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Public sector pension schemes: policy objectives and options for the future

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A Discussion Paper by John Adams

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Nuffield Foundation

Executive Summary

Public sector pension schemes are pension schemes run and paid for by the Government for the benefit of public sector employees. They have been the subject of a number of reforms since 2002.

Previous PPI research examined the impact of the 2007/08 reforms to the four main public sector schemes (Civil Service, NHS, Teachers and Local Government) as well as the earlier reforms to the pension schemes of the uniformed services (Armed Forces, Police and Fire). The research found that the Government's reforms have reduced the value of the main public sector pension schemes to public sector workers. However, the value of all the main public sector schemes is still substantially higher than most of the defined contribution pension schemes that are now more commonly offered by private sector employers.[1]

The PPI is undertaking further research on the future of the public sector pension schemes. The research will:

1. Consider if there is a need for further reform of the public sector pension schemes, and identify the policy objectives that any further reforms might aim to address.
2. Identify a set of possible further reforms for the public sector pension schemes
3. Analyse the possible reforms against the identified policy objectives

This report addresses the first two issues above. A further report will be published later in 2010, which will set out the PPI's analysis of the set of policy options. The PPI is not calling for further reforms of the public sector pension schemes. The objective of this research is to provide an independent evidence base to help policymakers to understand the implications of alternative policies.

Current public sector provision

The seven main public sector pension schemes have a combined active membership of a little under 5 million employees.

Six of the main schemes are unfunded, meaning that there is no fund of assets to back the pension promises. Current pensions are paid out using the contributions in respect of current members, with the Government making up any difference. Only the Local Government Pension Scheme has a fund of assets invested to cover the pension promises.

[1] PPI (2008) www.pensionspolicyinstitute.org.uk

The main changes introduced in the 2007 and 2008 reforms were:

- The Normal Pension Age (NPA) of new entrants to the NHS, Civil Service and Teachers' schemes has increased from 60 to 65. Existing members of the schemes have retained an NPA of 60.
- A number of the schemes have changed the amount which employees have to pay in to the scheme. The NHS and Local Government scheme have introduced tiered contributions based on the level of salary.
- Accrual rates have increased for new entrants to the NHS, Teachers' and Local Government schemes for new entrants, from 80ths to 60ths of salary. The separate lump sum accrual, which used to provide a lump sum of 3/80ths of salary for each year of service, has been abolished for new entrants.
- Cost sharing and cost capping agreements are in place for each of the four main schemes. Cost sharing allocates unanticipated increases in the costs of the scheme 50:50 between the employer and the member. Cost capping limits the employer contributions at a certain level, unanticipated costs above this level may fall fully on the members.

The changes have reduced the value of the schemes to new entrants to the four main public sector schemes from around 23% to 20% of salary and for new entrants to the uniformed service schemes from around 37% to 33% of salary.

Is there a need for further reform of the public sector pensions?
Calls for further reforms to the public sector pension schemes have been voiced by a number of organisations. Some of the political parties, business lobby groups and trade unions have publicly discussed possible options for the future of public sector pension schemes.

It is useful to determine a set of desirable policy objectives for any reforms to the public sector pensions. The effectiveness of suggested reforms can then be measured against these objectives. Potential objectives for reform could be:

- to ensure that public sector pensions provide adequate pensions for public sector workers in their retirement,
- to address concerns that public sector pension schemes are unaffordable and not financially sustainable,
- to improve the transparency of the cost of the pensions being offered to public sector employees
- to address perceptions that public sector pension schemes offer higher levels of benefits than private sector pension schemes,
- to address unfairness between members within the same public sector pension scheme, and
- to enable the Government to recruit and retain high quality staff.

Options for the future of the public sector pension schemes

There have been a number of calls for reform or specific policy proposals made. These have fallen into a number of different broad categories of proposals. These are:

- *Continue current policy*, and implement the already agreed reforms for new entrants with no further change. In particular it assumes that the already agreed cost sharing and cost capping agreements are implemented.
- *Make changes to existing final salary schemes* such as increasing normal retirement ages in line with changes to the state pension age, placing a cap on the benefit accrued or increasing member contributions further.
- *Risk sharing measures* such as moving schemes to career average arrangements such as the civil service scheme or implementing hybrid scheme with a defined benefit arrangement on a base salary with a defined contribution top up.
- *Move to defined contribution arrangements* such as looking at the impact of moving to a funded defined contribution system or a notional defined contribution system such as the one used in Sweden.

The PPI will publish an assessment of these policy options against the policy objectives set out above later in 2010.

Introduction

Public sector employers and unions have been discussing reform proposals to all major public sector pension schemes since 2002. The implementation of reforms in 2007 and 2008 has once again focused attention on the public sector pension schemes.

Longer periods spent in retirement are increasing the cost of all pension provision. The main plank of the Government's public sector pension reforms – an increase in the normal pension age from 60 to 65 for new joiners to the main schemes – has been seen as a way to improve the schemes' affordability and sustainability and to reflect the practice of the majority of private sector pension schemes. However, the reforms have been controversial, with the public sector unions resisting uncompensated reductions to the value of their members' pensions and others in the private sector questioning whether the reforms have gone far enough.

Previous research by the Pensions Policy Institute examined the impact of the reforms introduced between 2007 and 2008 to the main public sector pension schemes, on public sector employees, on the sustainability of public sector pension schemes and on the differences between pay and pensions between the public and private sectors. The research found that the Government's reforms have reduced the value of the main public sector pension schemes to public sector workers. However, the value of all the main public sector schemes is still substantially higher than most of the defined contribution pension schemes that are now more commonly offered by private sector employers.[2]

There have recently been a number of calls for further reform of public sector pensions from political parties, business organisations and think tanks among others.

The PPI is undertaking further research on the future of the public sector pension schemes. The research will:

1. Consider if there is a need for further reform of the public sector pension schemes, and identify the policy objectives that any further reforms might aim to address.
2. Identify a set of possible further reforms for the public sector pension schemes
3. Analyse the possible reforms against the identified policy objectives

This report addresses the first two issues above. A further report will be published later in 2010, which will set out the PPI's analysis of the set of policy options.

[2] PPI (2008) www.pensionspolicyinstitute.org.uk

The PPI is not calling for further reforms of the public sector pension schemes. The objective of this research is to provide an independent evidence base to help policymakers to understand the implications of alternative policies.

This project has been funded by the Nuffield Foundation and the PPI is grateful for its support. A previous draft of this report was used to prompt discussion at a round table event hosted by the Nuffield Foundation on 28 January 2010. The purpose of the event was to seek views from stakeholders and interested parties on the appropriate objectives and policy options set out in this report. A list of the organisations represented by participants at the discussion is given in Appendix 1.

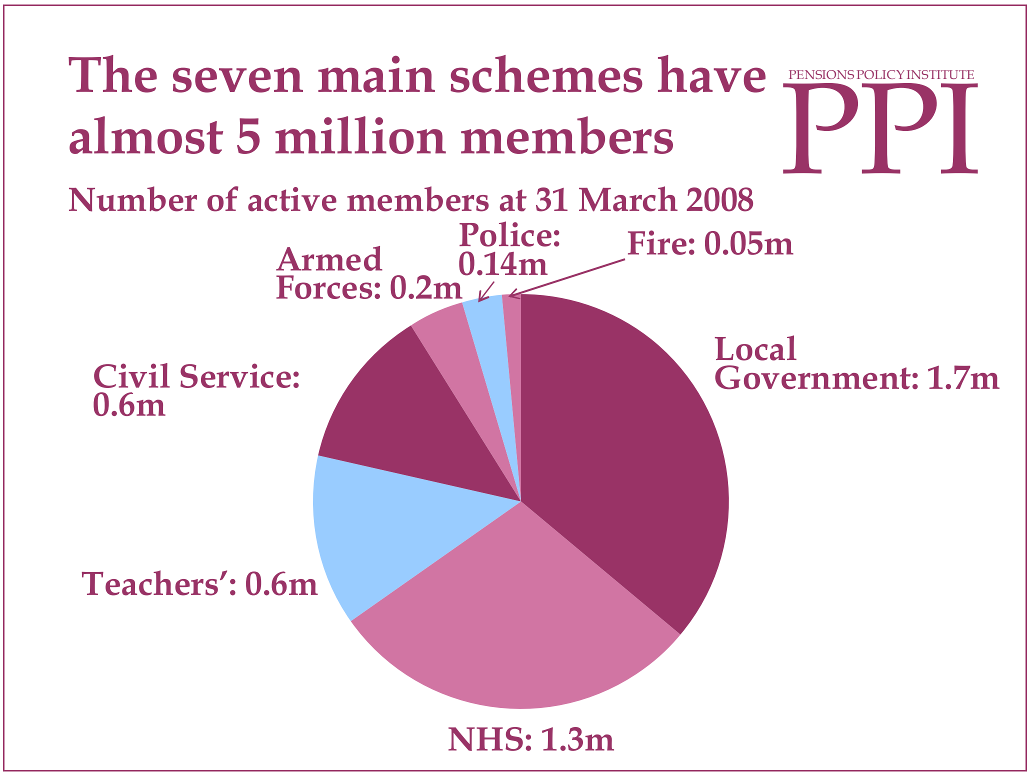
Chapter one: what is the current public sector pension provision?

This chapter describes the state of the current public sector pension scheme provision in the UK. It sets out what we mean by public sector pensions. It outlines the main public sector pension schemes and the reforms introduced from 2002 up to those which came into force in 2008.

What are public sector pension schemes?

Public sector pension schemes are pension schemes run and paid for by the Government for the benefit of public sector employees. The vast majority of members are in the seven main schemes, which have a combined active[3] membership of around 5 million people (Chart 1).

Chart 1[4]



There are a number of much smaller schemes. The schemes for MPs, the Judiciary, and the Research Councils have a combined active membership of around 11,000 people.[5] There are also 'quasi-public' sector pension schemes, where the Government owns all of or part of the sponsoring company or corporation (such as the Civil Aviation Authority Scheme or the BBC Scheme),

[3] 'Active members' are those members who are building up new benefits in the scheme
[4] Figures for Civil Service, Teachers, NHS and Armed Forces are from individual scheme accounts for 31 March 2009. Figures for Local Government from, CLG (2009) Table 7.2g. Figures for the Teachers' scheme are for England and Wales only. Figures for the Local Government scheme are for England only.
[5] Figures from individual scheme accounts for 31 March 2009

or where the Government has underwritten part or all of the benefits (such as the British Coal Pension Scheme). Such schemes have a combined active membership of around 345,000 people.[6]

This report concentrates on the seven main schemes in Chart 1. Unless otherwise stated, this report refers to the England and Wales schemes; some of the schemes run as separate entities in Scotland and Northern Ireland.[7]

Six out of the seven main public sector pension schemes are unfunded

The seven main public sector pension schemes are unfunded, with the exception of the Local Government scheme. This means that pension benefits are met by current government income as and when they fall due. In contrast, all registered[8] occupational pension schemes in the private sector are funded, which means that scheme members' pension rights should be covered by assets held under trust.

Public sector employers who offer an unfunded public sector pension scheme for some of their employees pay contributions to a sponsoring government department as if the scheme were funded. Under this system, known as SCAPE (Superannuation Contributions Adjusted for Past Experience), employer contributions form part of the employer's annual budget. The Government pays out pensions to retired pension scheme members, netting off the employer and member contributions received.

The main public sector pension schemes are also:

- **Statutory.** This means that they were established and are reformed through Acts of Parliament.[9] Private sector pension schemes can be amended by the trustees or closed down by the sponsoring company.

- **Nearly[10] all Defined Benefit.** This means that the rules of the schemes set out a formula for the level of benefits that the scheme will provide for members. This contrasts with Defined Contribution schemes, where scheme members and employers pay contributions that are invested and the level of benefits depends on the size of a member's fund at retirement and the annuity rates available at the time of retirement.

[6] PPI (2005) page 40
[7] These are the Teachers', NHS and Local Government schemes
[8] ''Registered' means that the scheme can qualify for tax advantages
[9] All of the main public sector pension schemes can now be amended by secondary legislation. Prior to 2005, amending the Armed Forces scheme required Acts of Parliament, which is more onerous procedure.
[10] There are some public sector Defined Contribution schemes such as the Partnership section of the Civil Service scheme, but these have a very small membership

In the private sector, only around 38% of Defined Benefit schemes are still open for new joiners.[11] Larger Defined Benefit schemes are more likely than smaller Defined Benefit schemes to be open to new joiners, so that almost half (47%) of active members of private sector Defined Benefit schemes are in schemes that are still open to new joiners.[12] With fewer Defined Benefit schemes being set up in the private sector,[13] the number of active members of private sector Defined Benefit schemes is nevertheless likely to continue to fall in future if current trends continue. The number of active members of private sector occupational Defined Contribution schemes has remained relatively constant in recent years.[14] There has, however, been a growth in the number of people in employer-sponsored personal pensions.[15]

- **Multi-employer schemes.** The NHS, Civil Service, Teachers', and Armed Forces schemes are all single schemes that are administered nationally. In each case, there are several employers (for example, individual NHS Trusts or Government Departments) that contribute to the same scheme. The Local Government, Police and Fire schemes are administered by local authorities. For example, there are 89 separate Local Government schemes in England and Wales. Although central government is responsible for the regulatory framework that applies across all of these schemes, the individual schemes are administered, managed and funded at a local authority level.

  A single place of work in the public sector could contain employees in several different public sector pension schemes. For example, teachers in the Teachers' scheme work alongside teaching assistants in the Local Government scheme.

- **Operate a policy of auto enrolment.** This means that eligible employees in the public sector are automatically members of a pension scheme, unless they actively decide to opt out. The Pensions Act 2008 contains requirements that all employers, in both the private and the public sector, enrol automatically most employees[16] into a private pension scheme from 2012.

[11] Figure for 2007. TPR and PPF (2007) page 31. Estimates vary; for example, ONS (2008a) Figure 2.6 suggests that only around 20% of private sector Defined Benefit schemes with a single section were open to new joiners in 2007, but response rates were relatively low for the smaller schemes. Single section schemes accounted for almost all (98%) of private sector pension schemes.
[12] Figure for 2007. ONS (2008a) page 16
[13] PPI (2007) page 21
[14] ONS (2008a) page 16. There was a decline between 1995 and 2007 from 1.1m to 0.9m.
[15] DWP (2008 IA) Figure F.2
[16] Jobholders aged between 22 and state pension age and earning more than around £5,000 a year

There have been a number of reforms to the public sector pension schemes implemented between 2007 and 2008. For the most part these reforms affect new joiners to the schemes. The main components of these reforms are:

- **Increased Normal Pension Age for new joiners.** The Normal Pension Age (NPA) of new entrants to the NHS, Civil Service and Teachers' schemes has increased from 60 to 65. Existing members of the schemes have retained an NPA of 60.

- **Changes to employee contribution rates.** A number of the schemes have changed the amount which employees have to pay in to the scheme. The Teachers' scheme has increased the rate of employee contributions from 6% to 6.4% for all members. The NHS and Local Government scheme have introduced tiered contributions based on the level of salary. Some lower paid staff may pay lower contributions than they would under the pre-reform schemes whereas higher paid staff may pay a higher level of contributions.

- **Change in the accrual rate.** Accrual rates have increased for the NHS, Teachers' and Local Government schemes for new entrants, from 80ths to 60ths of salary. The separate lump sum accrual, which used to provide a lump sum of 3/80ths of salary for each year of service, has been abolished for new entrants. New entrants to the schemes can now only receive a lump sum at retirement if they exchange (or 'commute') part of their pension.

- **Cost sharing and cost capping.** Cost sharing and cost capping agreements are in place for each of the main schemes. Cost sharing allocates unanticipated increases in the costs of the scheme 50:50 between the employer and the member. Cost capping limits the employer contributions at a certain level, unanticipated costs above this level may fall fully on the members.

Table 1 sets out the main provisions of the seven main public schemes and how they have been reformed.

Table 1: Summary of the main elements of the reforms to public sector pension schemes (all reforms are for new joiners only unless otherwise stated)

	NHS[17]	**Teachers'**	**Civil Service**[18]	**LGPS (reformed for all members)**	**Armed Forces**	**Police**	**Fire**
Normal Pension Age (NPA)	60 à 65	60 à 65	60 à 65	Remains 65; Rule of 85 abolished for new service with transitional protection	No change from 55	50 with 25 years' service (below 50 with 30 years); 55 (57 or 60 for higher ranks) à 55	55 (from 50 after 25 years' service) à 60
NPA for early leavers	Same as NPA	Same as NPA	Same as NPA	Same as NPA	60 à 65 (all members)	60 à 65	60 à 65
Basic design	Remains final salary	Remains final salary	Final salary à Career average	Remains final salary	Remains final salary	Remains final salary	Remains final salary
Accrual rate	80ths à 60ths	80ths à 60ths	60ths à 2.3%	80ths à 60ths	69ths (91ths after 22 years)[19] à 70ths	60ths (30ths after 20 years) à 70ths	60ths (30ths after 20 years) à 60ths
Additional lump sum?	3 x pension à commutation	3 x pension à commutation	Commutation only	3 x pension à commutation	No change from 3 x pension	Commutation à 4 x pension	Commutation only
Late retirement enhancement?	No à Yes	No à Yes	No à Yes	No à Yes	No	No	No
Draw-down option?	Yes	Yes (all members)	Yes (all members)	Yes	No	No	No
Rate of e'ee contributions[20]	6% (5%) à 5-8.5% (for all members)	6% à 6.4% (for all members)	No change from 3.5%	6% (5%) à 5.5-7.5%	Remains non-contributory	11% à 9.5%	11% à 8.5%
Cost sharing?	Yes	Yes	Yes	Yes	No	No	No
Eligibility for survivor's pension	Now includes non-legal partners and payable for life (but only for new joiners in the Police and Fire schemes)						
Survivor's pension on death in retirement	Remains a 160ths pension	Remains a 160ths pension	160ths à 3/8ths of member's pension	Remains a 160ths pension	50% à 62.5% of member's pension	Remains 50% of member's pension	Remains 50% of member's pension
Ill-health benefit	1-tier à 2-tier	1-tier à 2-tier	Remains 2-tier	1-tier à 3-tier (proposed)	1-tier à 2-tier	1-tier à 2-tier	Remains 2-tier
Timescale	1 April 2008	1 January 2007	30 July 2007	1 April 2008	6 April 2005	6 April 2006	6 April 2006

[17] The scheme for salaried staff is illustrated. Self-employed members, such as GPs and Dentists, have a career-average scheme that is not shown
[18] The Premium section of the Civil Service scheme is illustrated here, since the Classic section has been closed to new members from 2002.
[19] For other ranks. Officers have higher accrual rates.
[20] If a range is shown then employee contributions depend on pay. Figures in brackets denote special provisions for certain categories of workers.

Existing members may receive greater value from a pension scheme
The date on which the scheme changes were implemented is different for each scheme Table 2 sets out the implementation dates for each of the 4 main schemes.

Table 2: Date of implementation of 2007/08 reforms

Scheme	Date of implementation
Teachers Pension Scheme	1 January 2007
Principle Civil Service Pension Scheme	30 July 2007
NHS Pension Scheme	1 April 2008
Local Government Pension Scheme	1 April 2008

In this report an "existing member" is an employee who was a member of the scheme before the scheme's implementation date. A "new joiner" is an employee who joins after the implementation date.

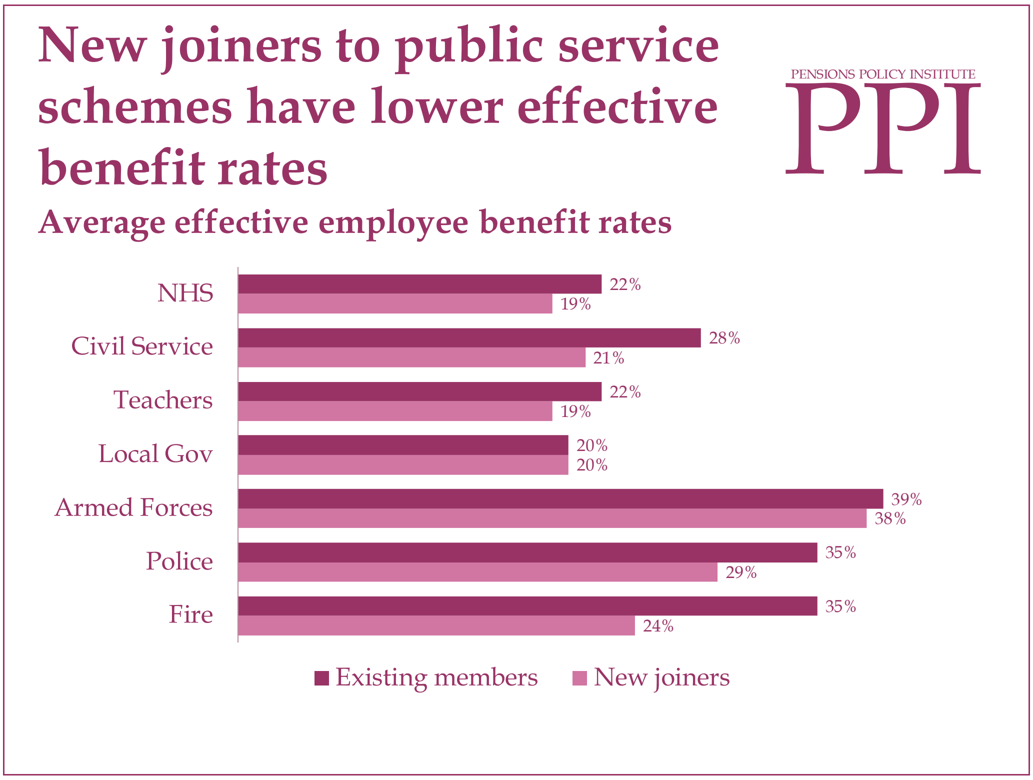
Measuring the value of pensions to employees
To quantify the impacts of the reforms, the value of the public sector pension schemes to members of the schemes has been modelled. The measure used is the 'effective employee benefit rate', which:

- Is expressed as a percentage of salary.
- Is calculated as the amount that would be needed to 'buy' the benefits of the scheme, as if it were a funded scheme. Member contributions have been deducted, to show the notional remaining amount that is contributed by the employer.
- Takes account of the main features of the schemes' designs, including their normal pension age, accrual rate, survivors' benefits, ill-health benefits, and death-in-service benefits.
- Is an estimate of the additional value of the pension to an individual in each type of scheme.[21] If the effective employee benefit rate in Scheme A is 20% of salary and in Scheme B is 15% of salary, then the members of Scheme A are in effect receiving benefits worth 5% of salary more than those of Scheme B.

The average value of the effective employee benefit to new joiners of the four main public sector pension schemes (for the NHS, Civil Service, Teachers and Local Government), is 20% of salary.[22] The average value of the effective employee benefit for existing members is 23%. The precise difference between new joiners and existing members vary from scheme to scheme (Chart 2).

[21] This is different from the estimated cost of the scheme to the employer. Such employer cost calculations use assumptions that are specific to the scheme. This could lead to differences in value which are a result of differences in assumptions. We have used a single set of assumptions so that only differences in the benefits offered to an individual lead to a difference in value.
[22] PPI (2008)

Chart 2[23]



The schemes for the uniformed services – the armed forces, police and fire services – are much smaller than the main four schemes. Together, they have around 0.4 million active members, in comparison to the 4.1 million active members of the four main schemes. The pension schemes of the uniformed services are more valuable than the main schemes for pre-reform members (Chart 2). The reforms have reduced their value for new entrants; the average effective employee benefit rate for new entrants to the uniformed service schemes has fallen from 37% to 33%. However they remain more valuable than the main schemes post-reform.

[23] PPI (2008)

Chapter two: is there a need for further reform of the public sector pensions?

A number of organisations have called for further reforms of the public sector pensions. However it isn't always clear what the policy objectives are for any further reforms. This chapter considers the possible policy objectives that any further reforms of the public sector pension schemes might aim to meet.

Some organisations believe further reforms are necessary

Calls for further reforms to the public sector pension schemes have been voiced by a number of organisations. Some of the political parties, business lobby groups and trade unions have publicly discussed possible options for the future of public sector pension schemes. In recent years a number of senior politicians have called for a review of public service pension provision suggesting a possible move to defined contribution,[24] capping benefits,[25] or simply calling for a review[26]. Both the Institute of Economic Affairs (IEA) and the Institute of Directors (IoD) have published papers calling for some reform of the public sector pension system in the last couple of years. The IEA and the IoD launched a joint enquiry body in December 2009 to investigate the need for further reform to public sector pensions. The Trades Union Congress (TUC) has defended the current public sector pension schemes; they argue that the real problem is not over-generous public sector pension schemes but under-generous private sector pension schemes.

What might be the objectives of further reform of the public sector pension system?

The possible objectives for further reform of the public sector pensions might include:

- to ensure that public sector pensions provide adequate pensions for public sector workers in their retirement,
- to address concerns that public sector pension schemes are unaffordable and not financially sustainable,
- to improve the transparency of the cost of the pensions being offered to public sector employees
- to address perceptions that public sector pension schemes offer higher levels of benefits than private sector pension schemes,
- to address unfairness between members within the same public sector pension scheme, and
- to enable the Government to recruit and retain high quality staff.

[24] David Cameron suggested a "move increasingly towards defined contribution rather than final salary schemes" in November 2008

[25] George Osborne speech to the Conservative Party Conference in October 2009

[26] Vince Cable in his paper *Tackling the Financial Crisis*

To ensure that public sector pensions provide adequate pensions for public sector workers in their retirement
One of the main reasons that employers give for providing pensions is to look after their employees in retirement.[27] This implies that an objective of pension provision may be to ensure that members have adequate money to live on while in retirement.

A common measure of adequacy when considering the pension from pension schemes is the replacement rate. The replacement rate compares the income received by a person after retirement, including benefits from the state as well as pension income, as a proportion of the salary that they received before retirement. The Pensions Commission suggested "benchmark replacement rates" as a "reasonable judgement to guide assessment of adequacy", which would allow individuals to broadly replicate in retirement the living standards they had had while working (Table 3).

Table 3: Benchmark replacement rates[28]

Earnings (in 2004 earnings terms)	Replacement rate
Over £50,000	50%
£25,000 - £50,000	60%
£17,500 - £25,000	67%
£9,500 - £17,500	70%
Less than £9,500	80%

State benefits provide some level of income in retirement but are unlikely to fulfil a replacement rate on their own. For example, a man who retires at age 65 in 2008 having worked for 44 years at the median pay level would require £264 a week to meet his replacement rate. His entitlement to state pension benefits would be £187 a week, leaving a shortfall of £77 a week.[29] This leads to a gap which must be filled from elsewhere. For public sector workers this gap may be filled by public sector pensions.

Public sector workers with a full work history and continuous membership of a defined benefit salary pension may find that they can achieve their replacement rate. However if public sector pensions were to provide lower levels of retirement income in the future then there is a potential need for further government spending in other areas, for example from state pension or means tested benefits.

[27] DWP (2008)
[28] Pensions Commission (2004) p143
[29] PPI (2009) Weekly state benefits consist of £90.70 Basic State Pension, £91.92 SERPS/S2P and £4.34 Graduated Pension Scheme. If he were a member of a contracted out workplace pension scheme, such as a public sector pension scheme, the SERPS/S2P would be paid as part of the work place pension. The amount required from the pension scheme to achieve the replacement rate would therefore be around £169 a week.

Improving the affordability and financial sustainability of public sector pension schemes

Public sector pension schemes are seen as expensive. An objective of any further reforms may be to ensure that no unreasonable burden is placed on the taxpayer in the short or long term (either through centrally collected taxes or local taxes). The most recent government estimate of the outstanding liability of the unfunded pension schemes is £770bn[30] in 2008. This figure does not include the Local Government pension scheme which is a funded scheme.

Recent Government estimates of the liabilities have been on an upward trend (Table 3), however, this does not by itself suggest that the actual underlying cost of public sector pensions to the taxpayer is increasing. Much of the change is attributable to accounting effects such as changes in the discount rate[31], which do not mean that the size or timing of future pension payments by the schemes have been altered, but which reflect the recording and presentation of the liability of these payments in the scheme accounts.

Table 3:[32] Recent Government estimates of the liability of the public sector pension schemes and the underlying discount rate assumptions

31 March	Liability (£ billion)	Real discount rate Schemes funded directly by central Government	Police & Fire schemes
2004	460	3.5%	3.5%
2005	530	3.5%	2.4%
2006	650	2.8%	1.6%
2007	810	1.8%	
2008	770	2.5%[33]	

Different discount rates may be useful for different objectives. For example, market based corporate bond yields such as those used by the Government in Table 3 are consistent with those used by private sector companies to account for their pension scheme liabilities. The liabilities disclosed by Government accounting of their pension schemes may therefore be compared on a consistent basis with those of private sector companies.

Other organisations have made different assumptions about the discount rate than the Government and have calculated much larger liabilities for the unfunded public sector pension schemes. For example, using a discount rate in line with an index-linked gilt yield, results in an estimate of around £1,100 billion as the liability of the unfunded public sector pension schemes in 2008.[34] The rationale for using a discount based on the index linked gilt yield is to

[30] HMT (2009)
[31] This is the interest rate used to adjust future liabilities to current values. See Appendix 2 for more information.
[32] Liability figure includes the schemes for the NHS, Teachers, Civil Service, Armed Forces, Police, Firefighters, Judiciary and Atomic Energy Authority. HMT (2009), HMT (2008) page 38 and HMT (2006 PSP).
[33] HMT (2008 PES)
[34] Record (2009)

consider unfunded public sector pension liability as representing a debt on the Government in the same way as gilts, and therefore value them using the same yield.

It can be hard to interpret liabilities and make comparisons over time when using any market related discount rate whether corporate bonds or gilt yields. The differences that arise as a result of using continuously changing discount rates can overshadow any fundamental differences arising in the scheme before and after reforms.

In whichever way the liability is estimated, this amount of money will not need to be found at any single point of time, but over a period of fifty years or more as the pension entitlements and other benefits that have built up in the past become due. It can be more useful to consider affordability in terms of the ongoing costs of the public sector pension schemes.

Ongoing cost of public sector pension schemes

The Government argues that *measures of public debt (such as the liability) have often been the prime focus when analysing the sustainability of public finances. Debt (less liquid financial assets) is the cumulative outcome measure of past borrowing, and as such provides a measure of obligations created in the past that have been accumulated to date….* However, debt is a backward-looking indicator and as such is not designed to answer the question of whether a government will be able to meet its obligations as and when they arise in the future.[35]

It is possible, using government figures, to estimate how much the Government needs to payout each year to meet its public sector pension obligations less the amount already contributed by the members of the public sector schemes. This gives an estimate of the annual cost to the taxpayer of the unfunded schemes. A broad projection of the amount paid out each year less the member contributions received is shown in Chart 3.

[35] HMT (2008) page 20

Chart 3[36]

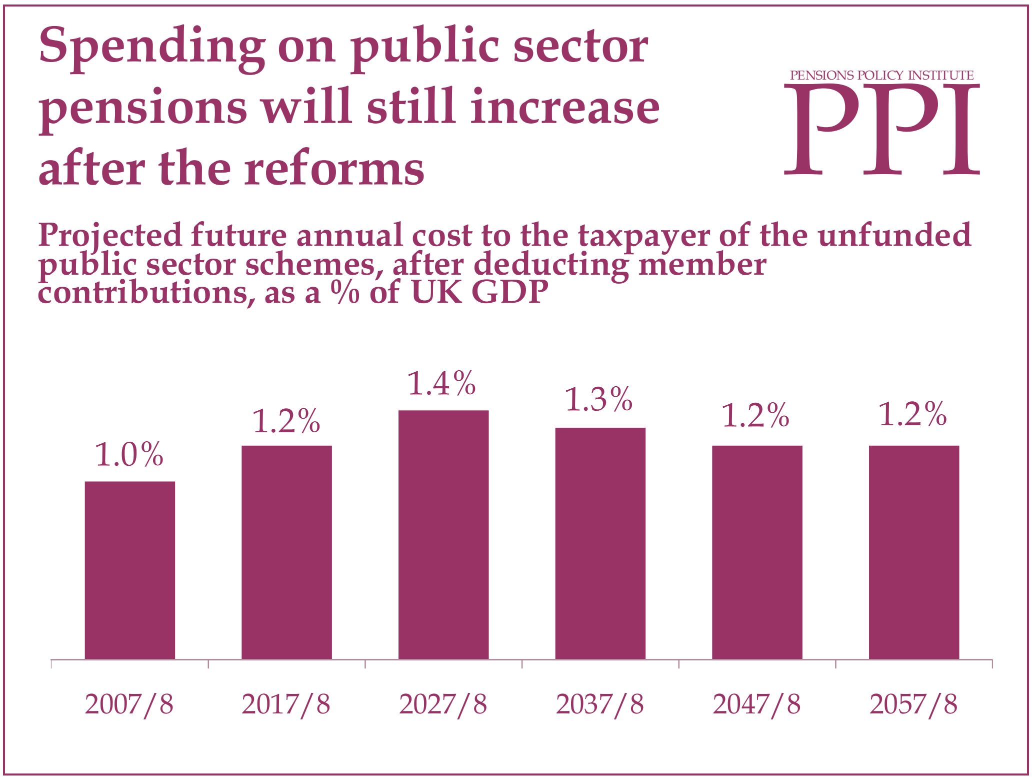


Chart 3 shows that the annual cost to the taxpayer of the unfunded schemes is projected to increase by 40% over the next twenty years, from 1.0% of GDP (£14 billion) to 1.4% of GDP in 2027/8, before reducing to around 1.2% of GDP. This excludes the Local Government Pension Scheme, which is a funded scheme and does not include any potential impacts to the costs to the Government of providing the schemes arising from the cost sharing and cost capping agreements.

Attempts to cut the cost of public sector pension provision may have limited impact in the short term. Reforms that cut the cost of benefits currently building up will impact the spending only when those pensions come into payment. Pensions being paid to the current generation of pensioners are unaffected so the running cost is not reduced in the short term.

To improve the transparency of the cost and value of the pensions being offered to public sector employees

Pension schemes may form a substantial part of the remuneration package of an employee. If employees do not fully understand the value of their pension then they may not be able to compare employment opportunities objectively.

[36] PPI calculations based on HMT (2008) Table 4.1 and ONS Pension Trends Table 8.12. In the absence of detailed projections of aggregate member contributions, the figures assume they will increase as a proportion of GDP from 0.5% to 0.6%, in line with the recent increases to member contribution rates.

It may be an objective of any further reforms that there is greater transparency about the cost of providing the public sector pension schemes and the value of these benefits to public sector workers. Ideally employees would understand the benefits being offered in their public sector scheme and have a method of comparing the value of the schemes of potential employers. Ideally this comparison should allow for a consistent value of benefits between employers.

For example, if a private sector employer offers the same benefits as a public sector employer, the value should be equal. It could be argued that a public sector pension backed by the Government is less risky, and therefore more valuable, than one backed by a private sector employer. However, differences in the risks of payment between the employers have been considerably reduced since the introduction of the Pension Protection Fund especially for the vast majority of employees who will have pensions below the PPF compensation cap.[37]

To address perceptions that public sector pension schemes offer higher levels of benefits than private sector pension schemes,
Occupational pension schemes in the public sector are widely thought to offer higher levels of benefit for the member than those available in the private sector, particularly after many private sector employers have cut back on private sector pension provision. It may be an objective of a set of public sector pension reform options to increase the fairness between public sector and private sector remuneration. This includes fairness in terms of the monetary value of the pensions and/or total remuneration as well as the relative risks to those pensions (such as investment risk and longevity risk).

Public sector employees are more than twice as likely to be a member of an employer-sponsored pension scheme as private sector employees; around 85% of public sector employees are members of a scheme, compared to only 40% of private sector employees.[38]

Private sector employees who are enrolled in an employer sponsored pension scheme are less likely to be a member of a defined benefit pension scheme. Most public sector pension schemes are defined benefit. 90% of the members of employer-sponsored public sector pension schemes are in defined benefit schemes, this compares with only around 30% of the members of private sector employer-sponsored pension schemes in defined benefit schemes.[39]

[37] PPF compensation cap from April 2009 is £31,936.32. http://www.pensionprotectionfund.org.uk
[38] ONS 2008 Annual Survey of Hours and Earnings Pensions Analysis. 'Employer-sponsored pension scheme' means a pension scheme that is arranged through an employer. Includes people with a group personal pension but not people who only have a personal pension that they arranged individually with a pension provider. Includes schemes that do not receive contributions. Figures are based on numbers of jobs and so some individuals with more than one job may be counted more than once. Group personal pensions include group stakeholder pensions.
[39] ONS (2008) These figures include only contracted-out defined benefit. There are a further 4% of public sector pension scheme members and a further 6% of private sector pension scheme members who are members of contracted-in defined benefit schemes. These were excluded to ensure a like for like comparison; the contracted out schemes have all passed the Reference Scheme Test.

There is significant diversity of pension provision within the private sector. Three stylised models of Defined Benefit schemes were therefore developed in the 2008 PPI assessment of the Government's reforms to public sector pensions,[40] with 'low', 'medium' and 'high' benefits (Table 4). These are derived based on a survey of typical benefits of DB schemes in the private sector. The medium benefits scheme, for example, has the most common normal pension age, accrual rate, definition of pensionable salary, member contribution rate, level of pension increases and death in service benefit. The majority of private sector DB schemes have some of the characteristics of the medium benefits example.

Table 4:[41] Design of private sector DB schemes (figures in brackets show the percentage of active members who fell into the categories shown in 2007)

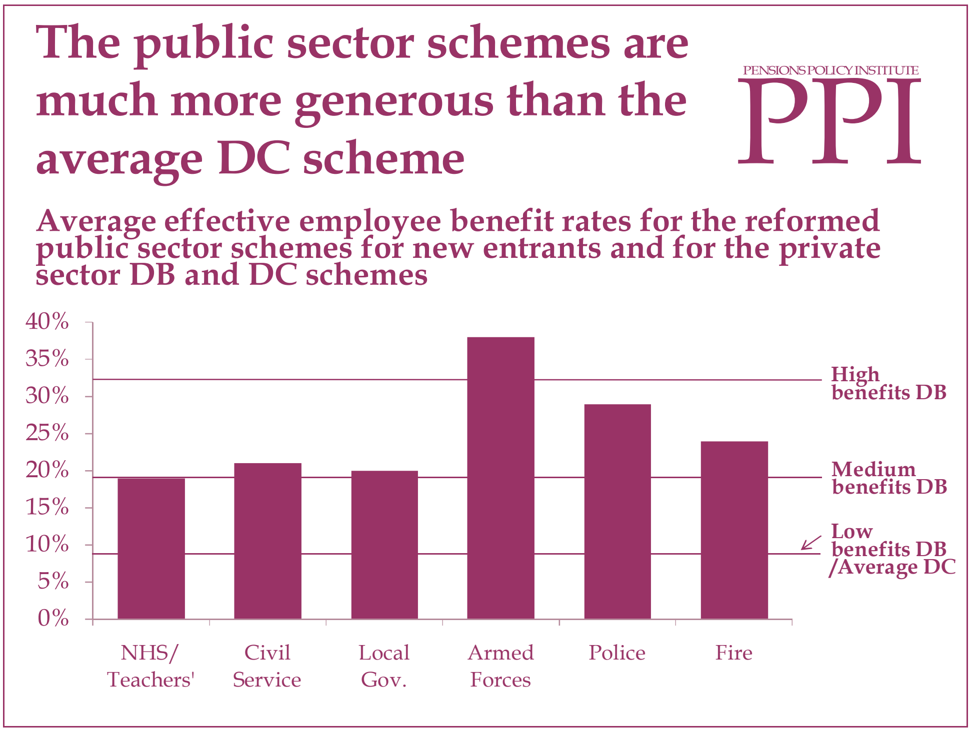
	Low Benefits	Medium benefits	High benefits
Normal Pension Age (NPA)[42]	65 (67%)	65 (67%)	60 (30%)
Accrual rate	Lower than 60ths[43] (12%)	60ths (73%)	Higher than 60ths (15%)
Pensionable salary	Earnings below the LEL excluded (19%)	All earnings up to the earnings cap included (over 70%)[44]	
Member contribution rate	Over 7% (23%)	5% to 7% (44%)	Under 5% or non-contributory (33%)
Pension increases[45]	Statutory minimum: RPI subject to a cap of 2.5% (21%)	RPI subject to a cap that is greater than 2.5% (54%)	Full uncapped RPI (14%)
Death in service lump sum	Less than 3 times salary (4%)	Between 3 and 4 times salary (46%)	4 times salary or greater (50%)[46]

Chart 4 shows that the value of four main unfunded public sector pension schemes (for the NHS, Civil Service, Teachers and Local Government) for new joiners under the reforms that have already been introduced are similar to a medium private sector Defined Benefit scheme. The average value of a private sector Defined Contribution scheme is around 7% of salary, however, which is significantly lower than the value of the reformed public sector pension schemes. It should be noted that individuals with a private sector DC pensions

[40] PPI (2008)
[41] ONS (2008). Percentages do not necessarily add up to 100% across the rows. For example, the low benefits scheme is assumed to have the same normal pension age as the medium benefits scheme (65), because very few private sector DB schemes have a normal pension age higher than 65.
[42] A further 9% of active members have an NPA of between 61 and 64 or under 60
[43] Includes 80ths plus separate lump sum
[44] The ONS report does not allow this percentage to be calculated precisely
[45] A further 4% of active members have a guarantee of the statutory minimum but fund for or target higher discretionary increases; 7% fall into an 'other' category
[46] The modelling of the high benefits scheme assumes a death in service lump sum of 4 times salary

will also be accruing rights to the State Second Pension which may provide an additional benefit of around 3% of salary on average.

Chart 4[47]



The schemes for the Armed Forces, Police and Fire remain more valuable than medium benefit private sector Defined Benefit scheme and are significantly more valuable than the average private sector Defined Contribution schemes (Chart 4). If the shift from DB to DC continues in the private sector, and contribution rates in DC schemes do not increase, the difference between the average pension provision of public and private sector employees may continue to grow.

Factors other than pension scheme design can affect the benefit received by public sector employees.[48] Employment factors that increase the value of public sector pensions when compared with the private sector include longer working tenures and an earnings profile in the public sector in which peak earnings are reached when people are around age 50 rather than in their 40s as in the private sector. Longer working tenures mean that people accrue higher levels of benefit which increases the costs to employers of providing these schemes. The earnings profile is important because the pension is based on the final salary. An earnings pattern that leads to a higher final salary compared to the starting salary leads to higher levels of benefit and increased costs.

[47] PPI modelling. Does not include any allowance for the impact of cost sharing/cost capping agreements
[48] Disney et al (2009)

Pensions are part of a wider remuneration package, which should be borne in mind when comparing the public and private sectors. It is often assumed that good public sector pension schemes make up for lower pay in the public sector.

A comparison of remuneration between the private and the public sectors is not straightforward. Different types of jobs are available in each sector and employees in each sector have different balances of skills, education, and experience. Many different types of remuneration are possible, including pay, pensions, bonuses, share schemes and other benefits, for example, private medical insurance. A wider set of considerations are also relevant, including working hours and job security.

Raw data[49] suggests that, when comparing percentile levels of pay, public sector pay is higher than that in the private sector at all but the highest pay levels. However this is before allowing for differences between the profile of jobs, education level and workplace characteristics. For example, compared to the private sector, men in the public sector are more likely to have higher levels of education and to work in most of the occupations associated with higher pay. They are also more likely to be in a union, which is associated with higher levels of pay.[50]

After controlling for those identifiable characteristics, the differences are less clear. For example, highly skilled male employees earn 5.5% less in the public sector, while unskilled public sector employees earn 7.2%[51] more than their counterparts in the private sector.

Low paid workers are less likely than higher paid workers to be a member of a pension scheme in both the public and private sector. However the membership rates are particularly low at low income levels in the private sector where only 20% of employees earning between £100 and £200 a week are members of a pension scheme compared with 70% in the public sector.[52]

If a policy objective for further reform of public sector pensions is to reduce the disparity in the value of the benefits offered by pensions in the private and public sectors then the government faces a choice. It can focus on trying to encourage the private sector to offer higher levels of benefits, focus on reducing the value of the pensions offered in the public sector, or some combination of the two.

[49] ONS (2009)
[50] Chatterji et al (2007)
[51] Chatterji and Mumford (2007)
[52] ONS 2008 Annual Survey of Hours and Earnings Pension Analysis

Ensuring Fairness between members of the same public sector pension scheme

There are concerns that some members do better than others in the same public sector scheme. One way to consider this is to compare the value of pension benefits to individuals with different characteristics. The value of the benefits offered by a pension scheme to an individual will depend on that person's individual circumstances.

The public sector pension schemes are nearly all defined benefit schemes. For most of the public sector pension schemes the benefits are Final Salary[53], this means that they are calculated based on the salary level at the time the member leaves the pension scheme.

Final salary schemes, whether public or private sector, can lead to cross subsidies developing where the benefits to one group of people are of a lower value than another group. Such cross subsidies include:

- high fliers with fast career progression are subsidised by low fliers
- members who leave early subsidise those who stay
- older members are subsidised by younger members
- single members subsidise members with partners

It is possible for a cross subsidy to broadly cancel out over the course of an individual's working life. For example, younger employees who provide a subsidy may, if they stay with the employer, become old employees who benefit from a subsidy. However, other cross subsidies arise from a permanent difference in characteristics between sets of individuals. An objective of any reform options considered may therefore be to improve fairness between members of a pension scheme by reducing cross subsidies as far as possible.

Helping the Government to recruit and retain high quality staff

The Government competes in the labour market with private sector employers. Offering a pension scheme which is attractive to employees can be a tool for the Government to attract high quality employees and may discourage current employees from resigning, especially if alternative employers do not offer comparable pension schemes. Key to using pension schemes in this way is the education of employees to appreciate the benefit that they receive from being a pension scheme member.

An objective of any further public sector pension scheme reforms may be to enable the Government to recruit and retain high quality employees, and provide those employees with a pension that best meets their needs.

There may be tensions between objectives

It may well be the case that no set of proposals can meet all of the objectives set out in the preceding section. A reform proposal designed with a particular

[53] New joiners to the civil service scheme who choose the defined benefit option will receive Career Average benefits which depend on the salary level throughout employment

objective in mind may be detrimental when considered against a second objective. When comparing options consideration should be given to the balance of the full range of objectives.

Conclusions
It is useful to determine a set of desirable objectives for any reforms to the public sector pensions. The effectiveness of suggested reforms can then be considered against these objectives.

Potential objectives for reform could be to:

- to ensure that public sector pensions provide adequate pensions for public sector workers in their retirement,
- to address concerns that public sector pension schemes are unaffordable and not financially sustainable,
- to improve the transparency of the cost of the pensions being offered to public sector employees
- to address perceptions that public sector pension schemes offer higher levels of benefits than private sector pension schemes,
- to address unfairness between members within the same public sector pension scheme, and
- to enable the Government to recruit and retain high quality staff.

Providing an adequate pension
One of the main reasons that employers give for providing pensions is to look after their employees in retirement. This implies that an objective of any further reforms may be to ensure that public sector employees have adequate money to live on while in retirement.

Affordability and sustainability
Another objective of further reform could be to ensure no unreasonable burden on the taxpayer in the short or long term form meeting the obligations of the public sector pension schemes.

Transparency of public sector pension schemes
Transparency in the cost and value of public sector pension schemes may enable an employee to compare employment opportunities objectively. Improving transparency may also allow a wider public debate on managing the public sector pensions liabilities.

Fairness
There are two types of fairness to consider:

- Fairness in comparisons of provision between the public and the private sector. This includes fairness in terms of the monetary value of the pensions and/or total remuneration as well as the relative risks to those pensions (such as investment risk and longevity risk).
- Fairness as far as possible within the schemes. One way of meeting this may be to minimise cross subsidies between scheme members.

Enable the Government to recruit and retain high quality staff
An objective of further reform could be to ensure that the Government is able to recruit and retain high quality staff.

Chapter three: options for the future of the public sector pension schemes

The aim of this chapter is to consider a range of potential policy options for the future of public sector pension provision as suggested by key stakeholders. These are identified and then can be analysed against the objectives discussed in chapter two. The PPI is not proposing or calling for a particular reform option, but rather aiming to set out the range of reforms that could be considered to inform the policy debate.

There have been a number of calls for reform or specific policy proposals made. These fall into a number of different broad categories of proposals. These broad categories are:

- Continue current policy
- Make further changes to existing final salary schemes
- Risk sharing
- Move to defined contribution arrangements
- Amendments to the framework of public sector provision

Continue current policy

Continue current policy is the baseline against which any alternative policy proposals should be compared. It assumes that the public sector schemes continue as they are, and implement the already agreed reforms for new entrants with no further change. In particular it assumes that the already agreed cost sharing and cost capping agreements are implemented. Cost sharing allocates unanticipated increases in the costs of the scheme 50:50 between the employer and the member. Cost capping limits the employer contributions at a certain level, unanticipated costs above this level may fall fully on the members. The Government re-affirmed their position on cost capping and cost sharing in the 2009 pre budget report.[54]

Make further changes to existing final salary schemes

There are a number of further changes that could be made to the benefits while still maintaining a final salary pension scheme. For example:

- Change normal pension age - Increasing the normal pension age will tend to reduce the effective value of the pension. This is due to the effects of discounting and because a pension which comes into payment at an older age will be paid for less time.
- Change the rate at which benefits are accrued – Members build up their pension by receiving a proportion of their salary for every year they are employed. This is known as the accrual rate. The accrual rate could be changed in order to alter the speed at which the pension is built up.
- Change the member contribution rate, in order to reduce the costs paid by the employer.

[54] HMT (2009a)

- Impose a cap on pension increases – Public sector pension schemes provide a guarantee that pensions rise in line with increases in price inflation. Most private sector pension schemes place a cap on the increase of between 2.5% and 5%.[55]
- Impose a cap on benefits accrued – Pension benefits may stop accruing after the pension has reached a certain level.
- Impose a cap on salary used to calculate benefits – The final salary used to calculate the pension can be capped at a certain level. This implicitly places a cap on the benefit.
- Extend the coverage of the recent reforms which applied to new entrants to include existing members – This would affect only the future accrual of the existing members; any pension already built up would retain its value under the arrangements in place at the time.
- Make changes to secondary benefits such as service enhancements on ill health benefits or death benefits – A change in the rules around the amount or eligibility of the pension paid out when a member retires due to ill health or dies in service.

Risk sharing

Final salary schemes place a lot of the risk on the employer, there may be ways to design the pension scheme that pass on some of the risks to the employee. This could be through:

- Move from final salary to career average – Career average pensions accrue a slice of pension each for each year of service based on the salary in that year, rather than basing the entire pension on an unknown future final salary. This reduces the risk to the employer of having to pay a pension based on a high final salary but receiving contributions on a lower current salary. The civil service scheme has already moved to a career average scheme for new entrants.
- Move to a hybrid scheme – A hybrid scheme contains elements of both defined benefit and defined contribution schemes. Possible arrangements include:
    - Defined contribution with a level of defined benefit guarantee
    - Base level of defined benefit provision up to a certain salary level with a defined contribution portion on top
    - Conditional indexation where benefits can be scaled back by the employer depending on the financial situation of the employer and the pension scheme. This could likely only apply to funded pension schemes such as the LGPS.

Move to defined contribution arrangements

In a defined contribution scheme the amount of the final pension depends on the value of the pension pot that has been built up due to a combination of contributions and investment returns. The final pension will also depend on the available annuity rates at the time that the employee purchases an annuity.

[55] ONS (2009a)

Defined contribution arrangements transfer more of the risks from the employer on to the employee. For example:

- Move to funded defined contribution – Employees are allocated individual pots where contributions are invested in assets. The pots receive an investment return based on the asset performance. At retirement the fund is used to purchase an annuity at market rates. A change to a DC scheme that actually has funded pots in the public sector will have short to medium term cost implications for the Government. The Government would still have to pay out the pensions of current pensioners but would be required to invest the contributions of today's working age public sector workers.
- Move to a pay as you go notional defined contribution scheme – These are based on the Swedish model where contributions in respect of current employees are notionally invested in a pension pot. The pot receives a notional investment return and is converted into a pension at retirement. The contributions are only notionally invested; the money is instead used to pay pensions to current pensioners in the same way as the current pay as you go defined benefit system.

Amendments to the framework of public sector pension provision

Public sector pensions are currently statutory; this means they can be amended by Acts of Parliament or by secondary legislation. Politicians have the power to make changes to public sector schemes. This introduces a risk to public sector pension scheme members that their expected pensions could be changed depending on the political climate at the time. Direct control of public sector pension schemes could be passed to an independent body, similar to the way in which the interest rate decisions at the Bank of England were taken out of direct government control in 1997.

Analysis for the final report

This report is intended to prompt discussion on whether there is a need for further reform and, if so, the types of reforms that could be considered. Where possible these options will represent the suggestions made by interested organisations or those in already in place in other countries.

The final report will present the possible impact of implementing some of these types of reforms on the possible policy objectives outlined in Chapter 2 as well as considering the wider economic implications.

Each of the public sector schemes have different membership profiles and have potentially different objectives. It is unlikely that a "one size fits all" approach would be appropriate. The analysis in the final report will take a ready reckoner approach to evaluate a menu of options to highlight the potential implications of different types of changes. It is not intended to present fully costed specific reforms of one or all schemes, but to illustrate how schemes could be reformed to meet different policy objectives.

The options are likely to include the following:

Continue current policy

1. Public sector pension schemes continue to run as they are, with the already agreed cost sharing and cost capping agreements in place (as has been suggested by the TUC)

Making changes to existing final salary schemes

2. Increasing Normal retirement age in line with future increases to the State Pension Age (as has been suggested by the Institute of Directors)
3. Placing a cap on the salary used for accruing benefits. This reduces the benefit accruing to higher earning employees.
4. Placing a cap on the benefit accrued. This targets cutbacks on those with larger pensions (as has been suggested by the Conservative Party).
5. Change member contributions. This could be as a result of the cost sharing and cost capping agreements or otherwise. Changing member contributions affects the balance of the cost of public sector schemes on the employee and the public sector employer.
6. Change the accrual rate at which benefits are built up. Changing the accrual rate can alter the pace at which benefits are built up in the public sector scheme.

Risk sharing measures

7. Moving to a PCSPS style career average pension. Career average schemes can reduce some of the cross subsidies present in final salary schemes (as has been suggested by the Institute of Directors)
8. A Hybrid scheme with a defined benefit on a base salary with a defined contribution top up. Such a scheme allows a basic level of pension to be provided without risk to the employee while allowing additional pension to be accrued with lower risk to the taxpayer.

Move to Defined Contribution

9. Moving to a funded defined contribution arrangement. Funded defined contribution arrangements are increasingly common in the private sector.
10. Moving to a notional defined contribution similar to the system in Sweden. The notional defined contribution scheme system moves public sector provision to the type of provision more commonly offered in the private sector but without having to cope with the double payments required by moving to a pre-funded system.

Appendix 1: Participating organisations at the round table discussion

The following organisations were represented by participants at the round table discussion hosted by the Nuffield Foundation to discuss an earlier draft of this report:

Pensions Policy Institute
Trades Union Congress
Confederation of British Industry
Public Sector Pensions Commission
Institute of Directors
National Association of Pension Funds
Chartered Institute of Public Finance and Accountability
London Pensions Fund Authority
Nuffield Foundation

Participation in the round table does not imply support for all or any of the objectives or policy options presented in this report.

Appendix 2: Technical Appendix

The effective employee benefit rate measures the value of the scheme to an 'average' member. It is therefore not necessarily representative of the actual value to a particular individual, which will depend on individual circumstances such as salary progression and length of service and may vary widely. It does not indicate the cost of the scheme to the employer, which is affected by accounting, regulatory and tax environments.

The calculations are very sensitive to the assumptions made, especially the choice of 'discount rate' used to place a single value on the stream of payments that can result from a pension entitlement. There is a range of views on the appropriate discount rate to use when valuing pension entitlements.

The calculation of the value of a pension scheme to an individual employee and the value of all outstanding liabilities of a scheme is sensitive to the assumed discount rate in the calculations. Box 1 describes discount rates and their use in calculating average effective benefit rates and liabilities.

Box 1: Discount rates

Background to discount rates

The cash-flows in a pension scheme occur at various future times. A discount rate is similar to an interest rate; it is used to allow for the time value of money when calculating the size of pension scheme liabilities. Discounting converts all cash-flows to a consistent present value.

Changing the discount rate only affects the present value we put on a given future cash-flow, it does not affect the expected amount of the cash-flow when it occurs. Increasing the discount rate has the effect of reducing the present value of future cash-flows, so reduces the overall liabilities. Similarly reducing the discount rate has the effect of increasing the value of the liabilities and effective benefit rates.

Government use of discount rates

When calculating the liability value of the public sector pension schemes for the public accounts, the Government uses a discount rate which is based on the yield on AA rated corporate bonds. This is consistent with the requirements of the accounting standards that deal with the reporting of pension scheme liabilities in company accounts.

Criticism

There has been criticism of the government's choice of discount rate.[56] The yield on AA rated corporate bonds is the rate at which low risk companies can borrow. It has been suggested that as the unfunded pension scheme liabilities represent a government debt, they should therefore be valued at the rate at which the Government is able to borrow. That is the yield on government gilts.

Effect of changing discount rate on public sector pension liabilities

The yield on government gilts tends to be lower than the yield on corporate bonds. This is because part of the yield represents a reward for taking on the risk of non-payment of the debt. Companies tend to be at higher risk of defaulting on their debt than the Government, therefore must offer a higher yield to compensate.

Using the yield on government gilts instead of AA rated corporate bonds leads to a lower discount rate, which increases the present value assigned to future cash-flows and therefore increases the liability figure.

Use of discount rates in this report

The assumptions made in this report are based on those used by the Government in its long-term projections of the schemes.

[56] Record (2008)

Acknowledgements and Contact Details

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Contact:
Niki Cleal, Director
Telephone: 020 7848 3744
Email: info@pensionspolicyinstitute.org.uk

Pensions Policy Institute
King's College
26 Drury Lane
London WC2B 5RL

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