Pensions Policy in the UK

by

Ian Tonks
Centre for Market and Public Organisation
University of Bristol
I.Tonks@bristol.ac.uk

November 14, 1999

I would like to thank David Blake, Paul Grout, Patrick Mahon, Michael Orszag and Alison Thomas for comments on an earlier draft. Errors remain the author's.

CMPO is a Leverhulme funded research centre. Information about **CMPO** can be found at http://www.bris.ac.uk/Depts/CMPO/

Abstract

This paper outlines the three tiers of pensions provision in the UK, and examines the shift in emphasis from public to private sector provision over the last twenty years. Up to the nineteen eighties the second and third tiers of pension support consisted of SERPS and defined benefit occupation schemes. The introduction of personal pensions in the late 'eighties has eroded the importance of SERPS, and has illustrated that funded private sector schemes are viable as pension providers.

The paper reports that eighty per cent of the working population has access to a second or third tier scheme, though whether this represents sufficient depth of coverage is more difficult to ascertain. In the case of occupational pensions, contribution rates are determined by actuaries. In the case of personal pensions the contribution rates are determined by the individual savers, and there is evidence that current contribution rates are insufficient to generate an adequate pension. In which case the individual will need to remain in the labour force and postpone retirement until the accumulated funds are sufficient to generate the required pension.

The paper also analyses the impact of the proposals for stakeholder pensions outlined in the Government Green Paper (1998) "Partnership in Pensions" on future pensions provision. The paper argues that stakeholder pensions look like a superior alternative to personal pensions, and are likely to drive the more complex and expensive personal pensions out of the market.

However other savings products such as ISAs also appear attractive tax-efficient savings vehicles, without the restriction that the accumulated savings be taken as a pension. Individuals on low incomes may be advised to take out ISAs in preference to stakeholder pensions.

I Introduction

Pensions are a form of savings, allowing individuals to smooth their income over time, coupled with insurance against the uncertainty associated with length of life (longevity risk). During their working life, individuals may save out of current income, to generate an income during retirement which will pay-out until they die. Rational individuals might be expected to calculate the optimal consumption-savings path over time, but according to Diamond (1977) there are three possible reasons that explain the need for a public pensions policy. First market failure, associated with the risk of a varying length of working life; second paternalism, since individuals may have difficulty in obtaining suitable information on the need for savings in retirement; and third income redistribution.[1]

Most governments adopt a public policy towards pensions, typically taking the form of compulsory savings/taxation, subsidies, and the provision of state retirement income payable until death. The UK currently has three tiers of pension provision in operation. The first tier is the basic state scheme which is *unfunded* and pays a flat-rate pension. With an unfunded scheme there is no underlying fund of assets, so that current workers pay the pensions of the retired, and this type of scheme represents an inter-generational transfer between the working population and the retired population. Membership of the basic state scheme is compulsory for all employed and self-employed workers with earnings above a small exception limit, and contributions are collected through the national insurance system.

The second tier is the State Earnings-Related Pension Scheme (SERPS) which is also *unfunded* and pays a *defined benefit* pension which is related to average earnings over the employee's life. Membership is compulsory for all employees (but not the self-employed) unless the employee has contracted out into a private pension scheme, and contributions are collected through the national insurance system.

In the third tier are forms of voluntary private pension provision, of which there are two types: occupational and personal pension schemes. Contributions into

[1] Bodie (1990) emphasises the role of pensions as retiremtent income insurance

these schemes are made out of pre-tax income, so that contributions are effectively subsidised by the government. Occupational pension schemes are usually *funded* and require contributions throughout the employees' working life.[2] In a funded scheme an employee (and/or employer) pays into a fund which accumulates over time, and then is allowed to draw on this fund in retirement. These schemes are provided by an employer and may pay on a *defined benefit* or a *defined contribution* basis. Defined benefit, such as final salary, schemes offer a pension, guaranteed by the employer, usually defined in terms of some proportion of final year earnings, and are related to the number of years of employment. Defined contribution (or money purchase) schemes are always funded and convert the value of the pension fund at retirement into an annuity. Under a defined benefit scheme, the employer bears the risk of fund underperformance. Under defined contribution schemes, the pensioner bears the risk of fund underperformance.[3] In addition a defined contribution plan also exposes the pensioner to the risk of converting the fund into an annuity at a particular point in time.[4]

In the tax year ending in April 1996 24.27 million persons paid national insurance contributions which will entitle them to some part of the basic state pension at retirement.[5] The percentage of the working population covered by each of the second and third tier schemes is given in Table 1. This table shows that out of about 35 million people of working age, roughly eighty per cent are covered by a second or third tier pension.

[2] Some public sector occupational schemes are unfunded.
[3] In addition to longevity risk and investment risk Bodie (1990) suggests there are a further three sources of retirement income risk faced by individuals: 1) Replacement rate inadequacy, since their savings may be insufficient to maintain an adequate standard of living in retirement; 2) Social Security risk, if the government changes the retirement benefit system; 3) Inflation risk.
[4] The 1995 Pensions Act allows a pensioner to defer the conversion of the fund into an annuity, and in the meantime "draw-down" the fund to provide an income
[5] Annual Abstract of Statistics, 1999 Table 10.2.

Table 1: Employees Covered by Type of Pension

Type of Pension Scheme	Numbers of persons (Millions)	Percentage of Working Population Covered
Occupational Pensions	10.5	30
Appropriate Personal Pensions	5.6	16
Personal Pensions (Not Eligible for SERPS)	4.6	13
SERPS	7.1	20
Not covered by second/ third tier	7.4	21

Source: Government Green Paper (Chap 2, paras. 15, 25, December 1998), and own calculations.

Table 2: Population Estimates and Projections (Millions)

	1960	1970	1980	1990	2000	2010	2020	2030	2040	2050	2060
Working Age	31.0	31.9	32.5	34.4	35.2	36.0	37.5	35.8	34.4	33.8	32.5
Pension Age	7.6	8.7	9.4	10.4	10.5	11.7	11.5	13.5	14.3	13.5	13.2
Support Ratio	4.1	3.7	3.5	3.3	3.4	3.1	3.3	2.7	2.4	2.5	2.5

Source: Johnson et al (1996), p. 50. The support ratio is the number of persons of working age divided by the number of pensionable age 65 for men and 60 for women, 65 for both from 2010)

Table 3: Persons who paid NI contributions in 1995/96 (Millions)

Type of Contribution	Numbers of persons (millions)		
Class 1 Standard rate		21.84	
Not contracted out (includes APPs)	12.85		
Contracted out	7.24		
Mixed contracted in/out	1.41		
Class 1 Reduced rate		0.34	
Class 2		2.03	
Mixed Class 1 & Class 2		0.3	
Class 3		0.09	
Total			24.27

Source: Annual Abstract of Statistics, 1999 Table 10.2.

In 1998 the number of economically active persons in the UK was 28.713 million, with the 7.886 million economically inactive, consisting of students in post-compulsory full-time education, those not wanting work, homemakers, and the long-term sick and disabled.[6] Table 1 illustrates that most of the population not covered by a second or third tier pension are the economically inactive.

It is not obvious that pensions policy needs to be concerned with the lack of coverage of the economically inactive. We might expect that students will join pension schemes later in their life cycle, homemakers may also rejoin the labour force, or may be relying on a partner to provide them with a pension, those not wanting work and the long-term sick may be able to turn to other sections of the welfare state to provide an income in old-age. Field (1996) argue that "carers" are inadequately provided for by current pension schemes, and the Government's Green Paper (1998) specifically addresses pension provision for carers.

According to Blake and Orszag (1999), there are about 150,000 occupational pension schemes in the UK covering 10.7 million employees and 7 million pensioners. There are about 5.5 million personal pension schemes in the UK and 4 million are drawing personal pensions. They estimate that the value of pension rights associated with each scheme in 1994 were as follows: £703bn for the basic state scheme; £202bn for SERPS; £743bn for occupational pension schemes; and £140bn for personal schemes.

Although the "width" of coverage of second and third tier pension provision appears widespread, it is less clear whether the pension arrangements have sufficient "depth". It may be that an employee contributes something towards a pension scheme, but whether these contributions are enough to generate a reasonable income in old-age is another matter. Table 1 tells us nothing about the depth of pension coverage.

Up until the nineteen eighties pensions policy provision had been a fundamental bedrock of the Welfare State [National Insurance Act 1946, which introduced the basic flat-rate pension, and the Social Security Pensions Act 1975 which introduced

[6] Annual Abstract of Statistics, 1999, Table 7.1 from ONS Labour Force Survey.

SERPS]. Concerns about the state's ability to pay for the state pension commitments coupled with demographic trends of an ageing population, resulted in a change of policy in the eighties, with an emphasis on the private sector provision of pensions.[7] Table 2 shows that in 1960 there were over four persons of working age for every pensioner; but by 2060 it is projected that there will only be two and a half persons of working age for every pensioner. The implication is that a declining work-force will have to support a growing number of pensioners.

The Social Security Act 1980 replaced the indexation of the basic pension from earnings growth to the change in the retail price index. Further, the Social Security Act 1986 reduced the pension benefits of SERPS, and encouraged individual employees to opt out of SERPS and into a funded personal pension schemes, which explains the dramatic growth in personal pensions since 1988.

The three tiers of pension provision in the UK accord with the three pillars recommended by the World Bank (1994) in its blueprint for pension reform. The basic state pension represents the mandatory publicly funded first pillar for redistribution; SERPS is a hybrid version of the mandatory second pillar relating benefits to contributions for savings, which in the UK is organised by the public sector but can be transferred into the private sector; and the third tier of voluntary private sector provision represents the third pillar of voluntary contributions for individuals who desire additional pension provision. James (1997) refers to the UK model as an example of the "bold" OECD model of pension reform.

In the following sections IIa - IId, we examine in more detail each of the three tiers of pension provision in the UK, focusing in particular on the third tier of private pension provision. In Section III we assess the extent of pension coverage in the UK, and in Section IV examine the Government's recent proposals for stakeholder pensions.

IIa Basic State Pension

The basic state pension is a pay-as-you-go flat rate income received by all pensioners who have made qualifying National Insurance contributions during their working life.

[7] These same demographic concerns have affected pensions policy in a number of counties [World Bamk

From April 1999 the full pension is £66.75 per week for a single person and £106.70 per week for a couple.

To qualify for the full basic state pension an individual must have made national insurance contributions for nine-tenths of the individuals working life. In the case of men this normally amounts to 44 years and for women 39 years.[8] The required National Insurance contributions are set annually in the budget. Neither employees nor employers are required to make contributions if earnings are below the Lower Earnings Limit (LEL). Employees pay contributions on earnings up to the Upper Earnings Limit (UEL), and employers pay contributions on all earnings above the LEL. The numbers of persons making National Insurance contributions for 1995/96 are shown in Table 3.

In 1998, 86 per cent of men and 49 per cent of women (10.6 million pensioners) qualify for a full basic state pension at a cost of £32 billion per year. Pensioners who do not qualify for the full basic state pension, may receive means-tested Income Support, Housing Benefit and Council Tax Benefit.

IIb State Earnings-Related Pension Scheme

SERPS is the State Earnings-Related Pension Scheme. It is *unfunded* and pays a *defined benefit* pension which is related to life-time average earnings. SERPS was introduced in April 1978 by the 1975 Social Security Pensions Act and guaranteed contributors an additional pension as a percentage of their earnings.[9] Originally the guarantee was for the pension to be an additional 25% of earnings over the best 20 years.

Subsequent concerns about the state's ability to pay for these pension commitments resulted in a change of policy in the eighties. The Social Security Act 1986 reduced the pension benefits of SERPS, and encouraged individual employees to opt out of SERPS and into a funded private pension schemes. The reduction of benefits associated with

(1994), Valdes-Prieto (1997), Mantel and Bowers (1999)]

[8] The Pensions Act 1995 proposes to equalise of retirement ages for men and women at 65 to be phased in between 2010 and 2020. After this date women will have to contribute the same number of years as men.

[9] The state graduated pension scheme which existed between 1961-75 was an earlier second tier scheme

SERPS in the ‘eighties emphasises that even state pensions are risky, if only because future governments may change the conditions of the pension contract.

Membership of SERPS is compulsory for all employees who pay Class 1 National Insurance Contributions (NICs), unless the employee has contracted out into a private pension scheme. If schemes are contracted-out, employees, who forfeit their rights to SERPS, and employers both pay reduced NICs. The self-employed are not eligible for SERPS and obviously cannot contract out.

There are conditions that must be satisfied if the private scheme is allowed to contract out of SERPS. To contract out of SERPS into a defined benefit occupational scheme (Contracted Out Salary Related Scheme, COSR), up until April 1997 the scheme had to provide at least a Guaranteed Minimum Pension (GMP), equivalent to the SERPS pension. Since April 1997 the GMP requirement has been replaced with the Reference Scheme Test. This means schemes must satisfy standards laid down in the Pensions Act 1995, which requires that the proposed scheme offers benefits the same or better than the reference scheme, where the reference scheme in turn ensures that contracting out is a suitable alternative to SERPS. For contracted-out schemes both the employer and employee pay lower national insurance contributions at the contracted-out rate, but the employer is required to pay these contracted-out rebates into the pension scheme

Defined contributions schemes may also contract out of SERPS (Contracted Out Money Purchase, COMP). An employee has been able to contract out of SERPS into an appropriate personal pension since July 1988 or an occupational money purchase scheme since April 1988, subject to the scheme providing protected rights. Under an occupational money purchase scheme the employer and employee again pay lower national insurance contributions, but rather than the employer guaranteeing a level of pension, the employer pays the rebates into the pension fund. The value of these amounts is called the protected rights. With an appropriate personal pension the employer and employee pay full national insurance rates, but the Department of Social Security pays a rebate directly into the personal pension fund. The value of these rebates is again called the protected rights.

Table 4 and Figure 1 shows the numbers of scheme members in SERPS, public and private contracted-out salary related schemes (COSR), contracted-out money purchase schemes (COMP), and appropriate personal pensions (APPs). The number of persons contributing to SERPS reached a peak in 1987, but subsequently fell as employees were able to contract out of SERPS into appropriate personal pensions. Mirroring this change, there has been a substantial growth in APPs since 1987, and a less dramatic increase in COMPs. Numbers of contracted-in money purchase schemes (CIMP) are not separately recorded in these tables. Over the twenty year period the number of members in salary related schemes has remained fairly constant with a slight decline in private sector COSRs and a slight increase in public sector COSRs.[10] Note that Figure 4 does not include the 4.6 million personal pension members outside the APPs, and further by comparing the figures in Table 4 for 1995/96 with those in Table 1 we can see that there is a missing 2.2 million members of occupational schemes from Table 4. Some of these missing numbers are probably made up of members in contracted-in salary related schemes (CISR).

SERPS was introduced to provide those employees outside of an occupational scheme with an additional pension. The subsequent reduction of the benefits of SERPS and the introduction of personal pensions has reduced the need for this type of second tier scheme, and Johnson, Disney and Stears (1996) have commented “that SERPS is an extraordinary complex benefit”, (p.90).

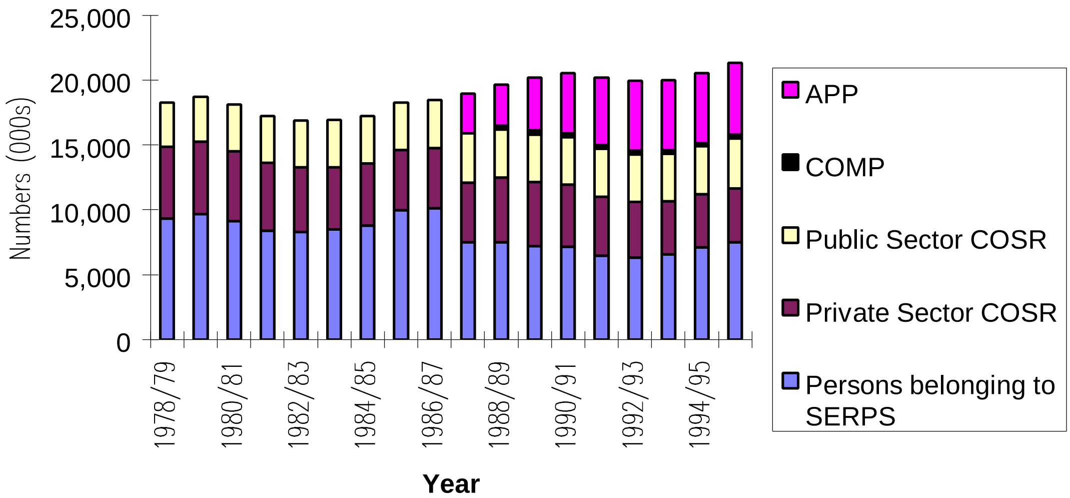
[10] There has been a increase in the labour force over the same period from 27.2 million in 1984 to 28.7 million in 1998.

Table 4: Estimated numbers of contracted-out occupational pension and APP scheme members by scheme type and number belonging to SERPS 1978-96 (Numbers are in 000s)

	Persons belonging to SERPS	Private Sector COSR	Public Sector COSR	COMP	APP	ALL
1978/79	9,307	5,571	3,376			18,254
1979/80	9,663	5,577	3,463			18,703
1980/81	9,115	5,415	3,577			18,107
1981/82	8,386	5,231	3,611			17,228
1982/83	8,303	4,985	3,615			16,903
1983/84	8,467	4,824	3,628			16,919
1984/85	8,798	4,779	3,638			17,215
1985/86	9,962	4,636	3,656			18,254
1986/87	10,116	4,638	3,721			18,475
1987/88	7,483	4,632	3,761		3,105	18,981
1988/89	7,493	5,000	3,716	295	3,169	19,673
1989/90	7,206	4,950	3,665	319	4,062	20,202
1990/91	7,161	4,770	3,658	300	4,676	20,565
1991/92	6,471	4,530	3,709	288	5,177	20,175
1992/93	6,327	4,283	3,669	279	5,396	19,954
1993/94	6,555	4,122	3,662	276	5,380	19,995
1994/95	7,115	4,090	3,691	278	5,376	20,550
1995/96	7,496	4,130	3,890	299	5,499	21,314

Source: Second Tier Pension Provision 1995/96, Dept Social Security Table 4.0

Figure 1: Numbers in contracted out occupational pension schemes, APPs and SERPS 1978-1996



The Government Green Paper "Partnership in Pensions" (December 1998) proposed to replace SERPS with a flat rate Second State Pension, which guarantees to provide those on incomes of £9,000 per year or below twice the amount that would be given by SERPS. This new second tier pension would be targeted at those on low incomes. In addition those employees in a middle income group (between £9,000 - £18,500 per annum), would be encouraged to join stakeholder pensions and would be encouraged to opt out of the State Second Pension. It is expected that those employees in the higher income group are adequately covered by existing third tier pension arrangements.

IIc Occupational Pension Schemes

Occupational pension schemes have been in existence since Victorian times, and for many jobs are seen as a condition of employment.[11] In tax-approved schemes, the employees' contributions receive tax relief at marginal rates, so that contributions are effectively subsidised by the government. Until the nineteen fifties the funds of occupational schemes were invested in relatively safe assets, but from the 'fifties onwards pension funds started to invest in equities, which with hindsight was an astute strategy. Pension funds are now major investors in the equity markets and own about 40 per cent of the UK's equity sector [Davies (1995)]

According to the Consumers' Association (1997) the "major advantage the UK has over its rivals is that it has a huge, developed, powerful occupational pension fund sector sponsored by employers. Occupational pensions cover around 50 per cent of the workforce and those workers can look forward to a relatively comfortable retirement compared to individuals without access to an employers' pension" (p. 20).

Types of Occupational Pension Schemes

Occupational pension schemes are widely regarded as a highly successful pension vehicle. According to the Government Green Paper (December 1998), "Occupational pensions schemes are one of the great welfare success stories of this century", (Chap. 1, para.19). Contributions into occupational schemes are subject to tax-relief, and to obtain this tax-relief a scheme must be approved by the Inland Revenue Pension

Schemes Office. There are two basic types of company pension scheme: defined benefit (final salary) and defined contributions (money purchase) [Ward (1995), p.26]

a. Final Salary Scheme

Under a final salary scheme employees (and/or employers) pay contributions into a scheme, and at retirement the pension is related to the workers salary during this time and the number of years of contributions. The scheme is a contract between the employer and the employee, with terms agreed by both. The contract will specify the relationship between number and value of contributions, and the pension. A typical formula would be

$$\text{Pension} = \text{Years of Pensionable Service} * \text{Final Pensionable Earnings} * \text{Accrual rate}$$

where the accrual rate is the rate of pension that is built up each year. For example a scheme with a 1/80th accrual rate, and final pensionable earnings of £20,000 would generate a pension of £10,000 for an employee with 40 years of service.

In a final salary scheme the employer bears the risk of the performance of the pension fund, with the risk that the agreed pension liability is higher than the value of the implicit fund. In practice the employee still bears some risk, since the "pension contract" is unlikely to be index-linked and is not watertight being subject to renegotiation. For example the employer may reduce the employee contributions or may require employees to increase their payments; or the private sector employer may go bankrupt, or be acquired by another company.[12]

b. Money Purchase Scheme

Under a money purchase scheme employees (and/or employers) pay contributions into a fund, which builds up over time and at retirement the value of the fund is converted into an annuity which provides the pension. The simple formula for the value of a fund

[11] The Social Security Act 1986 established that employers could no longer make membership of occupational schemes compulsory.

[12] The assets of the pension fund are protected in the event of bankruptcy, though as the Maxwell Case demonstrated, this protection is not perfect.

after forty years of annual contributions, using the solution for a perpetuity and assuming constant contributions and constant returns on the funds invested is

$$\text{Value of Fund at Retirement} = \text{Contributions} * [(1+ \text{return})^{40} - 1] \div \text{return}$$

where “return” is the annual rate of return on the investments in the fund. This formula is only an approximation since more realistically these returns are random, and hence the value of the fund at retirement is also random. As an example of this formula, suppose the employee and employer both contribute £500 into the scheme each year (about 5 per cent of average earnings), and the average return on the investment in the fund works out to be 5% per annum. This would result in a fund worth about £121,000 which could be used to purchase an annuity until death of about £10,000 per annum depending upon annuity rates. In practice the annual returns are random so that the terminal value of the fund is risky. Under a defined contribution scheme, the pensioner bears the risk of fund underperformance. In addition a defined contribution plan also exposes the pensioner to the risk of converting the fund into an annuity at a particular point in time. Although the 1995 Pensions Act permits the deferral of converting the fund into an annuity and allows the pensioner to “draw-down” the fund to provide an income. Referring back to the above numerical example to illustrate these two types of risks: the pensioner bears that risk that the fund might be worth less than £121,000, and even if the return on the fund has generated a value of £121,000, if annuity rates are low the income from the annuity may be less than £10,000 per annum.

c. Hybrid Schemes

These are mixtures of final salary and money purchase schemes. For example “money purchase underpins” are schemes in which the pensioner can exercise the option to switch into a money purchase from a defined benefit. The pensioner will exercise this option if the annuity from the money purchase is greater than the defined benefit pension. Under a “target pension arrangement” the scheme is a money purchase, but the employer guarantees to top up the fund, in order to generate an agreed target pension.

Table 5 shows the numbers of members in 1991 who were in either defined benefit or defined contribution occupational schemes. Clearly defined benefit is the dominant scheme type, although from Table 4 we can see that defined contribution schemes has increased in importance. For a defined benefit scheme an actuary will be employed by the fund to advise on the relationship between contributions and promised salary benefits [Reardon (1997), p.73]. It can be seen in Table 6 that for both defined benefit and defined contribution schemes operated by insurance companies the average contributions per year (from employers and employees) are nearly £2,000, which represents more than 10 per cent of average earnings.

Occupational Pension Fund Investments

Occupational pension schemes need to have their funds administered and managed. Occupational schemes are set up under trust law, and the trustees run the scheme in the interests of the members and in line with trust law, the trust deed and rules, and the Pensions Act 1995. Occupational schemes are administered by trustees appointed by the company, and the trustees must decide how the funds are managed. There are four methods of managing occupational pension schemes:

1. The trustees may purchase an "off-the-shelf" policy from an insurance company, so that the trustees simply hand over the contributions to an insurance company, and the insurance company's actuary will advise on the level of contributions relative to the benefits promised. The numbers in such defined benefit and defined contribution schemes operated by insurance companies are reported in Table 6, Panels A and B. There appears to be an inconsistency with these figures and the numbers in defined contribution schemes reported in Tables 4 and 5.

2. The trustees may decide to participate in a pooled fund run by an insurance company (called insured fund management, though it is unlikely that the insurance company will provide any guaranteed return) or other financial institution. Under this scheme the fund is managed independently of the trustees, through a "discretionary fund", in that the fund manager chooses the asset composition of the fund.

Table 5: Number of Employees in Occupational Pensions Schemes, 1991 (Millions)

Type of Scheme	*Private Sector Contracted-out*	*Private Sector Contracted-in*	*Public Sector Contracted-out*	*Total*
Defined Benefit	5.04	0.56	4.20	9.80
Defined Contribution	0.43	0.47	0.00	0.90
Total	5.47	1.03	4.20	10.70

Source: Budd and Campbell (1997)

Table 6: Occupational Pension Schemes Operated by Insurance Companies:
Panel A: Defined Benefit Schemes

	1993	1994	1995	1996	1997
No. of Members (000s)	705	651	627	668	615
Premiums (£million)	948	878	965	993	1,191
Average Premium per member (£)	1,345	1,349	1,539	1,487	1,937
***Panel B: Defined Contribution Schemes* (incl executive pension plans)**					
No. of Members (000s)	2,774	2,946	2,881	3,040	3,125
Premiums (£million)	4,365	4,598	4,354	5,067	6,160
Average Premium per member (£)	1,574	1,561	1,511	1,667	1,971
Panel C: Group Scheme Business (excluding Group Life Cover)					
Managed Funds Premiums (£million)	3,690	2,968	3,690	6,200	10,358
Segregated Funds Premiums (£million)	1,498	960	819	3,767	2,494
Panel D: Estimated Number of Members contributing to Managed and Segregated Funds Operated by Insurance Companies (Millions)					
Number contributing to Managed Funds	2.53	2.04	2.42	3.93	5.30
Number contributing to Segregated funds	1.03	0.66	0.54	2.39	1.28
Total no. of members	3.55	2.70	2.96	6.32	6.58

Source: ABI Insurance Statistics Yearbook 1987-97 and Own Calculations

Pooled investment management is usually adopted by small funds, with the resources of a group of funds being placed in the same investment fund. The pension fund "trades" in the units of the investment fund, where the value of the units reflects the value of the underlying assets. Pooled funds operate through two types of legal entity: exempt unit trusts and managed pension funds. Estimated numbers in such schemes operated by insurance companies are given in Table 6 Panel D.

3. The trustees may manage the fund themselves indirectly by delegating the task to one or more financial intermediaries (called segregated or self-insured fund management) including insurance companies, who would typically design a tailor-made investment mandate agreed between the trustees and the financial institution. This type of scheme may be discretionary or non-discretionary, in that the asset composition may or may not be left up to the fund manager. Segregated management is usually adopted by medium-sized funds where there is some attempt to match the assets in which the fund is invested to the fund's liabilities. The trustees may decide to employ one financial institution to manage the bond portfolio, another to manage the equity portfolio etc. Estimated numbers in segregated schemes operated by insurance companies are given in Table 6, Panel D.

4. Finally the trustees may manage the fund themselves directly (in-house fund management) by appointing one or more investment managers, who are employed by the fund.

Coggin, Fabozzi and Rahman (1993) for the US, and Brown, Draper and McKenzie (1997) and Blake, Lehmann and Timmermann (1999), for the UK suggests that there is little evidence that active pension fund management consistently generates any returns in excess of benchmark returns. Further there is little evidence in support of any persistency in fund management performance. Nonetheless the sustained growth in equity values over the last fifty years has meant that the value of pensions funds has increased more-or-less at the same rate as the benchmark, ensuring that occupational pension liabilities can be easily met, and in fact has lead to debate about the ownership of pension fund surpluses [Blake (1995)].

The successful ability of occupational schemes to provide satisfactory pensions is a feature that dominates the approach to UK pensions policy. However the occupational pensions model works best for employees who remain with the same employer throughout their working life. Future flexible work patterns, with increased emphasis on self-employment, and with workers unlikely to remain with a single employer means that the occupational pensions model is not one that is necessarily attractive for all employees.

Under the Social Security Act 1986 employers could no longer make membership of schemes compulsory. In addition the act established accrued pension rights to deferred pension entitlements for members who left the scheme before retirement. According to the OFT Report "Successive legislation in the Social Security Acts of 1985, 1986 and 1990 did further to improve the position of early leavers' transfer values" (p. 63).

Typically members of occupational schemes lack the full pension entitlement built up through years of service. The Social Security Act 1986 enabled scheme members to increase their entitlement through additional voluntary contributions (AVCs) when the plan is arranged by the pension scheme, or through free-standing additional voluntary contributions (FSAVCs), if the plan is arranged by some other provider.

Contributions into occupational schemes are made out of pre-tax income. Total employee contributions, including AVCs must not exceed 15% of earnings, to attract tax relief. The Finance Act 1989 also imposed an "earnings cap" on the level of earnings for which contributions attract tax relief. In 1997-98 this limit was £84,000 (£90,600 in 1999/2000).

In the early 'nineties it was revealed that the late Robert Maxwell had appropriated the funds in his companies' pension funds. This abuse by an employer of the use of pension fund assets resulted in the Pension Law Review Committee chaired by Professor Roy Goode, which reported in 1993. The Pensions Act 1995 implemented many of the proposals of the Goode Report, such as the establishment of the Occupational Pensions Regulatory Authority (OPRA) and was designed to improve the security of occupational pension schemes.

IId Personal pension schemes[13]

Personal pension schemes are always *funded* and pay on a *defined contribution* basis. Employees or the self-employed pay regular contributions into a fund, which builds up over time and at maturity the value of this fund is converted into a compulsory annuity which provides the pension. Contributions into these personal pension schemes are subject to tax relief, following approval by the Inland Revenue Pension Schemes Office. Personal pensions are open to both the self-employed and employees whose employer's occupational scheme is not available, though employers often do not contribute to personal pensions.

As with money purchase occupational schemes, the simple formula for the value of a fund after forty years of annual constant contributions is

$$\text{Value of Fund at Retirement} = \text{Contribution} * [(1+ \text{return})^{40} - 1] \div \text{return}$$

where again it is assumed the returns are constant. In fact these returns are random, and hence as with money purchase occupational schemes the individual bears the risk associated with the random value of the fund at retirement. As with the earlier numerical example to generate a fund worth £121,000 assuming a constant return of 5% would require contributions this time from the individual alone of £1,000 per annum.

Contributions into personal pension schemes are made out of pre-income tax income. The Finance Act 1989 imposed limits listed in Table 7 on the percentage of earnings that may attract tax relief.

[13] Personal pensions for the self-employed existed before 1987 and were called retirement annuity contracts

Table 7: Tax Relief on Personal Pension Contributions

Age at start of tax year	Max % of earnings for which tax relief is allowed
<35	17.5
36-45	20
46-50	25
51-55	30
56-60	35
61-74	40

Benefits that a personal pension may pay to a pensioner are a pension (compulsory purchase annuity), to be started between the ages 50-74, and a tax-free lump sum of up to 25% of the value of the pension fund. The value of the protected rights (the amount equivalent to SERPS) may not be taken out until normal retirement age.

As mentioned earlier the Social Security Act 1986 encouraged individual employees to opt out of SERPS and into a funded personal pension scheme, which explains the dramatic growth in personal pensions since 1988. According to the OFT Report (1997) “The take up of approved personal pensions was much more rapid than expected. Between their introduction in 1988 and April 1993, the number of employees with personal pensions reached 5.7 million” (p. 32). Tables 8 illustrates the take-up of personal pensions throughout the nineties. It can be seen that the number of outstanding personal pensions was over 20 million by the end of 1997, though some of these schemes may have lapsed.

The Budget of 1987 gave employees the right to opt for a personal pension, rather than remain in their employers occupational scheme or in SERPS. Some employees were persuaded by over-enthusiastic sales teams of personal pension providers to switch into a personal pension scheme from their occupational scheme, even though in many instances this was disadvantageous to the employee. This resulted in the mis-selling scandal of the late ‘eighties and raised concerns about the regulatory framework in which personal pensions policy operates.

Table 8 reports the numbers of employees who are members of personal pensions operated by insurance companies. Panel A shows the total numbers of policies outstanding at the end of each year and Panel B shows the number of new policies taken out in each year. It appears from Panel A that there are more than 20 million personal pensions outstanding, however can be seen that the average premium per policy in Panel A was only £293 in 1996, whereas the average premium of a new policy was over £15,000 in the case of single one-off contributions and over £1,100 in the case of yearly regular contribution schemes. The discrepancy between the outstanding and new schemes highlights the fact that a large percentage of personal pensions are terminated before maturity due to the cessation of contributions. In the event that a contributor stops paying into the personal pension, the pension scheme is converted to paid-up status, which typically has low maturity values because the plan provider continues to extract the same annual charges as with an active policyceases. The OFT (1997) reports that the Personal Investment Authority in a survey of persistency of personal pensions in 1993/94 finds that 16% of personal pensions were terminated within one year and 28% were terminated within two years. The low contributions rate for personal pensions is a cause for concern since these rates are about one percent of average earnings and are unlikely to build up to a fund value which would generate a pension to live off. In case of new regular pension schemes, the average contribution rates of £1,164 in 1996 using the above formula and assuming a return on investments of 5% should generate a fund value of £140,611 after 40 years.

Types of Personal Pensions:

In general personal pensions involve payments into a pension fund over a number of years. Insurance companies distinguish between regular monthly (referred to as regular premiums) and premiums payable as a lump sum (referred to as single premiums). There are various types of personal pensions. Appropriate Personal Pension Schemes (for individuals) may be contracted out of SERPS, subject to the scheme providing *protected rights* (Contracted-out Money Purchase, COMPS). Rebate-only or Contracted-in Money-Purchase (CIMPs) schemes are for employees who remain in a contracted-in occupational pension, but who leave SERPS; so the personal pension contribution is only the rebate made by the National Insurance Fund.

Self-invested Personal Pensions (SIPPs) are schemes under which members have the freedom to choose the investment decisions of the fund. Group Personal Pensions, are arrangements designed for employees of a particular employer who may participate in a personal scheme on a grouped basis. These are not separate schemes but collective arrangements where each employee has a separate contract with the pension provider. Table 8 Panel D reports the number of Group Policies. Additional Voluntary Contributions (AVCs) and Free-Standing Additional Voluntary Contributions (FSAVCs), enable members of occupational schemes who lack the full pension entitlement built up through years of service, to make additional contributions into a funded scheme. AVCs relate to when the additional contributions are arranged by the pension scheme, and FSAVCs apply when the plan is arranged by some other provider. The number of FSAVCs policies are reported in Table 8 Panel C.

Table 9 shows the numbers of personal pension scheme arrangements over the period 1992-1997 by type of scheme, where the type of scheme can be Rebate only, schemes in which both the DSS and the employee contribute, and schemes in which the DSS, employee and employer contribute. It can be seen from Panel A that this third type of scheme has become the most numerous, though in terms of average amounts being contributed it has relatively small contributions. This illustrates that employers do not typically contribute to personal pensions, a fact that was the main cause of the mis-selling scandal at the end of the 'eighties.

The Other types classification in Table 9 refers to schemes that have contributions from the DSS and employers but not employees, and schemes that are not approved for national insurance rebates.

Table 8: Personal Pension Business Through Insurance Companies

Panel A: Personal Pensions in Force

	1993	1994	1995	1996	1997
No. of Policies (000s)	18,111	18,906	19,922	20,051	20,933
Premiums (£million)	5,034	5,138	5,441	5,609	6,126
Average Premium per policy (£)	278	272	273	280	293

Panel B: New Personal Pensions

No. of New Policies (000s)	1,841	1,333	1,077	1,159	1,356
of which: Single premium (000s)	638	336	230	278	332
Yearly (000s)	1,204	997	848	880	1,024
Premiums on New Single Policies (£m)	4,955	3,889	3,236	4,027	5,041
Premiums on New Yearly Policies (£m)	937	898	832	972	1,192
Average Premium per policy on New Single Policies (£)	7,766	11,574	14,070	14,486	15,184
Average Premium per policy on New Yearly Policies (£)	778	901	981	1,105	1,164

Yearly, means a regular savings scheme

Panel C: FSAVCs

No. of Policies (000s)	663	778	816	905	959
Premiums (£million)	515	587	610	667	703
Average Premium per policy (£)	777	754	748	737	733

Panel D: Group Life Cover Schemes

No. of Members (000s)	3,990	4,179	4,002	4,304	4,727
Premiums (£million)	367	357	387	438	452
Average Premium per member (£)	92	85	97	102	96

Source: ABI Insurance Statistics Yearbook 1987-97

Table 9: Personal Pensions for Employees

Panel A: Number of Arrangements by type of scheme (000s)	1993/94	1994/95	1995/96	1996/97	1997/98
DSS only (rebate only)	2,900	3,070	3,020	2,960	2,840
DSS & Employee	1,500	1,500	1,390	1,310	1,260
DSS, Employee & Employer	1,150	1,250	1,310	1,420	2,920
Other Types	2,500	2,880	2,850	2,840	830
FSAVCs	650	740	770	800	-
Total	8,700	9,440	9,340	9,330	7,850

Panel B: Average amounts contributed by type of scheme (£ per year)	1993/94	1994/95	1995/96	1996/97	1997/98
DSS only (rebate only)	569	570	432	419	468
DSS & Employee	693	753	691	710	817
DSS, Employee & Employer	465	480	454	472	250
Other Types	650	615	633	646	2,639
Across all types	557	556	499	501	673

Source: Inland Revenue Statistics 1998, P. 72, Table 7.2 and 7.5 and Own calculations. Note, individuals may have more than one arrangement

Table 9 shows the numbers of personal pension scheme arrangements over the period 1992-1997 by type of scheme, where the type of scheme can be Rebate only, schemes in which both the DSS and the employee contribute, and schemes in which the DSS, employee and employer contribute. It can be seen from Panel A that this third type of scheme has become the most numerous, though in terms of average amounts being contributed it has relatively small contributions. This illustrates that employers do not typically contribute to personal pensions, a fact that was the main cause of the mis-selling scandal at the end of the 'eighties.

The Other types classification in Table 9 refers to schemes that have contributions from the DSS and employers but not employees, and schemes that are not approved for national insurance rebates.

Personal Pension Investments

Personal pension schemes also need the funds to be managed and administered and involve an employee joining a savings scheme, which will typically be provided by an insurance company, and will involve the employee buying units/paying premiums in a fund which is pooled with other participants in the scheme.

Personal pensions are provided mainly by insurance companies and there are three investment vehicles. Endowment Schemes may be either with-profits (typically with reversionary bonuses, which once announced cannot be withdrawn, and terminal bonuses) or non-profit options (though these may be guaranteed). The structure of with-profits policies means that investment returns are smoothed over time. In contrast, under the second type of investment vehicle, Unit-Linked Schemes (no guarantees), contributions are used to buy units whose value is linked to a specific investment fund, and the value of the pension fund will rise or fall in line with the value of the underlying investments. Finally the third type of investment vehicle is a Deposit Administration Scheme which is similar to a bank account, where the interest on the fund is reinvested, so that the capital value of the fund cannot fall.

Private Pension Charges

The Office of Fair Trading Report (1997) comments on the “high and front-loaded charges” associated with personal pensions. These charges reflect the cost of setting up and running a pension plan and include commission to the salesperson, documentation charges, fund management expenses, administration costs and profits for the provider. Chapman (1999) reports on the wide variety of charges applied to unit linked pension plans: initial bid-ask spreads are typically 5 per cent, annual fund charges of between zero and one per cent of fund value, and plan fees of between two and four per cent. In addition schemes may incur “big-hitting” charges which include reduced allocation of premiums in the early years, capital levies and penalties for early retirement or transfers. The Consumers Association (1997) branded most personal pensions a “ripoff", and estimated that the charges imposed over the life of a personal pension plan reduce the value of a fund by 24 per cent. According to the Consumers Association, the effect of the introduction in 1995 of disclosure requirements designed to bring down charges by promoting competition, had only been to reduce average charges from 26 to 24 per cent.

III Pension Coverage

We have already presented figures in Table 1 on the width of pension coverage. We now examine further evidence on this issue. Table 10 reports the results of the General Household Survey in 1996 which found that about three-quarters of men in full-time work were members of some pension scheme, with sixty five percent of women in full-time work covered by a pension scheme. The coverage was much less for women in part-time work, with only thirty three percent covered.

Table 10: Third Tier Pension Scheme Membership 1996

Percentage of survey who are pension scheme members			
	Of Men Full-time:	Of Women Full-time:	Of Women Part-time:
Occupational pension	58	53	26
Personal Pension	26	18	9
Any Pension	75	65	33

Source: General Household Survey 1996, Table 6.1. Note there may be some overlap in these figures

If we look at pension scheme coverage by socio-economic group in Table 11 Panel A, it can be seen that pension scheme coverage is almost ninety percent in the higher groups, reduced to only half of the sample in the case of unskilled manual workers. Within each category it is always the case that a smaller percentage of women than men are members of a scheme

Table 11 Panel A: Pension Scheme Membership 1996, by Socio-Economic Group

	Percentage of survey who are pension scheme members					
	Professional	Employers & Managers	Intermediate Non-Manual	Junior Non-Manual	Skilled Manual	Semi-Manu
Men Full-time:						
Occupational pension	75	68	72	62	48	46
Personal Pension	27	33	21	21	32	23
Any Pension	89	88	85	75	72	64
Women Full-time:						
Occupational pension	66	63	68	51	41	30
Personal Pension	24	24	20	19	21	17
Any Pension	79	78	80	65	56	46

Table 11 Panel B: Pension Scheme Membership 1996, by Gross Annual Earnings (£)

	Percentage of survey who are pension scheme members					
	<5000	5,000-10,000	10,000-15,000	15,000-20,000	20,000-25,000	25,00
Men Full-time:						
Occupational pension	45	26	50	68	78	75
Personal Pension	17	19	29	27	26	29
Any Pension	57	42	71	85	91	90
Women Full-time:						
Occupational pension	37	30	61	73	83	82
Personal Pension	13	17	18	25	21	16
Any Pension	47	43	74	85	90	91

Source: General Household Survey Tables 6.5, 6.6

In Panel B we report the coverage of third tier schemes by earnings. Over ninety per cent of those who earn over £30,000 per year are a member of some kind of pension scheme, with a higher percentage of women than men in occupational schemes at the upper end of the earnings distribution. There is a large jump in pension scheme membership between the earnings groups £5,000-£10,000 and over £10,000. In all earnings groups there is a smaller percentage of contributors who are members of personal pension schemes than occupational ones.

We examine the coverage of scheme membership by earnings in more detail in Figures 2 to 7 using evidence from the Department of Social Security Second Tier Pension Provision Booklet for 1995/96. We start by constructing the distribution of income using data from the Inland Revenue for 1996/97 in Figure 2. Using the band categories in the diagram defined by the Inland Revenue in terms of the lower limit of annual income, the figure shows that the distribution is unimodal. The median income is about £10,000 per annum, and the mean income is around £18,500. The modal category is £15,000 with just over 2 million individuals earnings over £30,000 per annum. In the subsequent diagrams we report the distribution of scheme members by earnings across the different pension schemes. Figure 3 shows that the 7.497 million members of SERPS in 1995/96 were fairly uniformly distributed across the annual earnings categories, where the earnings bands are defined in terms of the lower limit of annual earnings. Looking at the three occupational schemes in figures 4-6 it can be seen that all are right-hand skewed, demonstrating that there are more scheme members in the higher earnings bands. This skewness is particularly marked in the case of private sector defined benefit schemes (Figure 3), where 60 per cent of scheme members earn more than £15,000 per annum. The implication of these three diagrams is that it is those individuals in higher earnings brackets who are members of occupational pension schemes.

Much more surprisingly is the evidence presented in Figure 7 on the earnings distribution of approved personal pension scheme members. There is a large mass of scheme members, almost two million, whose annual earnings are less than £3,000 per year. Although there is some right-hand skewness over the remaining earnings range, the diagram is dominated by the mass between 0-£3,000. There is some evidence in the occupational schemes that there is some concentration of scheme members in the lowest band, but these are much less dramatic that the evidence in Figure 7. A possible reason for the shape of the earnings distribution in Figure 7, is that members of personal pension schemes have very variable earnings (perhaps they are self-employed) and consequently in any single year there will be a group of these individual who have low earnings. A number of commentators have pointed out [Office of Fair Trading (1997)] personal pension schemes with the commitment to regular contributions may not be the best savings vehicle.

Table 12: Membership of Pension Scheme by length of time employed and self-employed

	Length of Time with Current Employer			
	<2 years	2-5 years	>5 years	Total
Men Full-time				
Occupational pension	27	47	76	
Personal Pension	26	32	24	
Any Pension	48	67	89	
Women Full-time				
Occupational pension	27	46	71	
Personal Pension	15	19	20	
Any Pension	38	60	82	
	Length of Time in Self-employment			
	<2 years	2-5 years	>5 years	Total
Men Full-time (Personal)	39	49	72	64
Women Full-time (Personal)	27	33	49	41

Source: General Household Survey

Table 12 shows that the probability of being a member of a pension scheme is a function of stability of employment. The longer is the length of time within a particular job, (or the longer in self-employment) the greater the chances of joining either an occupational or personal scheme.

The evidence from Tables 10 to 12 is that a large section of the population have access to a second tier pension. From Table 6 it was ascertained that for both defined benefit and defined contribution occupational schemes, average contributions per year represents more than 10 per cent of average earnings. However the evidence from Table 8 is that personal pensions are characterised by much lower contributions rates, and this may be a cause for concern since aside from the issue of persistency of contributions, the low contributions rates of between one and five per cent of average earnings over say forty years are unlikely to build up to a fund value which would generate a pension to live off. Perhaps this low average rate of contribution is not surprising when we can see from Figure 7 the earnings distribution of APP holders is left-hand skewed. But it does raise the question as to whether individuals outside of occupational schemes, have the income or discipline to maintain regular saving contributions.

The Consumers Association (1997) is critical of personal pensions and argues that with the current low contribution rates, an individual at retirement will be "shocked" to discover that there are insufficient accumulated funds to generate an income that will maintain the individual's standard of living. This is an example of Bodie's (1990) replacement adequacy risk. However it is unclear why this problem should suddenly arise, since individuals can identify the adequacy of their funds in the years immediately prior to retirement, and increase contributions if required. Although it is unlikely that an individual in their twenties would be aware of the necessary contributions to generate an adequate replacement rate, individuals in their fifties are more likely to be conscious of the adequacy of their fund. In addition an advantage of a defined contribution scheme is that individuals could stay in employment until they had accumulated sufficient funds to be able to afford to retire.

To illustrate the sensitivity of the terminal value of the fund to additional years of contributions, let us return to the simple compounding formula for the value of a fund after forty years of £1,000 annual constant contributions. We stated that the fund would grow to £121,000 assuming a 5% investment return. In fact after 39 years the value of the fund would be only £114,000, and after 41 years the fund would have grown to £128,000. So it can be seen that deferring the conversion of the pension into an annuity, the size of the fund is very sensitive to extensions to the terminal date.

In the UK it is possible to defer taking the basic state pension, and in fact by deferring, the state pension eventually received increases. Prior to 6 April 2010 for every six days an individual entitled to the full state pension puts off receiving the pension, each part of it will be increased by 1/7p per £1.00 of its weekly rate payable. This works out to an extra 7.5% of pension for a whole year. After 2010 the calculation becomes slightly more generous, and will work out to an extra 10% of pension per year.

Individuals with occupational pensions may not be able to work past the age of 65 as a condition of their employment, but we have already seen, these individuals are unlikely to suffer from the risk of replacement adequacy since actuaries will ensure that the contributions are sufficient to cover the pension liabilities. Hence it is only individuals with personal pensions who run the risk of needing to continue working past the age of 65 to build up their pension fund. But the reason that personal pensions appealed to these types of individuals in the first place is these individuals work under flexible labour market conditions, and consequently they should be able to remain in the labour market past 65 years of age.

This policy might be thought of as increasing the retirement age by default, but as Mantel and Bowers (1999) note, "the most effective way of solving the pension time bomb is to increase the average effective retirement rate" (p. 3). Though this may require additional policies to remove disincentives to work for 55-64 year olds.

IV Government Proposed Changes

The success of occupational pension schemes in the UK provided by the private sector, and demographic concerns about the funding of the state pension has encouraged UK policymakers to examine alternative methods for funding pensions. Continued concerns about demographic trends, meant that pensions policy remained on the political agenda throughout the nineteen nineties. A number of policy reports emphasised the need for additional private sector pension provision in some form. The Retirement Income Inquiry (1996) refer to *Assured Pensions,* Office of Fair Trading (1997) refer to *Designated Personal Pensions,* Consumers Association (1997) refer to *a Personal Retirement Account*, and these studies culminated in the Government's Green Paper (1998) which refers to *Stakeholder* Pensions.

The main proposals in the Government Green Paper "Partnership in Pensions" (December 1998) and subsequent consultation papers are that

- Basic state pension will increase in line with inflation (and is therefore likely to fall in relation to average earnings)
- Means tested Minimum Income Guarantee willl be introduced though Income Support, and all pensioners with full working record will receive pension of at least MIG, when they retire.
- SERPS will be replaced with a flat rate State Second Pension, which guarantees to provide those on incomes of £9,000 per year or below twice the amount that would be given by SERPS. Present carers and disabled will be given credits towards State Second Pension. All funded pensions - occupational, personal or stakeholder schemes - may opt out of State Second Pension scheme
- Stakeholder pensions will be introduced, which are open to all, but targeted at middle income group (between £9,000 - £18,500 per annum), who will be encouraged to opt out of State Second Pension. It is anticipated that stakeholder pensions will be provided by financial institutions and affinity groups, with trustees and an approved governance structure, on a defined contributions basis, and employers without an occupational scheme will be required to identify a stakeholder scheme and facilitate access to it for their employees. A designated stakeholder pension must have low

costs, flexibility in contributions and transfers, and transparency , comparable with CAT standards (cost, access and terms) for ISAs.

• Tax relief will be given on contributions into stakeholder pensions of up to £3,600 per annum. This tax relief will also be applied to personal pensionsand defined contribution occupational schemes

• FSA will regulate the sale of stakeholder schemes and the provision of advice, and OPRA will regulate the operation of stakeholder schemes.

Stakeholder pensions are a government designed financial product which it is expected that private sector financial institutions will supply. A stakeholder pension is a tax-efficient defined contribution savings scheme that must satisfy minimum standards specified by the Government. The scheme must have a single charging structure which is limited to be no more than one per cent of the value of the fund per annum. This "simple and transparent" charging structure should ensure straightforward comparison between schemes, and is a reaction to the much criticised highly complex charging structures of personal pensions. Charging on the basis of fund value rather than contributions, means that unlike personal pensions there will be no front-loading, in fact the reverse, since by requiring the charge to be a percentage of fund value, early in the life of the fund when the fund is small the charges will be small. The minimum standards also specify that the minimum contribution must be no higher that £10, there must be no minimum frequency of contributions, and that transfers into or out of stakeholder schemes should incur no extra charges, so that a stakeholder pension contributor may be able to stop and start contributions at any time, and move between schemes ensuring flexibility in contribution patterns.

The investment policy of any single stakeholder scheme will be determined by the trustees. The trustees will be required to set out the scheme's investment principles, and provide a "default investment option" characterising the scheme. Within any scheme there then may be the possibility of allowing individuals some choice of investment policies over and above the default option. As with personal pensions, it is proposed that the investment vehicles of a stakeholder scheme could be a "with-profits endowment scheme" or a "pooled pension investment" (ppi) like unit-linked schemes where contributions are used to buy units whose value is linked to a specific investment fund.

The costless transfer between schemes should ensure that funds will flow to those stakeholder schemes offering the best returns, or lowest charges. This will put pressure on stakeholder scheme providers to ensure that their investment policies cannot be bettered. In turn this will probably encourage providers to adopt similar investment policies, most likely investing in "tracker funds" [14].

There are a number of issues related to this type of investment policy when adopted by a large section of the market. One concern is that if providers "herd-in" on a particular investment style, the link between stock prices and fundamentals will be broken, which may have a distortionary effect on the supply of capital to some firms. For example the supply of capital to smaller less liquid stocks not in a recognised stock market index may dry up. Although the consequence of this move into passive fund management, might be that the returns to active fund management increases, ensuring an equilibrium amount of active fund management in the market [Grossman and Stiglitz (1980), Genotte and Leland (1990)].

An additional concern is that a supplier who undertakes a more individual investment strategy which performs poorly, and this poor performance is transparent, may take more risks with the funds under management to restore the fund's performance. The regulatory framework needs to ensure that this kind of moral hazard problem does not arise.

Although the Government Green Paper is critical of the high and complex costs, inflexibility and mis-selling of personal pensions, they are not directly affected by the Green Paper. However it would be anticipated that after the introduction of stakeholder pensions, personal pensions would become uncompetitive. So that anyone opening a new pension would choose a stakeholder over a personal pension. This raises the issue of whether existing personal pension holders would be better off

[14] As recommended by the Office of Fair Trading Report (1997)

closing their personal pensions, and opening new stakeholder schemes, or whether there would be requirement that personal pension schemes be allowed to transfer into stakeholders.

One of the reasons for the high cost of personal persons is that they are designed for specific individuals, with the supplier providing information and advice, the cost of which needs to be recouped. Stakeholder pensions are intended to be much simpler, transparent products (CAT standards) so that less advice and information is needed. It is proposed that a prospective purchaser would examine simple decision trees to decide whether to purchase a stakeholder pension. In addition employers would be required to designate a stakeholder scheme. It is not clear that employees will have sufficient information to make a sensible decision as to which stakeholder scheme to join.

Stakeholder pensions look like cheaper versions of personal pensions, except that they are constituted within a trust structure. Indeed the government has recognised [15] that the characteristics of a stakeholder scheme operated by a firm, and a Group Personal Pension Plan would effectively be identical. Consequently stakeholder and personal pensions may be substitutes, and although adding an additional pensions vehicle appears to make the choice of instruments more complex, to the extent that stakeholder pensions will price personal pensions out of the market, their introduction should ultimately simplify the range of pension products.

The extent of competition between personal and stakeholder pensions will depend on the relative tax-efficiency of the alternative schemes. The Green Paper and subsequent consultation document[16] have suggested that all money purchase schemes will be treated similarly and will obtain the same tax relief, limited to annual contributions of £3,600 irrespective of earnings. Any additional contributions above this figure would be subject to the limits in Table 7. Given this similarity of tax treatment, it is difficult to envisage circumstances in which personal pensions would be preferred to stakeholder schemes.

---

[15] Consultation Brief No. 5, Paragraph 39.

On the other hand there are other savings schemes in existence which would also be attractive tax-efficient savings vehicles. In April 1999 the government introduced Individual Savings Accounts (ISAs) to replace PEPs and TESSAs. These are new savings products which allow for combinations of tax free fund growth and income, and do not have the restriction that they have to be taken as a pension. Individuals can save up to £416.66 per month subject to the total contributions in any tax year not exceeding £5,000 (£7,000 in 1999/2000). In contrast contributions into stakeholder pensions will be made out of pre-tax income with a limit up to £3,600 per year, but the ultimate pension will be taxed (subject to a tax-free lump sum). Hence ISAs and Stakeholder pensions offer two alternative tax-efficient savings schemes, one that is taxed on entry with tax free income, and one that has a subsidy on entry, but whose ultimate pension income is taxed. The better scheme for a specific individual will depend on a host of individual circumstances.

V Conclusions

This paper has outlined the three tiers of pensions provision in the UK, and has examined the shift in emphasis from public to private sector provision over the last twenty years. In the late nineteen seventies the second and third tiers of pension support consisted of SERPS and defined benefit occupational schemes, indeed SERPS was introduced to provide support for those employees without access to an occupational scheme. The introduction of personal pensions in the late 'eighties has eroded the importance of SERPS, and has illustrated that funded private sector schemes are viable as pension providers.

The paper reports that eighty per cent of the working population has access to a second or third tier scheme, though whether this represents sufficient depth of coverage is more difficult to ascertain. Members of occupational pension schemes on average contribute about 10 per cent of average earnings into their occupational pension fund. Not surprisingly since these contribution rates are determined by actuaries, the funds will generate a reasonable pension. However in the case of personal pensions the contribution rates are left up to the individual, and the

[16] Consultation Brief No. 6.

evidence is that with current contribution rates the amounts of money going into individual personal pension funds are unlikely to generate sufficient funds to generate a reasonable pension at the age of 65. However we argued that if there are insufficient funds in the defined contribution scheme, the individual will have to postpone retirement, to continue accumulating contributions. In effect this will increase the retirement age.

The paper has analysed the impact of the proposals for stakeholder pensions outlined in the Government Green Paper "Partnership in Pensions" on future pensions provision and subsequent consultation documents. The paper notes that stakeholder pensions look like a superior alternative to personal pensions, and are likely to drive the more complex and expensive personal pensions out of the market. However, questions remain as to whether stakeholder pensions will be attractive to the stated target income group in the income range of £9,000 to £20,000 per annum, since other savings schemes such as ISAs are also attractive tax-efficient products.

References

Blake, D. (1995) *Pension Schemes and Pension Funds in the UK* (Oxford University Press)

Blake D. and M. Orszag (1999) "Annual Estimates of Personal Sector Wealth Holdings in the UK Since 1948", *Applied Financial Economics*, vol. 9, 397-421.

Blake, D., B. Lehmann and A. Timmermann (1999) "Asset Allocation Dynamics and Pension Fund Performance", *Journal of Business* forthcoming.

Bodie, Z. (1990) "Pensions as Retirement Income Insurance", *Journal of Economic Literature*, vol. 28, March 28-49.

Brown, G. P. Draper and E. McKenzie (1997) "Consistency of UK Pension Fund Performance", *Journal of Business Finance and Accounting* 24, March 1997

Budd, A. and N. Campbell (1997) "The Roles of the Public and Private Sectors in the UK Pension System", *HM-Treasury Working Paper*, November.

Chapman, J. "Exposing the Big-Hitters", *Money Management*, January 1999, 72-75.

Coggin, T.D., F.J. Fabozzi and S. Rahman (1993) "The Investment performance of U.S. Equity Pension Fund Managers: An Empirical Investigation" *Journal of Finance,* Vol. 48, 1039-56.

Consumers' Association, *A Blueprint for Better Pensions*, (Consumers' Association 1997).

Davies, E.P. (1995) *Pension Funds*, (Oxford University Press)

Department of Social Security, *A New Contract for Welfare: Partnership in Pensions* (HMSO, 1998)

Department of Social Security, *Stakeholder Pensions: Consultation Briefs 1-6* (HMSO, 1999)

Field, F. (1996), *Phow to Pay for the Future: Building a Stakeholders' Welfare,* (London: Institute of Community Studies)

James, E. (1997) *Avering the Old Age Crisis: An Assessment* (World Bank)

Mantel, J. and D. Bowers (1999) *European Pension Reforms,* (Merrill Lynch, London)

Office of Fair Trading, *Report of the Director General's Inquiry into Pensions*, July 1997

Pension Law Reform (Goode Report) (HMSO, 1993)

Reardon, A. (1997), *Allied Dunbar Pensions Handbook,* (Pitman Publishing, London)

Johnson, P, R. Disney and G. Stears (1996) *Pensions: 2000 and Beyond, Volume 2, Analysis of Trends and Options* Retirement Income Inquiry, (chaired by Sir John Anson) (Institute for Fiscal Studies).

Samuelson, P.A.(1974) “Optimum Social Security in a Life-Cycle Growth Model”, *International Economic Review*, vol.16, 539-544.

Valdes-Prieto, S (1997), *The Economics of Pensions: Principles, Policies and International Experience* (Cambridge University Press)

Ward, S. (1995), *Managing the Pensions Revolution*, (Nicholas Brealey Publishing Ltd, London).

World Bank (1994) *Averting the Old Age Crisis: Policies to Protect the Old and Promote Growth* (World Bank and Oxford University Press)