



Hewitt Bacon & Woodrow Limited
Registered in England No. 4396810
Registered office: 6 More London Place London SE1 2DA

Principal Civil Service Pension Scheme

Review of the Accruing Superannuation Liability Charges (ASLCs) as at 31 March 2007

7 December 2007

Prepared for

The Minister for the
Civil Service

The Civil Service
Pensions Division of
the Cabinet Office

Prepared by

Jonathan Teasdale
FIA

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Executive Summary

Accruing Superannuation Liability Charges ("ASLCs")

Based on the method, assumptions and treatment of notional surplus outlined in this report, the recommended ASLCs payable with effect from 1 April 2009 (based on the pay bands effective for 2008/09) are given in the table below. For comparison, the existing ASLCs are shown in brackets.

Band	Pay range (£pa)	ASLC from 1 April 2009 (as % of pensionable pay)
Band 1	19,500 and under	16.7 (17.1)
Band 2	19,501 to 40,500	18.8 (19.5)
Band 3	40,501 to 69,000	21.8 (23.2)
Band 4	69,001 and above	24.3 (25.5)
Pre-1987 Prison Officers	Not applicable	25.8 (26.5)

Excluding the pre-1987 Prison Officers who are treated as a separate group, the average ASLC from 1 April 2009 derived from these recommended rates is 18.9% of pensionable pay. This compares with an average rate of 19.4% calculated at the 2003 review.

The recommended rates arise from:

- The standard contribution rates determined at this valuation, which average 19.0% of pensionable pay, plus
- A continued addition of 0.1% of pensionable pay, which reflects the deferral of an element of the contribution increases which were made as a result of the 2003 review, minus
- 0.2% of pensionable pay, to reflect the traced surplus which has arisen at this review.

All the rates shown above are payable in addition to members' own contributions.

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1 — Introduction

Formal review

We have carried out a formal review of the ASLC (employer contribution) rates payable to the Principal Civil Service Pension Scheme (“PCSPS”) as at 31 March 2007. Reviews are normally carried out every four years, although the next review after this will be due after a three-year period, as at 31 March 2010.

The results of the previous review as at 31 March 2003 were set out in our report dated 4 May 2004.

This report is prepared solely for the benefit of the addressees. It meets actuarial professional guidance requirements. See Appendix A for further details.

2 — What’s Happened Since the Previous Review

Purpose of section

This section summarises what has happened since the previous ASLC review.

Headlines from previous review

In the previous ASLC review at 31 March 2003, we recommended the following changes to employer contribution rates with effect from 1 April 2005 and 1 April 2006. These were implemented with effect from the dates indicated.

After consultation, an element of these contribution increases arising from the 2003 review was deferred by one year to 1 April 2006. Consequently, the rate paid from 1 April 2006 (as shown below) included an addition of 0.1% of pensionable pay to reflect the delay; the intention was that this addition to the contribution rate would be maintained over a 9-year period.

Pay band	Pay range (£pa)	ASLC up to 31 March 2005 (as % of pensionable pay)	ASLC from 1 April 2005 (as % of pensionable pay)	ASLC from 1 April 2006 (as % of pensionable pay)
Band 1	17,500 and under	12.0	16.2	17.1
Band 2	17,501 to 36,000	13.5	18.6	19.5
Band 3	36,001 to 62,000	16.5	22.3	23.2
Band 4	62,001 and above	18.5	24.6	25.5
Pre-1987 Prison Officers	Not applicable	20.5	25.6	26.5

The pay bands shown above are those effective for 2004/2005; in practice, the pay bands have been adjusted each year in line with our recommendations.

Members’ contributions have been paid in accordance with the Rules, in addition to the above rates.

Changes to the PCSPS

In accordance with the terms of the “Public Services Forum” (“PSF”) agreement and the subsequent process of consultation, some significant changes to the PCSPS provisions have been made. The PSF agreement followed on from the proposal in the December 2002 Pensions Green Paper to increase the normal pension age in public service schemes from age 60 to age 65, but modified this proposal to protect existing scheme members from the higher pension age on the basis that the new pension arrangements should result in at least the same long-term savings as would have been derived from the implementation of the

higher pension age for all members. The changes to the PCSPS have had the following main features:

- A new pension scheme, **nuvos**, for new employees from 30 July 2007, with a normal pension age of 65, and pension benefits earned in each year based on pay in that year and then index-linked;
- No change to the pension arrangements for staff in post before that date, apart from the potential for additional flexibility over the form of benefits (for example, higher tax-free lump sums);
- Responsibility for dealing with future cost increases to be shared between employers and all employees, with a limit on the average employer contribution of 20% of pay (the shared responsibility concept is also being extended to other areas of pension scheme governance, meaning greater involvement for employers and unions in running the scheme).

All these changes have become, or will become, effective at dates after the effective date of this review, 31 March 2007. The benefit provisions operative before the various changes have been made are summarised in Appendix B.

There have been a number of other changes made to the Scheme provisions since the previous review. These include:

- The extension of contingent benefits to Civil Partners backdated in relation to post-April 1988 service
- Various changes consequential on the Finance Act 2004, including the introduction of a scheme-specific upper limit on pensionable earnings to replace the statutory cap previously in force, changes to the terms under which contribution refunds may be paid to certain unmarried members and some future restrictions on the ability to draw retirement benefits before age 55.

Financial development Over the period since the previous review, the finances of the PCSPS have also been affected fundamentally by the experience in areas such as the contributions paid, levels of pay growth, rates of retirement, staff turnover rates and rates of mortality. These high level points are discussed later in this report (sections 5 and 6).

3 — Information Used

Key information

To carry out the review, we have obtained information on:

- How benefit entitlements are calculated
- Accounting data, such as the amounts of contribution received and benefit paid since the previous review
- Member data

This section sets out a high-level summary of the information used. Further details are contained in Appendices B, C and D.

Benefits valued

Members are entitled to benefits defined in the Rules, as amended from time to time. A summary of the benefits valued is set out in Appendix B. No allowance has been made for discretionary benefits or discretionary increases in benefit.

Accounting data

We have obtained accounting data from the audited Civil Superannuation accounts, for the years ending 31 March 2004, 2005, 2006 and 2007. A summary of the information used is set out in Appendix C, which also includes a calculation of the “SCAPE account” described later in this report (section 4).

Membership data

We have used individual membership data supplied by Capita Hartshead (pensioners and deferred pensioners), and by the Authorised Pension Administration Centres (“APACs”). The data supplied by the APACs included individual membership details of all current active members of the PCSPS. (An exception was one of the APACs, which covers approximately 1% of the active membership and from whom summarised data was obtained.) We were also supplied with membership movement data covering the period 1 April 2003 to 31 March 2007. Further details are given in Appendix D.

A particular issue to note is that a proportion (between 5% and 10%) of the active member data supplied is understood to relate to members who were awaiting an award at the date of the review. The same was also the case for the data supplied for the 2003 review. For both reviews we have valued these members as active members. To the extent that this is not actually the case, an element of surplus or deficit may emerge in the fullness of time at future ASLC reviews.

Reliability of information

We have carried out some general checks to satisfy ourselves that

- The information used for this review is sensible, in particular when compared with the information used for the previous review
- The results of this review can, in broad terms, be traced from the results of the previous review.

However, the results in our report rely entirely on the accuracy of the information supplied.

4 — Methodology

The ASLC mechanism The principle underlying the ASLC mechanism is that employers should be accountable for the pension costs arising in respect of their employees, resulting in contributions similar to what might be charged in a funded private sector scheme. More detail on the background to the ASLC mechanism is set out in Appendix E.

The standard contribution rate To determine the recommended ASLC rates, the first step in the calculation is to determine a “standard contribution rate”. This is the rate which would be sufficient to finance future benefits under the PCSPS in the absence of any notional surplus or deficit and assuming that actual experience is in line with assumptions.

The SCAPE account In order to mirror the operation of a funded scheme, an account of notional assets is tracked between reviews. As from 1 April 2003, this has been done using the “SCAPE” approach specified by Treasury (Superannuation Contributions Adjusted for Past Experience). Under SCAPE, the Pension Account is credited with interest at the same real rate of return as the discount rate used to value the liabilities and determine the standard contribution rate. The Treasury has specified that the discount rate, and therefore the rate of return used, should be 3.5% p.a. in excess of price inflation.

To the extent that the Pension Account differs from the liabilities built up for service before the valuation date, there is said to be a surplus or deficit. As at 1 April 2003, the date when the SCAPE approach was introduced, the Treasury specified that the SCAPE account should be set equal to the liabilities built up to that date, i.e. the initial surplus/deficit was zero.

Under the SCAPE approach, the recommended ASLC rates are determined as:

- The standard contribution rates;
 - Reduced to reflect the contributions payable by members;
 - Increased (or reduced) over a period, to reflect any deficit (or surplus) at the review date. The Treasury has specified that the period over which any deficit/surplus is eliminated should not exceed 15 years.
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Standard contribution rate – methodology

For this review, for groups of members other than the pre-1987 Prison Officers the standard contribution rate has been determined using the “projected unit method”, which is one of the common methods used by actuaries to calculate a contribution rate. This is the same method as was used for the previous review.

The method calculates the present value of the benefits expected to accrue to members over a control period (in this case, one year) following the review date.

The present value is expressed as a percentage of the members’ pensionable pay. It allows for projected future increases through to retirement or date of leaving service.

Within the standard contribution rate, allowance is also made for the cost of risk benefits (i.e. a calculation of the cost of additional benefits payable in the event of ill-health retirement or death in service).

Under the method, if the distribution of members remains stable with new members joining (on the same benefit structure) to take the place of older leavers, the contribution rate calculated can be expected to remain stable, if all the other assumptions are borne out. If there are no new members, however, the average age will increase and the contribution rate can be expected to rise.

For PCSPS, the position is complicated by the introduction of the **nuvos** benefit structure for new employees from 30 July 2007. We have been advised by Civil Service Pensions that, on practical grounds, common ASLC rates should apply for final salary and **nuvos** members, at least until the 2010 ASLC review, when the position may be re-assessed.

At 31 March 2007, there were no **nuvos** members. We have determined the costs of benefits across the **classic**, **classic plus** and **premium** sections based on the current active membership profile of these sections at 31 March 2007.

Implications for future development of contribution rates

In principle, the cost of accrual for **classic/classic plus/premium** members would be expected to gradually increase over the period until the next ASLC review because the average age of these members is likely to increase. However, the cost effect of this is likely to be broadly offset by the effect of younger members, with cheaper benefits, joining **nuvos**.

In our opinion, therefore, basing the standard contribution rate on the cost of accrual for the actual membership at the review date (which is what we have done) is a reasonable approach to adopt. If experience exactly follows the assumptions and there remained a steady stream of new entrants to maintain the overall membership profile, maintaining this methodology would be expected to lead to fairly stable contribution rates arising, reducing slightly over the very long term due to the long-term cost savings arising through the introduction of **nuvos**. (See later in this section for comments on the impact of experience not following the assumptions, or the assumptions being changed.)

Standard contribution rate methodology – pre-1987 Prison Officers

Consistent with the 2003 review and as agreed at that time, a different approach has been adopted for Prison Officers who entered service before 1 October 1987 and retain reserved rights. No detailed calculations of the cost of accrual have been carried out; instead, the employer ASLC has been calculated as the rate for Band 2 members plus the differential currently applicable between Band 2 members and pre-1987 Prison Officers.

SCAPE account – calculation

Appendix C summarises the development of the SCAPE account over the period 1 April 2003 to 31 March 2007, including the crediting/debiting of income/outgo as recorded in the Civil Superannuation accounts, and allowing for notional investment returns at a rate of 3.5% p.a. in excess of price inflation (the rate currently specified under the SCAPE methodology). In this context:

- The income/outgo is credited/debited to the SCAPE account midway through each accounting year.
- For consistency with the way the liabilities have developed, the allowance for price inflation used within the notional investment return is consistent with the pensions increases actually applied in the PCSPS with effect from April 2004, 2005, 2006 and 2007.

There are no actual investments underlying the balance in the SCAPE account. In effect, the balance represents a liability of Government.

Under the SCAPE methodology, no surplus or deficit will arise as a result of the notional investment returns credited to the account, because the return credited is the same as the discount rate used to value the liabilities.

Surpluses or deficits may arise on the SCAPE methodology if:

- Experience differs from the assumptions, or
- The assumptions themselves are changed.

This may lead to fluctuations in employer contributions following future reviews. However, the fluctuations are expected to be lower than for many private sector defined benefit schemes, where additional volatility in the required contributions may arise due to variations in investment returns and variations in the discount rate used to value the liabilities. In practice, the impact on employer contributions may be further limited, due to:

- the principle of “cost sharing” which will apply at future PCSPS valuations, and will give members a share in the responsibility for dealing with future cost increases; and
 - the limit on the average employer contribution rate, of 20% of pensionable pay
-

5 — Assumptions

Financial assumptions The results of the review are very sensitive to the choice of assumptions. Here is a summary of the key financial assumptions used:

- An investment return of 3.5% p.a. in excess of price increases
- Earnings increases (before allowance for promotional increases) of 1.5% p.a. in excess of price increases
- Price increases of 2.4% p.a.
- A gross rate of investment return of 6.0% p.a.

Other financial assumptions (e.g. rates of revaluation or increases to Guaranteed Minimum Pensions) have been chosen to be consistent with the main assumptions above.

All the financial assumptions are identical with those used for the 2003 ASLC review.

The valuation discount rate, of 3.5% p.a. in excess of price increases, is an assumption prescribed by the Treasury as part of the SCAPE methodology. As the same rate is being used for the purposes of crediting investment returns on the SCAPE account, the assumptions used are in our opinion compatible with the approach used for determining the SCAPE account.

The valuation discount rate differs from that used for calculating the liabilities within the 2006/07 Resource Accounts, where the reporting requirements (as contained in the Government Financial Reporting Manual) are different.

The allowance for earnings increases represents an average over the very long-term future; it is consistent with typical experience over long periods in the past. The short-term experience is likely to differ from this.

Demographic assumptions

The key demographic assumption is post-retirement member mortality, to which the results of the review can be particularly sensitive. However, the results are also sensitive to the choice of other demographic assumptions. Civil Service Pensions have confirmed that the objective in setting the demographic assumptions is that, overall, they should represent our “best estimate” of future experience without unnecessary margins of prudence.

To assist in reviewing the demographic assumptions, we have analysed the movements data supplied and compared in detail the actual experience of the PCSPS with that which would have been expected if the assumptions underlying the 2003 ASLC review had been borne out in practice.

Taking into account the results of this experience review and other general considerations, we have made the following changes from the assumptions used for the 2003 ASLC review:

- The mortality assumptions in relation to normal and ill-health pensioners have been updated taking account of actual experience and anticipated improvements in life expectancy over the future. The overall allowance for improvements in life expectancy is greater than previously assumed
- The assumptions on mortality in service for active members have also been revised, to allow for lower rates of death in service
- We have revised the allowance for age retirements in relation to members in certain of the pay bands; the effect is to allow for slightly later retirement on average
- We have revised downwards the assumed rates of ill-health retirement
- We have allowed for a smaller age gap between members and their spouses/partners

Taken as a whole these changes have the effect of slightly reducing the standard contribution rate but slightly increasing the value placed on the liabilities for service to date.

We produced a separate detailed report on the results of our detailed experience investigation dated 4 December 2007.

Summary

A summary of all the assumptions used is set out in Appendix F.

6 — Results

Standard contribution rate, after deduction of member contributions

Here are the results of our calculation of the standard contribution rate applicable for members within the different pay bands, expressed after deduction of member contributions. These are the rates of employer contribution that would normally be appropriate if there were no surplus or deficit, i.e. if the liabilities for service built up to date were exactly equal to the SCAPE account. (The pay ranges shown are based on pay bands effective for 2008/09.) The standard employer contribution rates brought out at the 2003 review are shown in brackets for comparison.

Band	Pay range (£pa)	Standard employer contribution rate (as % of pensionable pay)
Band 1	19,500 and under	16.8 (17.0)
Band 2	19,501 to 40,500	18.9 (19.4)
Band 3	40,501 to 69,000	21.9 (23.1)
Band 4	69,001 and above	24.4 (25.4)
Pre-1987 Prison Officers	Not applicable	25.9 (26.4)

Excluding the pre-1987 Prison Officers who are treated as a separate group, the average standard employer contribution rate derived from these rates is 19.0% of pensionable pay. This compares with an average rate of 19.3% calculated at the 2003 review. The main reason for the reduction in the average rate is the net effect of the various changes to the assumptions.

Past service valuation

Here are the results of the past service valuation calculations.

	£ billion	£ billion
Value of benefits for service prior to 1 April 2007		
Pensioners and dependants (A)	40.1	
Deferred pensioners (B)	14.5	
Active members (C)	<u>42.0</u>	
TOTAL = A + B + C		96.6
SCAPE account at 31 March 2007		<u>97.7</u>
Surplus		1.1

We have analysed the surplus of £1.1 billion approximately between the following items:

	£ billion	£ billion
Changes to mortality assumptions (D)	-1.7	
Changes to other assumptions (E)	<u>+0.8</u>	
Total = D + E		-0.9
Employer contribution experience (F)	-1.2	
Pay experience (G)	+1.1	
Early retirement and withdrawal experience (H)	+0.3	
Mortality experience (I)	+0.4	
Ill-health retirement experience (J)	+0.5	
Age retirement experience (K)	+0.1	
Miscellaneous/untraced (L)	<u>+0.8</u>	
Total = sum of items F to L		<u>+2.0</u>
Overall surplus		+1.1

The analysis shows that the main factors affecting the financial position since the previous review have been as follows:

- The experience of the scheme has generally been better than assumed, which has more than offset the effect of
- The contributions paid over the period before 1 April 2006 having been lower than the cost of benefit accrual calculated at the 2003 review, and
- Increases in the liabilities as a result of changes made to the assumptions.

The untraced element of surplus, at £0.8bn, is less than 1% of the overall liabilities. This lies within the threshold we would expect for untraced surplus, i.e. based on our approximate analysis the two calculation results can be explained from each other to a reasonable degree of accuracy. However, it is possible that part of the untraced element has arisen due to the minor approximations that have been introduced into the valuation process, as noted in the comments on membership data covered within section 3.

Use of surplus

Under the SCAPE methodology, the surplus of £1.1 billion could be used to reduce employers' contribution rates over a period of 15 years. However, given the points discussed above it is the view of Civil Service Pensions that it would be prudent for the untraced element of surplus, i.e. £0.8 billion, to be carried forward. We are supportive of this view. This will leave the remaining surplus of £0.3 billion to be used to reduce employer ASLCs by 0.2% of pensionable pay starting from 1 April 2009, the reduction continuing over a 15-year period.

Resulting ASLCs

Starting with the standard employer contribution rates set out at the start of this section, maintaining the current addition to contribution rates of 0.1% of pay as noted in section 2, and then reducing the rates by 0.2% of pay to reflect the surplus, we obtain recommended ASLCs as follows. (The pay ranges shown are based on pay bands effective from 2008/09.)

Band	Pay range (£pa)	Employer ASLC (as % of pensionable pay)
Band 1	19,500 and under	16.7
Band 2	19,501 to 40,500	18.8
Band 3	40,501 to 69,000	21.8
Band 4	69,001 and above	24.3
Pre-1987 Prison Officers	Not applicable	25.8

7 — Risks and Sensitivity Analysis

Purpose of section

This section comments on some of the key risks affecting the finances of the scheme, which if they arise, may lead to contribution rates needing to be increased at subsequent valuations.

Key risks

Key factors that could lead to contribution rates needing to be increased in future are as follows:

- Pay growth for members in **classic/classic plus/premium** – members' pensionable pay may rise faster than is currently anticipated.
- Mortality – members could live longer than currently assumed, for example, as a result of a medical breakthrough. This would mean that benefits are paid for longer.
- Options for members – members may exercise options in such a way as to result in unanticipated extra costs. For example, members could swap less of their pension for cash at retirement than is assumed.

All these factors could lead to significant increases in overall contribution rates; for example, even an across-the-board increase in life expectancy at age 60 of just 1 year (with corresponding increases at other ages) might lead to increases in overall contribution rates of close to 1.5% of pensionable pay (after allowing for the impact of spreading past service costs).

However the impact on employers is potentially more limited, due to:

- The principle of “cost sharing” which will apply at future PCSPS valuations and will give members a share in the responsibility for dealing with future cost increases; and
 - The limit on the average employer contribution rate, of 20% of pensionable pay.
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8 — Conclusions

Headline results

Based on the method, assumptions and treatment of notional surplus outlined in this report, the recommended ASLCs payable with effect from 1 April 2009 (based on the pay bands effective for 2008/09) are given in the table below. For comparison, the existing ASLCs are shown in brackets.

Band	Pay range (£pa)	ASLC from 1 April 2009 (as % of pensionable pay)
Band 1	19,500 and under	16.7 (17.1)
Band 2	19,501 to 40,500	18.8 (19.5)
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Band 4	69,001 and above	24.3 (25.5)
Pre-1987 Prison Officers	Not applicable	25.8 (26.5)

Excluding the pre-1987 Prison Officers who are treated as a separate group, the average ASLC from 1 April 2009 derived from these recommended rates is 18.9% of pensionable pay. This compares with an average rate of 19.4% calculated at the 2003 review.

In each case, the rates shown are payable in addition to members' own contributions.

Next review

The contribution rates should be reviewed at the next ASLC review which is due to take place as at 31 March 2010.

**Signed on behalf of
Hewitt Bacon &
Woodrow Limited**

Jonathan F. Teasdale

Jonathan Teasdale FIA
jonathan.teasdale@hewitt.com

Appendix A — The small print

Purpose of small print This appendix sets out some important information about the legal and actuarial framework under which this report is issued.

Scope of advice This report is produced in compliance with:

- Rule C.3 of the 2002 Section, and Rule D.3 of the 2007 Section, of the PCSPS Rules.
- The terms of the agreement dated 21 November 2003 for the provision of actuarial services between ourselves and the Minister for the Civil Service, on the understanding that it is solely for the benefit of the addressees.
- Unless prior written consent has been given by Hewitt Bacon & Woodrow Limited, this report should not be disclosed to or discussed with anyone else unless they have a statutory right to see it.
- Notwithstanding such consent, we do not accept or assume responsibility to anyone other than the addressees of this report.

Professional guidance We confirm that this report has been prepared in accordance with version 8.0 of Guidance Note GN9 issued by the Faculty and Institute of Actuaries and subsequently adopted by the Board for Actuarial Standards, except where its requirements do not apply to the PCSPS. The following sections of the Guidance Note are not applicable to this Scheme and are therefore not covered within this report:

- Since the PCSPS is a statutory scheme with the benefits effectively guaranteed by the Government, it is not considered necessary to assess the solvency position of the Scheme (as though the liabilities were to be bought out with an insurance company), nor to assess whether, in the event of full funding, there would be enough money in the scheme to provide unreduced transfer values for all members.
- Because Part 3 of the Pensions Act 2004 does not apply to this scheme, it is not considered necessary to comply with provisions of the Guidance Note which relate only to the provision of advice under Part 3, such as advice on a scheme's statutory funding objective, recovery plan and schedule of contributions. These legislative concepts do not apply to the PCSPS.

Appendix B — Summary of Benefits at the Valuation Date

	classic	premium
Eligibility	Closed to new members	Closed to new members after 29 July 2007
Normal Pension Age (NPA)	60	60
Pensionable Earnings (PE)	Basic Pay plus allowances deemed to be pensionable	Basic Pay plus allowances deemed to be pensionable
Final Pensionable Earnings (FPE)	Best 12 months Pensionable Earnings in final 3 years	Last 12 months Pensionable Earnings (will consider earnings over last 13 years, plus price indexation, if better result)
Relationship to S2P	Contracted-Out	Contracted-Out
Members' Contributions	1.5% of Pensionable Earnings (Note: contributions are repaid, with interest, to unmarried members at retirement)	3.5% of Pensionable Earnings
Benefits on retirement		
Normal retirement		
- Pension	1/80 x FPE per year of service	1/60 x FPE per year of service
- Lump Sum	3/80 x FPE per year of service	Commutation - £1 pension for £12 lump sum
Voluntary early retirement	Accrued pension and lump sum reduced for early retirement	Accrued pension reduced for early retirement
Ill-health retirement	Normal retirement benefits based on enhanced service (see below)	Normal retirement benefits based on service enhanced to NPA for those who cannot work again. Immediate payment of accrued pension (with enhancement for those under 10 years service) for those who can not continue at their current level.
Benefits on Death in Service		
- Lump sum	2 x PE	3 x FPE
- Spouse pension	50% of Ill-Health Retirement pension	1/160 x FPE x enhanced service (see below)

<p>Benefits on Death in Deferment</p> <ul style="list-style-type: none"> - Lump sum - Spouse pension 	<p>Cash member would have received at NPA including increases since date of leaving</p> <p>50% of member's pension</p>	<p>Lesser of: a) 5 x deferred pension</p> <p>b) 2 x FPE – any lump sum derived from AVCs</p> <p>37.5% of member's pension</p>
<p>Benefits on Death After Retirement</p> <ul style="list-style-type: none"> - Lump sum - Spouse pension 	<p>5 years pension less pension and lump sum already received</p> <p>50% of member's pension</p>	<p>5 years pension less pension already received</p> <p>37.5% of member's pension before commutation</p>
<p>Benefits on Resignation</p> <ul style="list-style-type: none"> - Less than 2 years service - 2 or more years service 	<p>Transfer value payment and/or refund of member's contributions (if unmarried) less cost of buying back into S2P</p> <p>Benefits increased in deferment, payable from NPA</p>	<p>Transfer value payment or refund of member's contributions less cost of buying back into S2P</p> <p>Benefits increased in deferment, payable from NPA</p>
<p>Increases to Pensions</p> <ul style="list-style-type: none"> - In Payment - In Deferment 	<p>In line with increases in RPI, on excess over GMP</p> <p>Total pension increased in line with RPI</p>	<p>In line with increases in RPI, on excess over GMP</p> <p>Total pension increased in line with RPI</p>
<p>Service enhancements</p>	<p>The following enhancement applies for ill-health retirement benefits:</p> <p>Actual service:</p> <p>2 to 5 years - No enhancement</p> <p>5 to 10 years - Service doubled</p> <p>10 to 13 1/3 years - Service enhanced to 20 years</p> <p>More than 13 1/3 years - Extra 6 2/3 years service</p>	<p>In the event of death in service, the amount of service included in the calculation is subject to a minimum of:</p> <p>2 times reckonable service (excluding added years);</p> <p>Reckonable service plus 10 years;</p> <p>projected reckonable service to NPA</p>

Notes:

- Benefits for members of the **classic plus** section are based on the provision of the **classic** section for service before 1.10.02 and on the provisions of the **premium** section for service after 30.09.02.
- Pre-1987 prison officers are entitled to a modified version of the benefit structures set out above. In particular, unreduced pensions are payable from age 55 and service after 20 years counts double.
- References above to spouses cover civil partners for **classic** benefits, and furthermore cover partners for **premium** benefits. For **classic** benefits certain restrictions apply for the service which may count, and pensions may cease in the event of subsequent remarriage/cohabitation.

Appendix C — Accounting Data and the SCAPE Account

Data

We have obtained accounting data from the Civil Superannuation accounts, for the years ending 31 March 2004, 2005, 2006 and 2007. That data is summarised in the table below.

The table also shows the return that has been credited to the SCAPE account. That return is determined using a notional investment return of 3.5% p.a. plus price inflation (measured consistently with the annual pensions increases).

Consolidated SCAPE account, 1 April 2003 to 31 March 2007

	£ billion	£ billion
Balance at 1 April 2003		77.7
Income		
Member contributions	1.2	
Employer contributions	8.7	
Total contributions	9.9	
Other income	1.4	
Return on SCAPE account	22.5	
Total income		33.8
Outgo		
Pensions and lump sums	13.2	
Other outgo	0.6	
Total outgo		13.8
Balance at 31 March 2007		97.7

Appendix D — Membership Data Summary

Active Members – Classic

Salary Band	Number of Members			Average Ages			Average Service (Years)			Average Salary (£p.a.)		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
1	45,236	93,391	138,627	45.07	43.59	44.07	12.66	12.14	12.31	15,898	16,130	16,054
2	107,177	115,349	222,526	45.77	44.28	45.00	18.65	16.92	17.75	26,432	24,519	25,440
3	21,349	10,795	32,144	49.05	45.31	47.80	23.21	18.12	21.51	47,567	47,395	47,509
4	2,892	1,114	4,006	52.37	49.76	51.64	26.09	21.81	24.90	78,775	78,079	78,581
Prison Officers	5,438	336	5,774	52.70	48.85	52.48	18.27	21.81	18.47	30,597	30,388	30,585
TOTAL	182,092	220,985	403,077	46.29	44.08	45.08	17.81	14.99	16.26	27,249	22,370	24,574

Active Members – Classic Plus

Salary Band	Number of Members			Average Ages			Average Service (Years)			Average Salary (£p.a.)		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
1	1,816	2,952	4,768	44.36	41.17	42.39	11.43	10.49	10.85	15,924	16,147	16,062
2	4,954	5,163	10,117	44.70	41.59	43.11	15.73	13.69	14.69	27,105	25,371	26,220
3	1,748	1,046	2,794	48.48	43.03	46.44	20.24	14.58	18.12	48,421	47,774	48,179
4	262	112	374	51.67	48.88	50.84	21.80	18.25	20.74	79,136	79,521	79,252
TOTAL	8,780	9,273	18,053	45.59	41.71	43.60	15.92	12.83	14.33	30,589	25,615	28,034

**Active Members –
Premium**

Salary Band	Number of Members			Average Ages			Average Service (Years)			Average Salary (£p.a.)		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
1	47,192	65,963	113,155	37.52	35.71	36.46	3.06	2.95	3.00	14,537	14,530	14,533
2	48,696	38,886	87,582	39.79	36.45	38.30	5.32	4.57	4.99	25,302	24,741	25,053
3	8,544	5,657	14,201	45.65	41.33	43.93	9.61	6.63	8.42	47,516	46,563	47,137
4	1,683	697	2,380	49.88	47.21	49.10	8.66	8.00	8.46	82,816	81,221	82,349
TOTAL	106,115	111,203	217,318	39.40	36.32	37.83	4.71	3.73	4.21	23,215	20,148	21,646

**Active Members –
all actives**

Salary Band	Number of Members			Average Ages			Average Service (Years)			Average Salary (£p.a.)		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
1	94,244	162,306	256,550	41.28	40.34	40.69	7.83	8.37	8.17	15,217	15,480	15,384
2	160,827	159,398	320,225	43.93	42.28	43.11	14.53	13.80	14.16	26,111	24,600	25,359
3	31,641	17,498	49,139	48.10	43.89	46.60	19.38	14.20	17.53	47,600	47,149	47,440
4	4,837	1,923	6,760	51.47	48.78	50.70	19.79	16.59	18.88	80,201	79,302	79,945
Prison Officers	5,438	336	5,774	52.70	48.88	52.48	18.59	22.03	18.79	30,597	30,388	30,585
TOTAL	296,987	341,461	638,448	43.81	41.49	42.57	13.08	11.26	12.11	25,906	21,735	23,675

Note: The above tables include any deferred pensioners recorded as active members in the data. The references to “Prison Officers” are to pre-1987 entrants with reserved rights.

**Pensioners –
age retirements**

Section	Number of Members			Average Ages			Average Pension (£p.a.)		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Classic	159,686	129,744	289,430	74.55	75.07	74.78	7,703	3,533	5,834
Classic Plus	506	137	643	63.02	62.36	62.88	13,483	6,535	12,002
Premium	1,536	560	2,096	63.11	62.33	62.90	9,684	4,070	8,184
TOTAL	161,728	130,441	292,169	74.40	75.00	74.67	7,740	3,538	5,864

**Pensioners –
early retirement**

Section	Number of Members			Average Ages			Average Pension (£p.a.)		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Classic	43,295	25,464	68,759	67.86	67.44	67.70	12,690	6,111	10,254
Classic Plus	104	36	140	59.31	58.31	59.05	14,918	9,275	13,467
Premium	241	101	342	58.13	56.90	57.77	17,100	10,137	15,044
TOTAL	43,640	25,601	69,241	67.79	67.38	67.64	12,720	6,131	10,284

**Pensioners –
ill health retirements**

Section	Number of Members			Average Ages			Average Pension (£p.a.)		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Classic	35,102	32,064	67,166	64.95	64.52	64.75	6,482	4,318	5,449
Classic Plus	51	42	93	53.63	49.43	51.73	9,659	6,599	8,277
Premium	108	55	163	54.45	49.07	52.64	7,182	6,464	6,940
TOTAL	35,261	32,161	67,422	64.90	64.48	64.70	6,489	4,324	5,457

**Pensioners –
all pensioners**

Section	Number of Members			Average Ages			Average Pension (£p.a.)		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Classic	238,083	187,272	425,355	71.92	72.23	72.05	8,430	4,018	6,487
Classic Plus	661	215	876	61.71	59.15	61.08	13,413	7,006	11,841
Premium	1,885	716	2,601	61.99	60.56	61.59	10,489	5,109	9,008
TOTAL	240,629	188,203	428,832	71.81	72.17	71.97	8,460	4,025	6,514

**Dependants
(including children)**

Section	Number of Members			Average Ages			Average Pension (£p.a.)		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Classic	8,781	117,251	126,032	58.65	78.29	76.92	1,314	3,079	2,956
Classic Plus	61	79	140	32.13	43.54	38.57	2,791	4,504	3,757
Premium	140	223	363	29.96	39.07	35.56	2,334	3,070	2,786
TOTAL	8,982	117,553	126,535	58.03	78.19	76.76	1,340	3,080	2,957

Deferred pensioners

Section	Number of Members			Average Ages			Average Pension (£p.a.)		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Classic	143,576	171,974	315,550	47.83	46.72	47.22	3,648	2,238	2,880
Classic Plus	1,134	1,414	2,548	44.71	40.36	42.30	6,310	3,480	4,740
Premium	4,990	5,781	10,771	39.60	36.57	37.97	4,271	2,204	3,162
TOTAL	149,700	179,169	328,869	47.52	46.33	46.87	3,689	2,247	2,903

Appendix E — Background to the ASLC Mechanism

The ASLC mechanism The background to the ASLC mechanism is as follows:

- The benefit expenditure of the PCSPS is met as it falls due on a **pay-as-you-go** basis and there is no separate fund of assets to pay the retirement benefits. It was decided in the early 1990s that a system should be introduced to make employers accountable for the pension costs accruing in respect of their employees and to ensure that such costs were recognised when taking decisions on staffing matters. This led to the development of ASLCs, which in principle have reflected the level of contributions which might be paid by private sector employers to pension schemes for their employees.
- The ASLC mechanism assesses the cost of pension rights being accrued by employees at the present time and translates these costs into a charge, expressed as a percentage of pensionable pay, which is then paid by departments and agencies to the Civil Superannuation Vote. Putting on one side the specific legislative provisions which apply to funded schemes (such as the Pensions Act 2004), the fundamental principles for determining the contribution rates for employers (referred to as ASLCs in the PCSPS) are similar to those applying for a private sector scheme.
- PCSPS contribution income and benefits expenditure is accounted for through the Civil Superannuation Vote. This account meets the costs of all PCSPS expenditure (pensions, lump sums, transfer values etc) allowing for contributions and other income received.
- The cost to the employer of the accruing pension rights in any salary-related pension scheme varies according to a number of factors. These include the age, sex, promotion prospects, rate of turnover and age at retirement of the staff in post.
- These factors can lead to marked differences in the cost of providing retirement benefits for different groups of staff. As the staff profiles of different departments and agencies can vary quite considerably, it was felt that the ASLC mechanism should allow separate rates to be specified for different groups of civil servants according to their grade, or pay band, as a proxy for collective differences in the key characteristics.
- The managers of the PCSPS, in consultation with the participating employers, therefore decided to implement a system of pay banded ASLC rates. The pre-1987 Prison Officers with reserved rights remained a separate grouping.

Appendix F — Assumptions

The assumptions used are summarised below.

Financial Assumptions

Discount rate	6.0% p.a.
Rate of pay increases (additional to promotional increases)	3.9% p.a.
Rate of price inflation	2.4% p.a.
Rate of pension increases	2.4% p.a.
Rate of pension increases on post-88 GMPs	2.2% p.a.
Rate of deferred pension increases	2.4% p.a.

Demographic Assumptions

Post-retirement mortality for males	110% of Standard tables PNMA00 specific to members' birth years making allowance for improvements in mortality in line with the CMI 92 Series Medium Cohort improvement factors and with an underpin to the improvements effective from 2007 of 1.25% p.a.
Post-retirement mortality for females	115% of Standard tables PNFA00 specific to members' birth years making allowance for improvements in mortality in line with the CMI 92 Series Medium Cohort improvement factors and with an underpin to the improvements effective from 2007 of 0.75% p.a.
Post-retirement mortality for males after ill-health retirement	105% of Standard tables PNMA00 specific to members' birth years making allowance for improvements in mortality in line with the CMI 92 Series Medium Cohort improvement factors and with an underpin to the improvements effective from 2007 of 1.25% p.a., plus a flat rate addition of 0.016 at all ages
Post-retirement mortality for females after ill-health retirement	115% of Standard tables PNFA00 specific to members' birth years making allowance for improvements in mortality in line with the CMI 92 Series Medium Cohort improvement factors and with an underpin to the improvements effective from 2007 of 0.75% p.a., plus a flat rate addition of 0.011 at all ages
Pre-retirement mortality	Allowance has been made for death in service and death in deferment based on an analysis of experience.
Retirements in normal health	Allowance has been made for active members (who are not pre-1987 prison officers) retiring between ages 60 and 65 Deferred members are assumed to retire at the earliest age at which unreduced benefits may be drawn.

Retirements in ill health	Allowance has been made for retirements before normal retirement age on grounds of ill health based on an analysis of scheme experience. Within premium , 50% of the ill health retirements are assumed to be of members who cannot work again in any capacity.
Withdrawals	Allowance has been made for withdrawals from service based on an analysis of experience.
Family details	65% of men and 50% of women in the classic section are assumed to be married at age 60. Within this assumption, implicit allowance has been made for re-marriage of spouses. 90% of men and 75% of women in the premium section are assumed to be married, or have dependants, at age 60. A man is assumed to be three years older than his wife/dependant.
Commutation	premium members are assumed to commute 18.75% of their pension on retirement.
Promotional salary increases	Allowance made for age-related promotional increases – see scale below.
Public Sector Transfer Club and re-joiner aggregation costs	An addition to the value of future benefit accrual of 0.5% of Pensionable Pay, to cover the estimated costs arising from Public Sector Transfer Club transfers-in and additional benefits arising due to linkage of service for re-joiners.
Central administration expenses	An addition to the value of future benefit accrual of 0.15% of Pensionable Pay. This only covers expenses associated with the central administration function of the PCSPS. No allowance has been made for the direct expenses of administration carried out by employers participating in the PCSPS (or by APACs acting on their behalf).

Sample Assumptions

The retirement, withdrawal and mortality assumptions shown below are probabilities of the relevant event over the following year.

Age	Male Band 1					Female Band 1				
	Ill Health Retirement	Withdrawal from service	Mortality in service	Mortality in deferment	Salary scale	Ill Health Retirement	Withdrawal from service	Mortality in service	Mortality in deferment	Salary scale
17	0.0001	0.1574	0.0005	0.0005	1.1400	0.0002	0.1253	0.0002	0.0002	0.7000
22	0.0002	0.1125	0.0004	0.0004	1.3600	0.0002	0.1117	0.0002	0.0002	0.9700
27	0.0003	0.0675	0.0003	0.0003	1.6200	0.0004	0.0823	0.0002	0.0002	1.0900
32	0.0005	0.0405	0.0003	0.0003	1.9400	0.0008	0.0462	0.0002	0.0002	1.1900
37	0.0009	0.0225	0.0004	0.0004	2.2600	0.0012	0.0202	0.0004	0.0004	1.2400
42	0.0014	0.0179	0.0007	0.0007	2.3700	0.0016	0.0145	0.0006	0.0006	1.2500
47	0.0022	0.0090	0.0013	0.0013	2.4200	0.0023	0.0129	0.0009	0.0009	1.2500
52	0.0038	0.0000	0.0024	0.0024	2.4700	0.0038	0.0000	0.0015	0.0015	1.2500
57	0.0075	0.0000	0.0042	0.0042	2.5200	0.0075	0.0000	0.0024	0.0024	1.2500
62	0.0000	0.0000	0.0073	0.0073	2.5700	0.0000	0.0000	0.0040	0.0040	1.2500

Male Band 2

Age	Ill Health Retirement	Withdrawal from service	Mortality in service	Mortality in deferment	Salary scale
17	0.0001	0.0700	0.0005	0.0005	1.0400
22	0.0002	0.0500	0.0004	0.0004	1.2400
27	0.0003	0.0300	0.0003	0.0003	1.5300
32	0.0005	0.0180	0.0003	0.0003	1.8900
37	0.0009	0.0100	0.0004	0.0004	2.1700
42	0.0014	0.0080	0.0007	0.0007	2.3600
47	0.0022	0.0040	0.0013	0.0013	2.4600
52	0.0038	0.0000	0.0024	0.0024	2.5400
57	0.0075	0.0000	0.0042	0.0042	2.5900
62	0.0000	0.0000	0.0073	0.0073	2.6100

Female Band 2

Age	Ill Health Retirement	Withdrawal from service	Mortality in service	Mortality in deferment	Salary scale
17	0.0002	0.0626	0.0002	0.0002	0.8400
22	0.0002	0.0559	0.0002	0.0002	1.1300
27	0.0004	0.0412	0.0002	0.0002	1.4600
32	0.0008	0.0231	0.0002	0.0002	1.6400
37	0.0012	0.0101	0.0004	0.0004	1.7400
42	0.0016	0.0073	0.0006	0.0006	1.8400
47	0.0023	0.0065	0.0009	0.0009	1.9000
52	0.0038	0.0000	0.0015	0.0015	1.9000
57	0.0075	0.0000	0.0024	0.0024	1.9000
62	0.0000	0.0000	0.0040	0.0040	1.9000

Male Band 3

Age	Ill Health Retirement	Withdrawal from service	Mortality in service	Mortality in deferment	Salary scale
17	0.0001	0.0525	0.0005	0.0005	0.6100
22	0.0002	0.0375	0.0004	0.0004	1.0000
27	0.0003	0.0225	0.0003	0.0003	1.4500
32	0.0005	0.0135	0.0003	0.0003	1.8500
37	0.0009	0.0075	0.0004	0.0004	2.1000
42	0.0014	0.0060	0.0007	0.0007	2.3500
47	0.0022	0.0030	0.0013	0.0013	2.5400
52	0.0038	0.0000	0.0024	0.0024	2.7300
57	0.0075	0.0000	0.0042	0.0042	2.8800
62	0.0000	0.0000	0.0073	0.0073	2.9800

Female Band 3

Age	Ill Health Retirement	Withdrawal from service	Mortality in service	Mortality in deferment	Salary scale
17	0.0002	0.0626	0.0002	0.0002	0.7000
22	0.0002	0.0559	0.0002	0.0002	1.0000
27	0.0004	0.0412	0.0002	0.0002	1.3500
32	0.0008	0.0231	0.0002	0.0002	1.6500
37	0.0012	0.0101	0.0004	0.0004	1.8000
42	0.0016	0.0073	0.0006	0.0006	1.9500
47	0.0023	0.0065	0.0009	0.0009	2.0600
52	0.0038	0.0000	0.0015	0.0015	2.1600
57	0.0075	0.0000	0.0024	0.0024	2.2100
62	0.0000	0.0000	0.0040	0.0040	2.2500

Male Band 4

Age	Ill Health Retirement	Withdrawal from service	Mortality in service	Mortality in deferment	Salary scale
17	0.0001	0.0350	0.0005	0.0005	0.6100
22	0.0002	0.0250	0.0004	0.0004	1.0000
27	0.0003	0.0150	0.0003	0.0003	1.4500
32	0.0005	0.0090	0.0003	0.0003	1.8500
37	0.0009	0.0050	0.0004	0.0004	2.1000
42	0.0014	0.0040	0.0007	0.0007	2.3500
47	0.0022	0.0020	0.0013	0.0013	2.6000
52	0.0038	0.0000	0.0024	0.0024	2.8500
57	0.0075	0.0000	0.0042	0.0042	3.0800
62	0.0000	0.0000	0.0073	0.0073	3.2000

Female Band 4

Age	Ill Health Retirement	Withdrawal from service	Mortality in service	Mortality in deferment	Salary scale
17	0.0002	0.0417	0.0002	0.0002	0.7000
22	0.0002	0.0372	0.0002	0.0002	1.0000
27	0.0004	0.0274	0.0002	0.0002	1.3500
32	0.0008	0.0154	0.0002	0.0002	1.6500
37	0.0012	0.0067	0.0004	0.0004	1.8000
42	0.0016	0.0048	0.0006	0.0006	1.9700
47	0.0023	0.0043	0.0009	0.0009	2.1300
52	0.0038	0.0000	0.0015	0.0015	2.2900
57	0.0075	0.0000	0.0024	0.0024	2.4300
62	0.0000	0.0000	0.0040	0.0040	2.4900

Retirement from active service

Proportion of remaining actives retiring at each age

Age	Male Band 1	Male Band 2	Male Band 3	Male Band 4	Female Band 1	Female Band 2	Female Band 3	Female Band 4
60	0.20	0.50	0.75	1.00	0.45	0.55	0.75	1.00
61	0.10	0.25	0.35	0.00	0.13	0.30	0.35	0.00
62	0.10	0.20	0.25	0.00	0.13	0.25	0.25	0.00
63	0.10	0.20	0.25	0.00	0.13	0.25	0.25	0.00
64	0.10	0.20	0.25	0.00	0.13	0.25	0.25	0.00
65	1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00