(a) Funded occupational scheme pensioners to "active" population

(b) Unfunded occupational scheme pensioners to "active" population

(c) Funded occupational scheme pensioners to active members of funded occupational schemes.

(d) Unfunded occupational scheme pensioners to active members of unfunded occupational schemes.

Pensioners include widow pensioners.

Year	Percentage rate of increase			
	(a)	(b)	(c)	(d)
1976	100	100	100	100
1981	113	120	104	117
1991	133	147	123	133
2001	141	156	127	149
2011	141	156	131	149

Source: Based on paragraphs 7.19 and 7.20.

It is to be appreciated that the ratios are not to be divorced from the assumptions stated in paragraph 7.14. It is to be expected, on general social grounds, that active membership of occupational pension schemes is increasing relatively more than the "active" population. Thus, whilst occupational scheme pensioners are also increasing the ratio of such pensioners to active membership of occupational schemes involves a denominator increasing over time at a higher pace than the pace of increase of the "active" population. The conclusion that the "burden" of occupational scheme pensioners may increase in future relatively more on the entire "active" population than on the mere active membership of occupational pension schemes thus conforms with what might be expected from general reasoning.

7.21. As just indicated in paragraph 7.20. projected ratios are dependent upon the assumptions adopted in their construction. The assumptions mentioned in paragraph 7.14. are, as there stated, clearly reasonable but a variety of different assumptions, although no more reasonable, might have been adopted. The effects of modifications of some assumptions would be relatively small but in one respect consideration of the effects of a modified assumption is regarded as desirable. It has been assumed that there will be no change in the State pension age but there may be some social pressures for a reduction; and it is the State pension age which largely influences the normal retirement

age under occupational pension schemes. Consideration is thus now given to modifying the "active" population to ages 18 to 59 inclusive for men and women with the resultant "retired" element as 60 and above for both sexes.

7.22. The following Table 7.22.1. corresponds with Table 7.14.1. with the latter being modified to obtain the former, by amending the "active" population for years 1981 and on to exclude males aged 60-64 and the occupational scheme pensioners to include provision for the normal retirement age under them to be reduced for men from age 65 to 60.

Table 7.22.1.
Projected ratios of occupational scheme pensioners (including widow pensioners) to "active" population. (Assuming pension age reduced from 65 to 60 for men, as for women, with effect from 1981).

Year	Percentage
1976	11.3
1981	15.9
1991	18.0
2001	19.4
2011	19.5

Source: Based on Population Projections, HMSO, London, 1978, combined with Cmnd.7937, p.540, HMSO, London, 1980.

7.23. Comparison of Table 7.22.1. with Table 7.14.1. indicates that the broad effect of amending the male retirement age from 65 to 60 would be to increase the numerical "burden" of occupational scheme pensioners on the "active" population by the order of some 20% over the next 30 years or so, clearly a highly significant increase.

7.24. The following Table 7.24.1. corresponds with Table 7.17.1. the latter being modified to obtain the former by amending the retirement age of males from 65 to 60.

Table 7.24.1.
Projected ratios of occupational scheme pensioners (including widow pensioners) to active members of occupational pension schemes.
(Assuming male normal pension age reduced from 65 to 60 with effect from 1981).

Year	Percentage
1976	29.9
1981	39.7
1991	44.2
2001	46.9
2011	48.9

Source: Based on Population Projections, HMSO, London, 1978, combined with Cmnd.7937, pp.538-540, HMSO, London, 1980.

7.25. Again comparison of Table 7.24.1. with Table 7.16.1. indicates that the broad effect of amending the male retirement age from 65 to 60 would be to increase the numerical "burden" of occupational scheme pensioners on the active membership of occupational pension schemes by the order of some 20%.

7.26. The following Table 7.26.1. corresponds with Table 7.17.1. but utilising Tables 7.22.1. and 7.24.1. rather than Tables 7.14.1 and 7.16.1.

Table 7.26.1.

Projected rates of increase in the ratio of

(a) occupational scheme pensioners (including widow pensioners), to "active" population, and

(b) occupational scheme pensioners (including widow pensioners), to active members of occupational pension schemes.

(Assuming male normal pension age reduced from 65 to 60 with effect from 1981).

Year	Percentage rate of increase	
	(a)	(b)
1976	100	100
1981	141	133
1991	159	148
2001	172	157
2011	173	164

Source: Based on Tables 7.22.1. and 7.24.1.

7.27. In paragraphs 7.19 and 7.20 separate attention is given to funded and unfunded schemes and the considerations relate to current conditions regarding retirement from occupational pension schemes. Paragraphs 7.22 to 7.26 inclusive have had regard to a general modification of the normal retirement age for males to age 60. It is appreciated however, and account has been given to this factor, that whilst in the private sector, where occupational pension schemes are normally funded, the norm for male normal retirement is age 65 whilst in the public sector, where occupational pension schemes may be unfunded such as the Civil Service scheme, normal retirement age is lower than 65. As well unfunded schemes include schemes for such as the armed forces and police where special circumstances affect normal retirement age. In consequence, when considering a reduction in the male normal retirement age to 60 analyses have not been made which involve suggesting a reduction in the normal retiring age under unfunded schemes separately, because such would be inapplicable.

(c) Expenditure under Occupational Pension Schemes.

7.28. Appositely it has been concluded, see paragraph 7.12, that the population "retired" to "active" ratio can be expected to remain relatively stable over the next 30 years or so, so that the retired element of the population can be expected to have a stable supporting work force. The ratio of occupational scheme pensioners to "active" population can however be expected to increase significantly, even without any reduction in normal pension age, see paragraph 7.15, so that occupational scheme pensioners have a proportionately declining work force to sustain them. The latter is a very material factor not only from the numerical viewpoint but also from the economic viewpoint.

7.29. As regards the economic aspect estimates are given, in Cmnd.7937, of expenditure of occupational pension schemes. The expenditure of occupational pension schemes, in terms of 1978 prices, is there given as £3950 millions for the year 1975,[23] and projected expenditure is indicated. To consider such it is necessary to have regard to the underlying assumptions.

7.30. As is stated in Cmnd.7937, already new pensions are normally based on final earnings and it is assumed that in future the average number of years of service counting for pension will increase as schemes inaugurated in the 1960's pensions boom become mature and as waiting periods between taking up employment and joining a pension scheme are reduced.[24] Future expenditure will be significantly

affected by the statutory preservation requirements, see paragraphs 3.4, 3.5, 3.6, and the widow's pension is assumed to rise to one-half of the man's pension by the year 2000. It is assumed that full price protection of pensions in payment in the public sector will continue and that in the private sector protection will be to the extent of two-thirds of price increases on benefits in excess of statutory guaranteed minimum pensions.[25]

7.31. It is the statutory preservation requirements, which reduce losses due to changes of employment, which are of prime importance but clearly there will always be some losses particularly if preservation continues to relate only to salary at date of job change rather than on final salary at date of retirement. It is thus assumed that on average a male will be effectively credited with only 26 years of pensionable service on retirement. It is assumed that the number of women in schemes will be around 35% to40% of the number of men in schemes, and that the pensions to women will be 80% of men's pensions. The resultant figure of 80% of (35% to 40%) is reduced to 20% because relatively more of the women's membership of schemes is at the younger ages where a greater proportion of the accrued benefits are lost through changes of employment and that evidence suggests that women tend to change jobs (or temporarily give up work) more often than men.[26]

7.32. The assumptions mentioned in paragraphs 7.30 and 7.31. are clearly reasonable yet there are reasons to suggest that they might not be expected to result in an over-estimate of expenditure. There is a developing pensions awareness

within the community at large which manifests itself, for example, in legislation. The Social Security Pensions Act 1975, see Chapter 3 section (b), was introduced because of some public pressure and received general acceptance thereby indicating a public desire for improved financial status in retirement.in addition to the statutory requirements for preservation of pensions referred to in paragraph 7.31, resulting from the Social Security Act 1973, see Chapter 3 section (a). Both these statutes reflect a trend towards increasing pensions provision and such trend can be expected to continue. For example in March 1978 the then Secretary of State for Social Services asked the OPB under section 66 (i)(b) of the Social Security Act 1973, to study the question of occupational pension rights on change of employment.[27] The resultant report[27] stated that:

> "The Board are agreed that all final salary schemes should aim at increasing preserved benefits in line with the percentages specified by the Secretary of State in orders made under section 21 of the 1975 Act, that is broadly in line with the movement of national average earnings." [28]

The report also stated that:

> "The majority of the Board recommend statutory increases on the basis of section 21 orders up to a ceiling of 5% compound per annum over the period of deferment as a whole. We assume that many schemes may prefer to guarantee the 5% rate for their preserved pensions."[29]

Government has not yet given full consideration to the report of the OPB but the report clearly gives a spur to improved protection of early leavers and this could prove costly.[30]

(This matter is dealt with in more detail later, see Chapter 8, section (e)). Thus the particular assumption in Cmnd.7937, referred to in paragraph 7.31, that on average a male will be effectively credited with only 26 years of pensionable service on retirement, and the corresponding assumption for women, can, it is considered, tend to result in an under estimate of pensions expenditure. There seem to be no reasons to think that such possible under estimate of expenditure will be counterbalanced by the effects of other assumptions such as that in the private sector the pensions and lump sums scale of benefits will in aggregate be improved to amount on average to 90% of that which appertains in the public sector.[31]

7.33. When considering expenditure it is necessary, as stated in Cmnd.7937, in order that the figures in different years shall be readily comparable, to reduce all amounts to the price levels of a particular year and in that report the price levels of 1978 were chosen. It was further assumed that the rate of real increase in earnings from 1978 onwards will average 1½% per annum. Precise statistics are not available but as a broad indication of magnitude it is suggested in Cmnd.7937 that expenditure of occupational pension schemes in terms of 1978 prices roughly quadrupled over the twenty year period 1955 to 1975. It is also there shown, on the assumptions made, that occupational scheme expenditure could more than double between 1975 and 2000 (in terms of what money would buy).[32]

In 1978 expenditure of occupational pension schemes, after allowing for income tax concessions, was approximately 4¼% of total consumers' expenditure. If the economy expands at 1½% per annum this percentage will rise to approximately 6½ by 2000.[33] The assumed rate of increase in the national economy might seem to be a vital assumption but if the economy were to expand by only ½% per annum the percentage of 6½ for year 2000 as just quoted and based on average expansion of 1½% per annum, would remain virtually unaltered.[34] Thus on the assumptions made the expenditure of occupational pension schemes can be expected to rise, in relative terms, over the next 30 years or so. But for the reasons stated in paragraph 7.32. it is considered that the assumptions made, whilst reasonable, are not to be expected to result in an over estimate of occupational scheme expenditure. Indeed in 1975 the average occupational pension was about one-sixth of average male earnings and assumptions which imply that by the year 2000 this proportion will rise to merely one-third result, it is felt, in a probable understatement of likely future expenditure on occupational pensions.

(d) Expenditure under State Schemes.

7.34. Considerations of expenditure under occupational pension schemes cannot validly be divorced entirely from similar considerations relating to the state schemes, for whilst separate regard to the former is important in itself there may be some interplay between feasible expenditure under occupational schemes and expenditure on retirement pensions and widows' benefits under the state schemes.

7.35. On assumptions corresponding to those involved in paragraph 7.32 and involving an assumed expansion in the national economy of 1½% per annum, expenditure on retirement pensions and widows' benefits under the state schemes can be expected to increase, as indicated in Cmnd.7937, from 8½% of consumer expenditure in 1978 to 10% in the year 2000.[35] Thus in aggregate occupational pensions and state retirement pensions and widows' pensions combined absorbed some 12¾% of consumer ecpenditure in 1978 and this can be expected to rise to some 16½% of consumer expenditure in 2000. This means, on the assumptions made that some 25% of the estimated increase in consumer expenditure over the next 20 years or so, is being earmarked for occupational pensions and state retirement pensions and widows' benefits.

7.36. It is appropriate to consider the effect of an alternative assumption regarding expansion in the national economy as was done in paragraph 7.32 in respect of occupational schemes. In fact as indicated in paragraph 7.33

for occupational schemes, the effect of altering the assumed expansion in the national economy from 1½% to ½% per annum leaves the expected outlay on pensions expressed as a percentage of estimated consumer expenditure virtually unaltered because alternative assumptions have a corresponding effect on both items.

7.37. Whilst it is valid and important to express expenditure on pensions as a percentage of consumer expenditure it is important also to consider pension expenditure as a contribution rate. The latter is directly known by the contributors and such knowledge might influence developments.

7.38. The rate of contribution required from the employed earner and his employer jointly to balance income and outgo under the current state scheme in respect of retirement pensions and widows' pensions has been estimated from figures given in Cmnd.5928.[36] This estimate indicates that the contribution rate may be expected to show virtually no rise over the next 30 years. The main factor which could affect the estimate lies in the assumed number contracted out. The estimate does in fact utilise the assumption that 10 million persons are contracted out which broadly reflects the position in 1980. The provisions for contracting out have, however, an important effect on the finances of the state scheme. If instead of some 10 million persons being contracted out initially and remaining to be contracted out, only 4 millions had been contracted out and remained so the estimated increase in the contribution rate over the next 30 years from 1980 would be approximately 1½%. Contracting

out lowers the initial contribution rate in respect of contracted out employees but saving of expenditure on benefits is deferred until the contracted out employees come to retire. There is, however, no reason to think that current attitude to contracting out is changing. The estimates in this paragraph have been based on the assumption that real earnings will increase at the rate of 1½% per annum. To assume that the rate of increase of real earnings will be ½% per annum would increase the joint contribution rate over the next 30 years by less than ½%. Taken altogether reasonable modifications to the underlying assumptions, including the demographic assumptions, do not alter the expectation that the joint rate of contribution to the state scheme required to balance expenditure on pensions and widows' pensions will remain approximately constant over the next 30 years or so and this is reinforced by further estimates based on subsequent figures given in Cmnd.7036.[37]

7.39. There is always the possibility that the state scheme will be amended and if it were it would seem reasonable to suppose that such amendments would tend to increase rather than to decrease the contribution rate for the cutting back of social benefits could well be impracticable from a political aspect. In fact there are two pension areas in which potentially pressure may be imposed by the public at large for improvement in benefits. First there is the basic flat rate pension pitched at a level such that some 25% of retirement pensioners, as suggested in Cmnd.5713, need also to be paid a supplementary pension;[38] pressure may grow here to increase the basic flat rate pension to

reduce the fairly considerable extent of this supplementary aid. It is true that the second tier earnings related pension will, in course of time, achieve such alleviation but the earnings related element will take some 20 years to mature so that it does not provide any significant immediate or short term alleviation. This runs into the second area in which pressure from the general public for improvement of the state scheme may arise, namely the length of the period to the maturity of the earnings related element. Some clamouring for a full pension from this source before the expiry of 20 years from 1978 would seem to be a possibility. All in all and looking some 30 years ahead, it would appear that the possibility of a reduction in the joint contribution rate to the state scheme in respect of retirement pensions and widows' pensions, is remote.

(e) Economic Considerations.

7.40. Whilst on demographic grounds alone it has been suggested that pension arrangements at their present levels of payment and effective membership can be expected to be sustainable over the future 30 years (see paragraph 7.12), the ratio of those having the privileged financial status of being occupational scheme pensioners to "active" population can be expected to increase significantly (see paragraph 7.15). Expenditure on occupational pensions can be expected to rise accordingly (see paragraph 7.32) coupled with an increase in expenditure on state retirement pensions and widows' pensions (see paragraph 7.34).

7.41. It thus becomes desirable to consider whether the general economy can be expected to be such as to permit increasing expenditure on pensions, or, on the other hand, to be a constraint.

7.42. In making any projection, it is necessary to rely to some extent on the continuation of past patterns of behaviour and extrapolations of past trends are often of critical importance in medium term projections. In connection with such, however, limitations may be imposed by the methodology. Moreover, in a number of areas there is growing evidence that patterns of development may have been fundamentally altered by specific factors such as the world and domestic recessions and inflation of the years after 1973, and by the adoption of a flexible exchange rate regime.[39]

7.43. And considering matters pertinent to the United Kingdom in a general manner it is of interest that despite the apparently substantial case against monopolies no attempt was made to curb such monopoly power in the UK until after the Second World War. The first legislation, the Monopolies and Restrictive Practices Inquiry and Control Act, was introduced in 1948 and this has been followed by a succession of further Acts. Despite such legislation it has been suggested that there are too many vested interests in the continuation of monopoly power for it ever to be controlled effectively[40] and that there is little reason to expect that legislation is at long last heralding in a new era of consistent and efficacious monopoly policy.[41]

7.44. Another feature of the British economy is that there is at present an extensive public sector but although the original Nationalisation Acts came into being some 30 odd years ago it would seem correct to say that little for certain is known about the efficiency of the existing nationalised industries. Rather does opinion seem to be associated with political philosophies. It is of interest, however, that in the early 1970s the collapse of Rolls-Royce and Upper Clyde Shipbuilders forced a Conservative Government to transfer significant parts of the private sector into public control. And subsequently the liquidity crisis of 1974 resulted in applications for government aid which brought about some outright nationalisation such as Court Shipbuilders, whilst in other cases a Labour Government has offered financial assistance to ailing companies such as Ferranti, Alfred Herbert, Burmah Oil and British Leyland in

return for shares in the companies concerned thereby giving Government a large element of control. Since the advent of the Conservative Government in 1979 there have been signs of a trend in the opposite direction but practice seems to be see-saw in effect with one of the main political parties favouring more public ownership and the other less. This being so, and since in practice it is easier to nationalise rather than to de-nationalise it would seem reasonable to assume that the present large public sector overall is unlikely to diminish significantly.

7.45. The influential Trades Union Congress continues to emphasise that the extension of industrial democracy must continue to be based on the extension of trade union influence.[42] In particular the TUC advocates a new Companies Act to be introduced by stages. The object is for such companies to have a two-tier board structure with Supervisory Boards, responsible for determining company objectives, which would appoint Management Boards; one-half of the Supervisory Board to be elected through trade union machinery.[43] It is also stated that there will need to be a new set of statutes for the nationalised industries which, amongst other things, would provide for 50% direct trade union representation on their policy making boards.[44] The TUC maintains also that there should be provision for a satisfactory degree of trade union representation on decision making operational bodies in the public services.[45]

7.46. The economy of any nation is subject to numerous influences and enough is mentioned in paragraphs 7.43, 7.44 and 7.45 to suggest that the economy of the UK is clearly

subject to some of a highly controversial nature. Yet despite widely differing opinions held by those in various sectors of British society the approach adopted by all tends to be responsible which, it is thought, can be expected to result in evolutionary change rather than in a watershed in British economic affairs; and it is evolutionary change, not dramatic change, which provides a favourable background society in which pension schemes can be sustained.

7.47. Nevertheless relative efficiency is still of importance for at any one point of time expenditure on consumer pensions has to be financed largely from active enterprise. Economic development is affected by investment but investment depends on savings and savings depend on consumption. If expenditure on consumer pensions is to be increased then either other consumer expenditure has to be reduced, or total income has to be increased, for savings to be sustained at a given level. Emphasis, hopefully, tends to be placed on income being increased by greater efficiency but currently there seem to be signs of some social malaise which is not being eradicated through greater prosperity brought about by fiscal and monetary policy.

7.48. The British economy has for long been dependent on international trade and one important indicator is thus the balance of payments. In some recent years this balance has imposed a constraint on economic management, for example, large deficits occurred in some years in the 1970s,[46] and past patterns indicate a period of uncertainty for the

future. On the other hand, estimates indicate that total income from oil and gas is likely to show an increasing trend into the future.[47]

7.49. Another relevant factor for consideration when considering economic prospects for the future is that of output per head and this has been showing an increasing trend.[48] Consideration of this factor together with the considerations of paragraph 7.48 would seem to reinforce the thought expressed in paragraph 7.46 that evolutionary change rather than a watershed in British economic affairs is to be expected. The difficulty of assessing the impact on the economy of different factors is currently increased in the case of the UK by membership of the EEC which opens up an area of obscure predictability.

7.50. Additionally to the other problems facing the UK economy is the nagging one of inflation. With inflation there may be a tendency in the manufacturing sector for firms to lose interest in cost control where they feel secure in their ability to raise prices should costs rise; and investment in productive capital may become less attractive than speculation in property and other hedges against falling real values. Some indication of the very marked extent of inflation in the UK in recent years has already been given in Table 5.22.C. and there can be little doubt that continuation of inflation of such extent could have adverse effects on the development of the British economy in general. From this there could be some adverse overspill into pensions provision in particular; moreover

in times of inflation competition between the requirements of the "active" population at whose expense pensions are largely provided and the expectations of pensioners can become intensified. It has been suggested that pensions cost relative to the wealth available to satisfy that cost is changing, so that there must be a readiness to review and change schemes in the light of changing circumstances.[49] This may well be so but the strenuous efforts being made to keep inflation under some degree of control suggest that inflation, as a factor in isolation, like other factors impinging on the UK economy, is likely to have an effect of gradual rather than sudden change on pensions matters.

7.51. As far as occupational pensions are concerned public sector pension schemes which relate pensions to final earnings and then index pensions in payment are virtually protected against inflation. Private sector pension schemes generally, see paragraph 3.46, provide pensions related to final earnings but generally do not, see paragraph 3.51, index pensions in payment to full extent. Thus private sector pensioners but not public sector pensioners suffer adversely from inflation, apart from the fact relevant to both public and private sector pensioners that the effects of inflation on the development of the economy as a whole may indirectly affect the living standards of the majority within the community including the majority of pensioners. To some extent inflation, at least in the private sector where pensions in payment are not normally fully indexed, is in effect partially utilised as a device

for transferring less from the "active" to the pensioners because contribution rates involve an allowance in the in-possession period for high interest rates associated with inflation without correspondingly adequate provision for inflationary benefits.

7.52. As regards the UK state scheme, contributions are broadly expressed as a percentage of the member's earnings so that the receipts will automatically grow as earnings increase, providing the finance, under the system of assessmentism, for pensions to be increased also. But as pensions are index linked to the retail price index an earnings-induced inflationary economy, in which earnings escalations tend to precede price rises, could provide a time-lag buffer. The concept that the state scheme makes for economic solidarity between the generations is thus possibly true only in a broad sense. Under the British state system contributions in respect of employed persons are assessed on earnings up to a ceiling which is set at about 1.5 times the national average wage. Self-employed and non-employed persons pay flat rate contributions, (the self-employed pay an earnings related contribution as well) and employed persons with incomes below a certain low threshold are not required to contribute at all. If receipts are to grow in line with the growth of the general level of earnings the ceiling and the other items must be increased from time to time; statutorily they are reviewed yearly and the revisions take effect from the beginning of each financial year. With rapid inflation benefits are also increased but there are items on both sides which are not altered immediately in

in response to inflation. Indeed when there is rapid inflation a quite substantial surplus or deficit in the annual account can arise depending on the exact timing of the separate revisions.[50]

7.53. A pension whether paid out of a fund or through assessmentism represents a claim on the supply of goods and services available for consumption by pensioners, workers and others. The size and allocation at any time can be effectively decided then by all the various sectors of the community; decisions taken in advance cannot be immutable. It was concluded in paragraph 7.50 that inflation, like other factors impinging on the UK economy is likely to modify pension arrangements gradually, but sections 7(c) and 7(d) have suggested that expenditure under occupational schemes and under the state scheme will tend to increase over the next 30 years. Whilst the economic considerations of this section 7(e) indicate no watershed in the UK's economic position it would appear that increasing expenditure on pensions in the future may represent an increasing proportion of total consumer expenditure and the question does arise as to whether this increasing expenditure, in real terms, will be readily acceptable by the "active" element of the population under possible future national economic conditions.

(f) Liabilities of Pension Schemes.

7.54. Expected increasing expenditure on occupational pensions (see 7.33) and on state retirement pensions (see 7.35) are important considerations. Expenditure under the principle of assessmentism does in fact validly broadly represent, at any particular point of time, the extent of the transfer then necessary from the associated "active" population to pensioners. With funded schemes additional points arise because income producing assets are built up. These funds are not to be regarded in a sterile sense for through their investment they can be regarded as active contributors to economic development. In a way they can be considered as accumulations of savings ploughed back into the economy. It is therefore relevant to give regard to the extent of the assets which will be needed in future to cover pensions liability which has then accrued under funded pension scheme arrangements.

7.55. Some such regard is given in Cmnd.7937 where the assessment of the value of the assets needed includes allowance, in valuing the liabilities, for the assumed growth of pensions in line with earnings until retirement, except for those members who are expected not to retain full earnings dynamism on change of employment, or to receive just a return of contributions with interest; for those expected to die before reaching retirement age an average lump sum and widow's benefit was valued.[51]

7.56. The total market value of the assets of funded pension schemes at the end of 1978 is estimated to be about £40,000 millions. On the valuation basis adopted in Cmnd.7937 it is estimated that assets of some £150,000 millions will be needed by the year 2000, suggesting an accumulation of savings of some £110,000 millions over the period concerned. These figures relate to 1978 prices.[52]

7.57. Relevant to the assessed figures given in paragraph 7.56 is a consideration of the assumptions involved to obtain them. These were as follows. Earnings were assumed to grow by 1½% per annum more than prices. For the purpose of assessing the shortfall in pensions in payment as compared with price increases, retail prices were assumed to continue to rise at 6% per annum. The assets of schemes were assumed to produce a real yield of 3% per annum (after allowing for retail price increases) in the form of interest dividends and capital appreciation.[53]

7.58. The increase in total market value of the assets of funded pension schemes, from £40,000 millions to £150,000 millions, is impressive in itself but it is desirable to express it in a relative sense. For this latter purpose it is to be stated that the liability figure of £40,000 millions in 1978 represents approximately 90% of the annual earnings of active members at that time whereas the estimated figure of £150,000 millions for the year 2000 represents approximately 200% of the estimated annual earnings of the active members at that time.[54] Thus not only is the increase in the market value of the assets of funded pension schemes to

be expected to be impressive over future years at least into the early years of the 21st century, but also in terms relative to earnings of active members is the increase to be expected to be impressive, this latter increase being of the order of some 2¼ times over, for example, the next 20 years or so.

7.59. The increase of 2¼ times just referred to in paragraph 7.58 is in terms relative to earnings of associated active members. Just as appropriately the increase could be expressed in terms relative to earnings of the "active" section of the population as a whole, taken as males aged 18-64 and females 18-59 inclusive. However on this latter basis the increase of 2¼ times would be increased only marginally to not more than 2½ times, although, of course, the estimated liability of funded pension schemes to annual earnings of the total "active" population in, for example, year 2000 would be only some 70% (as opposed to some 200% of annual earnings of active members of funded schemes).[55] Nevertheless whether considered in absolute terms or in terms relative to earnings either of associated active members or of "active" population, the increase in assets of funded pension schemes needed to cover accrued liabilities can be expected, on the economic assumptions made, see paragraph 7.57, to increase highly significantly over future years at least into the early years of the next century and thereby to make a highly significant contribution to accumulated savings.

7.60. It is apparent that the value at any point of time of assets of funded pension schemes needed to cover the pensions liability in respect of all service up to that date will be met by contributions being continued at current levels if contributions are calculated on the basis of meeting accruing liabilities. This accrual basis of costing is, in fact, usually adopted in practice as has been indicated in paragraph 4.61. Thus it is to be expected, from general reasoning, that contributions at rates broadly in line with current contribution rates, expressed as a percentage of pensionable earnings, will continue to be appropriate in the future under funded pension schemes assuming scales of benefits remain unaltered. This is, however, also demonstrated empirically in Cmnd 7937 where it is shown that if contributions continue to be paid under funded pension schemes at current levels then the resultant acquisition of assets, taking account of both an assumed steady growth in expenditure of schemes and an interest income growing as the funds increase, start at about £4000 millions a year in 1978 and reach £5500 millions a year by 2000.[56] This would enable the market values of total assets to rise from £40,000 millions in 1978 to £150,000 millions in 2000 (see 7.56). The assumptions are consistent, namely that investments held in 1978 or subsequently acquired will yield 3% per annum up to the year 2000 in dividends, interest or capital appreciation in excess of price increases.

7.61. Figures given purporting to relate to the future are sensitive to the underlying assumptions which have been adopted. The assumptions referred to in paragraph 7.57. are clearly reasonable but it is desirable to consider the effect of variations.

7.62. In arriving at quoted figures in this section 7(f), earnings have been assumed to grow by 1½% p.a. more than prices (see 7.57). If it be assumed that the excess be only ½% p.a., clearly again a reasonable assumption and indeed more cautious than the assumption of 1½% excess p.a., and that this lower rate of increase persists, then the liabilities in the year 2000 would be reduced from £150,000 millions to the order of £110,000 millions[57] suggesting an accumulation of saving over the period from 1978 of some £70,000 millions instead of £110,000 millions (see 7.56).

7.63. As stated in paragraph 7.57 retail prices have been assumed to continue to rise at 6% p.a. A higher rate of inflation can result in a reduction in expenditure, on occupational pension schemes, in real terms because the state's dynamism of the guaranteed minimum pension will take some of the burden, and because some private sector schemes are assumed not to provide full dynamism on the remainder of the pension. If prices increased at 9% p.a. instead of 6% p.a. pension costs of funded occupational pension schemes would be reduced by some 15%.[58]

7.64. The assets of schemes have been assumed to produce a real yield of 3% p.a. A reduction by 1% in the yield on investments assumed for the valuation of the liabilities in 2000, so that it exceeded the assumed increase in prices by 2% p.a., would increase the liabilities at that time from £150,000 millions to the order of £180,000 millions thereby suggesting an accumulation of savings over the period 1978 to 2000 of some £140,000 millions instead of £110,000 millions (see 7.56). Also an assumed effective yield of 2% p.a., rather than 3% p.a., would increase required contributions by approximately one-third in order to accumulate reserves by year 2000 sufficient on a 2% future yield basis.[59]

7.65. Estimates of the value of assets to be built up in future under funded occupational pension schemes are clearly highly sensitive to the assumptions adopted. However, in 1978 the total market value of the assets of funded pension schemes has been estimated to be about £40,000 millions and on reasonable assumptions this figure, in terms of 1978 prices, is likely to treble or quadruple over the next 20 years or so, signifying a very significant potential contribution to savings within the national economy.

(g) Potential Political Influences.

7.66. The future of pensions, particularly state pensions, cannot be divorced from political influences. State pensions both as regards their amount and the method of their finance are decreed by Government and thereby reflect political philosophy; and state pensions impinge upon and have an inter-relationship with occupational pensions.

7.67. State retirement benefits within the UK are financed by contributions from employees and employers and by an Exchequer grant. The employer's contribution is likely to be treated like another addition to the cost of labour and passed on in higher prices. Part of the employee's contribution may conceivably be passed on if money wages are pushed up, but part may remain as a form of income tax which falls on the employee concerned.

7.68. To accord with one political philosophy, namely that of the Liberal Party, a tax credit scheme would need to be introduced. All income tax, personal allowance and all social security and national insurance benefits, except a residual supplementary benefit for the few who would fall through the net, would be turned into tax credits. All income from the first pound would be liable to tax. When the tax liability exceeded the credits there would be a payment in. When the credits exceeded the tax liability there would be a payment out. Under this tax credit scheme the basic state pension would be provided by a combination

of personal credit, housing credit and age credit. The earnings-related scheme would continue as at present and instead of its scope being related to the basic pension, since that in its present form would have disappeared, it would be based on a formula related to average national earnings. Such arrangement would eliminate any direct incentive by an employer to pass on contributions by him by way of higher prices. Also it would involve a further re-distribution of income in favour of the elderly. Nevertheless fundamentally it does not conflict with the current assessment system of finance of the state pension arrangements.[60]

7.69. But such political philosophy does conflict with socialist philosophy as expressed by the Labour Party. In, for example, Cmnd.3883 it is stated that

> "People do not want to be given rights to pensions and benefits; they want to earn them by their contributions." [61]

Clearly it is difficult for an assessment system of finance fully to accord with this philosophy but contribution rates can be enforced and benefits become payable which, on the basis of the assumptions underlying their calculation, can be regarded as conforming with the concept. This, in fact, is what has been attempted in connection with the second-tier pensions under the current state system. However, relevantly, the assumptions involved may not materialise so that some cross-subsidy could result; moreover under assessmentism the concept of actual individual benefits having been paid for by actual individual contributions can clearly be only a notional one. The Labour Party's views

are, of course, reflected in the current position for it was they who introduced the Social Security Pensions Act 1975.

7.70. A more capitalist approach, as reflected by the philosophy of the Conservative Party, was enshrined in the Social Security Act 1973 which was abandoned before its main provisions came into effect, because of a change of Government in 1974. The Conservative party's 1973 Act provided for a basic scheme financed on a pay-as-you-go basis plus a funded state reserve scheme with the latter involving no Government subsidy (see 2.28). It was stated in Cmnd.4755 that,

> "In order to offer a reasonable prospect that the bonuses will be sufficient to maintain the real value of the reserve scheme pensions, the /Independent investment/ Board will need, and be allowed, the same freedom of investment as occupational schemes extending to equities and property."[62]

In fact, however, guaranteed inflation proofing requires a guaranteed index link so that full inflation proofing might not have materialised unless the self-supporting principle had been partially abandoned. Moreover, there is the thought that the provisions of the 1973 Act, to the effect that the Reserve Pension Fund could have been invested by the Board in any way it thought expedient, having paramount regard for the scheme members[63] could not necessarily be accepted at face value as far as the future was concerned, the future being subject to governments of changing political complexion.

7.71. Moreover, as a matter of some potential consequence the extent of the size of the fund and its resultant influence on the market and on the mixed economy bearing in mind that it was to have been administered by a Board, nominally independent but constituted by enactment is to be appreciated. Indeed it was estimated at the time that it was thought possible that reserve pension scheme membership would have been of the order of 7 millions.[64] Taking this as an illustrative figure the initial contributions to the scheme would have been of the order of £300 millions a year.[65] At first, almost all the contribution income would have been available for investment and for a considerable time the investment income would have exceeded payments of pension which would have built up slowly over many years, so that the annual amount available for investment would have been expected to have increased and the fund to have grown rapidly. If the membership of the scheme were to remain constant at 7 millions, the fund might have built up to a figure of the order of £7000 millions in 1972 terms, by the end of the century.[66] In absolute terms such a figure is significant and would have resulted in a major contribution to savings. The Reserve Scheme as proposed was not, however, over ambitious being based on an overall contribution rate of 4% of earnings over a very restricted range (£8 to £48 a week in 1973 terms), with the contributions to be applied on a money purchase basis,[67] but there was always the possibility that it would have been extended in the course of time. In relative terms and on corresponding assumptions, it is estimated that the Reserve

Fund at the end of this century would have been of the order of some 10% of the funds of funded occupational schemes. The potential contribution to accumulated savings which was lost by the Reserve Scheme being abandoned in favour of the current pay-as-you-go system of the Social Security Pensions Act 1975, was therefore significant. The important point is that the Reserve Scheme reflected a philosophical outlook that pensions preferably should be funded so that by the building up of such funds savings are accumulated which, through their investment, can be ploughed back into development of the economy.

7.72. In considering the future the question arises as to what philosophy can be expected to prevail. The current state system does not reflect the first choice of the Liberal Party (see 7.68), nevertheless once Parliament decided in 1975 on the current scheme the Liberal Party made it clear that they would not seek to upset the arrangement but would co-operate in making it work. As regards the Conservative Party, a funded state pension scheme, as proposed in the Social Security Act 1973, reflected their overall philosophy but nevertheless there were some misgivings as to the practicality of the Investment Board continuing to remain completely independent as proposed. Also relevantly the Conservative Party, like the Liberal Party, decided once the current scheme had been approved by Parliament in 1975 not to attempt to upset the arrangement. In practical effect, therefore, both Liberals and Conservatives have agreed to a scheme as enacted by a Labour Government. With such co-operation between the three parties, the

main principles of the current British pensions system can be considered and it is concluded that it is likely that the current system will continue in force for some long time, although naturally this would not preclude amendments to the scheme within its main structure. The principles are that state pensions, both the basic flat rate element and the second tier earnings related element, remain unfunded; that subject to certain stated reasonable conditions, contracting out of the second tier element continues to be permitted and that such private sector contracted out pensions will need to be funded for reasons of pensions security; all this in conjunction with recognition that funded occupational schemes represent an important element of personal savings and investment and that the state scheme and well founded occupational schemes will continue to operate in a sense of partnership.[68]

(h) External Influences.

7.73. Pension schemes cannot be considered completely in isolation from other facets of the social order of the community in which they operate and the UK is now part of the European Economic Community. The question thus arises as to whether this membership of the Community may affect the future development of pension arrangements in the UK. Indeed, within the EEC terms which have been adopted such as co-ordination and harmonisation would seem to suggest that eventually some common factors may impinge on the current individualistic arrangements of the separate constituent countries.

7.74. Co-ordination is understood in a technical sense in the EEC to apply to the co-ordination of national social security systems for the benefit of member migrant workers. The wider issue of bringing about a closer comparability or compatability between national systems is termed harmonisation, direct reference to harmonisation of social policies being contained in the Treaty of Rome in Articles 117 and 118. Article 117 sets the improvement of living and working conditions as one of the aims of the community but notes that this will flow as much from the functioning of the Common Market itself as from any legislative dispositions. Article 118 charges the European Commission with providing a close collaboration with the member States in certain fields of which social security is one.

7.75. An EEC conference on social security was held in Brussels in 1962 and this demonstrated the extreme diversity of the social security systems of the member states and the impossibility of achieving a standardised system in the foreseeable future. Moreover the guidelines for a Social Action Programme published in 1973 explicitly disapproved any intention to standardise and spoke of respecting national traditions and priorities. There have also been several European Commission Reports since 1973 on social security but these have contained expressions of respect for national differences and national responsibilities. Harmonisation for its own sake is not part of the Community's objective and it would seem that for a long time to come the Community role will be limited leaving individual member States to control their own social security systems in the light of their own individual requirements and outlooks.[69]

7.76. A limited Community role has appeal to British outlook. State provision for retirement in most European countries is more substantial than that in the UK leaving more scope for occupational schemes under the British system. Also British occupational pension schemes differ from those in the other Community countries in the greater extent to which trust funds have been built up in the UK. Moreover, the British contracting-out system has no counterpart in other member States of the EEC. The remarks made in paragraph 7.75 regarding respect for national differences are therefore reassuring from the British viewpoint. Harmonisation can indeed by expected to be restricted to suggestions of low minimum standards possibly with transfer value facilities from one member state to another.

7.77. Although direct Community impact on pensions provision in the UK is likely to be negligible over the next 30 years or so the question arises as to whether there may be some indirect impact. Can member states continue to live in community with each other without being influenced, at least to some extent, by the systems of the others? It is therefore apposite for consideration to be given to the prevailing methods of pensions provision in continental EEC countries and the two most potentially influential but contrasting systems are those of West Germany and France.

7.78. In West Germany there is strict governmental supervision of the insurance companies responsible for insured schemes and pension funds. However, apart from rules to prevent tax avoidance government control of either provident (or support) funds, or of pension reserves has been small. Provident funds are similar to pension funds in being separate legal entities whose reserves are alienated from the employer but they do not give the employees any legal claim to benefits. Under pensions reserves the employer gives a firm guarantee that he will provide the benefit promised but no separate fund is created, the employer's contributions appearing merely as a book-keeping item in his accounts. Provident funds must be registered and their statutes must be clearly defined. Although the fund's assets are alienated from the employer they are generally not fully funded and the employer is free to borrow from the fund on the basis of unsecured rates. As

regards pensions reserves transfers to such reserves need to be calculated actuarially to achieve an even spread over the period from the award of the benefit to the date it becomes due. Although the amount transferred is treated as a business expense for tax purposes it may continue to be used by the employer as working capital. By statute, guarantees are necessary against the insolvency of the employer occurring after the provisions came into force on 1st January 1975. Responsibility for administration of such credit insurance provision has been given to a private law mutual insurance association subject to supervision by the Federal Insurance Board.[70]

7.79. The outstanding feature of the West German system is the practicability, in a number of circumstances, for pension funds to be used in the employer's business. This feature cannot go unnoticed in the UK where prosperity of industry, relatively to West Germany, still leaves room for some improvement. In the UK exempt approval virtually requires that funds are not available to the employer (see 3.27); also with contracting out the concern of the OPB is to ensure that GMP's together with other priority liabilities are funded without undue reliance on self-investment and that there is no undue concentration of investment, where "undue" in both cases is generally regarded as some 10% of the scheme's total resources. Nevertheless, the influence of West Germany, if there be any influence at all on British pension arrangements, would be towards some weakening of the British system of full funding with

external assets. Within the private sector the prospect, however, of full funding with external assets remains although in the "Wilson Report" this system was only broadly accepted.[71] Moreover, perhaps relevantly, with small schemes, where small generally means less than 12 members, the bona fides of the scheme are nowadays unlikely to be questioned even when loans to the employer out of scheme funds are made, subject to certain safeguards, amounting to up to 50% of the assets.[72]

7.80. The West German system of protection of pensions against price rises also affords an interesting comparative analysis with the corresponding British system in the private sector. Many British employers in the private sector have been loath to face up to the problems of ensuring that the resources of the pesnion fund are going to be sufficient to cope with future uncertainties due to inflation. A common British practice is to award some increases, usually less than the inflation rate, to pensions in payment, from time to time at the discretion of the directors. Sometimes these extra pensions are funded by payment of a single contribution at the time of the award; sometimes the extra pensions are met year by year merely out of company revenue without guarantee attaching to the future. In West Germany the position is governed by Section 16 of the Law on the Improvement of Employee Benefit Schemes, 1974. By the provisions of that Act the employer should review the adjustment of occupational pensions in course of payment, triennially, applying fair discretion to his decision and with special regard being taken of the

interests of the pensioner as well as the financial position of the employer. The wording of the regulation is vague and is only gradually being clarified by Labour Court decisions. However, amongst other things, it appears that pensions in payment must be reviewed every three years in line with increases in the cost of living whatever the extent. But occupational pensions in payment are not subject to an adjustment if the total retirement income of the pensioner is relatively high (where "high" is not specifically defined, for example, whether it is 100%, 90% or only 80% of the net income of a comparable active employee). Moreover, the financial position of the employer is a decisive factor in determining the rate of pension build-up.[73] Possibly, in these regards, the West German system may have some influence in due course over the British system for if there is to be private pensions provision then such provision desirably needs to be effective and this involves some inflation proofing. A code of good practice suggesting triennial reviews but incorporating the West German principle of giving proper regard to the financial position of the employer, as well as to the interests of the pensioner, would seem desirable.

7.81. The French system of pension schemes contrasts markedly with the British and West German systems. The French system virtually comprises a number of tiers. The first tier, although now almost universal, consists of several basic schemes but is dominated by the General Scheme which covers in principle all industrial and commercial employees not covered by special schemes. There is a separate scheme for agricultural workers and the special

schemes cover civil servants, the defence forces, other state employees, miners, merchant sailors and certain public and other enterprises such as the railways, electricity and gas, and the Bank of France. Several schemes exist to cater for self-employed persons, the majority of whom belong to one of four schemes which operate separately for small industrial enterprises, for the skilled trades, for the professions and for farmers.[74]

7.82. The second tier in France consists of a set of complementary pension schemes providing benefits complementary to those of the General Scheme. Two national schemes dominate the complementary pensions field. The Association Générale des Institutions de Retraites des Cadres (AGIRC) covers managerial and technical staff in the private sector of industry and commerce. The Association des Régimes de Retraites Complémentaires (ARRCO) is an association of schemes which covers workers in the same sector.[75]

7.83. There is a third tier of schemes in France providing supplementary benefits to some employees whose salaries exceed the AGIRC ceiling but these schemes are relatively unimportant.[76]

7.84. Moreover in France the system of financing known as répartition operates which system is a form of assessmentism involving the assumptions that pensions represent a transfer of resources from the working population to the retired population and that the standard of living of the retired population should be related to the standard of living of the working population.[77]

7.85. It is apparent that the French system involves some grouping, for pension scheme purposes, of institutions whereas the British system of occupational pensions tends to preserve the independence of individual institutions. Support for the French system in this particular regard is extremely limited within the UK, moreover the full assessmentism of private sector occupational pensions has little general appeal. In consequence French influence over the British system can be expected to be negligible over the next 30 years or so, although the French system as well as the West German system, but in a very different way, tends to detract from the somewhat strict British practice of full funding with external assets.

7.86. The French system of répartition does, however, also focus attention on inflation proofing for under it pensions are revalued regularly to maintain at least approximate parity with salaries and inflation proofed accrued pension scheme rights apply to employed persons on cessation of employment or on change of employment.[78]

7.87. Whilst therefore there are at present no EEC directives, nor are there any in contemplation, affecting the mode of operation of pension schemes there is a possibility of very slight indirect influence resulting from the practices of other member States. Such influence could be in the direction of encouraging rather than discouraging a greater extent of inflation proofing, in the British private sector, of pensions in payment and, but to an even less

extent, of reducing rather than increasing British emphasis on full funding with external assets.

7.88. However, quite distinct from membership of the EEC the UK, as part of the western group of countries, is not immune from western influence in general. And it is relevant that whilst EEC countries tend to place less emphasis on funding than the UK, outlook in the United States tends to conform more with the British outlook.

7.89. Within the UK there is official concern, for tax reasons, with the possibility of overfunding (see 3.27) and correspondingly in the US the Internal Revenue Service requires schemes to satisfy certain qualification requirements which, amongst other things, have regard to the prevention of excessive benefits or contributions and overfunding.

7.90. Also within the US statutory provisions with regard to minimum funding are much more far reaching than in the UK, the American position largely being governed by the provisions of the Employees' Retirement Income Security Act 1974 (ERISA). ERISA stipulates certain minimum funding requirements the only schemes exempt being mainly those for employees of the federal and state governments and, subject to certain conditions, some fully insured contracts. Under the minimum funding standard the contributions paid must be sufficient to cover the normal cost of the scheme for the year concerned and the amounts needed to fund the scheme's other liabilities in equal annual instalments over stipulated periods of years.[79]

7.91. In practical terms the American regulations are not particularly onerous from a British viewpoint. However, reasonable or not, the fact is that the Americans have legislated for funding controls of private pension schemes which British legislators, apart from certain areas in connection with contracting-out, have not found it necessary to do. Moreover, whilst in connection with the funding of past service liabilities and additional grants British employers, to a large extent, have only to keep an eye on permitted Inland Revenue practice to ensure an expense claim in the year of payment for tax purposes, the enforcement of requirements in the US is very much of a different nature. There the responsibility for the enforcement of the funding requirements has been given to the Labour and Treasury Departments, the means of enforcing compliance being threefold (i) civil action in US District Courts initiated by the Labour Department, (ii) penalty fines and (iii) disqualification for federal income tax purposes.[80]

7.92. It is to be appreciated that funding controls in the US were introduced, as a result of ERISA, against a background of previous prevalent important unfunded liabilities in the pension schemes of major US firms both on an individual firm basis and on an industry basis. Those circumstances have differed markedly from UK circumstances rendering any need for legislation on the US model unnecessary. Nevertheless legislation elsewhere can encourage rather than discourage legislation in the UK. The introduction of statutory fundings levels in the UK does however remain a very remote possibility although the "Wilson Committee"

favoured further legislation in respect of pension schemes generally.[81]

7.93. There is also the question of the cost and effect of funding those liabilities as mandated by ERISA. Investigations suggest that the amortisation requirements stipulated by ERISA should not result in a serious deterioration of profits as measured by net income but that individual firms and industries are affected unevenly.[82] Such conclusions are not fully reassuring and consequently it would seem unlikely that the future in the UK will be affected by enactment along the lines of the American model.

7.94. There is also the requirement under the United States 1974 Act with respect to scheme termination insurance which has application to most defined benefit pension schemes in the private sector. Indeed ERISA established a Pension Benefit Guarantee Corporation (PBGC) which is required to guarantee vested benefits when a scheme terminates. The funds of the PBGC have no government guarantee but they may borrow up to $100 millions from the Treasury. The income of the PBGC which is set up within the Department of Labour arises from premiums imposed on schemes and the PBGC has power to fix its own premium rates. The responsibility for paying premiums rests with the scheme administrator but the employees concerned are protected even if the necessary premiums are not paid. The Corporation has, however, very wide powers to secure payment of the premiums.[83] The need for such scheme termination insurance within the US has arisen because of the unfortunate experience of some

pension schemes in that country, there is no corresponding need, based on experience, within the UK. It would thus seem unlikely that such will be a feature of future British procedure although in the event, regarded as remote, of external influences causing a marked diminution of the practice, in the private sector, of full funding with external assets, scheme termination insurance could be introduced to provide the necessary associated safeguard. The fact that scheme termination insurance does operate in the US where private sector pension provision basically is broadly similar to the British approach does indicate that it is practicable.

7.95. Thus whilst there may be some indirect EEC influence, through the actual practices of other member states, to discourabe rather than encourage full funding in the private sector with external assets, American influence, if any, may be to reinforce the British approach. Also EEC influence may be to encourage inflation proofing of pensions in payment but this receives little support from American practice. Where the American practice and the practice of EEC member states, other than the UK, tend to have similarity is in their preference for greater control through legislation than currently operates in the UK. Thus there is a combination of external influences in favour of more rather than less statutory control. The extent of such external influence is thought likely to be extremely small, if in fact there be any influence at all, nevertheless it is of interest that the "Wilson Committee" did recommend the formulation of a Pension Scheme Act even though primarily

intended to have regard to disclosure of information to members.[84] Also the supervisory powers of the OPB in connection with contracting out reflect an important supervisory development impinging at least potentially on the operations of occupational pension schemes (see 3.3. and 3.13.). Also the Trades Union Congress does not seem entirely averse to further regulations for it has proposed a new standing committee on finance and advocated a new lending facility to industry to be jointly funded by the private and public sectors.[85] Also the TUC has suggested that a further area for discussion is whether pension schemes should be moving away from a funded approach to one based on assessmentism.[86]

(i) Multinational Company Considerations.

7.96. An important development of modern business enterprise is that of the multinational companies many of which are large and commercially powerful. Individually their activities can be carried out in up to several scores of separate countries. Variations between these countries are very wide in the areas of social security, taxation, legislation, investment conditions, culture and practice all of which impinge on occupational pension provision. The question thus arises as to whether these multinational organisations can influence, from the aspect of pension schemes, the different environments in which they operate.

7.97. If, for example, the multinational company were to attempt to establish a rigid worldwide set of principles then clearly in some countries a pension scheme would operate which did not conform with local practice and perhaps in due course local practice would become affected by the presence of a non-conforming and possibly large element of a multinational arrangement. In practice, however, such an extreme is impracticable from the viewpoint of pension schemes in the UK for schemes do, in fact, have to abide by local approval and regulatory codes. Also existing pension arrangements within the UK are extensive and the pensions scene highly developed rendering non-conformity difficult.

7.98. The other extreme is for the multinational company to leave its foreign subsidiaries free to develop entirley independent systems. Again this extreme is really impracticable for necessarily some broad comparability of costs has to function throughout the various areas of operation.

7.99. Thus the practical solution generally lies between the two extremes as referred to in paragraphs 7.97 and 7.98 and a typical approach can be exemplified by considering Unilever Ltd. the world's biggest company in branded consumer goods.

7.100. Unilever generally operates through a number of different subsidiaries in some 75 different countries. In most countries the practice is to have one pension scheme covering all employees of all the subsidiary companies. This facilitates transfer of staff between companies, that is, there is no pension problem; it leads to a greater cohesion of the group as a whole; and it results in administrative economies of scale. On the other hand a consequence is the provision, for some subsidiaries, of benefits out of line with competitors in that particular sphere of activity.[87]

7.101. There is no overall dictation regarding the level and nature of the benefit structure in different countries but rather a flexible approach is adopted to conform with local practices and attitudes. However broad guidelines are issued and there is a broad policy on certain fundamental issues such as inflationary increases to pensions in payment.[88]

7.102. Broad policy objectives extend to financing. This means, when such is practicable, that pensions are funded and external assets built up but when local conditions so require assessmentism or book reserving is adopted. There is no uniform world-wide costing basis but the normal aim is to keep contributions steady as a percentage of payroll on the assumption that the fund's assets will earn a small positive return over salary inflation. Unfunded arrangements are treated in exactly the same way as funded schemes. The arrangements are properly costed and each year an allocation is made out of profits to the book-reserve, equivalent to the contribution that would have been paid to a funded scheme. In addition the book reserve is increased by interest at a rate appropriate to the country concerned.[89]

7.103. The reference to unfunded schemes is interesting for most multinational companies must have some unfunded pension commitments because of their world-wide operations extending into some countries where relatively full funding with external assets in accordance with the British practice, is not the local custom. The method of Unilever involving detailed assessment every three years with regular annual updates and with specific provisions being made in the balance sheets thus exemplifies the sound multinational approach.

7.104. As regards asset management in the various countries, some advice such as whether the local scheme should be insured or self-administered is given by the central pensions department and if the latter whether the investments should be entrusted to an outside agency or

managed by an in-house investment department. Moreover broad investment guidelines are issued, investment performance is monitored centrally and a central review committee ensures that there are consultations with the centre by the various countries, on major fund investment decisions.[90] Thus with the pension funds of multinational companies, investments in any one country may be dependent on decisions taken by central management in another country. There is therefore the question of whether external management could impose an investment policy which might not be entirely in the self interests of the local country. There has been an element of concern in some quarters on this general point, for example the TUC has urged the creation of a Foreign Investment Review Agency to scrutinise the industrial and economic effects of outward and inward investment.[91] Nevertheless, as far as pension funds of multinational companies set up within the UK are concerned, these are subject to the normal approval of the Superannuation Funds Office and associated regulations; supervision by the OPB when contracted out under the terms of the Social Security Pensions Act 1975; to overall legislation in general and to trust law in particular. It would also seem logical that pension funds in the UK of multinational companies would follow the custom of British funds of investing in the best interests of their members as shown by the policy of Unilever which has been utilised as an example. Indeed considerations based on the example of Unilever do not indicate that multinational companies are likely to affect the development of pension funds in the UK over the next 30 years or so. Never-

theless further to indicate the general behaviour within the UK of multinational companies an examination has been made of the pension fund within the UK of the subsidiaries of the Royal Dutch/Shell group of companies.

7.105. This multinational group of petroleum companies has been chosen because of its world-wide influence due to its immense size, the Royal Dutch/Shell Group ranking, on sales turnover, as the third largest company in the world. Also it has been chosen because of its greater involvement in the UK than the two largest companies, namely the American companies Exxon and General Motors whose sales turnovers are greater.

7.106. The Shell Contributory Pension Fund is an approved fund under the Finance Acts 1970 and 1971 and is governed by a trust deed. The member limited companies of the fund are Shell Transport and Trading, Shell Petroleum, Shell International Petroleum, Shell International Chemical, Shell International Marine, Shell Chemicals (UK), Shell Research, Shell Tankers (UK) and Shell UK. As at 31st December 1979 there were some 26,000 active members and 13,000 pensioners.[92]

7.107. The orthodox approval of the fund is accompanied by an orthodox investment pattern as can be illustrated by considering the three individual years 1977, 1978 and 1979.

7.108. The amount of money available for investment during 1977 consisted of net income of £54 millions plus £8 millions cash held on short term deposit at the end of

the previous year. £36 millions was invested in fixed interest securities, £7 millions in property in the UK and £3 millions in a property unit trust by which UK pension funds can participate indirectly in property investments in the USA. The remainder plus a small amount of disinvestment of ordinary shares was left as cash on short term deposit.[93]

7.109. The amount of money available for investment during 1978 consisted of net income of £122 millions (including an amount of £61.5 millions for funding guaranteed pension increases to existing active members on their retirement) plus £18 millions cash held on short term deposit at the end of the previous year. £70 millions was invested in fixed interest securities, £1 million in property in the UK and £2 millions in the North American Property Unit Trust. The remainder plus some disinvestment of ordinary shares was left as cash on short term deposit.[94]

7.110. During 1979 the amount of money available for investment amounted to £180 millions including £76 millions which was held on deposit at the end of the previous year. £60 millions was invested in fixed interest securities and £13 millions was invested in UK ordinary shares. With the abolition of Exchange Control Regulations £33 millions was invested in overseas ordinary shares (£30 millions in the US £2 millions in West Germany and £1 million in other European countries). £4 millions was invested in UK property. Cash on deposit decreased by £6 millions.[95]

7.111. Clearly the pattern of investment was orthodox over the three years 1977, 1978 and 1979, against the background of stock market movements which suggested major investment in fixed interest securities to provide high income. The stated aim of the fund's investment policy to preserve a balance between the various categories of investment in the light of the various uncertainties facing the economy[96] conforms with accepted basic principles.

7.112. The orthodoxy of the fund's investment pattern is reflected also in the yields which were obtained as indicated in the following Table 7.112.1. The yields have been calculated by dividing the estimated income on the investments held at the year end by the total book cost of those investments.[97]

Table 7.112.1.

Shell Pension Fund. Yields on Categories of Investments.

Category	Yield %		
	1977	1978	1979
Fixed Interest	12.5	12.5	12.8
Property	8.9	8.6	9.0
UK Ordinary Shares	8.3	8.9	9.8
Overseas Ordinary Shares	3.1	3.2	4.2
Short Term Deposits	6.9	11.5	16.3
Overall	9.5	10.6	11.3

Source: Shell Contributory Pension Fund, Trustee Reports and Accounts, 1977 to 1979.

7.113. The distribution of the total fund also reveals an orthodox build-up of assets. This distribution of assets according to market value, as at the end of the three individual years 1977, 1978 and 1979 is indicated in the following Table 7.113.1.[98] It is to be noted that at the end of 1979 approximately 37% of the total fund was invested in fixed interest securities, 36% in ordinary shares, 16% in property and 11% in cash. Comparison with Table 5.22 B.3 showing total amounts of assets of private sector funds at market values, according to categories of investment, reveals some differences with the overall position. But individual funds can be expected to differ in detail from the aggregate position and the distribution of assets of the Shell Pension Fund, as indicated in the following Table 7.113.1, conforms with the principles of pension fund investment as indicated in Chapter 5.

Table 7.113.1.

Shell Pension Fund Investments. Percentages based on market values.

Type of Investment	31.12.77	31.12.78	31.12.79
UK Government Securities	30.1	34.0	36.2
Other Fixed Interest Securities	2.4	1.3	.9
Total Fixed Interest Securities	32.5	35.3	37.1
Offices and Shops	16.4	14.0	12.9
Factories and Warehouses	2.2	1.2	1.1
Hotels and Restaurants	.9	.8	.7
Property Unit Trust	.7	.9	.9
Total Property	20.2	16.9	15.6
UK Ordinary Shares			
Capital Goods	8.6	7.0	5.7
Consumer Goods (Durable)	3.0	2.4	1.9
Consumer Goods (Non-durable)	10.6	9.0	7.8
Oils	.9	.8	1.4
Chemicals & Pharmaceuticals	5.8	4.5	3.5
Finance	9.0	6.6	7.5
Commodities	1.0	.8	1.1
Miscellaneous	2.9	1.9	1.6
Total UK Ordinary Shares	41.8	33.0	30.5
Overseas Ordinary Shares			
US	1.4	1.2	5.1
Canada	-	-	.1
Germany	.2	.1	.4
Spain	-	-	-
Netherlands	-	-	.2
Total Overseas Ordinary Shares	1.6	1.3	5.8
Total Ordinary Shares	43.4	34.3	36.3
Deposits at Short Notice			
Local Authorities	1.6	5.3	6.6
Banks	2.3	6.5	4.4
Total Deposits	3.9	11.8	11.0
Treasury Bills	-	1.7	-
Total	100.0	100.0	100.0

Source: Shell Contributory Pension Fund, Trustee Reports and Accounts, 1977 to 1979.

7.114. Moreover there is no marked concentration of investment in the UK ordinary share portfolio as is indicated in the following Table 7.114.1 which indicates the fund's ten largest ordinary shareholdings (by market value) as at the end of the three years 1977, 1978, 1979.[99] In this regard the Shell Pension Fund thus also strictly conforms with accepted British practice.

Table 7.114.1.

Shell Pension Fund.

(i) Ten largest ordinary shareholdings (by market value).

(ii) Percentage of total UK Ordinary Share Portfolio.

31.12.1977		31.12.1978		31.12.1979	
(i) Company	(ii)%	(i) Company	(ii)%	(i) Company	(ii)%
ICI	5.2	Gen.Electric	5.8	Gen.Electric	5.7
Gen.Electric	4.9	ICI	5.5	ICI	5.1
Beecham	4.3	Beecham	4.5	Beecham	3.2
Unilever	3.1	Unilever	3.1	BP	2.7
BAT	2.4	BAT	2.5	BAT	2.6
Midland Bank	2.1	Midland Bank	2.4	Gr.Metrop'tan	2.6
LLoyds Bank	2.0	Distillers	2.3	NatWest Bank	2.3
Distillers	2.0	Gr.Metrop'tan	2.1	Distillers	2.2
NatWest Bank	1.9	Hawker Sid'ly	2.0	Midland Bank	2.1
Gr.Metrop'tan	1.8	LLoyds Bank	2.0	Lloyds Bank	2.0
	29.7		32.2		30.4
Total funds at Market Value £456,776 thousands		Total Funds at Market Value £563,298 thousands		Total Funds at Market Value £639,589 thousands	
Total UK Ordinary Share Portfolio at Market Value £191,018 thousands		Total UK Ordinary Share Portfolio at Market Value £185,708 thousands		Total UK Ordinary Share Portfolio at Market Value £195,212 thousands	

Source: Shell Contributory Pension Fund, Trustee Reports and Accounts, 1977 to 1979.

7.115. Nor does property investment by the Shell Pension Fund not strictly conform with accepted British practice. In 1977, 20.2% of the fund was invested in property; there were 8 direct property investments of more than £2 millions and the total amount invested in these 8 properties represented 72% of the direct property portfolio. Thus adequate diversification was achieved while still preserving economies of scale as is desirable in property management. In 1978, 16.9% of the fund was invested in property; there were 8 direct property investments of more than £2 millions and the total amount invested in these 8 properties represented 71% of the direct property portfolio. In 1979, 15.6% of the fund was invested in property, there were 9 direct property investments of more than £2 millions and the total amount invested in these 9 properties represented 72% of the direct property portfolio.[100] The amount invested at cost (after amortisation) in the largest property held throughout the three year period 1977-79 was £24 millions.[101] This investment represented 5.3%, 4.3%, and 3.8% of the total funds as at the end of the three years 1977, 1978 and 1979 respectively. The amount invested at cost (after amortisation) in the second largest property held was £12 millions that is one-half of that for the largest property.[102] The investment in the largest property in particular, when expressed as a percentage of the total fund, is clearly significant especially when the percentage based on a valuation figure, rather than the cost figure, can be expected to be substantially higher. For example, as at the 31st December 1979 although the book cost of all property held by the fund was £98,836 thousands the overall value of

the property, as assessed by property valuers, was put as being in excess of £166,115 thousands or some £67,000 thousands more than cost.[103]

7.116. The orthodox approach of the Shell Pension Fund is not only accompanied by external assets invested in an orthodox manner; the scale of benefits to members approaches the maximum permissible by the Inland Revenue Authorities to obtain the tax concessions allowable on approval. In fact pensions in payment are increased by 4% p.a. compound (or by increases in the retail price index if these be lower than 4%) on a guaranteed basis.[104] Moreover there is discretionary provision for increases to pensions in payment to exceed 4% p.a. when the inflation rate is higher than 4% and in recent years such increases have in practice approached the full increases in the retail price index.[105]

7.117. As regards the adequacy of the fund the valuation as at 31st December 1978 made the recommendation that as from 1st January 1980 the companies should contribute at the rate of 29.4% of pensionable salaries and this was agreed and has become effective. The rate of 29.4% was in fact slightly less than the rate of 32.3% payable during 1979 mainly because of an allowance for the fact that the provision of cost-of-living increases on members' guaranteed minimum pensions is the responsibility of the state not the fund.[106] The recommended rate of contribution reflects the level of benefits to be provided under the scheme which, as mentioned in paragraph 7.116, are relatively generous, and also the assumptions made in the valuation.

7.118. The valuation assumed pension increases of 4% p.a. on all pensions and prospective pensions in excess of guaranteed minimum pensions. As these are guaranteed increases provision for them in the valuation is orthodox. Discretionary increases in excess of 4% p.a. were not allowed for in the valuation so that these need to be paid for by extra contributions when the increases are awarded or as they emerge; this procedure is quite orthodox for discretionary awards above a guaranteed minimum rate of increase such as 4% p.a., see paragraph 4.71. No withdrawal rates were incorporated in the assumptions and assumptions regarding the mortality of members and pensioners were based on recently published appropriate tables of mortality rates, again orthodoxly. The important assumption regarding the rate of return on investments was taken as 7% p.a. and that regarding the rate of increase in pensionable salaries as 6% p.a.[107] The rate of interest earned by the scheme's assets during 1978 was in fact 10.6%, as shown in Table 7.112.1 whilst the level of average pensionable salaries increased during 1978 by approximately 16%.[108] Nevertheless, the valuation interest and earnings assumptions made were quite orthodox as they purport to reflect a long term view and an assumed difference between asset yield and salary increases of 1% (this is the important aspect for consideration, see paragraph 4.66) is to be regarded as most reasonable. As regards the valuation of the assets credit was taken in the valuation balance sheet for the amount of the fund as shown in the accounts, ignoring the unrealised appreciation. The unrealised appreciation thus formed a reserve against possible future adverse experience including

fluctuations in market values.[109]

7.119. Thus overall the valuation of the fund which provides relatively generous benefits to members was carried out on reasonably conservative bases and invested externally on orthodox principles. The procedure of a pension fund of a multinational concern operating in the UK, as exemplified by that of Shell, reflects therefore proper regard for generally accepted British principles. Indeed there is no evidence to suggest that pension fund procedure within the UK of multinational concerns is likely to offend British opinion. By following British practice, rather than deviating from it, multinational concerns are unlikely to be a factor to influence the future pension scene of the UK other than by serving to strengthen the local practice.

(j) Retirement Ages.

7.120. In the practical world it is the cost of pensions provision which is the important consideration. Such cost is clearly affected by two factors, the levels of the benefits payable and the ages at which they commence to be paid.

7.121. As regards the levels of benefits payable, those under the state scheme have been indicated in Chapter 3 section (b) broadly as follows. As at December 1980 the basic component was £27.15 per week for a single person and £43.45 per week for a married couple, national average earnings being approximately £125 per week. With the specified lower earnings limit being equivalent to the basic component and the specified upper earnings limit being approximately 7 times the lower earnings limit the additional component of state pension pension is calculated at 1¼% of earnings between the upper and lower limits in each tax year from 1978 onwards, subject to not more than 20 years being taken into account. Currently therefore state pensions are modest. By 1998 the earnings related element will build up to a maximum of 25% of upper tier earnings, clearly a vast improvement on the current position, nevertheless still a level of pension benefit to be regarded as being on the modest side. The fact that pensions under the state scheme are indexed against inflation is particularly valuable but even so inflation proofing does not of course improve the level of benefits in real terms.

7.122. Under occupational pension schemes the maximum benefit approvable on normal retirement is two-thirds of final pensionable earnings and this can be dynamised against inflation. Currently, in practice, benefits emerging are, however, generally less than the maximum because not all occupational pension schemes provide maximum benefits and even when they do length of credited service in individual cases, due to change of employment and, or, immaturity of the scheme, often precludes the maximum being obtainable. In any event the maximum of two-thirds is an arbitrary maximum lower than the corresponding maximum in some other EEC countries, and even maximum pension results immediately on retirement in a significant drop in income. Moreover, within the private sector pensions are very seldom indeed indexed fully against inflation so that such pension comes to be eroded in real value with the passage of time. Thus under occupational schemes even the most fortunate who draw maximum pension indexed against inflation, as in the public sector, suffer a severe reduction in income on retirement. For the vast majority who do not become entitled to maximum pension and do not have their pension fully indexed the financial reality of retirement can be harsh.

7.123. The considerations of paragraphs 7.121 and 7.122 do not suggest that the vast majority of men on reaching age 65 and women on reaching age 60 face the prospect of dire poverty. What they do suggest is that on retirement virtually all suffer a severe drop in income; that the majority are reduced to a very modest level of income; and

that currently a minority of pensioners are in fact reduced to a stipulated minimum subsistence level for approximately 20% of retirement pensioners within the UK now receive supplementary pension.

7.124. In practice, of course, conditions will improve naturally in the future with the earnings related component of the state scheme gradually coming to full maturity in 1998 and with the development of occupational schemes resulting in occupational pensions gradually reaching a higher proportion of final earnings. Nevertheless all the indications are that without adjustment the level of income over the next 30 years or so to men over age 65 and to women over age 60, will remain on the whole very modest and that desirably steps should be available to them to improve their relative lot.

7.125. Clearly one way in which a reduction in income due to retirement can be deferred is for retirement itself to be deferred. In such connection Lord Beveridge stated in 1954 that he was not at all sure that it ought not to be made easier for old people to go on working if they wanted and were able to do so, beyond normal retirement age. Making it easier, he said, for those who wished to go on working would mean a change in the attitude of trade unions and of employers, and probably a change in many superannuation funds. He himself would be utterly miserable if he could not go on working although he was 75 not 65. He thought that if people were fit and well society should be adjusted

to make it possible for them to go on working.[110] These remarks naturally raise questions. Does a requirement for automatic retirement at a certain age result in happiness or otherwise as far as the individual is concerned? Is it necessarily a good thing for persons to withdraw abruptly from the accustomed pursuits of a lifetime solely because of reaching some arbitrary retirement age? Is, indeed, the removal of workers from the labour force at a certain age a good thing, or a bad thing, for society and the national economy?

.7.126. Leaving apart such considerations of a social nature do practicalities suggest an alteration in retirement age? It was concluded in paragraph 7.12. that pension arrangements providing benefits at their present levels and with continuation of their present effective membership can be expected, on the basis of expected "retired" to "active" ratios, to be sustainable over the next 30 years or so, if other conditions remain unaltered. Demographic factors by themselves do not, however, suggest that present levels of pension payments can be improved without other conditions improving. But other relevant conditions are not all necessarily improving. Whilst it was concluded in paragraph 7.12 that over the next 30 years or so the retired element of the population can be expected to have a stable supporting work force the ratio of occupational scheme pensioners to "active" population can be expected to increase significantly. And in paragraph 7.33 it has been concluded that expenditure on occupational pensions can be expected to rise significantly.

Moreover it was concluded in paragraph 7.35 that expenditure on state pensions, without adjustment to existing arrangements, will increase significantly in future.

7.127. There is thus the prospect that outlay on pensions will increase over the next thirty years or so even without any amendments to the existing retirement arrangements within the UK. There is also the prospect that without any amendments to existing arrangements the majority of pensioners will need to survive on a very modest level of income. But demographic factors, by themselves, do not suggest that present levels of pension payments can be improved in the future and economic considerations suggest (see Chapter 7 section (e)) that increasing expenditure on pensions in the future may need to be constrained if the balance of consumer expenditure available to the "active" population is to remain adequately acceptable to them.

7.128. Faced with the prospects mentioned in paragraph 7.127 one course of action appears desirable namely a reduction in the numbers of retirement pensioners by gradually increasing the normal retirement ages. Ever since the English Life Tables were first produced in 1841 there has been statistical evidence of gradual and continuous improvement, overall, in mortality rates and incidentally female mortality has improved more than male. The nature and shape of future improvement may be subject to doubt, nevertheless it is to be expected that there will be a trend towards lower mortality over the next 30 years or so. Going

back no further than 1951, which was only five years after the broad implementation of the proposals of Beveridge, see paragraph 2.12, the expectation of life for a male aged 65 and for a woman aged 60 were, according to the English Life Table 11.69 years and 18.07 years respectively; by 1971 these expectations of life had improved to 12.18 years and 19.98 years respectively. Expectations of life for relevant individual ages are shown in the following tables.

Table 7.128.1.

Expectation of life in years - English Life Tables - males

Age	Year				
	1931	1951	1961	1971	1976
65	11.30	11.69	11.95	12.18	12.5
66	10.73	11.12	11.39	11.60	11.9
67	10.17	10.57	10.84	11.04	11.3
68	9.63	10.03	10.31	10.50	10.8
69	9.12	9.50	9.79	9.99	10.2
70	8.62	9.00	9.29	9.50	9.7

Source: Office of Population Censuses and Surveys: Government Actuary's Department.

Table 7.128.2.

Expectation of life in years - English Life Tables - females

Age	Year				
	1931	1951	1961	1971	1976
60	16.50	18.07	19.11	19.98	20.4
61	15.79	17.30	18.31	19.19	19.5
62	15.09	16.54	17.53	18.40	18.7
63	14.40	15.79	16.76	17.62	17.9
64	13.73	15.05	16.00	16.86	17.2
65	13.07	14.33	15.26	16.10	16.5
66	12.43	13.62	14.53	15.36	15.7
67	11.60	12.93	13.81	14.64	15.0
68	11.19	12.26	13.12	13.93	14.3
69	10.60	11.60	12.44	13.24	13.6
70	10.02	10.97	11.78	12.56	13.0

Source: Office of Population Censuses and Surveys: Government Actuary's Department

7.129. It is apparent from Tables 7.128 that the male expectation of life at age 65 in the year 1951, which was five years after the Beveridge proposals were broadly implemented, corresponds broadly to the expectation of life at age 66½ in the year 1976; and that the female expectation of life at age 60 in the year 1951 corresponds broadly to the expectation of life at age 63 in the year 1976. Extrapolating from the figures given in Tables 7.128 the male expectation of life at age 65 in the year 1951 is estimated broadly to correspond to the expectation of life at age 68½ in the year 2011; and the female expectation of life at age 60 in the year 1951 is estimated broadly to

correspond to the expectation of life at age 67 in the year 2011. It may be that a measure of average future life time is not the ideal index to measure ability of the average person to carry out active work but it may be an indicator for improvement in average mortality would seem to infer improvement in average health. There is thus a case, on these mortality considerations alone, for retirement ages to be increased over the next 30 years from 65 to 69 for men and from 60 to 67 for women, on the assumption that ages 65 and 60 for men and women respectively were appropriate in the year 1951.

7.130. Opposition to general deferment of the retirement ages would be expected from some quarters. One of the factors necessarily to be considered is that of unemployment, indeed there are those who advocate, during periods of relatively high unemployment, a reduction in retirement ages as a partial solution. It is submitted, however, that a reduction in the numbers available for active work is not necessarily a palliative to the economic circumstances with which unemployment tends to be associated. One of the basic unsatisfactory features of the British economy is poor productivity relative to some competing countries. A cause of current unemployment in the UK is in fact some failure to produce goods and services in quantity and quality on sufficiently competitive terms. Why then, it can be asked, should removal of workers from active employment to increase the "retired" to "active" ratio assist quantity and quality production thereby to decrease

unemployment? Is it not more valid to submit rather that quantity and quality production is to be improved, and thereby unemployment decreased, by the infusion of more workers into active employment by a decrease in the "retired" to "active" ratio? Moreover there is no indication that gross domestic product per head is affected by a relatively marginal increase at any point of time in the employed labour force.

7.131. A demand for a "right to work" might indeed be given sympathy in a practical way more by deferring retirement ages than by reducing them. But apart from this purely practical aspect are there any grounds for a man aged 48, say, having conceded to him the right to work and at the same time denying such right to a man aged 68? and correspondingly for a woman aged 43, say, relative to a woman aged 63? Perhaps even more so why should a man aged 62, say, have entitlement to a right to work and not a woman aged 62? Certainly in some areas the different retirement ages of 65 for men and 60 for women give a distinct advantage to male workers, for it is at the older ages that promotion to higher positions of responsibility, with consequent added financial reward, frequently is granted; and by having a retirement age five years younger women often become excluded therefrom.

7.132. Nevertheless, realistically it has to be admitted that many, especially those at ages well prior to normal retirement ages, regard those who retire at an age younger than others as being granted some sort of privilege. Any

suggestion of an increase in normal retirement ages would seem to many to be a retrograde step rather than a progressive step forward. Indeed some might regard it as generational inequity on the grounds that previous generations had only to work up to a lower age than subsequent generations. However it is difficult to understand how the holding of such opinion can be justified within the UK. Surely the 20% or so of current retirement pensioners who are obliged to seek supplementary assistance, (many of whom are able and willing to continue to work yet have been required to retire), can hardly regard themselves, or be regarded by others, as holding a favoured position in society; nor, indeed can privilege easily be seen to be extended to the vast majority of retirement pensioners whose income in retirement, relative to previous income when actively employed, necessarily requires a very significant reduction in living standards coupled with, for many, the removal of personal job satisfaction.

7.133. There is, in fact, an indicator in the United States that opinion there may be changing, for mandatory retirement provisions were virtually done away with in 1978 by an Act of Congress.[111] This seems to suggest that in the US public opinion, in general, is that the worker should have the right to continue in active employment beyond age 65 if he so desires and there is the implication that in that country many are expected to remain actively employed beyond age 65. The fact that mandatory retirement at age 65 has virtually been scrapped in the US does not, of course, mean that public opinion in the UK necessarily

will be influenced thereby. Nevertheless, nowadays ideas do flow from country to country and the Americans have set a precedent.

7.134. Deferment of retirement ages would have a two-fold cost effect. The older the age at which pension commences to be payable the lower is the total outlay; and by deferring retirement more people are retained in active employment to sustain the pensioned element of the population. Estimated cost of pension is dependent on the assumptions made. The following tables are given as a general guide to the cost of a single life pension of £1,000 p.a. payable throughout life only, according to certain ages of commencement. They utilise PA(90) 'pensioners' mortality tables, as published, which tables are based on forecast rates for the experience of pensioners, under life office schemes, in the year 1990, coupled with the assumption of 8% compound interest.[112]

Table 7.134.1.

Capital cost of a £1,000 p.a. single life pension based on PA(90) pensioners' mortality and 8% interest.

Age	Capital cost of £1,000 p.a. pension			
	Male Lives		Female Lives	
	£	Relative %	£	Relative %
60			10,005	100
61			9,838	98.3
62			9,663	96.6
63			9,483	94.8
64			9,296	92.9
65	7,922	100	9,102	91.0
66	7,771	98.1	8,903	89.0
67	7,518	94.9	8,697	87.0
68	7,312	92.3	8,486	84.8
69	7,104	89.7	8,269	82.6
70	6,894	87.0	8,047	80.4

Source: Based on PA(90) Pensioners' Mortality Rates, Faculty and Institute of Actuaries.

Figures such as given in Table 7.134.1. are highly sensitive to the mortality and compound interest assumptions on which they are based. Nevertheless, there is a general indication that, for example, postponement of retirement age from 65 to 68 could reduce the capital cost of a single life pension to a male life by some 8%, whilst postponement of retirement from age 60 to 65 could reduce the capital cost of a single life pension to a female life by some 9%.

7.135. A feature of current pensions provision within the UK is that pensions emerging under the state social security schemes, both the flat rate pension and the second tier earnings related pension, are indexed against inflation. Moreover, pensions emerging under public sector schemes and nationalised industry schemes are also virtually all similarly indexed, pensions in payment being adjusted automatically according to rises in the retail price index. In the private sector the position is quite different for private sector occupational pensions do not contain any guarantee of full indexation, apart that is from the GMP element under a contracted-out arrangement. Some private sector schemes guarantee a relatively limited amount of dynamism such as 2½% or 3% p.a., occasionally 5% p.a. and frequently private sector schemes do adjust pensions in payment on a discretionary basis to give effect to part, sometimes a large part, of the increases in the retail price index although full indexation even on a discretionary basis is extremely rare, if in fact it is ever granted under a scheme over a protracted period. It is submitted that this difference between state schemes and public sector schemes on the one hand with their guaranteed indexation, and private sector schemes on the other hand with generally no corresponding guarantee is not in the best interests of the occupational scheme movement as a whole.

7.136. Consider, for example, a public sector employee retiring with an index-linked pension. With inflation at say 8% p.a. his pension will have doubled in ten years whereas

many private private sector pensioners will have seen no increase at all in their occupational pension. Again consider a person retiring with a private sector occupational scheme pension and the state social security pension. Generally he will see little if no increases in the former but with continuous adjustment to the latter. For example if the ratio between state pension and occupational pension is initially 1:1 then if the former be inflation proofed completely and the latter not at all the ratio becomes 2:1 after 10 years allowing for inflation of 8% p.a.; if the ratio be 1:2 initially it becomes 1:1 after 10 years and so on. Comparisons along these lines which pensioners can be expected to make in practice do not appear to reflect over creditably on the private sector occupational pension scheme movement for they imply that private schemes do not fulfil their function.

7.137. The cost of inflation proofing pensions is however high. In Table 7.134.1 indication was given of the capital cost of £1,000 p.a. single life pension based on certain assumptions. In the following Table 7.137.1 corresponding costs are given but allowing for pensions to be increased to allow for inflation of 8% p.a.

Table 7.137.1.

Capital cost of a £1,000 p.a. single life pension based on PA(90) pensioners' mortality, 8% interest and allowing for pensions to be increased at 8% p.a. because of assumed inflation.

Age	Capital cost of £1,000 p.a. pension			
	Male Lives		Female Lives	
	£	Relative %	£	Relative %
60			22,524	100
61			21,679	96.2
62			20,844	92.5
63			20,021	88.9
64			19,211	85.3
65	14,593	100	18,414	81.8
66	13,954	95.6	17,630	78.3
67	13,332	91.4	16,861	74.5
68	12,726	87.2	16,107	71.5
69	12,136	83.2	15,368	68.2
70	11,563	79.2	14,646	65.0

Source: Based on PA(90) Pensioners' Mortality Rates, Faculty and Institute of Actuaries.

7.138. The effect on cost, of deferment of retirement age is even more marked in Table 7.137.1 than in Table 7.134.1. In the latter, which allowed for no inflationary increases, postponement of retirement from age 65 to 68 reduced the capital cost of a single life pension to a male life by some 8%; in Table 7.137.1 allowing for inflation of 8% p.a., the corresponding reduction in cost is some 13%. Also in Table 7.134.1 postponement of retirement from age 60 to 65

reduced the capital cost of a single life flat pension to a female life by some 9%; the corresponding reduction in Table 7.137.1, allowing for 8% inflation, is some 18%. It is thus submitted that on these grounds alone, inflationary conditions reinforce the case for raising the retirement ages.

7.139. Whilst Table 7.137.1 allows for 8% p.a. compound interest and 8% inflationary increases to pensions, the same figures would always result in the Table provided the difference between the interest rate and the assumed rate of inflation were to be zero.

7.140. The costs of allowing for 8% p.a. inflation relative to the costs of making no allowance for inflation are shown in the following Table 7.140.1 which reflects the ratios of the corresponding figures in Table 7.137.1 to Table 7.134.1. Such relative costs are of course sensitive to the assumptions made, nevertheless the percentages indicated in Table 7.140.1 indicate the high order of extra costs which indexation of pensions can have. Very broadly if the difference between the assumed interest yield and inflationary pension increases falls from 8% to 0% p.a. the capital cost on retirement of a single life pension can roughly double.

Table 7.140.1.

Capital cost of a £1,000 p.a. single life pension making no allowance for inflationary increases, relative to the corresponding capital cost making allowance for inflationary increases.

Assumptions: PA(90) pensioners' mortality

8% compound interest

8% p.a. compound inflationary increases to pensions

Age	Male Lives	Female Lives
	%	%
60		225
61		220
62		216
63		211
64		207
65	184	202
66	180	198
67	177	194
68	174	190
69	171	186
70	168	182

Source: Based on PA(90) pensioners' mortality rates, Faculty and Institute of Actuaries.

7.141. The indication of the extra cost which dynamising pensions against inflation might involve, as shown in Table 7.140.1, suggests that the future of private pension schemes may be influenced by future inflation. If inflation continues high and pensions are not appropriately adjusted, pensions lose much of their effectiveness and the pension

scheme movement may tend to wither; but if inflation be high and pensions are adjusted appropriately the extra cost is highly significant, and in some private schemes would be prohibitively high. It is submitted that it would be preferable to defer the retirement age in order to be able to afford relatively more effective pension than to grant relatively less effective pension commencing at a younger age.

7.142. Much depends on inflation and, in respect of pensions in possession, more precisely on the real yields which pension funds can achieve where the term "real" means the difference between the yield on the relative fund and the rate of increase at which pensions in payment are being increased because of inflation. The following Tables 7.142.1 and 7.142.2 indicate the relative capital costs of pensions as at various retirement ages allowing for different real yields. It will be seen that the effect of merely a small difference in real yield can have a significant effect on capital costs of pensions as at retirement age. The tables also indicate the offsetting cost effects of deferring the retirement age.

Table 7.142

Relative Capital costs of pensions, for various retirement ages, according to real yield.

PA(90) pensioners' mortality.

7.142.1. Males

Age at Retirement	Real Yield %				
	0	1	2	3	4
65	119.8	109.1	100.0	92.1	85.2
66	114.5	104.7	96.3	88.8	82.4
67	109.4	100.3	92.5	85.6	79.6
68	104.4	96.1	88.8	82.4	76.8
69	99.6	91.9	85.0	79.3	74.1
70	94.9	87.8	81.7	76.2	71.4

7.142.2. Females

Age at Retirement	Real Yield %				
	0	1	2	3	4
60	127.9	112.6	100.0	89.5	80.7
61	123.1	108.8	97.0	87.1	78.7
62	118.4	105.0	93.9	84.6	76.7
63	113.7	101.3	90.9	82.0	74.6
64	109.1	97.5	87.8	79.6	72.5
65	104.6	93.8	84.8	77.1	70.4
66	100.1	90.2	81.7	74.5	68.3
67	95.8	86.5	78.7	72.0	66.2
68	91.5	83.0	75.7	69.5	64.0
69	87.3	79.5	72.8	66.9	61.9
70	83.2	75.7	69.8	64.4	59.7

Source: Based on PA(90) pensioners' martality rates, Faculty and Institute of Actuaries.

7.143. In relative terms expenditure on occupational pensions and on state pensions, if existing arrangements remain unadjusted, can be expected to increase significantly in future years (see 7.126.). Moreover, even with relative rising expenditure it is to be expected that the majority of pensioners will need to survive on a very modest level of incomes (see 7.123.). The direct way to restrain increases in relative expenditure and to increase the possibility of pensions in payment actually being effective is to defer the retirement ages. It is submitted that the real crux of the matter is the ratio of "retired" persons to "active" population. By increasing the retirement ages from 65 to 68 for men and from 60 to 65 for women this ratio . from a pensions aspect, would be vastly improved. This is indicated in the following Table 7.143.1. The percentages in respect of males 65 and over plus females 60 and over to males 18-64 plus females 18-59 are as shown in Table 7.6.1, the ratios of males 68 and over plus females 65 and over to males 18-67 plus females 18-64 have been calculated to correspond with them. The percentages indicate that, purely in terms of numbers of pensioners, such adjustment of the retirement ages would reduce the "burden" of pensions on the active population by approximately one-third. Although such adjustment might be regarded as a drastic step it is nevertheless necessary for a realistic outlook to be maintained. Pensions in payment need to be adequately effective otherwise they lose their purpose. Moreover economic and demographic considerations

impose some future constraints on expenditure on pensions. Deferment of the retirement ages from 65 to 68 for men and from 60 to 65 for women would go some way to alleviate the problems involved.

Table 7.143.1.

Population of the UK.

	Year				
	1976	1981	1991	2001	2011
	%	%	%	%	%
The ratio of males 65 and over plus females 60 and over, to males 18-64 plus females 18-59.	30.92	31.07	30.00	28.88	29.36
The ratio of males 68 and over plus females 65 and over to males 18-67 plus females 18-64.	21.42	22.23	21.91	21.33	20.47

Source: Based on Population Projections, pp.120-127, HMSO, London, 1978.

CHAPTER 8

ISSUES FACING THE PENSIONS INDUSTRY

(a) Possible Permissibility of Retro-Investment of Scheme Funds

(b) Possible Introduction of a New Investment Facility

(c) The Possibility of the Further Involvement of Members

(d) The Desirability of More Disclosure of Information

(e) Protection of Occupational Pension Scheme Rights

(f) The Cost of Pensions Increases

(g) Government Issues of Indexed Bonds

CHAPTER 8

ISSUES FACING THE PENSIONS INDUSTRY

(a) Possible Permissibility of Retro-Investment of Scheme Funds.

8.1. Consideration of retro-investment of group pension funds has been given in Chapter 4 Section (d) but as indicated in Chapter 5 Section (k) some deviation from the requirement of exempt approval for group schemes is permitted when arrangements come within the category of small self-administered pension schemes. The circumstances of, for example, a one man scheme for a controlling director and those of, for example, a scheme covering a large group of ordinary employees of a private sector company are clearly different. Nevertheless, for authority to approve differences in investment practice, whilst reflecting flexibility which is often commendable, involves an issue of importance; in fact does it possibly herald, in connection with scheme approval, a broader approach than exists, in general at present, to self-investment and concentration of investment? If it were to do so then the whole system of financing group schemes, as currently adopted by the pensions industry, could be significantly affected.

8.2. It is a point of relevance that the UK is a member of the European Economic Community but there are at present no Community directives, nor are any in contemplation, which place restrictions upon the mode of operation of pension funds as regards the use of those funds under their control notwithstanding that differences in practice exist amongst individual member countries.[1]

8.3. Thus there are no pressing external requirements for the pension liabilities of UK schemes to be divorced in some way from the overall liabilities of the employer concerned; although this feature was only broadly accepted by the "Wilson Committee" on the grounds of security of pension rights should the employer go out of business.[2] Moreover it is stated in the "Wilson Report" that some of the committee believe that there is a case for encouraging a limited amount of self investment.[3] Interestingly, however, no definition of what was meant by "limited" was given; whether such members had in mind up to 50% of the fund as is approvable for small self-administered pension schemes is not indicated. Twofold reasons for the holding of their views by the minority of the committee were given.

> "First, the knowledge that benefits from their scheme depend in part on the long-term viability of the employing company might possibly have a useful motivating effect of scheme members. Secondly, and probably more importantly, self-investment might provide a valuable way of channelling pension fund monies back into companies more easily than the capital markets can in present circumstances. The knowledge fund trustees are likely to possess already about their employing company may make it easier for them prudently to support projects with a higher degree of risk, or a longer pay back period, than other suppliers of funds who lack such detailed knowledge." [4]

Both these reasonings are unconvincing.

8.4. As regards the motivation of members, any employee in the private sector surely already appreciates that his job itself is dependent on the continuing prosperity of his employer's business which must be a motivating force beyond that of the prospect of an ultimate pension. Moreover,

irrespective of the job itself, under the terms by which pension schemes currently operate surely there is already the knowledge that benefits from the scheme depend in part on the long term viability of the employing company. An employer has the option of discontinuance or modification of the pension scheme at any time and such action necessarily might have to prevail if the company does not remain viable. Also there is the point that to keep pensions effective in inflationary conditions increases to pensions in possession are necessary. The provision of such increases remains largely discretionary on the part of employers (see 3.49) and clearly they are dependent on company finances permitting, a point which scheme members surely must already appreciate. Additionally, and relevantly to the argument regarding retro-investment as a motivating force on employees, there are the counter pressures for removing any possible hindrance on mobility of labour which pension schemes may be thought to inflict. Not only do these pressures arise on grounds of individual equity as reflected by the preservation requirements introduced by the Social Security Act 1973 (see 3.4) and the recent recommendations of the OPB vastly to improve them, but also from government on grounds of the needs of the national economy (see 3.7).

8.5. The second point that self-investment might conveniently facilitate pension fund monies being transferred back into the sponsoring company has been dealt with in paragraph 4.44 where reasons for considering it to be more advantageous to fund with external assets are expressed.

Moreover the suggestion that there may be advantages accruing from trustees acting upon inside knowledge, apart from the question as to whether trustees should thus be specially favoured, is not entirely realistic. Whether a board of trustees of a company pension scheme, who in practice operate in investment matters in conjunction with outside advisers, would have privileged information made available to them and which an employer desirous of raising such capital would deny to all others would seem, in the real world, to be highly doubtful. This would appear to be particularly so bearing in mind the further remarks of the minority of committee members as expressed in the "Wilson Report" to the effect that

> "Whatever view is taken on this question, if self-investment does take place the terms should obviously be negotiated at arm's length and ideally should always involve new issues of securities, perhaps in the form of participating preference shares, and should be matched by the provision of finance from other sources on the same terms." [5]

8.6. There may remain, however, some superficial temptation for a pension fund to attempt to bolster the fortunes of its sponsor. Indeed the minority of members of the "Wilson Committee" referred to prudent support of projects with a "higher degree of risk".[6] But it would seem that projects with a "higher degree of risk" might be envisaged more frequently when the scheme sponsor is operating relatively poorly financially, than in times of high prosperity. This exemplifies the need for caution when any policy of retro-investment might be under consideration for when prevailing economic circumstances impose a "higher degree of risk" the

more desirable it is for investments to be chosen on the basis of suitability in terms of the specific pension fund alone.

8.7. Illustrative of a corporation which undeniably is currently experiencing trading and consequential financial difficulties involving large scale redundancies is that of the British Steel Corporation, yet the assets of the pensions common investment fund of the staff superannuation scheme and the manual grades superannuation scheme are of the order of £1000 millions.[7] Clearly a policy of channelling back up to half of this sum into the corporation would have a significant effect on its available capital resources. However, is it conceivable that the injection of part of the pension fund into the corporation would be welcomed by the members and is it conceivable that such retro-investment would have a useful motivating effect on them? There appear to be no grounds for assuming so. Nor are there any grounds for assuming, when practical consideration is given to a specific case such as that of the British Steel Corporation, that due to possible inside knowledge it would be easier for the pension fund trustees prudently to support projects with a higher degree of risk or a longer pay back period than other suppliers of funds.

8.8. In the investment of pension fund monies there is in fact a strong case for a continuation in broad terms, of the current system as was, indeed, argued by nine members of the "Wilson Committee".[8] And the current system as illustrated by an ailing corporation such as the British Steel Corporation is that the committee of the pension common investment fund is under the chairmanship of a corporation representative with the other eight committee members representing equally

the corporation and the members. There are two outside investment advisers. During the year ended 31st March 1979 the amount received from the schemes was £112.4 millions which with net cash income of £51.3 millions provided £163.7 millions to be invested. The proportionate distribution was as follows: gilt-edged securities 32%, UK equities 25%, property 22%, and 21% in cash and other net current assets. The overall position of the fund as at 31st March 1979 was as follows: gilt-edged and other fixed interest stocks 23%, UK equities 33%, overseas equities 4%, property 36%, cash and other net current assets 4%. Overseas equities included a portfolio of US common stocks in 53 leading companies administered by a New York firm; in addition the fund held a portfolio of 12 Canadian equities and one Australian security. The fund's UK equity portfolio consisted of 80 holdings and it is noteworthy that some 30% of the UK equity fund was invested in just 5 companies namely Shell Transport and Trading 8.9%, General Electric 7.2%. ICI 4.9%. British Petroleum 4.3% and Barclays Bank 4.2%, whilst further to exemplify the concentration of equity holdings some 63% of the total UK equity fund was restricted to investment in 20 companies.[9]

8.9 There is nothing unorthodox in the proportionate distribution of assets according to investment class of the pensions common investment fund of the British Steel Corporation as indicated in paragraph 8.8 relative to pension funds in general (see Chapter 5 section (d)). Indeed not only is there general conformity in the investment policy of the pension fund of this currently ailing corporation with the general run of pension fund investment policies but also there is broad conformity with the investment policy of the pension

fund of an exceptionally thriving company, as exemplified for this purpose by Plessey Pension Trust. Compared with the proportionate asset distribution for British Steel Corporation of 23% in gilt-edged and other fixed interest securities, 37% in equities, 36% in property and 4% in cash and other net current assets, the corresponding figures for the Plessey Pension Trust were 29%, 43%, 25% and 3% respectively. There are some differences of policy with the 4% of British Steel Corporation's fund invested in overseas equities relative to the 1% for Plessey; and the restriction in the UK equity fund in the case of British Steel to 80 companies relative to some 200 companies in the case of Plessey; but these are not fundamental differences. Moreover the distribution of UK equity holdings of the pensions common investment fund of British Steel Corporation was capital goods 15.1%, consumer durables 4.5%, consumer non-durables 28.8%, chemicals pharmaceuticals oils etc. 27.2%, financial group 22.3% and others 2.1%. The corresponding figures for Plessey Pension Trust were 21.5%, 7.4%, 30.2%, 19.8%, 18.6% and 2.5% respectively.[10] Again there is no indication in these category percentages of any fundamental differences between the two funds respectively, one of which is associated with an ailing corporation and the other with a thriving company, in their practical approaches to equity investment. Indeed, no evidence has been traced of a pension fund investing other than with the interests of its beneficiaries directly and entirely in mind in accordance with the generally accepted principles of trusteeship.

8.10. Despite such considerations there are some quarters who wish self-investment to be encouraged. The "Wilson Committee" itself whilst stating in its report that,

> "We do not underestimate the difficulties of producing financial information about pension schemes in such a way that its implications are easily assimilable" [11]

nevertheless did recommend,

> ". . . that the Occupational Pensions Board should help by issuing a code of practice covering self-investment and concentration of investment to provide yardsticks against which the practice of individual funds would be judged." [12]

This recommendation gives at least some countenance to self-investment. The fact that there is no outright objection to loans out of scheme funds to the employer, subject to certain provisos, of up to 50% of the assets of a small self-administered pension scheme (see 5.46) would seem to strengthen the hands of those who either wish self-investment in general to be encouraged or otherwise wish the practice to be given further credence. Indeed the City Capital Markets Committee not only recommends that trustees should notify members and pensioners that they can have access to relevant information regularly and that the information available to members should include the extent of self-investment but also recommends the enactment of further legislation which would impose these obligations accordingly.[13] The City Capital Markets Committee is thus recommending that private pensions be subject to more statutory control in which self-investment be recognised without specifically suggesting any limit on the extent of self-investment. This recommendation, like those of others who have expressed themselves similarly is regarded as unhelpful from the viewpoint of the pensions industry; scheme solvency could be affected.

(b) Possible Introduction of a New Investment Facility

8.11. As well as retro-investment the current system of investment of pension fund monies is not otherwise invariably favoured. For example, there was the note of dissent to the "Wilson Report" signed by five of the committee members including its chairman which stemmed from their expressed belief that the involvement of the financial institutions in the modernisation of the UK's manufacturing and productive industries is one of the most important issues facing the UK economy today. They argued that the ability of the financial institutions to meet the expectations of policyholders and future pensioners depends critically upon the real rate of economic growth and that the institutions cannot stand apart from the process of generating the growth. They believed that there is little prospect of needs and resources being matched unless new ways are found to encourage and finance investment. The central feature of their proposal was thus a new investment facility jointly funded by the public sector and the long-term investing institutions and able to advance both loan and equity capital. To safeguard the interests of policyholders and future pensioners the return to the institutions would be guaranteed by the government at a level equal to that for gilt-edged stock but open ended at the top. The government's contribution could, if necessary, be applied in part to guaranteeing that rate of return to the institutions. The facility would identify worthwhile projects and deal with them direct either in the form of loan capital or of equity.[14] Professor P.G. Moore, chairman of the statistics panel of the "Wilson Committee" has suggested that it should be emphasised that the proposal does not seek to

invest deliberately in loss making ventures merely because they provide some form of employment, but to rectify what is seen by its proponents as a bias in a market dominated by relatively few institutions with contractual obligations to policyholders or prospective pensioners. The need is seen to be there because the signatories believe that the investors who make up the current market are not sufficiently creative in their long term assessments, and are too much concerned with short run considerations. They are thus arguing that they would themselves wish to use the so-called facility to form a new kind of market.[15]

8.12. Clearly one cannot be dogmatic as to what the outcome of the formation of a new type of market as referred to in paragraph 8.11 might be. It is true that a national investment facility has operated elsewhere as in the Netherlands, France and Sweden but it is also true that the USA exhibits the same pattern of institutional investment as exists in the UK.[16] The proposed new facility would in fact be artificial and it is difficult to see how, in the practical world, its formation would achieve advantage over evolutionary development of the current system.

8.13. Also as regards the question whether the existence of an investment facility could make the task of financing the Public Sector Borrowing Requirement more difficult, because of the attractiveness of the facility's rate of return and the possible interchangeability of funds deposited with the facility for gilts, the signatories to the note of dissent state that the size of this effect can be exaggerated.

They do however accept that the initial effect on the PSBR, because of the matching commitment of public sector revenues to the facility, would be to increase it;[17] this can hardly be regarded as a welcome feature of their proposal. Their further assertion that the longer term advantages of increased economic activity and a higher overall growth rate would yield greater tax revenues, thereby reducing the PSBR substantially,[18] is founded on conjecture.

8.14. Moreover although there has been a denial that a purpose of the proposal for a new investment facility is to provide some form of employment (see 8.11) the fact is that the signatories of the note of dissent were supporting a proposal of the Trades Union Congress' General Council. It is, of course, only natural that the Trades Union Congress should be concerned with national economic affairs for such can affect their members as well as the rest of society. Relevantly, in a 1981 publication[19] the TUC outlines a plan which would, they say, create 500,000 new jobs and thereby make a major contribution on the attack on unemployment. To finance the programme a considerable amount of money would be needed. In total the TUC is advocating extra spending of £24,000 millions over the next five years but the TUC maintains there is nothing wrong in the Government borrowing either to spend itself or to make grants to public bodies especially if it can put the nation's savings to good use.[20] This raises the question of what is meant by the nation's savings. Are, for example, pension fund monies regarded by the TUC as part of the nation's savings? The purpose of the proposal for a new investment facility (see 8.11) to be

partly funded by pension funds may not therefore be entirely divorced from an attempt to ease unemployment problems. It is not accepted that it is proper for some of the burden of unemployment to be directly borne in this manner by pension scheme members and beneficiaries.

8.15. There was a third group within the "Wilson Committee" who adopted a stance somewhat between those who favoured a broad continuation of the current system and those who favoured a new facility as outlined in paragraph 8.11. This group of four committee members suggested that a public sector investment bank should be formed which aims to enhance the demand for finance, and through which new projects and new firms are actually sought and promoted. The emphasis would be on seeking out projects and then raising the finance accordingly, rather than being given funds and then seeking ways of disbursing them.[21] Again imposed artificiality would appear to be favoured rather than natural evolutionary development. No one would deny that an important challenge facing the UK is to arrest the decline in the country's manufacturing sector in terms of output and employment but it is noteworthy that the final sentence in the note of dissent to the "Wilson Report" referred to in paragraph 8.11 reads that

> "We believe that the economy must be vigorously managed back to health".[22]

Possibly the significant word is "managed" a word which may have a specialised connotation.

8.16. Suggestions that there is a deficiency in the present system whereunder savings are channelled to pension funds and thence to productive industry and commerce, and that savings do not flow freely enough into productive investment, have been rejected by the City Capital Markets Committee. According to that Committee investment funds are continuously available to industry and business generally; the investing institutions continuously and willingly accept the risks inherent in long term investment; it is principally the absence of demand for investment funds which limits the flow.[23] And it is stated in the "Wilson Report" that

> ". . . the overwhelming view expressed in our evidence, with very few exceptions, is that the availability of external finance has not been a significant independent constraint on companies' operations, provided that they are prepared to be flexible regarding the form in which the finance is supplied." [24]

Moreover, the Chancellor of the Exchequer stated in May 1981

> "Certainly we need more industrial investment. But it is not the shortage of external finance that has inhibited firms from investing." [25]

Appositely he added,

> "What I am certain of is that financial engineering by the government, and in particular direction of investment, would not succeed in steering development into the most productive sectors and markets." [26]

8.17. Thus there is no apparent need for a new investment facility or investment bank as proposed by some of the members of the "Wilson Committee". The creation of either would impose artificiality which could impair the efficiency of the pensions industry in investment matters. Perhaps some of those who advocate the setting up of the one or the other envisage a use of pension funds which would not be entirely concerned with the direct interests of pension scheme members and beneficiaries.

(c) The Possibility of the Further Involvement of Members

8.18. Suggestions of the need for further legislation, such as for example referred to in paragraph 8.10, raise an interesting point of principle. No important sphere of social activity can expect to escape statutory control altogether and existing legislation needs to be modified from time to time because of changing circumstances. Would it be possible, however, for pension matters to become over-controlled statutorily and in some areas would general acceptance of a code of good practice be preferable to legislation?

8.19. The City Capital Markets Committee considers that there are certain aspects of pension schemes which merit legislative changes. These changes would be designed to clarify the rights of members of pension schemes and pensioners, and to increase their ability to monitor the administration of the funds. If adopted, the committee claims, its proposals would increase the involvement of members in the management of pension funds.[27]

8.20. The National Association of Pension Funds considers that

> "Pension schemes exist to provide benefits for members and their dependants and it therefore seems logical and reasonable, whether their scheme be contributory or non-contributory, that members should share responsibility for the way in which it operates and have some influence on the way it develops." [28]

That association states, as a matter of principle, that,

> "Involvement of members should apply to trusteeship (that is, management of the scheme in accordance with the trust deed and rules as they are at the time), and to the development of the scheme to meet changing circumstances, such as new legislation." [29]

But clearly this does not necessarily involve legislation such as recommended by the City Capital Markets Committee. Indeed as stated in the "Wilson Report" the OPB itself merely recommended that member participation in occupational pension schemes should be encouraged by publication of a code of good practice (although it was added in the report that there should be a long term study over a five year period to check that the proposed code was having the desired effect).[30]

8.21. In fact what is the present position regarding member participation at a time when this particular issue is not statutorily controlled? Most pension schemes in the UK are funded and, in order to obtain tax exemption they have to be established under irrevocable trusts. This fact raises particular problems of trusteeship which, in the context of industrial relations, are quite unique and these problems have to be borne in mind when considering member participation. However, experience shows that member involvement in pension schemes can be successfully and effectively implemented in most organisations regardless of size.[31] In fact, the results of a questionnaire issued in 1980 by the NAPF to all its members showed, from the excellent response received, that just over 52% had some form of member participation. These were examined in further detail and it was discovered that 62% of them had member

participation in the trustee body only; there were no consultative or other bodies. The other 38% had consultative bodies as well as, or in some cases instead of, member trustees. So 38% of 52% had consultative bodies; of these in some 20% of cases there were negotiating committees and all of these 20% were schemes where there was member participation in the trustees. Another analysis was also carried out to see whether the size of scheme seemed to have any bearing on the form of participation. It was found that the proportion of schemes which had fewer than 100 members which had participating arrangements was smaller than for schemes as a whole, and the difference was almost exactly made up by a larger proportion of the largest schemes, i.e. those with over 6000 members, with participative arrangements. A like comparison for the schemes with consultative arrangements indicated that this difference was rather more marked and that there was a heavier bias towards the largest schemes and away from the smallest categories.[32] Clearly the detail revealed from the response to the issued questionnaire emphasises the wide variety of arrangements and systems amongst schemes.

8.22. As indicated in paragraph 8.21, within the UK there is a wide variety both of practice and of levels of participation. In a large number of pension schemes the extent of member involvement in their running is minimal. On the other hand, an appreciable extent of member participation exists within the majority of schemes. To typify the commendable high level of cooperation between employer and members which exists in some schemes, those of Rolls Royce are quoted.

With Rolls Royce there are two pension schemes, one for staff and one for works. In both cases a full trustees' report and statement of accounts is issued as information to members. Both funds are constituted by trust deed under which it is the responsibility of the trustees to manage and administer the fund strictly in accordance with, and subject to, the terms and conditions laid down in the trust deed and rules. Four of the trustees are elected by the members of the fund and four by the company; the chairman, additional to the other eight members, is elected by the company. Elected trustees serve for a term of four years and, if eligible, may stand for re-election. As a general statement, however, whilst trustees derive their authority from the instrument which governs the pension scheme as well as from the law, in practice trustees may be entitled to delegate some of their powers and duties either to external professional advisers, such as investment managers, or to officials or employees engaged full time in the day to day management and administration of the pension scheme. This is the case with the Rolls Royce schemes, membership of each of which is currently approximately 30,000. With Rolls Royce the trustees have the responsibility of managing the investment of the fund but to assist in their duties the trustees use the services of specialist investment managers who deal with the day to day investment matters having first agreed on overall investment policy with the trustees. There are in fact two main investment managers, both being investment management companies external to Rolls Royce. Additionally, there is an external asset management company for property management and advice, a forestry advisory company for forestry and

another external company for property valuations. Title to investments is vested in custodian trustees.[33]

8.23. In the best examples, such as that of Rolls Royce, referred to in paragraph 8.22, there are broadly equal numbers of trustees chosen by members and by the employer. It is not unreasonable in practice for the chairman to be chosen by the employer. The NAPF has suggested that,

> "Member trustees should be selected democratically by employees who are members of the pension scheme and should be members themselves." [34]

and that,

> "The method of selection should be established after such consultation as is appropriate between the employer and representatives of both unionised and non-unionised employees." [35]

It is to be recalled that in 1976 the Labour Government proposed to legislate to give recognised trade unions the right of appointment to 50% representation on the membership of controlling bodies of all pension schemes.[36] But this proposal proved contentious and has not been implemented. Indeed in the published report of the "Wilson Committee" it is merely stated that,

> "We believe it to be essential for effective monitoring, as well as to equity that there should be adequate opportunities for individual members of a scheme to be appointed to its governing body or bodies. We see no good reason not to follow the practice adopted by most public sector schemes, and a growing number of private sector schemes, whereby the membership of governing bodies is provided half by company appointees and half by the members and pensioners. We recommend that the government should give further consideration to the best way of achieving this for all schemes above a minimum practical

size in the light of developments since a similar view was expressed in the OPB's 1975 report." [37]

Still, however, nothing has been done in this regard and whilst the majority of pension schemes as exemplified by Rolls Royce (see 8.22) act impeccably a finger can always be pointed at a small minority who do not. Thus there is much to be said in favour of a guide to good practice, as proposed by the NAPF, suggesting democratic selection of trustees, with equal representation from the membership and the company being the objective. By issuing a voluntary code and encouraging the voluntary spread of participation the NAPF might, it is thought, pre-empt legislation. And the NAPF is the proper organisation to issue such a guide because it is accepted by government and industry as the major spokesman for self-administered pension funds in both private and public sectors. Its membership includes the majority of the large self-administered schemes and also many insured schemes. It is submitted that it is regrettable that in this sphere of participation of members in operating pension schemes the membership of the NAPF has not yet accepted its own association's suggested guide to good practice. Without acceptance of a voluntary code it would seem inevitable that legislation must eventually be regarded by government as necessary to resolve the issue. Indeed the City Capital Markets Committee has already advocated that its recommendation that,

"Members and pensioners together should have the right to appoint 50% of the membership of the body of trustees and that the method of choosing those members should be left open to local agreement subject to safeguards to ensure that no significant category be left unrepresented," [38]

be brought into being by the enactment of legislation. Suggestions for legislation can result in provisions not invariably precisely in the form advocated. Imposed legislation in regard to member participation in pension schemes might easily materialise in rather more stringent form than envisaged by the City Capital Markets Committee.

8.24. The views of the TUC are apposite. The TUC has stated that,

> "We do not find the present structure by which pension schemes are operated satisfactory. The almost universal pattern of having a "trust", basically needed only to hold the joint property of the scheme has the result of reducing the involvement in and control of the scheme by the members" [39]

and,

> "In our view member control . . . can only be achieved through recognised trade unions." [40]

Also,

> "Statutory provision requiring the participation of representatives of scheme members is necessary and should apply to all schemes." [41]

Also,

> ". . . the membership of boards of trustees or managements should be split, with the employers having at the most 50% representation. Provision should be made in the rules, where there is equal representatives can prevent action being taken against the interests of the members (i.e. that the employers' representatives do not have a casting vote.)" [42]

8.25. The question arises whether these views of the TUC (see 8.24) merely reflect a concern for putting right what they regard to be an existing injustice. Certainly it would seem reasonable that members of occupational pension schemes should be adequately represented on boards of trustees and this is not the invariable rule at the present time; but it would be inappropriate for members to be nominated entirely by the relevant trade unions, as the TUC suggests, for non-union members can be included in the pension scheme.

8.26. Alternatively, do the TUC demands for member involvement (see 8.24) have wider implications? Is it to be thought that trade union nominees on boards of trustees would be likely to concur with TUC criteria? And the TUC has stated that,

> "The specific criteria the TUC has in mind are that the institutions should direct funds to companies and projects with an adequate rate of return in the long run, to companies which are investing at home rather than abroad, and to projects which help maximise the growth rate of the UK economy and therefore help restore full employment . . . Particular priority must be given to developing the regions of high unemployment . . . " [43]

Also the TUC has stated that,

> "A further area for discussion is whether the pension funds should not be moving away from a funded approach to one based on pay-as-you-go." [44]

It is apparent that the criteria of the TUC General Council are not in conformity with those currently operated by the institutions including the pension funds. Member involvement is an issue which may be of high consequence to the pensions industry. If boards of trustees of pension schemes were to

become dominated by trade union nominees sympathetic to the criteria of the TUC General Council the financing of schemes and the investment policies of schemes could be affected significantly.

(d) The Desirability of More Disclosure of Information

8.27. An area to be associated with member participation in the operation of pension schemes is that of disclosure of information about their schemes to the members of them. As is stated in the "Wilson Report",

> "Under trust law trustees are obliged to disclose on request any information which might reasonably be required by members and beneficiaries to ascertain the general state of their fund or individual pension entitlements. In addition the Employment Protection Act 1975 places a general duty on employers to disclose information to independent trade unions on request for the purposes of collective bargaining, provided that it would be in accordance with industrial relations practice to do so and that the unions would be materially impeded without it. There are, however, no general obligations on trustees of pension schemes under any legislation to provide members and beneficiaries with financial information on a regular basis, though some trust deeds do make provision for an annual report and many employers make considerable efforts to keep the members of their schemes properly informed." 45

Typical of the commendably high level which is currently being achieved by some is that of the Airways Pensions Scheme which publishes annually a report and statement of accounts in accordance with the rules of the scheme. Not only does this presentation give an informative report of the management trustees but it most valuably gives also adequate information for the financial position of the scheme to be reasonably assessed. Such information includes the income and expenditure account, the balance sheet, cash flow statements, detailed notes to the accounts, income and expenditure analyses, summary of investments in total and subdivided according to listed, unlisted and property investments separately, a property valuation statement and a

summary of the actuaries' report. Further to give insight into the operation of the scheme highlights of the year under review are given with a ten year statistical analysis of investments, income and expenditure, member and pensioner details and contribution and pension statistics, and brief results of actuarial valuations of the fund over the preceding 10 years. As well a summary of the scheme is given, namely, benefits, normal retirement age, contribution rates and transfer of pension rights on change of employment with a note as to how and where further details can be obtained by members.[46]

8.28. Although it is mentioned in paragraph 8.27 that there are no general obligations on trustees to provide members with financial information on a regular basis the Superannuation Funds Office does, of course, follow certain practices and amongst them is, for example, the requirement that if a retirement benefit scheme is to be approved under the Finance Act 1970, every member and every employee who has a right to be a member must be given written particulars of all essential features of the scheme.[47] Nevertheless, it is unfortunate that the extent of disclosure of information as exemplified by the Airways Pension Scheme in paragraph 8.27 is typical only of the best. Whilst, in this matter, many schemes approach the practice of the best, it is disappointingly the case that numerous pension schemes fall very far short. For example, according to the fifth survey of the government actuary in 1975 the majority of schemes in the private sector did not even make annual reports, of any type, available to members and the same applied to annual accounts, actuarial reports on valuations, or information

about scheme investments.[48] Doubtless there has been some improvement since the time of that survey but even in 1980 the National Association of Pension Funds stated that it

> ". . . believes that a higher and more uniform standard of information about occupational pension schemes should be provided to the members of those schemes. The Association believes also that this goal can be reached more quickly and with less dissension by general compliance with a simple code of practice than by the enactment of further, inevitably complex, legislation. Another advantage of a code of practice is that it can point the way to further progress, whereas standards imposed by law can all too easily become maxima as well as minima." [49]

8.29. Thus in 1980 the National Association of Pension Funds issued a code of practice dealing with the provision of information both on a person's entry to employment and later on entry to the scheme (other than by merger of companies); with the provision of information on death or termination of membership; periodic information to members; and provision of information on the merger of companies or on the structural change of the scheme. Amongst other things the code indicated the standard to which the association believed all pension schemes should adhere.[50]

8.30. The current position is, however, still unsatisfactory. The "Wilson Committee" stated that

> ". . . we do not regard it as sufficient to rely on a voluntary code, which could well be ignored by those most in need of encouragement", [51]

and this, unfortunately, is the case at present. Pressure for legislation will continue, from one quarter or another, for further controls to be imposed by law unless pension schemes are seen to be operating on highly desirables lines. And

the City Capital Markets Committee has again recommended the enactment of legislation which requires that trustees notify members and pensioners that they can have access to relevant information regularly.[52] Nowadays an occupational pension is generally regarded as deferred pay and it is submitted that it is quite wrong that a person should be required to be a member of a pension scheme which is financially deficient and yet not have this information passed on to him. The "Wilson Committee" recommended,

> ". . . the formulation of a Pension Scheme Act . . . This should impose a clear statutory obligation on scheme trustees to make regular disclosures of information to members, . . . It should include the results of the latest actuarial valuation and, where deficiencies were shown, should indicate the means whereby they were being funded." [53]

The "Wilson Committee" was correct in its views on the financial information which should be given to scheme members. Many schemes act properly in this regard without being obliged to do so by legislation, as illustrated in paragraph 8.27 in the case of the Airways Pension Scheme. Voluntary action is preferable to statutory controls but members have a right to certain financial information and if pension schemes, in general, are not prepared to give it voluntarily then legislation is necessary.

8.31. Further legislation or not there are certain technical areas which call for comment. In the interests of all parties directly involved the members, the employer and the trustees, as well as on more general grounds, it is clearly most desirable that the pension scheme financial

recording methods should be of a high order. Unfortunately, whilst occupational pension schemes in the UK have grown very rapidly to a position of national importance, their financial reporting methods have not developed correspondingly.

8.32. The Consultative Committee of Accountancy Bodies has stated that

> ". . . questions of funding and trust protection are amongst the most important which arise in relation to pension schemes." [54]

That Committee has also stated that,

> "The trustees of all contractual pension schemes should prepare annual accounts . . . The trustees of all contractual pension schemes should appoint auditors qualified to audit accounts under the Companies Acts, to audit, and report their opinion, on the trustees' annual accounts. The auditors should be appointed annually and their rights and duties should be generally similar to those appointed auditors under the Companies Acts." [55]

With such recommendation there may be some points of technical detail to be considered. For example, the Pensions Research Accountants Group has submitted that it has often been the endeavour of the auditors to report whether the balance sheet represents a "true and fair view of the state of affairs" of the pension scheme, suggesting that such an approach which is derived too slavishly from Companies Acts' requirements is inappropriate and, in practice, harmful. The group considers that since the objectives of pension funds are so fundamentally different from those of commercial organisations it is unrealistic and unfair to expect them to report on a commercial basis. The group holds the view that the short term financial

reporting arrangements for pension funds should be designed to show how the trustees have discharged their respondibility for the stewardship of the money under their control and the way in which the assets of the fund have been managed and deployed. These aspects can be incorporated in accounts comprising an income and expenditure statement together with statements showing net assets movements and net assets. Replacement by a net assets statement of the traditional balance sheet produced by accountants is regarded as desirable because the latter can, in practice, be a source of confusion.[56] Nevertheless the recommendation of the Accountancy Bodies to the effect that all pension schemes should prepare annual accounts and have them audited must clearly command respect reflecting what is so highly desirable; it is, in fact, almost unbelievable, that this is far from universal practice.

8.33. With some pension schemes, financial reporting is virtually non-existent. The position is regrettable particularly as with others every attempt is made to report relatively fully. As an example of a high standard the report and accounts of the Reed Pension Scheme can be considered, this particular case being chosen because it was the 1981 winner of the Golden Pen Award of the National Association of Pension Funds, the award being presented for effective financial reporting. This scheme has approximately 25,000 members and assets of approximately £100 millions. The 1980 report shows the growth of the scheme over the previous five years, giving the sums paid as retirement benefits, contributions from employees and employers,

investment income and details of membership. The trustees' report is concise and informative. It is mentioned, for example, that pursuant to agreement with trades unions representing the majority of the membership, the board has been reconstituted with six directors representing the company and six nominated as members' representatives. Also it is mentioned that to facilitate fuller consultation with the members, pensions advisory committees have been set up with membership nominated by management and trades unions. Further it is mentioned that in conjunction with considerations put forward by pension advisory committees, the committee for joint review representing trades unions and the company will be discussing possible future changes to the scheme and their financial implications. Additionally to the trustees' report there is a commentary by the consulting actuaries on their valuation report. As well there is an auditors' report. The fund account is shown on an historical cost and on a market value basis; notes to the accounts include an explanation of the methods adopted to value investments; there is a relatively full analysis of assets including property holdings; and the criteria adopted for selecting UK ordinary shares are briefly given.[57] With the exception of very small schemes there seem to be no reasons to prevent pension schemes in general attaining the standard of Reed Pension Scheme, in their financial reporting. Very small schemes may be in a somewhat different position because of limited resources but even with them there appear to be no insuperable difficulties, in general, in reporting effectively.

8.34. The general position, with regard to financial reporting, is even less satisfactory when life office schemes are involved than it is for those self-administered. This is a matter not without importance for currently in the UK there are some 23,000 pension schemes with more than 10 members; of these more than 85% are fully insured schemes and a significant proportion of the remainder include insurance policies among their investments.[58] As the Pension Research Accountants Group has indicated, in the past the annual accounts of pension schemes have provided little information on the nature or value of insured investments, which were often regarded as being different from the assets of a self-administered scheme. However, the decision to pay premiums to an insurance company is not essentially any different from a decision to acquire other investments and, as far as possible, the financial report of a pension scheme should provide sufficient information about the disposition of all the fund's assets to allow the reader to form a judgement about the fund's investment philosophy and to assist the trustees' report to explain how the investments are progressing. Thus the existence of insurance contracts covering pension benefits should be evidenced by the raising of an asset in the books of account and the inclusion in the net assets statement of a figure which would permit comparison with other investments. Assets can, of course, be valued in different ways but it is considered that assets, in general, should be shown in the net assets statement at market value and that insurance policies being only a specialised form of investment should be valued on a comparable basis to other assets; for a continuing scheme

this might be either the premium value or the actuarial value. The accounts should give an adequate description of the insurance contracts effected by the trustees including a note indicating the basis adopted by the trustees for valuing their investment.[59]

8.35. It is clearly desirable that there should be a reasonable amount of disclosure of information to members that annual accounts should be prepared and audited and that financial reporting should be effective. These are areas in which current practice, in general, is unsatisfactory. In the interests of all the position needs to be rectified. Preferably the pensions industry should do this voluntarily but if necessary legislation should be enacted.

(e) Protection of Occupational Pension Scheme Rights

8.36. Member involvement and information disclosure, as discussed in section 8(c) and 8(d), are not the only areas for potential legislation. In March 1978 the then Secretary of State for Social Services, Mr. David Ennals, asked the Occupational Pensions Board

> "To consider what further steps should be taken to protect the occupational pension rights and expectations of employees who change employment, including the transfer of rights between pension schemes; to review the financial and other implications; and to make recommendations." 60

On the 8th May 1981 Mr. Patrick Jenkin, Secretary of State for Social Services, announced in the House of Commons that he had received the Board's report on the 5th May.

8.37. The rest of Mr. Jenkin's reply is of high interest and importance. He said that,

> "Very briefly, the Board consider that the protection of the pension rights of early leavers should be improved and for pension purposes they should, all other things being equal, be treated no less favourably than those who stay in their pension schemes until they reach pension age. The Board favour the removal of any unnecessary barriers to the transfer of pension rights but they concluded that their recommendations should concentrate on preserved benefits. With regard to final salary schemes, which cover most scheme members, the Board consider that there is a need for legislation." 61

8.38. Thus again the need for further legislation has been expressed. However, as representing the views of some others, Mrs. Lynda Chalker, Parliamentary Under Secretary of State for Social Security, stated on 9th May, 1981,

> "Let me make it clear that I am not pre-judging any recommendations the Occupational Pensions Board might have made in reporting on the protection of pension rights for early leavers. But I do find it difficult to appreciate the taste for additional legislation after all the pleas for non-intervention and to let pension schemes get on with the job of providing pensions." [62]

And putting some points from the present government's view she added,

> "As we have said many times, we are in favour of the provision of information to the members of pension schemes. We favour the much greater involvement of employees in the management of pension schemes. But we must avoid the temptation to produce new pensions legislation for which the need has not been clearly established. We do not want legislation which could be an unnecessary burden on employers and others concerned with the administration of schemes. We always have to bear in mind that legislation which should be enforceable, has, inevitably, to be supervised by a number of civil servants." [63]

Clearly such remarks do not present a strong case for further legislation; nevertheless if a need for further legislation were to be established there is nothing in Mrs. Chalker's remarks to indicate that it would not be enacted. In any event governments have been known to change their minds, moreover governments themselves change.

8.39. The issue of preservation of pensions is an important one. Before April 1975 there was no legislation on the matter, the benefit of members who withdrew from an occupational scheme merely depending on the scheme rules; often such benefit was just a return of the member's own contributions, if any. Preservation was introduced by the

Social Security Act 1973 (see 2.25) the main object being to ensure that leavers become entitled to an equitable proportion of benefit (see 3.4). But preservation is still an area in which occupational pension schemes are not entirely effective (see 3.7). It is thus natural that the matter should be reviewed.

8.40. The terms of reference of the OPB (see 8.36) for its enquiry made special mention of the transfer of rights between pension schemes but as Lord Brimelow, chairman of the board, has pointed out, transfers are often not available by the rules of the schemes and there are weighty arguments against the establishment of a legal obligation to make them available. Thus the starting point has to be the protection of the value of preserved pensions. And customarily a person's pension is related to final salary; this is at the heart of the matter for in such cases if the earnings of an early leaver increase during his working life, he is imposed to pension loss.[64]

8.41. The nature and scale of the pension loss suffered by the early leaver is already being modified by the impact of the state scheme and by the statutory requirements for contracting out. The state basic flat rate pension is invariably unaffected. As regards the additional earnings related element (see 3.9) this is increased to pension age in a manner which takes account of the general movement of earnings (see 3.12) irrespective of whether the person stays in the same job, changes his job or ceases to be employed. Employees who are in contracted-out employment

enjoy roughly comparable protection to the extent of their guaranteed minimum pension. The pension loss to which many early leavers are exposed will diminish with the passage of time until the maximum pension provided under the earnings related part of the state scheme, or its GMP equivalent, has been reached. With regard to pension provision in excess of this, the problem of pension loss will remain, save to the extent that it may be diminished by voluntary action or legislation. The chairman of the OPB has thus reached the conclusion that the legislation currently in force in this country demonstrates that it is feasible, at a cost, to protect the pension rights of the early leaver up to a certain level; and that to grant additional protection would unquestionably also be feasible.[65]

8.42. Turning from the question of feasibility to that of desirability there are various points of view. An employer may be looking for a stable labour force so that he may not regard as desirable any move to reduce the disincentives to change of employment by his employees. On the other hand, it has been suggested, for example by Mr. Patrick Jenkin, Secretary of State for Social Services, that employment rigidity is not in the overall national interest (see 3.7). There is the further matter of whether fairness is or is not involved. The OPB has, in general, considered that the question of equity as between categories of scheme members does arise and it favours the principle of comparable treatment. It is submitted that, on purely theoretical grounds, the view of the OPB to the effect that the lot of the early leaver should be improved and that, as far as may be possible, he should be equated with the stayer, is justified.[66]

8.43. But there are practical considerations. First there is the question of whether the theoretically desirable aim would be achieved if the matter were left in the hands of the employers to deal with discretionally. It is submitted that with competing claims, for example that of improving pensions in payment, it would not conform with practical reasoning to assume that further outlay to improve the benefits of those who withdraw early, to take up employment with another, would be forthcoming voluntarily. Whilst this is regarded as practical reasoning it is, nevertheless, thought to lead to a regrettable conclusion for it means that the OPB's consideration, that

> "If the lot of the generality of early leavers is to be improved within a reasonably short period of time, legislation will be needed"[67]

is justified; in other words more statutory control. Secondly, there is the question of cost, an issue which has resulted in divided opinion within the OPB. A majority of the Board considers that schemes should be required to increase preserved benefits in line with earnings movements up to a ceiling of 5% a year, calculated over the whole period of preservation. They also urge that schemes should make such further improvements above this level as their resources permit. A minority of the Board considers that the statutory requirement should be for preserved benefits to be increased in line with national average earnings; but if there had to be a limit on statutory requirements it should not be less than 8½% a year.[68] (Preserved pensions under the GMP rights of an early leaver are, of course, in

one way or another, kept in line with the growth in earnings generally (see 3.13)). Clearly the majority decision would be less costly to implement than that of the minority but such cost is difficult to estimate; it could vary from one scheme to another depending on the rate of labour turnover, and possibly some employers might offset such cost by not improving other benefits as they might otherwise have done. The chairman of the OPB has stated that the variables are so numerous that, in his opinion,

> "They preclude any exact calculation of the total direct cost which the implementation of the Board's majority recommendation would impose on schemes nation-wide." [69]

This is obviously correct but clearly the recommendation together with its "knock-on" effect might add very significantly to some employers' outlays on pension schemes.

8.44. Reference has been made in paragraph 8.43 to knock-on effects. There are two possible major ones. First there is the practice of "franking". (By "franking" is meant the meeting of a pension liability of one kind by reducing benefits otherwise payable by a scheme to the same member). A person may, for example, withdraw from a pension scheme with a preserved pension of £x, of which £y is GMP. The GMP necessarily has to be revalued each year (see 3.13) and the revalued GMP may eventually equal £x. If such were to be the case and if the pension scheme franks increases in GMP against pension in excess of GMP it will provide £x, i.e. the amount of the GMP without regard to the fact that at the time of withdrawal the person

was entitled to the GMP plus £(x-y) in excess of the GMP. But the person would have received this GMP as extra state scheme benefits if he had not been contracted out, whilst as a member of the scheme he would probably pay more in contributions than he would have paid as a member of the state scheme alone. It is thus submitted that the practice of franking is not entirely a happy one and it is relevant that a mini-survey conducted by the OPB showed that almost all the contracted-out schemes which answered the Board's questionnaire practised franking.[70] Thus it is also submitted that the OPB's further recommendation to the affect that,

> "The proposed revaluation of preserved benefits should be applied to benefits other than those already subject to a statutory revaluation requirement in such a way that early leavers would receive the full benefit of the Board's recommendations in addition to the contracting-out requirements",[71]

should be implemented.

8.45. A second major knock-on effect of the OPB's recommendation possibly could arise in connection with pensions in course of payment. It may be unrealistic to assume that in practice it would be possible to increase preserved benefits in the period of deferment and not to increase pensions in payment. The chairman of the OPB has stated that this knock-on effect could be appreciably greater than the direct cost of improving the lot of the early leaver in some schemes. This clearly could be so in schemes which at present do no more than the statutory minimum for their early leavers, particularly if the scheme

has a high proportion of pensioners to active members and a stable labour force. The chairman also said that this is amongst the reasons the majority of the board considered it desirable that any statutory requirement to improve the protection of early leavers should be subject to the limits as proposed.[72]

8.46. The recommendation of the OPB thus accords with a conclusion of the "Scott Committee" that

> "It is a highly desirable social objective that the standard of living of those in retirement should be protected." [73]

This is so for two reasons first, the indexing of preserved benefits to earnings movements up to a ceiling of 5% per year would serve directly to increase living standards in retirement of those individuals who during their working lives moved from one job to another; secondly, because of the acceptance by the OPB that a possible indirect effect of its recommendation would be for pensions in payment to be subject to increases as well as preserved benefits.

8.47. Moreover the recommendation of the OPB does not appear to be out of accord with a substantial amount of general opinion. For example, in the "Scott Report" it is stated that half of those who submitted evidence argued along the following lines,

> "Pension schemes should provide for benefits to be protected against inflation; some private sector pensioners are getting a significant degree of protection against inflation and, although others are not doing so well the solution is to improve pensions in the private sector rather than to make public sector pensions worse." [74]

8.48. Also it is stated by the "Scott Committee" in their report,

> "Our prime task was to consider methods and assumptions appropriate for assessing the value of differences in inflation protection of occupational pensions for use in public sector pay negotiations: in other words methods for working out by how much public sector employees' pay should be adjusted to take account of the pensions to which they are entitled." [75]

This seems to imply, tacitly, that they were working on the assumption that inflation proofing of pensions in the public sector would continue. With continuation of inflation-proofed public sector pensions pressure for some adjustment to pensions in possession in the private sector will persist. Thus it is concluded that the recommendation of the OPB that preserved pensions should be subject to periodical adjustment, with its admitted knock-on effect to pensions in course of payment, is in tune with public sentiment generally. Preservation is an area in which occupational pension schemes are not entirely effective (see 3.7). Moreover private sector occupational schemes generally fail to finance "real" pensions (see 3.49). The recommendations of the OPB should be implemented so as to reduce these two areas of ineffectiveness. The practice of franking (see 8.44) should be stopped in accordance with the recommendation of the OPB. This is an important issue facing the pensions industry for franking is a practice which does not conform with the spirit of partnership underlying the joint provision of pensions in the UK by state and occupational schemes. Franking as at present widely practised (see 8.44) does not reflect creditably on the pensions industry.

(f) The Cost of Pensions Increases

8.49. It has been concluded that the recommendations of the OPB referred to in paragraph 8.48 should be implemented. Support for those recommendations is given despite the cost which would be involved. The view is taken that the prime need is for occupational pensions to be seen to be effective and the resultant cost to make them so must be borne, the increased costs being alleviated, if necessary, in other ways (see 7.143). The statement made by the OPB that,

> "Extra contributions needed to pay for our recommended mandatory rate of revaluation of preserved benefits, for the model schemes and assumptions, would not exceed 1% of payroll for men and 2% for women."[76]

is however misleading for as is further stated by the OPB

> ". . . in some schemes, where pensions in payment are not revalued or revalued at a low level the cost of the knock-on effect might be far more important than the revaluations of preserved pensions."[77]

It needs to be added, in order to give some idea of the knock-on cost of providing for increasing pensions, relative to the cost of providing for flat rate pensions, that if, for example, for males retiring at age 65, a pension payable for 5 years certain and thereafter throughout life on a flat basis were to be contractually amended to provide 5% p.a. compound augmentations, then the cost would be increased by some 40%; similarly for females, retiring at age 60, the cost would be increased by approximately 50%.[78]

8.50. The "Scott Committee" also took the view that,

> ". . . we believe there is a growing awareness of the need to finance 'real' pensions . . ." [79]

However, in this assessment of the difference in pension benefits between private and public sector pensions schemes the "Scott Committee" became highly controversial. A crucial assumption made was the 3% p.a. real rate of return on investments.[80] An element of subjectivity must arise in forecasting over a long period, say the next 40 years or so, as is necessary in pension scheme considerations, the difference between investment returns, which include capital appreciation as well as income, and inflation rates. Nevertheless there are some factors of relevant interest.

8.51. A feature of the "Scott Report" was the references to the possible issue by the government of indexed bonds.[81] In fact such an issue was made in March 1981 just after the publication of the report and a second issue was made in July 1981. Both issues were for £1000 millions, the first is redeemable in 1996 (see Appendix to Chapter 4), the second is redeemable in 2006. Under both interest on the stock and principal repayment are related to the general level of retail prices on a 2% linked basis. This means that a real rate of return is being adopted which is 1% p.a. lower than an assumption quoted in the "Scott Report". The first issue was over applied for and its success on issue reflected that, on balance, the market agreed with the issuing authority that a 2% real yield was about right at the time. Whether the circumstances were appropriate for the second index linked issue in July 1981 may be

questionable for a part of it was allotted at a price as low as 86 to give a real rate of return of approximately 2.9%. At the time of issue of the second stock, parts of the Civil Service were on strike a result being that the collection of some government revenue was being impeded. It was generally understood that the issue of the second stock was to ease the cash flow problems of the government. Considering the two issues jointly, there does seem to be some indication that the 3% p.a. real rate of return on investments assumed by the "Scott Committee" erred on the high side. Moreover, the contracting-out terms under the Social Security Pensions Act 1975 imply that the overall return on investments, including changes in capital values as well as income will be some 0.5% p.a. compound in excess of earnings accrual until employees reach retirement (see 3.23). Thus accepting the further assumption indicated in the "Scott Report" that the general level of earnings will exceed inflation rates by 1½% p.a.,[82] an assumption is being quoted in the "Scott Report" of a real rate of return of 1% in excess of the assumption adopted in fixing the contracting out terms. To increase the assumed real rate of return is to reduce the "deduction" where, as stated in the "Scott Report", the "deduction" is intended to measure the difference between benefits payable under the Civil Service scheme and analogue schemes.[83]

8.52. Moreover, there is the matter of uncertainty; in the Civil Service scheme relatively more is guaranteed. As is stated in a note by Professor R.A. Brealey and Dr. S.D. Hodges on an approach to allow for uncertainty in valuing pension

schemes, submitted as an appendix to the "Scott Report" in order to calculate present values a discount rate is needed and as an index-proofed pension is less risky than a non-indexed pension, indexed benefits should be discounted at a lower rate than non-indexed benefits. Indeed their conclusion that in estimating the value of the pension scheme, cash flows should be discounted at a rate which reflects the riskiness of those cash flows[84] is valid. On their assumptions their best estimate of the difference between the value of the Civil Service and analogue pension schemes, as a proportion of salary, is 10.7%; this figure compares with the government actuary's estimate of 4.6%.[85]

8.53. It is concluded from the consideration of paragraphs 8.50 to 8.52 that the cost of index linking pensions in the Civil Service scheme was underestimated in the "Scott Committee" report.

(g) Government Issues of Indexed Bonds

8.54. Indexed government stock raises interesting points. Most pension schemes are on a final salary basis so that in deferment an important factor is the relationship between investment yield and earnings increases. Moreover, increases in deferment to the additional earnings related element of the state scheme take account of the general increase in earnings (see 3.12). Also the OPB's majority recommendation (see 8.43) was that preserved benefits should increase in line with earnings up to a ceiling of 5% a year. It is true that state scheme pensions in possession are reviewed against the retail price index (see 3.8); that public sector pensions in possession are protected against price inflation under the Pensions (Increase) Act 1971; and that within the private sector pensions in possession tend to be increased, if they be increased at all, on a basis which relates any such increases to a proportion of the increase in prices. Nevertheless pensions are often considered as deferred pay which logically implies a relationship with earnings. Thus from a pension scheme viewpoint the desirable investment linking is, on balance, with an earnings index rather than a price index. This conclusion based on pension scheme reasoning is, in fact, endorsed in the "Wilson Report" when considering groups of savers and borrowers more generally. In that report it is stated that,

> "If index linking were to be introduced for securities in this country it would be desirable that the same index should be used for all of them in order to improve their marketability. There are a number of indices which could be employed but the most theoretically appropriate is probably the index of average earnings." 86

And again,

> "From the point of view of industry a link with earnings would give borrowers a greater assurance that capital costs would move in line with the general price of labour." [87]

8.55. The "Wilson Committee" considered the possibility of both index-linked industrial debentures and index-linked gilts. As regards the former the committee stated in its report that,

> "None of us would wish to advise companies to issue index-linked loans against their better judgement. But we are unanimously agreed that it is desirable that neither tax arrangements nor informal pressures should discourage them from utilising what could be an important financial facility and one which could in principle do more than any other to remedy the current shortage of long term borrowing possibilities for industry in the capital market." [88]

The "Scott Committee" did not specifically endorse this. What the "Scott Committee" did do was to suggest that,

> "The Government should now look seriously at the case for issuing indexed bonds to cover pension liabilities," [89]

an area in which the "Wilson Committee" was divided and made no firm recommendation.[90] Moreover, the "Scott Committee" unlike the "Wilson Committee" did not specifically refer to an earnings index. In the event, shortly following the publication of the "Scott Report", the government made two issues of Treasury Stock index-linked to prices, and available to exempt pension funds and the approved pensions business of insurance companies and friendly societies (see Appendix to Chapter 4, and 8.51]. For the reasons put forward in paragraph 8.54 a link with earnings would have been preferable; moreover, the fact that government has

issued index-linked Treasury Stock without acting upon the recommendations of the "Wilson Committee", that,

> ". . . the present impediments which make it difficult for companies to issue index-linked securities should be removed," [91]

appears unfortunate by denying to industry, in general, a financial facility which could be valuable and by leaving the scope of index-linked securities available for pension fund purchase restricted.

8.56. Perhaps, however, the two issues of index-linked Treasury Stock may be the forerunners of more of their kind and perhaps the issue of index-linked securities by companies may be facilitated in due course. At present the availability of only £2000 millions index-linked government stock is clearly small relative to the size of pension funds (see Chapter 5 section (b), Chapter 6 section (b) and 7.56). But the issues can be regarded as a positive step in the right direction for such issues enable a pension fund to match its liabilities with more appropriate assets (this would apply even more so were the issue to be related to an earnings index rather than a price index). Indeed if a pension fund cannot earn a real rate of return on its investments, related to earnings increases, the whole basis of funding may become frustrated (see 4.28 and Appendix to Chapter 4). Moreover the availability of index-linked securities to pension arrangements for the self-employed (see 3.62) and those not covered by occupational schemes can be particularly valuable by providing some inflation protection. Also as mentioned by the "Scott Committee"

> "The existence of an indexed bond traded on a free market would be of considerable assistance to employers who could obtain a much clearer indication of the expected costs of various levels of inflation-proofed benefits." [92]

It is added in the report of that committee,

> "Even then, it is unlikely that private sector schemes could guarantee to pay inflation-proofed pensions." [93]

The relevant point is that inflation-proofed pensions cost more than non-inflation proofed pensions, whenever inflation is positive. The issue of indexed bonds can, however, enable more appropriate matching of assets to liabilities. The holding of index linked securities by a pension fund can add valuably to the diversification of its investment portfolio. Issues of index linked securities on appropriate terms are to be welcomed by the pensions industry.

8.57. Further to keep the two issues, aggregating £2000 millions, of indexed linked Treasury Stock (see 8.51) in perspective it is added that as at August 1981 the total market value of British Government stock listed on the Stock Exchange was approximately £71,000 millions of which approximately £9000 millions was held by pension funds and £13000 millions by insurance companies' long-term funds. The approximate total market value of UK equities listed on the Stock Exchange was £86,000 millions of which approximately £16,000 millions was held by pension funds and £11,000 millions by insurance companies' long term funds.[94] It is estimated that about 35% of the holdings of the insurance companies' long term funds related to their pensions business.

CHAPTER 9

SUMMARY AND MAIN CONCLUSIONS

(a) The Development of Pension Schemes

(b) The Financing of Pesnion Schemes

(c) The Investment of Pension Funds

(d) Factors Impinging on the Future Structure of Pension Schemes

CHAPTER 9

SUMMARY AND MAIN CONCLUSIONS

(a) The Development of Pension Schemes

9.1. The analysis of the historical development of pensions provision within the UK indicates that there has always been some practical concern in this country for provision for the elderly. There has, however, been a gradual change of emphasis. In early times concern was for the elderly in need; nowadays at least modest pension provision is virtually universal. Moreover, whilst up to mediaeval times help to those in old age was charitable or fraternal, subsequent development has largely been brought about by legislation. Conspicuous amongst early legislation were the Elizabethan Poor Laws of 1597 and 1601 under which effort was made to work towards a uniform national solution. However, the first important step in the transition from Poor Law relief to the modern system of state pensions was taken by the passing of the Old Age Pensions Act of 1908 which provided a pension to people over age 70 whose income was very limited; the cost was met out of general taxation. The contributory principle was introduced by the Widows' Orphans' and Old Age Contributory Pensions Act 1925. Today, in accordance with the outlook of the times almost all are assured in old age, normally 65 for a man and 60 for a woman, of a basic subsistence income as a matter of right from a contributory state scheme.

9.2. Naturally many wish to have their state pension supplemented. Occupational schemes have therefore developed. The passing of the Superannuation Act 1834, under which non-contributory pensions were extended to the whole of the civil service really marked the beginning of occupational pensions as they are generally understood today. A number of statutory schemes came to be established and pension provision within local government was made compulsory by the Local Government Superannuation Act of 1937. Statutory provision in the public sector caused the private sector to follow suit for competitive commercial reasons. A number of private sector occupational pension schemes were set up in the 19th century on self-administered lines and many more have been set up since. Pension schemes transacted by private sector employers through the medium of insurance companies came about in the 1920s.

9.3. As well as providing an indirect incentive to the private sector by example, successive governments have directly encouraged the development of occupational pension schemes through favourable taxation legislation. The present statutory basis for the approval of occupational pension schemes is largely contained in the Finance Act 1970. Exempt approval under the Act gives substantial tax concessions and is in consequence highly desirable; nevertheless exempt approval does involve the fulfilment of statutory requirements. The Social Security Act 1973 introduced the principle of compulsory preservation and set up the Occupational Pensions Board whose functions are largely, although not entirely, advisory; indeed by the 1973 Act

occupational pension schemes have come within the direct purview of a statutory body. Under the Social Security Pensions Act 1975, state retirement, widows' and invalidity pensions are made up of two parts, a basic flat rate pension, and an additional pension related to earnings in excess of the qualifying earnings limit for the basic pension. The benefits are indexed being revalued annually. When there is an occupational pension scheme the Act imposes certain obligations on the employer as to whether or not his employees are to be contracted out of the additional part of the state scheme. And contracting out is subject to the fulfilment of statutory requirements and to regulatory professional certifications. It is thus apparent that occupational pension schemes are now subject to a significant amount of statutory and regulatory control.

(b) The Financing of Pension Schemes

9.4. The maintenance of the pension arrangements in the UK involves important financing considerations. The current British state pension arrangements, both the basic flat rate pension element and the second tier earnings related element, operate on the principle of assessmentism thereby continuing the traditional British approach. Because of the vast taxation powers of the government, the lack of an accumulated fund does not impair the security of individual pensions. Moreover, to fund the current state scheme would involve the accumulation of a fund, under the control of a single authority, which could dominate the financial markets. Even if the responsibility for investing the fund were to be placed in the hands of an ostensibly independent board of management, the extent to which the fund would be available to government to enhance its political aims is conjectural. It is thus considered that the present system of assessmentism is the most appropriate method of financing the state pension scheme.

9.5. As well as the state pension arrangements the principal public service schemes are also unfunded. Again funding would not improve benefits security of scheme members in view of the taxation powers of government. Moreover, assessmentism accords more closely with government accounting generally than would a capitalisation system. Thus assessmentism can be considered a proper system of financing the public service schemes which, so far as one can foresee, will always be required. Notional funds could, however, be maintained, as in practice they are for the National Health Service and teachers' schemes with contribution rates for employers calculated on a capitalisation basis. Under this system, a proper charge is imposed as part of the current running costs so that it has much in its favour.

Notional funds could,moreover, be regarded as appropriate for local government superannuation schemes. The present system of financing local government schemes with real external assets is not essential. The current practice of funding nationalised industry schemes, involving accumulating assets on a large scale, may also be questionable. Notional funds with notional contribution rates could be appropriate. Funding the nationalised industry schemes with each scheme having its own external investments does however avoid the need for extensive guarantees from government and is, on balance, to be preferred.

9.6. Within the UK private sector schemes are funded and this is both necessary and desirable practice. Funding provides benefits security for scheme members; with funding the cost of future pensions can be met concurrently with the incidence of their accrual thereby avoiding a distortion in the assessment of company trading profits which otherwise could arise; and certain statutory requirements are relevant. Funding should be adequate to provide preserved benefits as stipulated by the Social Security Act 1973. Also the funding of a scheme contracted out under the provisions of the Social Security Pensions Act 1975 has to be adequate to enable the actuary to the scheme to certify such adequacy of the scheme's resources as to satisfy the OPB. Financing in the private sector by assessmentism, as for example in France, would involve interlocking financial arrangements between various companies so that not only would individual company independence be affected

but desirable flexibility could be reduced; and there could be further state involvement probably through the necessity for credit insurance.

9.7. In general, outside the requirements caused by preservation provisions, and the requirements concerning contracted out schemes, an employer within the UK may fund his occupational scheme at any discretionary pace, subject to the proviso that for tax approval purposes funding must not go beyond a reasonable level. Desirably funding should be seen to keep up with pension expectations as they accrue each year and this pace of funding is that which is normally adopted in practice, where pension expectations are taken as meaning pension benefits as contractually provided under the scheme. For internal company financial reasons an employer may sometimes modify this funding pace but this is generally on an arbitrary basis. A sophisticated choice of funding pace to blend with overall corporate finance is rare. In any event funding pace needs to be adequate to maintain scheme solvency. There are, however, some apposite points for consideration. An analysis of the principles adopted to assess the contribution rate for a funded scheme indicates that practice has developed merely deterministically; chance fluctuations probably being implicitly considered by using conservative assumptions. But, associated with the practice of reviewing funding rates frequently, the system has worked effectively. The past record of solvency of pension schemes has been excellent, failure of a British funded private sector pension scheme to meet its liabilities being virtually unheard of.

9.8. Solvency under private sector schemes is not, however, all that it seems to be. Most funded private sector schemes promise benefits on retirement at the normal retiring age which are related to final salaries. But on a winding-up all that is contractual is for benefits to be based merely on the salaries which are current at the winding-up date. Solvency may be measured relatively to the winding-up position of the scheme. Such solvency does not necessarily imply that the scheme is being funded adequately to provide the benefits which would emerge on an on-going scheme basis.

9.9. Also, contractually, private sector schemes generally merely promise flat rate pensions on members' retirements at the normal retirement age. With continuous inflation this is a basis which to some extent is ineffective. Thus where possible employers grant inflationary increases to pensions in payment. But these inflationary increases are merely discretionary. Again solvency may be measured relatively to the contractual position despite the fact that grants of inflationary increases to pensions in payment are necessary to keep the arrangements effective and notwithstanding the fact that inflation tends to be associated with high interest rates. Schemes take credit in their funding for the higher interest rates but do not contractually pass on the credit by way of dynamising pensions.

9.10. Solvency is also measured relatively to the practice adopted in respect of those who withdraw from the scheme. Customarily a person's pension is related to final salary but on withdrawal a preserved scheme pension is granted based only on salary as at the withdrawal date so

that if the earnings of an early leaver increase during his working life he is imposed to pension loss. Moreover, the majority of contracted out private sector schemes practise franking which means that they offset the increases resulting from the necessary yearly revaluations of the GMP against a total preserved pension. This means that the pension to be provided from the scheme in excess of the GMP is diminished. Solvency is thus measured against a very unsatisfactory practice.

9.11. The OPB has in fact recently recommended that schemes should be required to increase preserved benefits in line with earnings movements, the majority favouring restricting the increases up to a ceiling of 5% a year calculated over the whole period of preservation. They also urge that schemes should make such further improvements above this level as their resources permit (see 8.43). Accompanying this recommendation by the OPB is that franking should not be permitted (see 8.44). It is to be appreciated also that it may be unrealistic to assume that in practice is would be possible to increase preserved benefits in the period of deferment and not to increase pensions in payment (see 8.45). It has been concluded that the Board's recommendations should be implemented although appreciating that to do so legislation, unfortunately, will be required. Implementation of the recommendations would, of course, increase scheme costs necessitating an increased contribution rate to maintain scheme solvency. But private sector pension schemes are, to some extent, defective in two areas namely that of preservation and that of adjusting pensions in payment because of inflation. The recommendations of the

OPB would not only reduce these two areas of ineffectiveness, they would bring private sector schemes more in line with public service and public sector schemes. With public service schemes and public sector schemes currently guaranteeing inflationary increases to pensions in payment, which private sector schemes do not do, an unhappy two nations attitude is created.

9.12. The financing of a private sector occupational pension scheme is clearly a matter of the highest consequence and as the members and beneficiaries of the scheme may be very much affected by its financial condition it would seem proper that they should be kept appropriately informed. Some trusts do make provision for an annual report and many employers make considerable efforts to keep the members of their schemes properly informed. Yet there are no general obligations on trustees of pension schemes under any legislation to provide members and beneficiaries with financial information on a regular basis (see 8.27). And it is most unfortunate that numerous private sector occupational pension schemes do not make adequate financial information available to members. Moreover in the interests of all parties directly involved it is clearly most desirable that the financial recording adopted by a pension scheme should be of a high order; yet again, unfortunately, this is often not the case. Indeed it is very much to their discredit that many pension schemes do not even conform with the recommendation that they should prepare annual accounts and have them audited (see 8.32).

9.13. The current unsatisfactory state of affairs, which is even less satisfactory when life office schemes are involved than it is for those self-administered, needs to be rectified. The TUC has advocated statutory provisions enforceable through the establishment of a supervisory body for pension schemes.[1] The "Wilson Committee" has recommended the formulation of a Pension Scheme Act analogous to the Companies Acts adding that,

> "One possibility might be to include a provision to allow for the appointment of inspectors into the affairs of particular schemes." [2]

On the other hand, the National Association of Pension Funds, whilst it considers that a higher and more uniform standard of information about pension schemes should be provided to members of those schemes, believes that this goal can be reached more quickly and with less dissension by general compliance with a simple code of practice than by the enactment of further inevitably complex legislation (see 8.28). And in 1980 the Association issued such a code (see 8.29). There is much in favour of what the NAPF has stated; voluntary action is preferable to statutory controls. But the current position, in general, regarding financial reporting and financial recording remains unsatisfactory and reliance on a voluntary code of practice being universally adopted may be proving to be misplaced. Matters need to be put right and if they are not to be put right voluntarily then appropriate legislation needs to be enacted.

(c) The Investment of Pension Funds

9.14. The funding of an occupational pension scheme involves the accumulation of a portfolio of assets and analyses have been made of the considerations which guide investment practice. The general concept of the desirability of a diversified portfolio prevails but it has been found that in practice decisions as to the split of the fund between fixed interest securities, equities and property are made arbitrarily. It is often suggested that the primary objective of pension funds is to maximise the rate of return by investments which involve an acceptable level of risk having regard to the nature of the liabilities which in general are long term (see 5.8). Pension scheme investment managers have, however, been found to be obscure as to what they mean by an acceptable level of risk both as regards the word acceptable and the work risk. In practice scanty regard is given to measurement of risk in a volatility or variance sense or to risk in the sense of risk of financial strain resulting from a mismatching of assets to liabilities by term. The practical implications of the meaning of an acceptable level of risk can be illustrated by attitudes to investments in UK equities. The custom of pension scheme investment managers is merely largely to concentrate these investments in the ordinary shares of a very limited number of leading companies. As regards the maximisation of the rate of return sample analyses relating to relatively short periods of past years have been made. Admittedly these are not entirely appropriate for concern is more with a long period of future years. Nevertheless the analyses made indicate wide differences between the rates of return obtained by individual funds.

9.15. Life assurance offices play an important investment role in the sphere of occupational pension schemes it having been estimated that some 20 to 25% of all pension scheme assets are currently held by life offices (see 6.1). Pension schemes business with life offices has now largely moved away from group deferred annuities in non-profit form to with-profits contracts and there has been further evolution into deposit administration and managed funds. Existing business with life offices is, in fact, rapidly being switched into managed fund form and by their nature, managed funds are converting life offices in their association with pension schemes, to not necessarily anything more than the providers of purely investment services on a fee paying basis. The claim by insurance offices that they exist in order to provide insurance services to the public, their role as investors being essentially a result of the services they provide rather than the object (see 6.12) is therefore, in respect of the substantial amount of pensions business some of them transact, a hollow one. It has been found that the choice of managed fund, that is a fixed interest fund, an equity fund, or a property fund into which a pension fund's trustees allocate contributions, is made merely on an arbitrary diversification basis; and the same applies when discretion is left, as it sometimes is, to the life office. The life office is normally left with the function of deciding upon the constitution of the separate pools. In this regard, the life offices vaguely refer to a choice of investments so as to obtain a good return, to security, and to medium risk. This has been found to mean, in practical application, a fixed interest pool comprised mainly of

British Government securities diversified according to coupon and term; a property pool comprised mainly of prime office and shop properties; and an equity pool comprised mainly of ordinary shares of a limited number of leading British companies. To illustrate what is meant by a limited number of leading British companies, the UK equity content of the largest life office equity managed fund has been found to be restricted to less than seventy companies.

9.16. The research has shown that in investment matters pension fund trustees behave responsibly in accordance with their duties, which are to act in the interests of the scheme members and beneficiaries. Some quarters, however, do not favour the current system of investment of pension fund monies believing that there is little prospect of national needs and resources being matched unless new ways are found to encourage and finance investment. For example, a new investment facility jointly funded by the public sector and long-term investing institutions and able to advance both loan and equity capital has been proposed (see 8.11). Although there has been a denial that a purpose of this proposal of the TUC is to ease unemployment problems (see 8.11), the fact remains that the TUC has also otherwise proposed that the nation's savings should be allocated for this purpose (see 8.14). It is not accepted that it would be proper for some of the burden of unemployment to be directly borne in this manner by pension scheme members and beneficiaries. It has been concluded that the current system of investment by pension fund trustees should be preserved. As has been stated by Mr. Gordon Richardson, Governor of the Bank of England,

"All financial intermediaries receive funds, which in turn they invest in assets in order to provide income and capital growth; and such assets include major holdings in productive industry." [3]

9.17. Not to be dissociated from control over pension funds' investment policies is the matter of member involvement in the running of schemes. It is accepted that pension schemes exist for the benefit of their members and it is therefore logical and reasonable that members should share responsibility for the way in which they operate and develop (see 8.20). It is accepted that it is desirable for individual members of a scheme to be appointed to its governing body or bodies (see 8.23). It is not accepted that member control can only be achieved through recognised trade unions (see 8.24). Non trade unionists as well as trade unionists are members of pension schemes and it is not accepted that scheme members nominated entirely by the relevant trade unions should be permitted to dominate the boards of trustees of individual pension schemes. Claims to this end by the TUC (see 8.24) need to be resisted. If boards of trustees of pension schemes were to become dominated by trade union nominees sympathetic to the criteria of the TUC General Council, the financing of schemes and the investment policies of schemes could be affected significantly and not in the direct interests of members of these schemes. Relevantly the Nationalised Industries Pensions Officers Liaison Group has submitted that,

> "If it were to become a statutory requirement (to which we are very strongly opposed) that the Trustees should include members' representatives, it would be important to ensure that this should not be such as to hinder investment to the best advantage of the fund. It would, we think, be difficult to formulate legislation to this end." [4]

But Minns, R. (1980) has stated that,

> "The aim of long-term capital investment in firms, from the pension fund point of view, is to benefit from the growth of firms by being able either to sell the investment at a capital gain or to benefit from the long-term increased income. The aim from the planning point of view is to provide employment and to contribute towards the long-term growth of the economy. . . . There is, therefore, a strong case for union trustees to press for a part of their fund being used for this kind of investment." [5]

It is not agreed as R. Minns claims that,

> "This is also, incidentally, in the interests of future pensioners." [6]

Nor is it considered that the investment policy of a pension fund should merely be incidental to the interests of its pensioners, but rather that it should be framed in their direct interests.

9.18. Specifically pension schemes have been criticised by some, for example the TUC, for investing part of their funds overseas thereby giving support, according to them, to overseas industry at the expense of British industry and employment (see 5.7). It is to be appreciated, however,

that even with the abolition of exchange control regulations in 1979 overseas investment by pension funds is still very limited (see 5.18). But pension fund trustees do need to look after the interests of their beneficiaries so that it is incumbent on them to invest as well as circumstances permit them to do. Relevantly the Chancellor of the Exchequer stated in May 1981 that,

> "While demand for funds is slack in this country, we cannot expect the institutions to ignore good returns on investment offered overseas, which will secure revenue in future years that will not be a burden on domestic producers. The extent to which this country benefitted from its foreign investment in Victorian times is a matter of controversy but the flow had reached 9% of gross domestic product by 1914. In 1980, even with the portfolio adjustments occasioned by the unwinding of exchange controls, private investment overseas was only about 3.6% of gross domestic product. The pension funds themselves while they bought more than £1000 millions of overseas company shares in 1980, three times as many as in 1979, also purchased £1600 millions of domestic company shares. This was actually an increase, albeit a small one, on the previous year." [7]

Also there is the point that increasing expenditure on pensions in the future may represent an increasing proportion of total consumer expenditure and that the balance may not increase, in real terms, by such an extent as to be readily acceptable to the "active" population (see 7.53). Conclusions of this nature are based on "retired" to "active" ratios within the UK. Clearly if part of the pensions burden could be transferred away from the "active" element within the UK on to the shoulders of someone else then it

might be feasible relatively to increase benefits payable to pensioners. In a sense overseas investment now, to bring into the UK external investment income in the years ahead, does achieve such a transfer of burden. It has to be admitted, however, that a policy of extensive overseas investment could have political implications. Thus such a policy would seem to be subject to the proviso that those who are considered to have responsibility, through their custodianship of British savings, for ensuring that the proper capital needs of British industry are adequately met, must be seen to be continuing to behave, as at present, in accordance with that trusteeship.

9.19. Analyses of pension funds' investment activities do indicate a high level of responsibility. To exemplify, the National Coal Board Staff Superannuation Scheme, chosen because the National Coal Board is one of the big two British pension funds (see table 5.22.D.1.), gives particular regard to industrial finance. Indeed the investment undertaken by its industrial finance branch increased significantly during the year ended 5th April 1980 with some £15 millions of direct investment taking place, making a total of over £30 mullions invested in this category. The major part of this took the form of development capital where the demand was sustained despite the general economic uncertainty, and a flexible approach was adopted in meeting the industrial users' requirements. Moreover a number of joint investments were completed during the year with other institutions such as Midland Bank, Barclays Merchant Bank and Development (Finance) Capital Ltd. The funds took the initiative in setting up

a scheme to direct smaller sums of capital to developing businesses. In fact the target allocation is 15% per annum of cash flow, a level of investment which is currently being approached, and the scope has been extended to include general industry, energy related and service industries. And in order to publicise the enlarged areas of investment and the increased range of facilities available regional seminars are held. As regards investment overseas, as at 5th April 1980 the percentage of ordinary shares invested in foreign securities was 4.4%. This compared with 3.2% a year earlier but was still only a reasonable proportion; indeed the 4.4% of ordinary shares represented only 1.8% of the total assets.[8]

9.20. In fact although the TUC criticises pension schemes for investing overseas, there is the question of whether pension schemes are giving too little attention to some overseas investment opportunities. Favourable investment opportunities doubtless exist in countries such as the USA, Canada and Australia, and some advantage is being taken of them but there are developing countries in which future economic growth might be expected to be greater than in the UK. To invest in such potentially greater growth could be to the advantage of pension scheme members particularly and the UK economy generally. Criticism by the TUC of pension funds investing overseas is concluded to be unfounded. However there must be some restraint. Currently overseas investment by pension schemes is restrained. The liabilities of UK pension schemes are in sterling so that investment overseas involves an assets

to liabilities currency mismatch thereby imposing a currency risk due to possible exchange rate fluctuations and for this reason overseas investment by pension funds necessarily must be restrained in the future. Moreover when considering overseas investment it should be borne in mind that UK companies earn a significant proportion of their profits overseas. It has been estimated that, based on a sample of 150 of the largest companies, UK industrial companies, excluding oil companies, earn approximately 15% of their profit from exports and 35% from other overseas activity.[9]

9.21. Another criticism of financial institutions in the UK, which comes from some quarters, is that they maintain too distant a relationship with the companies in which they hold shares.[10] Indeed it is stated in the "Wilson Report" that,

> "It is frequently argued that if their relations were closer and their understanding greater they would be better placed to meet industry's need for capital and that management performance would also benefit from more effective shareholder scrutiny." [11]

The point is made against the background that institutions now hold well over half of UK ordinary shares with the pension funds, in aggregate, holding about one quarter (see table 5.19.1). Relevantly the Governor of the Bank of England has recently stated that,

> "Given the size of their stake in the equity of British industry, the time has passed when the institutions can avoid closer involvement. In at least some cases it will be inevitable that they assume a more direct responsibility for the fortunes of companies they partly own." [12]

Moreover Sir Geoffrey Howe, Chancellor of the Exchequer, also has recently stated that,

> "The large stake which the institutionssnow hold in British companies suggests that they may have a larger role to play than hitherto in the affairs of individual companies, notwithstanding the introduction of insider dealing legislation." [13]

As the Chancellor went on to suggest, it is not always easy for institutions to dispose of shareholdings in companies with whose development they are not satisfied, at least without a large penalty. It may be more advantageous for their beneficiaries if they were to seek remedial action as a quid pro quo for continuing support of the management.[14] Interestingly the Chancellor added that,

> "Nowadays it is not only in take-over contests that shareholders have opportunities to make choices between major policy options. I do not see why institutions should not give themselves the capability to suggest or even to nominate candidates for non-executive directorships. . . . On occasions it may be worthwhile to take a rather larger stake, not to the extent of a bid, of course, in a company than most other portfolio investors, with a view to forming a closer relationship than usual. It may then be found that those other investors will follow a lead and offer moral and voting support when you need it." [15]

While it would seem logical to assume that institutional investors will have an increasing influence over corporate management, the continuation of considerable discretion is regarded as highly desirable. And statements such as those attributed to the Chancellor of the Exchequer and the Governor of the Bank of England are regarded as attempts to push things along too quickly. The increasingly dominating

position which institutions are gathering over equity holdings can bring further questions of democratic responsibility. The institutions include two large groups, the pension funds and the insurance companies. It is true that the members of both groups have tended to act individually rather than collectively, nevertheless there are representative committees of both groups in being. It is considered that if they were to try to impose what might be thought to be too great an influence, pressure might build up for more regulatory control, or even for a change of system. The statement in the "Wilson Report" to the effect that,

> "In no case should institutional or other shareholders seek to interfere in day-to-day management decisions and even on major policy issues they should be slow to substitute their own judgement for that of management." [16]

would seem, in general, well worthy of being heeded. If occasion does arise when collective action is desirable the existing mechanism of the Investment Protection Committees and Institutional Shareholders Committee would seem, as the "Wilson Report" also suggests, [17] to be adequate.

9.22. The managed equity funds of UK life offices tend to be concentrated in a limited number of leading British companies. In 1979 the UK equity content of the largest life office equity fund was restricted to as few as 67 companies. As a consequence managed funds are largely investing in the same companies. In 1979 the two largest managed equity funds included 32 companies common to both the holdings in these 32 companies representing respectively 51% of the largest and 35% of the second largest fund.

Both managed funds respectively had over 6% of their total fund invested in the same company (see6.46). This concentration of investment in a limited number of leading companies has also been found, from surveys carried out, to reflect equity investment policies of pension schemes in general. As the Governor of the Bank of England stated in 1981,

> "The equity capital of the larger British companies, accounting for perhaps three-quarters of the output of our private sector industry and commerce, is increasingly owned by the main institutional investors, above all the life assurance companies and pension funds. Indeed the cash inflow of these institutions and the relative shortage of equity available for purchase in the market may be an important element in the comparative strength of the qquity market despite the poor profitability of much of British industry." [18]

The fact that pension scheme equity investment is largely concentrated in a small group of leading companies may be due to the financial advice given. The numerous self-administered schemes naturally determine their own investment policies but analysis shows that the larger pension schemes tend to seek advice from the larger firms of investment advisers. The scope of the advice given is thereby restricted; indeed it is estimated that some 80% of all self-administered pension scheme money allocated for investment in stock exchange securities is invested upon advice from only some two dozen or so firms of financial advisers, i.e. banks, stockbrokers, etc. It is, of course, true that investment responsibility rests with the trustees of a pension scheme and the different boards of trustees for the various pension schemes may have

some differences of outlook as regards investment strategy. Such differences of outlook, as may arise, doubtless reflect themselves in the resultant overall investment pattern. Nevertheless, there are strong grounds for believing, from extensive enquiries made, that at least for the larger pension funds, boards of trustees and internal committees tend to concentrate rather more on investment strategy, for example, the percentage of money available for investments which is to be allocated relatively to fixed interest stocks, equities, property, short term investments and so on rather than on the individual investments to be purchased within the ordinary share allocation. The general run of individual equity share choice is then often left largely to the external financial advisers subject to some form of nominal internal approval. It is concluded that the result, in that investment in small firms is limited, is not entirely satisfactory.

9.23. Some investment by pension funds in small companies occurs through exempt unit trusts which specialise in small company investment, where the definition of a small company is one whose capital is of the order of £20 millions to £30 millions. Currently in 1981 there are some 10 of thee trusts but their size in aggregate is some £120 millions so that investment in them represents only a trivial proportion of all pension fund assets. There are additional ways in which pension funds invest in small companies apart from investment through exempt unit trusts and direct investment. For example, Equity Capital for Industry receives support from approximately 150 pension funds.

Pension fund money has been applied to Small Business Capital Fund and to concerns such as Moracrest, Meritor, Development Capital Limited and Charterhouse Development Capital. Exceptionally some of the larger pension funds have indicated allocation of a specific amount or a specific proportion of their net income to industrial and corporate finance. For example the pension fund of the National Coal Board refers to an allocation of 15% of its cash flow[19] and the pension fund of British Rail has a scheme for direct investment in small unquoted companies.[20] Moreover the Industrial and Commercial Finance Corporation which is a small company investment medium receives pension fund support, the pension fund of the Post Office, for example, is specifically mentioned in this connection. Again, however, as for investment through exempt unit trusts, investment by pension funds in small companies through concerns such as the Industrial and Finance Corporation and the others mentioned as examples, is an extremely small proportion of aggregate pension fund assets.

9.24. Investments by pension funds in small companies is, in general, regarded as involving more risk than investment in large companies and whilst extra risk may be accompanied by a higher return before risk adjustment, research shows that the investors of pension fund monies prefer the less risky type of investment. For example, banks play a prominent role in pension fund investment affairs, a primary case being Barclays Investment Management Limited, part of the Barclays Group, which in June 1981 had pension funds under management amounting to approximately £1400 millions. The

stated investment philosophy of this particular pension fund management, and which is typical, is that,

> "The broad aims of our pension fund management service are to obtain the best possible returns on clients' funds without incurring undue risk, having regard to the future requirements and liabilities of the fund." [21]

Nebulous as it is, such a statement by Barclays Investment Management which places the words "without undue risk" in italics, suggests that the risks regarded as being associated with the provision of finance to small companies generally renders the investment of pension fund money in small companies to be considered less desirable than investment in large companies. The whole attitude of those who invest pension fund monies to investment in small companies is considered to be most regrettable. To neglect financing small companies is to neglect financing a vital part of the economy. The Governor of the Bank of England stated in 1981 that,

> "They may represent only the minor part of the economy; but on what I think would be a generally accepted definition of a small firm, they probably account for nearly a quarter of the output of private sector industry and commerce. . . It is largely true that, in the popular phrase, small firms represent the seed-bed of our future." [22]

Moreover pension fund monies overall arise from pension scheme contributions from small companies as well as from large companies and by confining investment to large companies there is a failure to re-cycle a proper proportion of the monies back to the type of firm from which they arise. It

is concluded that the pensions industry, in general, is lacking in its investment in small companies; and that life office managed funds, which are so much involved with the investments of the smaller pension funds, are, in particular, justifiably to be criticised.

9.25. Analyses have shown that many self-administered pension funds in recent years have achieved a lower return on their UK equity portfolio than the return on the FT Actuaries All Share Index (see 5.32) and some managed equity funds have also failed to out-perform the index (see 6.21). It is concluded that there is therefore a strong case for indexation of some funds under which they deal in equities according to some pre-determined formula. The goal would be a return on an index for example the FT Actuaries All Share Index. In practice a sampling technique could be employed. Not only would this indexing have attraction to those pension funds which consistently underperform the market, the indexing would desirably result in the inclusion of a higher proportion, than is normal at present, of smaller companies.

(d) Factors Impinging on the Future Structure of Pension Schemes

9.26. Consideration has also been given in this thesis to expenditure on pensions relative to demographic and economic factors (see Chapter 7). From the results of analyses made it is submitted that the question of migration apart, the "retired" to "active" ratio is unlikely to increase significantly over the next 30 years. As at any point of time the payment of pensions to the retired is largely dependent on the efforts of those who are directly active, the conclusion drawn regarding the "retired" to "active" ratio therefore is that pension arrangements at their present levels of payment and effective membership, which are valid on the current ratio, can be expected to be sustainable over the future 30 years or so if other conditions remain unaltered. But membership of occupational pension schemes broadly creates a privileged financial status in retirement and analyses indicate that, ratios of those having the privileged financial status of being occupational scheme pensioners, to "active" populations can be expected to increase significantly over the next 30 years or so. This suggests that the "retired" as a whole will need higher overall sustenance from the "active" population. And it is not numbers only which are relevant. It has been deduced that occupational pension scheme expenditure can be expected to rise, in real terms, significantly over the next 30 years relative to consumer expenditure by the order of 50%; this is without modifications to present preservation rights (see Chapter 8 section (e)).

The corresponding relative increase under state pension arrangements is 20% again without allowing for possible modifications (see 7.39). Economic considerations, (see Chapter 7 section (e)), whilst they do not indicate a watershed in the UK's economic position, do suggest that rising expenditure on pensions in the future may represent an increasing proportion of total consumer expenditure and that the balance cannot be expected to increase, in real terms, by such an extent as to be readily acceptable to the "active" population.

9.27. It is concluded that current pension arrangements are not sustainable. It is considered that they should be placed on a sustainable basis. There are different ways in which this can be achieved; the solution favoured is an immediate move gradually to increase the state retirement ages of both men and women by steps over the next 10 years or so from 65 to 68 for men and from 60 to 65 for women. In the government publication of March 1981, Cmnd. 8173, it is stated that,

> "There is a great deal of support for more individual freedom in the timing of retirement." [23]

Certainly it seems odd that persons who are fully capable of working and wish to do so should be prevented. It is added, however, in Cmnd. 8173 that,

> "In principle, when resources make it possible, the government would be in favour of introducing arrangements which would allow more flexibility." [24]

The inclusion of the words "when resources make it possible" seem to be significant for they appear to imply some sort of undefined flexibility which would result in extensive added cost to existing pension arrangements. As it has already been concluded that current pension arrangements are unsustainable it is submitted that flexibility of that type is impracticable. Moreover in Cmnd. 8173 reference is made to the possibility of a common pension age for men and women, it being stated that,

> "There are three main ways in which state pension ages could be equalised, by reducing men's pension age to 60, raising women's pension age to 65 or fixing a common age somewhere in between." [25]

No mention is made of an increased retirement age for men, indeed it is added in Cmnd. 8173 that,

> ". . . a common age of 60 would be regarded as a long-term objective." [26]

This statement, in the tense it adopts, is clearly a guarded one but even so, it is submitted, it is referring to an unrealistic suggestion. It is added in Cmnd. 8173 that,

> "Raising women's pension age to 65, although involving a significant saving, would be seen as a breach of faith by many women who had been contributing for a pension at 60." [27]

It is submitted that this reference to breach of faith overplays the issue. For one thing, not all women favour the propsect of being required to retire at, for them, the comparatively early age of 60, in any event; for another, it is not necessarily a breach of faith to provide a more effective pension at a slightly later retirement age instead

of a necessarily less effective one at age 60. More leisure has to be equated with corresponding loss of disposable income and it is to be expected that most persons do not want more leisure if its provision involves a drastic reduction in their spendable income. And again members of occupational pension schemes have expectations under them. This did not deter the Chancellor of the Exchequer from stating in May 1981,

> "We must ask also if private employers are not offering too generous pensions; in the sense that the real resources needed to meet them are placing too heavy a burden on the companies concerned. Is two-thirds of final salary after 40 years too ambitious a target, when looked at from the point of view of competing demands for those resources?" [28]

But, it might be asked, does this question raise the issue of breach of faith?

9.28. Breach of faith or no the conclusion drawn is that current pension arrangements are unsustainable. Does this then mean that even the more modest majority recommendations of the OPB regarding the protection of pension rights need to be dismissed because of the substantial increased cost they would involve (see 8.43)? There is clearly a dilemma for the recommendations accord with the spirit of general fairness; if implemented they would remove a source of ineffectiveness of current pension arrangements; and what is more, according to the Secretary of State for Social Services they would be in the national interest (see 3.7). It is submitted that these are sufficiently forceful considerations for acceptance of the recommendations to be

urged. However, it does mean that the case for the raising of the retirement ages for both men and women to at least those stated (see 7.143) is even further strengthened.

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