

Pension provision task force

Unfunded pensions in the EU and in the UK public sector

Actuarial position paper

1 Executive summary

1.1 Approximately 60% of pension provision in the UK is unfunded, comprising state pension benefits and some public sector occupational pension schemes. The remainder of UK pension provision is funded, either through occupational pension schemes or personal pensions. The level of funding in the UK is much higher than that in most other EU countries, where the majority of pension provision is on a pay as you go basis.

1.2 The projected demographic changes in the EU over the next 30 years are expected to lead to significant increases in the costs of providing state pensions. Unless the level of benefits paid to pensioners is reduced, contribution rates will need to be increased. The UK will not face such increases in state pension costs, despite an ageing population, since the level of benefits provided by the state, which is already lower than that in most other EU countries, is expected to increase at a slower rate than the growth of earnings of contributors. There is debate as to whether the UK would share the high costs of pensions in other countries if it were to participate in European Monetary Union.

1.3 Both funded and unfunded pension provision are subject to pressures from demographic ageing. Although there are certain circumstances in which one method of financing may be better than the other, for example individual personal pensions cannot be provided on a pay as you go basis, a mixture of both systems overall is preferable.

2 Introduction

2.1 The great majority of pension provision in the EU is on an unfunded basis and unfunded pensions provide the majority of pensions in the UK as well.

2.2 Much attention has been given to the outlook for unfunded pensions, particularly state pensions, in continental Europe and the UK, in the light of the demographic pressures that will affect the financing of these schemes in the next thirty years.

2.3 This paper considers the role of unfunded pensions and some of the differences between unfunded and funded pensions.

2.4 It should be remembered that pensioners will receive income from a number of sources, many of which are not labelled pensions even though they may have similar characteristics to pensions. In the UK, for example, many pensioners receive means tested income payments or payments related to disabilities. This will apply in other countries as well and this makes it very difficult to form a view of the total 'pension' income of the elderly and the extent of unfunded liabilities to pensioners. It is not enough just to consider income with a 'pension' label attached.

3 Financing pensions

3.1 The two principal methods of financing pension schemes are unfunded or pay as you go schemes, and funded schemes. Under a pay as you go scheme, the costs of paying the pensions of those members of the scheme who are receiving pensions are met from the contribution income in respect of those people who have not yet retired. Thus each year, the income to the scheme is paid out as benefits and there is little or no accumulation of assets in the scheme. The current generation of workers are paying for the pensions of the current pensioners with the expectation that, in due course, their pensions when they retire will be paid for by the contribution income in respect of the next generation of workers.

3.2 With a funded scheme, the contribution income in respect of the current workers is invested to build up a fund that will be sufficient to pay the pensions of those workers when they retire. Each generation is viewed as providing their own pensions rather than relying on an intergenerational agreement.

3.3 For a pay as you go scheme, the benefit expenditure each year will depend on the number of pensioners and the amount of their pensions. The contributions to the scheme will usually be based on the earnings of the workforce and will thus reflect the number of workers and the level of their earnings. Thus the contribution rate necessary to meet the benefit expenditure will reflect the relative number of pensioners to workers and the relative size of pensions and earnings.

3.4 For a funded scheme, the contributions can be fixed if the scheme is a defined contribution scheme. In this case the pension that will be paid will depend on the level of contributions, investment returns, the expenses or charges in respect of administering the scheme including any charges for profit where appropriate, and the mortality rates of the members. Thus the pension often cannot be predicted with any great precision but the costs are fixed.

3.5 On the other hand, for a defined benefit scheme, the pension entitlement will be specified, probably by a formula in relation to service and salaries. In this case the contributions to the fund will ultimately be determined by the experience of the scheme with regard to membership, investment returns, price and earnings inflation, mortality rates and expenses. These factors cannot be predicted precisely in advance and therefore a defined benefit scheme will have the required contribution rate reassessed on a regular basis by an actuarial valuation of the scheme's assets and liabilities. The contribution rate can vary significantly over time according to the experience of the scheme. Part of the assessment of the required funding rate will have regard to the necessity to safeguard the accrued rights of the members by ensuring that the fund is of sufficient size to meet its liabilities, whilst at the same time avoiding building up such a large fund that it breaches rules on tax qualification.

3.6 Variations in the contribution rate for defined benefit schemes often fall to the employer, who meets the balance of costs of the scheme over and above the contributions paid by members, which are usually fixed.

4 Extent of unfunded pensions in the EU

4.1 State pension arrangements in EU countries are almost universally provided on an unfunded pay as you go basis as in the UK. In many countries the state benefits are much more generous than in the UK and are meant as income replacement rather than a minimum level to be supplemented by private provision. Thus in many EU countries there is little private provision of pension and such provision is not always funded. This results in very high levels of unfunded pension provision. The following table sets out details of the extent of supplementary provision in various EU countries.

Supplementary pension provision in selected EU countries

Country	% of total private sector employees covered	Funded/Pay as you go	Supplementary pensions as a % age of total pensions 1993
Belgium	31	Funded	8
Denmark	80	Funded	18
Germany	46	Partially Funded	11
Greece	5	Limited Funding	Not available
Spain	15	Partially Funded	3
France	90	Pay as you go	21
Ireland	40	Funded	18
Italy	5	Partially Funded	2
Luxembourg	30	Limited Funding	Not available
The Netherlands	85	Funded	32
Portugal	15	Funded	Not available
UK	48	Funded	28

Source: European Federation for Retirement Provision (EFRP) - European Pension Funds 1996 – based on World Bank Report – Tamburi Report

5 Expenditure on funded and unfunded pensions in the UK

5.1 In the UK, state pension provision is unfunded. State pension provision consists of the basic flat rate state pension and the state earnings related pension scheme (SERPS).

5.2 The state also pays unfunded pensions to widows and to those who qualify for incapacity benefit by being incapable of work due to illness or disability. Most of the people receiving widows' pensions or incapacity benefit are under state pension age. Together they receive approximately £7.7 bn pa (estimate for 2000-01), most of which is paid to those on incapacity benefit. Additionally pensioners may receive the means tested minimum income guarantee, housing benefit and council tax benefit and those who need extra care may receive attendance allowance or disability living allowance. Altogether, approximately £13 bn (estimate for 2000-01) is paid to pensioners in respect of these benefits.

5.3 The rights to the basic flat rate state pension and the state earnings related pension scheme (SERPS) derive from national insurance contributions paid and credits accumulated throughout working life. In the year 2000-01, it is estimated that expenditure on the basic pension and SERPS will be £33.8 bn and £4.7 bn respectively.

5.4 The expenditure on SERPS is net expenditure after deducting £4.2 bn in respect of workers who have been contracted out of SERPS due to their membership of an occupational pension scheme or a personal pension scheme. Thus gross SERPS expenditure would be £8.9 bn but for contracting out. This amounts to 26% of expenditure on the basic state pension, showing that SERPS is a very significant benefit, particularly bearing in mind that it is only recently retired pensioners who receive a full SERPS entitlement because of the phased introduction of the scheme from 1978. Those who do not receive a full SERPS entitlement because they have been contracted out should have their pension topped up to at least the SERPS level by their private pension arrangement if the decision to contract out was well advised.

5.5 Another major source of unfunded pensions in the UK is in respect of occupational pensions for some of the workers in the public sector. The main unfunded public sector pension schemes are those for civil servants (PCS), teachers, the NHS, the armed forces, the police and the fire brigade. Estimated annual expenditure on pensions under these schemes is given in the table below.

Estimated annual expenditure from the main unfunded public sector pension schemes

Scheme	Year	Expenditure £ bn
Civil servants (PCS)	1999	2.4
Teachers*	1997	3.6
NHS*	1999	2.8
Armed forces	1999	2.0
Police*	1999	1.4
Fire*	1999	0.4
Total		12.6

Note: Expenditure includes pensions only, not any other payments, except where marked *

Source: various from author's research –some figures are approximate

5.6 Occupational pension schemes for private sector workers are generally funded, and some public sector workers such as local authority workers are also in funded schemes. Expenditure on pensions from funded occupational schemes was approximately £26.1 bn in 1999.

5.7 Personal pension schemes are also funded and expenditure on pensions from these schemes is not readily available. However, life assurance companies, who provide virtually all personal pension schemes, paid £6.0 bn in pensions in 1999 in respect of occupational and personal pensions and the personal pension share of that might be slightly less than £3.0 bn.

5.8 The following table summarises pension expenditure from funded and unfunded schemes in the UK.

Approximate pension expenditure from funded and unfunded schemes in the UK

Source of pension	Funded/Pay as you go	Year	Pension expenditure £ bn
Basic State pension	Pay as you go	1999	33.4
SERPS	Pay as you go	1999	4.3
Unfunded public sector schemes	Pay as you go	1999	12.6
Funded pension schemes	Funded	1999	26.1
Personal pensions	Funded	1999	3.0
Total			79.4

Note

1Basic State pension and SERPS are payable only to those over state pension age. Significant amounts of widows and incapacity pensions and other state payments to pensioners not called pensions both over and under pension age are not included

2The expenditure for the other categories includes all pensions including those to people under state pension age

3The expenditure for unfunded public sector schemes refers to 1999, except for pensions in respect of teachers, where the expenditure relates to 1997

Source: various from author's research

5.9 The non state pensions in the above table do not include lump sum payments on retirement, except for some of the unfunded public schemes where the figures could not be split. In 1999, approximately £4 bn was paid from funded pension schemes on retirement.

5.10 Thus pension expenditure from unfunded state and public sector occupational schemes is approximately 60% of total pension expenditure. This demonstrates that unfunded pension schemes are very important in the UK as well as in the continental EU.

6 The value of accrued rights in funded and unfunded pension schemes

6.1 Occupational pension schemes incur liabilities under the rules of the scheme in respect of the past service of scheme members. Personal pensions have liabilities arising from contributions already paid to the personal pension plan.

6.2 Rights to state benefits are not so clearly defined. Within political limits, governments are able to change social security benefits as they feel appropriate. Nevertheless, the contributory nature of state pensions means that one can look at the value of the 'accrued rights' arising from past contributions to the state pension scheme in a similar way to occupational schemes. The following table sets out the value of 'accrued rights' under state and occupational pension schemes.

Value of state and occupational pension scheme accrued rights 1996

Type of scheme	Value of accrued rights £bn
State pension scheme, basic and SERPS	944
Occupational pension schemes	874

Source: Inland Revenue Statistics 1999 table 13.4

6.3 The figure for occupational schemes includes approximately £270 bn in respect of unfunded public sector schemes, leaving approximately £600 bn in respect of the value of accrued rights for funded occupational pension schemes. There was a further funded liability of approximately £185 bn in respect of the personal pensions business of life assurance companies. Thus, based on the value of accrued rights, unfunded pension schemes again account for approximately 60% of pension provision.

6.4 The market value of self administered pension scheme assets in 1996 was approximately £550 bn and a further £81 bn was held by insurance companies in respect of their group occupational pension business.

6.5 By 1998, the market value of self administered pension scheme assets was approximately £700 bn. A further £140 bn of assets were held by insurance companies in respect of their group occupational pension business and £275 bn in respect of their personal pension business, making total pension scheme assets in 1998 of approximately £1,100 bn. Therefore, assets of occupational pension schemes were about 100% of GDP in 1998 and, including assets for personal pensions, total assets for pensions were approximately 130% of GDP.

7 The value of assets of funded pension schemes in the EU

7.1 The following table sets out the value of the assets of funded pension schemes in various EU countries in 1993 and compares them to GDP.

Pension Fund assets – total and as a percentage of GDP

Country	Assets Euro Bn	Assets as a % of GDP
Belgium	7	3.4
Denmark	26	20.1
Germany	106	5.8
Spain	10	2.2
France	41	3.4
Ireland	18	40.1
Italy	12	1.2
The Netherlands	261	88.5
UK	717	79.4
EU	1198	20.3

Source: EFRP

7.2 The table above shows that the UK had by far the largest amount of pension scheme assets in absolute terms, a situation that continues today. However, The Netherlands also has widespread funded occupational pension schemes and in comparison to GDP has more assets than the UK. Ireland is similar but pension scheme assets are somewhat smaller. All these 3 countries have lower levels of social security pensions compared to other EU countries and this has enabled funded private pension provision to evolve.

7.3 Some more up to date figures are given in the table below, although it is not clear what year they relate to.

Country	Value of Assets Euro Bn	Assets as a % of GDP
Austria	23	12
Belgium	28	12
Denmark	163	108
Finland	52	41
France	56	4
Germany	257	13
Ireland	40	47
Italy	218	20
Netherlands	530	141
Norway	44	31
Portugal	10	10
Spain	25	5
Sweden	236	107
Switzerland	267	117
UK	1261	101

Source: European Pension Fund Managers Guide 2000 – William Mercer

7.4 A further set of figures is given in the table below. Figures relate mainly to the year 1998

Country	Value of Assets Euro Bn
Austria	5
Belgium	11
Denmark	5
Finland	N/a
France	N/a
Germany	N/a
Ireland	N/a
Italy	17
Netherlands	391
Norway	9
Portugal	11
Spain	25
Sweden	6
Switzerland	233
UK	987

Source: Special Feature on Insurance and Pension Funds – European Commission/Eurostat

7.5 The different figures for different countries reflect the different definitions of the type of pension assets that are included in the table. The latter table relates to autonomous pension funds whereas the previous table has a wider definition. Generally speaking, it is difficult to obtain consistent, complete, reliable and comparable up to date figures covering the different forms of funded pension provision in different countries.

8 The outlook for unfunded state pension provision.

8.1 The share of total economic activity devoted to the consumption of pensioners—the actual economic cost of their support—is influenced by a variety of economic, demographic, and public policy developments. Perhaps the easiest way to understand how these various elements interact is to focus on the behaviour of three key ratios:

(1) the aggregate consumption ratio, which is the fraction of economic activity that is devoted to producing consumer goods and services for domestic use

(2) the pensioner dependency ratio, which is the fraction of the population that is retired

(3) the living standards ratio, which is the ratio of the average consumption of the pensioners to the average consumption of all persons

8.2 When multiplied together, these three ratios will produce the ratio of pensioner consumption to total economic activity, which is the economic cost of supporting pensioners.

8.3 The relationship between changes in any of these three ratios and the corresponding change in the economic cost of the retired population is direct and proportional. Anything that causes one of these ratios to rise by a given percentage will increase the economic cost of supporting pensioners by the same percentage. By the same token, the cost of supporting pensioners can only be reduced if changes that reduce at least one of these key ratios are introduced.

8.4 As populations age, and if no other changes are made, the pensioner dependency ratio will rise and the economic cost of supporting pensioners will increase proportionately. In EU countries a combination of lower mortality rates, current low fertility rates and the post war and 1960's baby boomers means that there will be many more pensioners in future without a corresponding increase in those of working age.

8.5 The table below shows the demographic developments in the UK and EU over the next 50 years by comparing the ratio of people of working age to those over pension age. This is a measure of the pensioner dependency ratio referred to above.

Ratio of people of working age (16-64) to those over pension age (over 64)

Year	2000	2010	2020	2030	2040	2050
Austria	4.1	3.6	3.1	2.3	1.9	1.9
Belgium	3.6	3.5	2.8	2.2	2.0	2.1
Denmark	4.2	3.7	3.0	2.6	2.3	2.5
Finland	4.2	3.6	2.6	2.2	2.2	2.1
France	3.8	3.7	2.8	2.3	2.1	2.0
Germany	3.8	3.1	2.8	2.2	1.9	1.9
Greece	3.6	3.2	2.8	2.4	2.0	1.8
Ireland	5.5	5.3	4.1	3.4	2.8	2.3
Italy	3.5	3.0	2.5	2.0	1.6	1.5
Luxembourg	4.3	3.9	3.3	2.5	2.3	2.5
Netherlands	4.6	4.1	3.1	2.4	2.2	2.3
Portugal	4.1	3.8	3.4	2.9	2.3	2.1
Spain	3.8	3.5	3.0	2.4	1.8	1.6
Sweden	3.5	3.2	2.7	2.4	2.2	2.2
UK	3.9	3.8	3.2	2.5	2.2	2.2
EU 15	3.8	3.4	2.9	2.3	2.0	1.9

Source: Eurostat population projections for the OECD

8.6 The table above shows that in the coming decades the pensioner dependency ratio drops significantly. As set out in 8.2 above, this will mean that the economic cost of supporting pensioners will rise proportionately unless there is an offsetting change in one of the other ratios.

8.7 For pay as you go state pension schemes in many countries, which provide generous social security pensions, contribution rates are already high. The implications of demographic changes have led to calls to reform the state pensions in these countries as it is perceived that the increased contribution rates required to sustain current pension levels are unaffordable. However, the implication that the pension benefits will need to be reduced, i.e. reducing the living standards of pensioners relative to workers, the living standards ratio (3) above, is not popular.

8.8 In the UK, the cost of state pensions will not rise significantly in future even though the UK will have a worsening support ratio. This is because the basic state pension is only increased each year in line with prices, which grow slower than earnings. Thus in the UK, the decline in the pensioner support ratio will be offset by a decline in the living standards ratio, at least as far as the basic pension is concerned, as the basic state pension declines relative to earnings. For this reason the cost of state pensions in the UK will not increase as a result of the demographic changes. It may well be, however, that other costs such as expenditure on means tested benefits for pensioners will increase.

8.9 The impact of demographic ageing on unfunded public sector schemes in the UK is not so apparent. These schemes employ comparatively small proportions of the population and their future costs will reflect past and future employment patterns of the membership of the schemes. These patterns of employment will not necessarily reflect the ageing of the population as a whole. However, recent publicity surrounding the

pension schemes for the police and fire brigade illustrate the fact that unfunded public sector schemes can also experience unfavourable membership and retirement patterns. No projections of the future benefit expenditure from public sector schemes is available so further comment cannot be made.

8.10 A further illustration of the implications of the demographic problem in various countries is provided in the following table, which shows the present value of unfunded liabilities for a number of countries expressed as a percentage of GDP.

8.11 Net present value of public pension schemes as a percentage of 1994 GDP

	Discount rate assumption		
	3%	5%	7%
Australia	-181	-97	-61
Austria	-188	-93	-52
Belgium	-282	-153	-97
Canada	-192	-101	-61
Denmark	-416	-235	-153
Finland	-181	-65	-18
France	-198	-102	-62
Germany	-134	-62	-32
Iceland	-138	-66	-38
Ireland	-28	-18	-13
Italy	-131	-60	-31
Japan	-189	-70	-20
Netherlands	-124	-53	-25
New Zealand	-401	-213	-133
Norway	-254	-124	-70
Portugal	-234	-109	-59
Spain	-220	-109	-63
Sweden	-273	-150	-96
United Kingdom	-36	-24	-16
United States of America	-69	-23	-6

Source: Roseveare *et al* (1996)

Notes:

- 1 These are the net present values of employee and employer contributions less pensions paid until 2070, plus existing assets.
- 2 Productivity growth is assumed to be 1.5% a year.
- 3 All economies are assumed to have returned to their medium-term growth path and there is no cyclical unemployment.
- 4 Participation rates are assumed to remain constant.
- 5 As far as possible all legislated reforms to 1994 have been taken into account except that the scenarios for the Netherlands do not take account of recent changes to the widows' and orphans' scheme, which are estimated to reduce expenditure by 4%.

8.12 These figures do not tell the whole story. For instance, in the case of Denmark, the high figures reflect the fact that the system is largely tax financed so the offsetting contributions (tax) are absent. The UK figures reflect the very low levels of pension from the state and the argument is about whether such a policy is sustainable.

8.13 Another perspective is provided in the table below which shows the shortfall in contributions required to meet outgo on a pay as you go basis over the period 1995 to 2050 compared to the 1995 level.

Sustainable contribution rates and contribution gaps (in percent of GDP)

	Projected contribution rate in 1995	Sustainable contribution rate 1995-2050	Contribution gap
Major industrial countries	6.5	8.3	1.8
Canada	3.8	5.8	2.0
France	12.1	15.4	3.3
Germany	10.3	13.7	3.4
Italy	16.0	18.5	2.5
Japan	3.9	7.2	3.3
Sweden	7.1	8.0	0.9
United Kingdom	4.2	4.3	0.1
United States of America	4.7	5.5	0.8

Source: Chand & Jaeger (1996)

Notes:

1Contribution rates include net budget transfers.

2The sustainable contribution rate is defined as the constant contribution rate over 1995-2050 that equalises the net asset position in 2050 with the initial asset position in 1995.

3The contribution gap is defined as the difference between the sustainable contribution rate and the projected contribution rate in 1995.

8.14 This again shows that the UK is well placed, but that some countries will need to increase contributions by over 3% of GDP every year.

9 The implications of European monetary union

9.1 It has been suggested that if the UK joins the EMU it will become liable to share the cost of the high level of state pensions in many continental EU countries in future years. The value of the accrued liability in respect of unfunded public pension schemes is not included in the measures of public debt that are governed by the Maastricht Treaty. However, as the number of pensioners grows in future and strains are put on public finances to meet the cost of their pensions, it will be more and more difficult to keep within the guidelines for public sector deficits each year.

9.2 The government response to the House of Commons Social Security Select Committee's concerns on this issue argued that there are safeguards in the treaty to prevent the UK being burdened with any of the costs of the state pensions of other countries, but concern remains. We have found little independent comment or research in this area.

9.3 In any event, the liabilities for state pensions are not necessarily fixed. Governments will attempt to address the problems of their state pension system and although solutions are difficult it may be that effective action will be taken to reduce the future cost of pensions.

9.4 It would be unfortunate if the UK, which provides comparatively low levels of state pensions, was forced to help fund the higher pension levels in other countries, through either direct or indirect effects.

10 The effects of demographic ageing on funded pension schemes

10.1 It is often suggested that the UK is well placed to withstand the effects of demographic ageing because much of the pension provision in the UK is funded rather than based on pay as you go. It is apparent from the earlier sections that comparatively the UK does have a large amount of funded pension provision, although unfunded pensions still provide the larger share of pension provision.

10.2 The comments on the macro economic costs of providing pensions in section 8 above apply equally to funded pension schemes as to unfunded ones. The ratios in section 8 are independent of the means by which pensions are provided.

10.3 This arises since, at a macro economic level, the consumption that pensioners will need, whether it is a physical product or a service, cannot be stockpiled. The consumption will need to be produced by the workers at the time when the consumption is needed. The pension benefits that a pensioner will want in the year 2050 will need to be produced by the workers in that year.

10.4 The economic function of a pension scheme is to transfer consumption over time. But this is not possible for society as a whole: the consumption of pensioners as a group is produced by the workers at the time. From an aggregate point of view, the economic function of pension schemes is to divide total production between workers and pensioners, i.e. to reduce the consumption of workers so that sufficient output remains for pensioners.

10.5 Viewed in this way, pay as you go and funded pension schemes are simply ways of dividing the output between workers and pensioners and should not fare very differently in the face of demographic change.

10.6 The real value of claims under both pension systems depends on the availability of future resources as well as on a multitude of other future developments in the world. Under funding this value is dependent on, for example, inflationary processes, investment returns and the market price of assets. Under pay as you go the claim value depends on the ability and the willingness of workers and taxpayers to finance pension outlays.

11 Reasons for funded pension provision

11.1 Pay as you go pensions are not appropriate when the organisation providing the pensions may not continue to exist in future. Thus governments can operate pay as you go systems but a private sector employer cannot do so if the pension promises are to be secure. If a private sector employer were to provide pensions on a pay as you go basis and then went bankrupt, the pension payments would cease. For the members' pensions to be secure, there has to be separate assets set aside sufficient to provide pension entitlements accrued to date. Some countries take the view that the assets need not be held separately from the sponsoring company if there is solvency insurance (as in Germany) or that pay as you go is viable for the private sector if it is operated on a mutual insurance basis by having schemes that cover large industry or sector groups (as in France).

11.2 Employers will wish to have a funding method that keeps the contribution level as stable as possible despite variations in the factors affecting the scheme. This is easier to achieve in a funded scheme. In a pay as you go scheme, contributions must be paid at the time when benefit payments arise. Any change in the incidence of benefit payments leads to a corresponding change in the pay as you go contribution rate.

11.3 Funding makes it easier for employers to appreciate the realistic long term cost of the benefits being provided. In particular, private sector employers will wish to account for the cost of the liabilities of their pension scheme as they accrue, which may correspond to the contributions paid to a funded scheme, as opposed to as the benefits are paid, which corresponds to the contributions paid to a pay as you go scheme.

11.4 In the UK it is necessary to hold pension scheme assets under trust, separate from the assets of the employer, if the pension scheme is to qualify for relevant tax reliefs.

11.5 Defined contribution schemes are generally, by their nature, funded arrangements.

11.6 Some people argue that funding is a cheaper way of providing pensions, especially if the scheme invests in equity type assets that have given high rates of return in the past. There are arguments that funding pension liabilities increase savings in the economy, and help to develop capital markets, thus stimulating the growth of the economy. Some people also consider that funded pension schemes cope better with demographic ageing, although as indicated in section 10, this may not be the case.

12 Risks of funded and unfunded pension arrangements

12.1 While funded and unfunded pension arrangements may both be subject to the risk of demographic ageing, there are other risks which are particular to the different methods of financing pensions. Some of these are listed below. The fact that different risks apply to funded schemes and pay as you go schemes indicate that, in the interest of diversification of risk, it is appropriate for there to be a mixture of funded and unfunded schemes overall.

12.2 Risks of funded schemes

12.2.1 Assets may be misappropriated

12.2.2 An incorrect investment policy may be followed

12.2.3 The investment performance of the assets may be poor

12.2.4 A sufficient quantity of suitable assets may not be available in the capital markets

12.2.5 Lower interest rates or improving mortality rates may increase the cost of pensions

12.2.6 The contributions to the fund may be insufficient to provide the required level of benefits or may vary significantly over time

12.2.7 The costs of operating the scheme or investing the assets may be excessive

12.2.8 Pension expectations may not be met when a scheme is wound up, which may be a long and costly process

12.2.9 The regulatory or fiscal environment in which the schemes operate can be altered by government

12.2.10

12.3 Risks of unfunded schemes

- 12.3.1 For state pensions, government can alter the levels of contributions to the scheme and the benefits payable from the scheme
- 12.3.2 Schemes can be mismanaged with insufficient attention paid to the long term cost of fulfilling pension promises, particularly for new schemes
- 12.3.3 Contributions can be misappropriated
- 12.3.4 Adverse demographic trends may mean increased costs which will be obvious as tax or contribution rates are increased to meet the outgo
- 12.3.5 There is little flexibility in the timing of contributions
- 12.3.6 Some people argue that funded pension provision is cheaper

13 Conclusions

13.1 In the UK there are two strong pillars of pension provision, being pay as you go and funded arrangements. Many other countries have less funded provision, although there is a trend in some countries that are reforming their social security arrangements to introduce funded elements.

13.2 Since neither funded or unfunded pension provision is immune to the problems of demographic ageing, it seems appropriate to maintain both significant pay as you go and funded arrangements. This would enable the risks which result from each of these methods of financing to be diversified.

13.3 Independent research on the question of whether the UK joining European Monetary Union would lead to it becoming liable for a share of the high costs of state pensions in other EU countries should be carried out, focusing on the economic rather than the political arguments.

13.4 Projections of the future finances of unfunded occupational public sector pension schemes in the UK should be performed and the results published, in order to assess any potential adverse effects on the finances of these schemes which could result either from demographic ageing, or from other retirement and membership patterns of these schemes.

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