STATES OF JERSEY

PUBLIC EMPLOYEES CONTRIBUTORY RETIREMENT SCHEME (PECRS): ACTUARIAL VALUATION AT 31ST DECEMBER 2010

Presented to the States on 10th July 2012
by the Chief Minister

STATES GREFFE

REPORT

1. Article 3(3) of the Public Employees (Retirement) (Jersey) Law 1967 (Revised Edition chapter 16.650) requires the appointment of an Actuary to review the operation of the Public Employees' Contributory Retirement Scheme. Under Regulation 6(1) of the Public Employees (Contributory Retirement Scheme) (General) (Jersey) Regulations 1989 (Revised Edition chapter 16.650.36) the Scheme's Committee of Management has obtained a report from the Actuary for the period to 31st December 2010.

2. In accordance with Regulation 6(2) of the Public Employees (Contributory Retirement Scheme) (General) (Jersey) Regulations 1989, this accompanying report from the Chief Minister presents to the States the Actuary's report.

3. The Scheme's Committee of Management and the States Employment Board have formally accepted the report, which was signed by the Scheme's Actuary on 23rd May 2012.

4. In particular, the Actuary has concluded that the Scheme has a slight surplus of £40.6 million based on the provisions of the Scheme at the valuation date.

Dealing with the surplus

5. The treatment of the surplus disclosed at 31st December 2010 is covered by Regulation 6(3)(a), (b) and (c) of the Public Employees (Contributory Retirement Scheme) (General) (Jersey) Regulations 1989.

6. Members of the States Assembly may remember that the 2007 valuation disclosed a deficiency of £63.2 million. As there was no agreement between the Chief Minister and the Joint Negotiating Group (JNG) on how to deal with the deficiency, the default position applied and all future pension increases were decreased by 0.3% per annum.

7. Where a surplus is disclosed at a valuation, the Regulations governing the Scheme require the Committee of Management to restore any previous reduction or cancellation of increase in pension or deferred pension which has taken effect in the previous 6 years. In accordance with the Regulations, the Committee of Management will therefore apply the surplus as follows –

   (a) Firstly, full reimbursement will be made to those surviving members who have suffered a reduction in pension increases paid from the Scheme during 2011 and 2012, excluding those members under the 1967 Regulations and the Former Hospital Scheme Regulations who received a top-up payment from their former employer.

   (b) Secondly, the benefits for all current deferred pensioners and pensioners will be restored to the amount that would have applied had the pension increases granted on 1st January 2011 and 1st January 2012 been equal to the full increase of the Jersey Cost of Living Index (i.e. assuming the 0.3% p.a. reduction in pension increases had not applied).

(c) Finally, a reduction of less than 0.3% p.a. will be applied to future increases in pensions and deferred pensions due on or after 1st January 2013 such that the balance of the surplus is utilised.

8. In order to utilise the surplus based on the approach set out above, the Scheme Actuary has calculated that all future increases to pensions and deferred pensions due on or after 1st January 2013 should be based on the annual increase in the Jersey Cost of Living less 0.15% per annum.

Notes on the Valuation

9. Overall approach

The overall approach adopted for the 2010 valuation was the same as for the 2007 valuation. In particular, the Actuary continued to use best estimate assumptions whereby the future outcome is just as likely to be better or worse than assumed.

10. Scheme experience

The Actuary has calculated that over the 3 years since the previous valuation, Scheme experience has been unfavourable, creating an increase in the deficiency of £46 million.

11. Employers’ rate for new entrants

The global employer’ contribution rate that would be required to finance benefits for future new entrants (the “new entrant” rate) is 14.5% of members’ salaries.

The new entrant rate of 14.5% of members’ salaries exceeds the employers’ contribution rate of 13.6% of salaries provided for in the Regulations. This means that, on the assumptions adopted, the continued admission of new entrants can be expected to result in a strain on the finances of the Scheme.

12. Review of assumptions

At each valuation, the Actuary reviews the assumptions to be used to ensure that financial assumptions are based on market conditions at the valuation date and that the demographic assumptions take into account Scheme experience over the 3 year valuation period and any industry developments, for example on mortality expectations.

13. Impact of changes to the assumptions

Changes to the assumptions for the 2010 valuation compared with those of the 2007 valuation had a favourable impact of £87 million. When combined with adverse Scheme experience of £46 million, the valuation resulted in a surplus of £40.6 million as noted. The most notable elements were –

(a) Changes to the discount rate assumptions, including an increase in expected returns on Scheme assets and an increase in the proportion of assets allocated to growth, the latter in response to a recommendation from Martin Slack of Lane, Clark and Peacock in his independent Review of PECRS, and which aligned the valuation assumption with the Scheme's investment strategy. Favourable impact: £160 million.

(b) Change in Jersey inflation assumption: adverse impact: £46 million.

(c) Change in assumed post-retirement mortality rates: adverse impact: £62 million.

(d) Change in salary increases relative to inflation: favourable impact: £13 million.

Actuarial Reports

14. The 2010 actuarial valuation was signed by the Scheme Actuary on 23rd May 2010. A copy of every report, signed by the Scheme Actuary, must be laid before the States by the Chief Minister as soon as possible.

Public Employees Contributory Retirement Scheme (PECRS)

Actuarial Valuation at 31 December 2010

23 May 2012

Prepared for

The PECRS Committee of Management

Prepared by

Jonathan Teasdale FIA

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Executive Summary

Valuation results

We have carried out a valuation of the Public Employees Contributory Retirement Scheme (PECRS) (the Scheme) as at 31 December 2010. The purpose of the valuation is to review the operation of the Scheme since the previous valuation, and to report on the financial condition of the Scheme and the adequacy or otherwise of the contributions to support the benefits of the Scheme.

Following advice from ourselves, the Committee of Management has confirmed that the assumptions adopted to determine the funding target for the Scheme should be best estimate assumptions. Under best estimate assumptions the future outcome is just as likely to be better or worse than assumed. The rationale for using best estimate assumptions is discussed in Appendix E.

The main conclusions from the valuation are that:

- **There is a past service surplus of £62.2M as at 31 December 2010**
- **However the anticipated future contributions are less than the value of future service benefits in respect of active members as at 31 December 2010 by £21.6M**
- **Putting these two elements together, the Scheme's overall surplus as at 31 December 2010, expressed as a capital sum, is £40.6M, equivalent to a funding ratio of 102.8%**

Next steps

The surplus of £40.6M as at 31 December 2010 is based on the provisions of the Scheme at that date and therefore assumes that future increases in pensions and deferred pensions will be based on the annual increase in the Jersey Cost of Living Index minus 0.3% p.a.. The reduction of 0.3% p.a. arose from a deficiency at the previous Scheme valuation.

Where a surplus is disclosed at a valuation, the Regulations governing the Scheme require the Committee of Management to restore any previous reduction or cancellation of increase in pension or deferred pension which has taken effect in the previous six years. In accordance with the Regulations, the Committee of Management will therefore apply the surplus as follows:

- Firstly, full reimbursement will be made to those surviving members who have suffered a reduction in pension increases paid from the Scheme during 2011 and 2012, excluding those members under the 1967 Regulations and FHS Regulations (defined within Appendix C) who received a top-up payment from their former employer.
- Secondly, the benefits for all current deferred pensioners and pensioners will be restored to the amount that would have applied had the pension increases granted on 1 January 2011 and 1 January 2012 been equal to the full increase in the Jersey Cost of Living Index (i.e. assuming the 0.3% p.a. reduction in pension increases had not applied).
- Finally, a reduction of less than 0.3% p.a. will be applied to future increases in pensions and deferred pensions due on or after 1 January 2013 such that the balance of the surplus is utilised.

In order to utilise the surplus based on the approach set out above, we calculate that all future increases to pensions and deferred pensions due on or after 1 January 2013 should be based on the annual increase in the Jersey Cost of Living Index less 0.15% p.a..

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1. Introduction

Legislation

In accordance with Article 3(3) of the Public Employees (Retirement) (Jersey) Law, 1967 and Regulation 6(1) of the Public Employees (Contributory Retirement Scheme) (General) (Jersey) Regulations, 1989 we have carried out a valuation of the Public Employees Contributory Retirement Scheme (the Scheme) as at 31 December 2010.

Under the legislation, valuations of the Scheme are required at least once every five years. However, it is the policy of the Committee of Management to require valuations once every three years so as to keep the finances of the Scheme under more frequent scrutiny.

The results of the valuation are based on the Regulations of the Scheme in force at the date of signature of this report.

Purpose

The purpose of the valuation is to review the operation of the Scheme since the previous valuation, and to report on the financial condition of the Scheme and the adequacy or otherwise of the contributions to support the benefits of the Scheme.

Previous valuation

Our previous valuation report dated 2 July 2009 considered the financial position of the Scheme as at 31 December 2007.

Contributions since the previous valuation

Since the previous valuation contributions have continued to be paid at the rates specified in the Scheme's Regulations from time to time. The contributions that have been paid in respect of JPL and JTL employees are set out in Appendix P and Appendix Q respectively.

Next valuation

In accordance with the policy of the Committee of Management, the next valuation is due to be carried out as at 31 December 2013.

A snapshot view

The report concentrates on the Scheme's financial position at the valuation date. As time moves on, the Scheme's finances will fluctuate. If you are reading this report some time after it was produced, the Scheme's financial position could have changed significantly.

Scope of advice

The report is prepared for the Committee of Management. Please see Appendix A for further details of the scope of advice.

Words used

Our report includes some technical pension terms. The words shown in **bold print** are explained further in the glossary.

For brevity, we have also used the following shorthand:

Shorthand	What it means
Salaries, Service	As defined in the Regulations
Regulations	See Appendix C
Scheme	Public Employees Contributory Retirement Scheme
Valuation date	31 December 2010

2. Developments since the Previous Valuation

Purpose of section	This section summarises what has happened since the previous valuation.
Key developments	The financial health of the Scheme depends fundamentally on how much cash is paid in, how well the assets perform, and on what benefits are paid out. The key developments since the previous valuation therefore include: ▪ The amount of contributions paid to the Scheme. ▪ The actual returns on the Scheme's investments. ▪ Whether there are changes to future expectations of benefit payments or investment returns. These items are discussed later in this report (sections 4 and 6). As well as these high level points, please note the developments below.
Dealing with the 2007 valuation deficiency – pension increases reduced	As agreement on dealing with the deficiency of £63.2M revealed by the 2007 valuation was not reached, all future increases to pensions and deferred pensions due on or after 1 January 2011 payable from the Scheme were reduced so that they are based on the annual increase in the Jersey Cost of Living Index minus 0.3% p.a.. It was however confirmed that members covered by the 1967 Regulations and FHS Regulations (defined within Appendix C) would be unaffected, as the member's former employer is required to top up their pensions to ensure full indexation is maintained.
Pre-1987 debt repayments	The existence of, and arrangements for dealing with the "pre-1987 debt" are covered in section 3. Since the previous valuation certain employers' share of the debt has either been paid off or reassigned, as follows. The States took responsibility for paying the pre-1987 debt repayments in respect of Family Nursing and Homecare from July 2008. The Jersey Gambling Commission was admitted as an Employer in accordance with Regulation 9(1)(b) of the General Regulations with effect from 3 September 2010. The share of the pre-1987 debt relating to the Jersey Gambling Commission was paid through a lump sum payment of £81,627 on 8 September 2010. After ceasing to have any employees in the Scheme, Brig-Y-Don paid its share of the pre-1987 debt through lump sum payments of £250,000 on 30 September 2010 and £117,164 on 31 December 2010.
Amendments to Regulations with effect from 1 March 2009	Members of the uniformed services who became Category A members on or after 1 March 2009 no longer have the option of taking early retirement in normal health before age 55, their Normal Retiring Age.

Other amendments

A number of other minor amendments have been made to the Regulations but none of these changes have had a material impact on the funding position of the Scheme.

3. Information Used

Key information

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

- The assets held by the Scheme.
- How benefit entitlements are calculated.
- Member data.

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

Assets

The Scheme's assets had an audited market value of £1,335.5M at the valuation date.

The value of assets notionally attributed to JTL's and JPL's employees at 31 December 2010 were £35.9M and £32.5M respectively. The Scheme also holds insurance policies worth £0.5M.

After disregarding the assets notionally attributed to JTL's and JPL's employees and adding in the value of the Scheme's insurance policies, the value of Scheme assets taken into account for the purposes of this valuation was £1,267.6M.

For further details, please see Appendix B.

Benefits valued

Members are entitled to benefits defined in the Regulations. We are not aware of any established practice of granting additional discretionary benefits and no allowance for such benefits has been made in this valuation. A summary of the benefits valued is set out in Appendix C.

Pre-1987 debt

In 2003, agreement was reached between the Policy & Resources Committee (Act of Committee dated 20 November 2003) and the Committee of Management for dealing with the pre-1987 debt. By "pre-1987 debt" we mean the shortfall transferred to the Scheme arising from the changes made to the Scheme in 1987.

The contribution framework agreed between the Policy & Resources Committee and the Committee of Management for dealing with the pre-1987 debt was as follows:

- The employers' overall contributions were increased with effect from 1 January 2002, from 15.16% to the equivalent of 15.60% of members' salaries.
- Of this sum, the equivalent of 2.0% of members' salaries was converted into a cash sum increasing each year in line with the average pay increase of PECRS members employed by the States, payable for 82 years (this stream of payments being earmarked to pay off the pre-1987 debt). On this basis, the employers' contribution rate was re-expressed with effect from 1 January 2002 as 13.60% of members' salaries, plus an appropriately defined indexed cash sum paid over a finite period.

- As from 1 January 2084, the employers' contribution rate is due to revert to 15.16% of members' salaries.

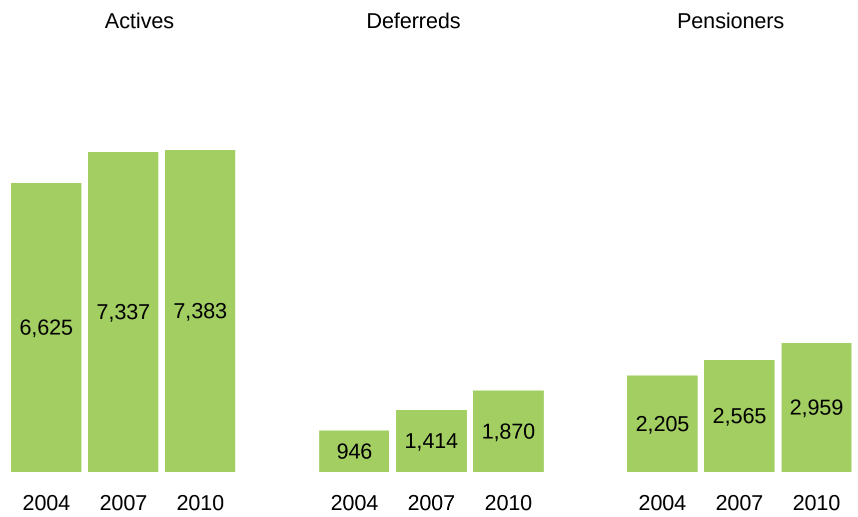
Full details of the agreement are included in Appendix M.

The provisions of the agreement were reflected in changes to the Scheme's Regulations approved by the States of Jersey on 27 September 2005.

Membership data

The valuation calculations use membership data supplied by the Dedicated Pensions Unit of the States Treasury Department at 31 December 2010.

The following chart illustrates how the membership profile (including JTL and JPL active members) is evolving. Please see Appendix D for a more comprehensive summary of the data excluding JPL and JTL active members. Summaries of the JPL and JTL active member data are set out in Appendices N and O respectively.



Note: The number of pensioners shown in the above illustration excludes spouses and dependants.

The illustration shows that there has been an increase in the number of members in each of the membership categories since the last valuation.

Reliability of information

We have carried out general checks to satisfy ourselves that:

- The information used for this valuation is sensible compared with the information used for the previous valuation.
- The results of this valuation can be traced from the results of the previous valuation.

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

4. Valuation Approach

Adequacy of contributions

The contributions to the Scheme are specified in the Regulations governing the Scheme and are paid so as to provide the benefits which will become payable to members when they retire or otherwise leave the Scheme.

The factors affecting the Scheme's finances are open to changing circumstances. Consequently it is necessary to review the operation of the Scheme from time to time, by means of an actuarial valuation, to determine the adequacy or otherwise of the contributions to support the benefits payable under the Scheme.

Funding target and funding objective

In our review we start with the known facts about the Scheme at the valuation date, i.e. the benefit and contribution structure, the membership and the assets. We then must make assumptions about the factors affecting the Scheme's future finances such as investment returns, pay increases and rates of mortality, leaving service and retirement.

For the purpose of assessing whether the contributions are adequate to support the current benefits, it is appropriate to set a "**funding target**" and "funding objective".

The terms "surplus" and "deficiency" are referred to in the Scheme's Regulations but are not explicitly defined. In practice, we say there is a surplus if the **funding target** is more than fully met and we say there is a deficiency if the **funding target** is less than fully met.

After receiving and taking account of advice from ourselves as Actuary, the Committee of Management determined the following **funding target** and funding objective:

- The **funding target** is that, based on best estimate assumptions, the assets and future contributions should be sufficient over the long term to support the benefits payable from the Scheme in respect of the current members of the Scheme.
- The funding objective is that the **funding target** should be met and that any variations in outcome should be dealt with following each valuation in accordance with the PECRS Regulations, by adjustments to contributions and/or benefits or by carrying forward surpluses and deficiencies where appropriate.

Under best estimate assumptions the future outcome is just as likely to be better or worse than assumed. The rationale for using best estimate assumptions is discussed in Appendix E.

For the purposes of assessing suitable assumptions at this valuation, the Committee of Management agreed that the Actuary should make allowance for continued future investment in growth assets, such as equities, by assuming that pre-retirement liabilities will be backed 100% by growth assets and that post-retirement liabilities will be backed ⅓ by growth assets and ⅔ by bond-like assets.

Changes from previous valuation

The funding objective is unchanged from the previous valuation although there have been changes to the assumptions used, as discussed below. In particular, the pre-retirement discount rate now assumes that pre-retirement liabilities will be backed 100% by growth assets whereas the previous valuation assumed that pre-retirement liabilities would be backed ⅔ by growth assets and ⅓ by bond-like assets. This change has been made to ensure consistency between the **funding target** and the strategic investment benchmark at the valuation date.

Valuation methods

A description of the methods used for the main valuation calculations, and for the separate JPL and JTL sub-fund valuations, is set out in Appendix F. This includes a description of the separate **funding target** and funding objective which apply for the JPL and JTL sub-fund valuations.

Valuation assumptions

The results of a valuation are very sensitive to the assumptions made. The financial assumptions have a significant effect on the results of a valuation. However, the other assumptions, particularly the mortality assumptions, are also very important.

Use of market-led financial assumptions

In both this and the previous valuation of PECRS we have adopted a market-led approach, which involves:

- market-led financial assumptions for valuing the liabilities, future contributions and future pre-1987 debt repayment supplements.
- valuing the assets at market value.

Key financial assumptions

The following table shows the key financial assumptions used for this valuation, with the assumptions used for the previous valuation shown alongside for comparison. Important points to bear in mind are:

- the differences between the rates have a bigger impact on the results of the valuation than the absolute levels of each assumption.
- the assumptions were derived from market yields at the valuation date to ensure compatibility with the market value of the assets.

We have derived the **discount rates** prior to and after retirement by adding margins of 3.8% p.a. (before retirement) and 1.7% p.a. (after retirement) over the returns available on fixed interest gilts at the valuation date. These margins reflect the Scheme's investment consultant's best estimate at the valuation date of the out-performance the Scheme may obtain through the assets assumed to be held.

The derivation of financial assumptions in this way is compatible with taking assets at market value.

	2010 %	2007 %
Discount rate (investment return):		
▪ For valuing liabilities over the period prior to retirement and for valuing future service contributions	8.2	6.9
▪ For valuing liabilities over the period after retirement	6.1	5.9
▪ For valuing future debt repayment supplements	6.75	6.35
Increases to pensions in payment and deferred pensions (Jersey price inflation, less 0.3% p.a. in the case of the 2010 valuation)	3.5	3.65
General salary increases (in addition to promotional increases)	4.8	4.9

Full details of the financial assumptions used for this valuation, and the reasons for the changes compared to the previous valuation, are set out in Appendix G to this report.

Comparison of financial assumptions with 2007 valuation

Overall (ignoring any changes to the demographic assumptions), the financial assumptions we have used result in a lower deficiency than if the assumptions used for the 2007 valuation had been retained. The main reasons for this are:

- the lower assumed increases to pensions in payment, deferred pensions and general salary increases.
- the increases to the **discount rates** used to value the liabilities.

The effect of these changes, which serve to reduce the deficiency, has been countered to an extent by the effect of the increase in the **discount rate** used to value the pre-1987 debt contributions.

Demographic assumptions

Other important assumptions used to value the liabilities include:

- the assumed future rates of mortality
- the allowance made for the extent to which members will choose to exchange pension for a cash lump sum at retirement (at the rate of £13.50 cash lump sum for each £1 annual pension given up)
- the allowance for additional increases to salaries due to promotion, service or seniority
- the allowance made for the range of ages at which members in each membership category will retire in future.

Comparison of demographic assumptions with 2007 valuation

We have reviewed the extent to which the demographic assumptions adopted for the 2007 valuation of the Scheme remain appropriate for the current valuation as at 31 December 2010 after analysing the experience of PECRS during the 3 years 2008-2010 and taking account of other relevant data. Full details of the demographic assumptions used for this valuation, and the reasons for any changes compared to the previous valuation, are set out in Appendix H to this report.

In the light of this review we have made a number of changes to the demographic assumptions. The overall effect of these changes is to increase the deficiency. The most financially significant change we have made is to change the assumed future rates of mortality in retirement, reflecting improvements in life expectancy.

General comments on the assumptions

In our opinion, the financial and demographic assumptions, taken as a whole, are an entirely reasonable best estimate basis for assessing the funding of the Scheme.

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5. Valuation Results

Summary of results in monetary terms

A detailed breakdown of the results of the main valuation calculations is given below. The results of the JPL and JTL sub-fund valuations are set out in Appendices P and Q.

The past service position as at 31 December 2010 is as follows:

	£M
Value of past service benefits:	
For current pensioners	700.2
For current deferred pensioners	123.8
For current non-JTL/JPL active members	585.2
	1,409.2
Compared to:	
Value of assets (excluding JTL/JPL asset shares)	1,267.6
Value of future "pre-1987 debt contributions"	203.8
	1,471.4
Past service (shortfall)/surplus	62.2

The future service position as at 31 December 2010 is as follows:

	£M
Value of future service benefits for current non-JTL/JPL active members	408.5
Compared to:	
Value of future contributions due in respect of current non-JTL/JPL members	
– at the employers' rate of 13.6% of payroll	280.9
– contributions paid by members	106.0
Total future service (shortfall)/surplus	-21.6

The anticipated future contributions fall short of the value of future service benefits by £21.6M.

Putting this element together with the past service surplus of £62.2M, the overall surplus as at 31 December 2010, expressed as a capital sum, is £40.6M. This is equivalent to a **funding ratio** of 102.8%.

Employers' new entrant rate

The global employers' contribution rate that would be required to finance benefits for future new entrants (the "new entrant rate") is 14.5% of members' salaries.

The new entrant rate of 14.5% of members' salaries exceeds the employers' contribution rate of 13.6% of salaries provided for in the Regulations. This means that on the assumptions adopted, the continued admission of new entrants can be expected to result in a strain on the finances of the Scheme. An illustration of the potential impact on the Scheme over a three-year period is set out in Appendix J.

The new entrant rates for each category of member are set out below. The overall new entrant rate is an average of the individual rates, rated by the proportion of members' salaries in each category.

Membership Category	Proportion of members' salaries (including all pensionable allowances) %	New entrant contribution rate as percentage of salaries %
Category A uniformed members (normal retiring age 55)		
Males	7.6	31.4
Females	2.0	30.8
Category B uniformed members (normal retiring age 60)		
Males	0.8	29.1
Females	0.1	28.4
Non-uniformed members (normal retiring age 65)		
Males	41.5	18.5
Females	48.0	17.8
Overall	100.0	19.5

The global employers' share of the new entrant rate is obtained by subtracting members' contributions at 5% of salaries, leading to an employers' new entrant rate of 14.5% of salaries.

Details of the assumptions underlying the calculation of the new entrant rate are given in Appendix J.

6. Comments on Valuation Results

Development of the Scheme's financial position

In this section we demonstrate how the Scheme's financial position has developed since the previous valuation.

We start with the result quoted in the formal report on the previous valuation, which showed a deficiency of £63.2M.

However, the deficiency was reduced to nil by the reduction of 0.3% p.a. applied to all future increases to pensions and deferred pensions due from the Scheme on or after 1 January 2011.

Positive and negative effects

Positive (+) and negative (-) effects shown in the following analysis of the development of the Scheme's financial position since the previous valuation are interpreted as follows:

- a positive effect reduces the extent of the deficiency (or increases the surplus)
- a negative effect increases the extent of the deficiency (or reduces the surplus).

Scheme experience

We have calculated that over the 3 years since the previous valuation, Scheme experience has been unfavourable, creating an increase in the deficiency of £46M. We have broken down the overall experience effect into the following broad constituents:

	Effect on surplus / (deficiency) £M
a) investment returns having been lower than assumed	-100
b) effect of difference between actual and expected salary increases (including promotional increases)	20
c) effect of difference between actual and expected pension increases	24
d) effect of difference between actual and expected ill-health retirement experience	6
e) effect of difference between actual and expected mortality	2
f) effect of approximations in this analysis, and other experience items	2
Total impact of the Scheme experience	**-46**

Changes in assumptions

Since the previous valuation there have been a number of changes to the assumptions, which have an overall positive effect on the valuation result of £87M. We have broken this effect down into the following items:

	Effect on surplus / (deficiency) £M
a) change in discount rate assumptions	
- element due to change in expected returns on assets held	55
- element due to change in allocation to growth assets	105
b) change in Jersey inflation assumption	-46
c) change in salary increases relative to inflation	13
d) change in assumed mortality rates after retirement	-62
e) change in other demographic assumptions	22
Total impact of changes in assumptions	**87**

Further details of the changes to the assumptions are shown in Appendices G, H and I.

Overall summary

In summary, the change in the valuation result is analysed as follows:

	Effect on surplus / (deficiency) £M
Valuation surplus/(deficiency) at 31 December 2007	-63
Reduction in future pension increases of 0.3% p.a.	63
Scheme experience	-46
Changes in assumptions	87
Valuation surplus/(deficiency) at 31 December 2010	**41**

A more detailed analysis, separately identifying the effect on the past service position and future service position, is set out in Appendix K.

7. Discontinuance Test

Discontinuance test

Even though the Regulations governing the Scheme do not envisage the Scheme's discontinuance (i.e. the future accrual of benefits and payment of contributions into the Scheme being discontinued), it is our practice at valuations also to review what the financial position of the Scheme would have been had discontinuance occurred on the valuation date. This is done by comparing the value of the basic accrued benefits as at 31 December 2010 with the market value of the Scheme's existing assets at that date.

Definition of basic accrued benefits

By basic accrued benefits we mean:

a) benefits in respect of current pensioners and their spouses and dependants.

b) retirement and death benefits in respect of former employees entitled to deferred pensions.

c) accrued retirement and death benefits in respect of current members (including JTL and JPL members) based on pensionable pay at 31 December 2010, no allowance being made for pay increases after that date.

We have taken the value of the basic accrued benefits on discontinuance at the valuation date as an estimate of the terms that might be offered by insurance companies for determining the cost of immediate and deferred annuities, plus a provision to cover expenses.

In practice, if the Scheme were ever to be discontinued, it is possible that the Scheme would continue as a closed fund.

Assumptions

In setting the assumptions for the hypothetical discontinuance test we have taken into account actual buy-out terms available in the market at the valuation date. However, we have not carried out a detailed analysis of the cost of risks that might apply specifically to the Scheme and so our estimate is only a guide. Market changes to both interest rates, and demand and supply for this type of business, mean that no reliable estimate can be made, and that ultimately the actual true position can only be established by completing a buy-out.

We have set the **discount rate** for this estimate equal to:

- Current pensioners: the yield on gilts of appropriate term at the valuation date less 0.25% p.a.

- Future pensioners: the yield on gilts of appropriate term at the valuation date (this applies over the period before and after retirement) less 0.75% p.a..

The allowance we have made for expenses is separate.

We have made an allowance for increases to pensions before and during payment in line with the UK Retail Prices Index. This differs from the provisions under the Regulations governing the Scheme which provide for annual increases in line with the Jersey Cost of Living Index, although lower increases may be paid where an actuarial review has disclosed that the financial condition of the Scheme is no longer satisfactory. Currently, increases to pensions and deferred pensions are based on the annual increase in the Jersey Cost of Living Index minus 0.3% p.a..

The reason we have not made allowance for increases in line with the actual Scheme increases is that, based on the principles an insurer might use, these would be, at best, extremely expensive, and at worst, impossible to reserve for, as there are no available assets which match the increases in the Jersey Cost of Living Index. Therefore, it is unlikely to be possible to purchase annuities in the market based on the Scheme increases.

More details on the assumptions used for the discontinuance test are set out in Appendix L.

Discontinuance test results

We have considered the discontinuance position on the assumption that in the event of the Scheme's discontinuance the capitalised value of the outstanding pre-1987 debt contributions would be assessed at the point of discontinuance and would be paid off in full by the States of Jersey at that point or over a period of time. This is consistent with the agreed arrangements for dealing with the pre-1987 debt, as set out in Appendix M.

The results of the hypothetical discontinuance valuation are as follows:

	£M
Market value of assets	1,336.0
Value of pre-1987 debt	203.8
Total value of assets = A	1,539.8
Total value of accrued benefits (including expenses) = L	2,642.9
Discontinuance funding ratio = A/L	58%

Even after allowing for the outstanding pre-1987 debt contributions to be paid off in full by the States of Jersey, the Scheme's assets are therefore insufficient to cover the cost of members' discontinuance together with pension increases in line with UK inflation in this hypothetical situation.

Comparison with discontinuance test at previous valuation

The discontinuance funding ratio of 58% compares with a corresponding ratio of 81% at the 2007 valuation and 69% at the 2004 valuation. The reduction in the discontinuance funding ratio is primarily due to an increase in the estimated costs of buying out benefits with an insurance company. This increase in buy-out cost reflects both a reduction in gilt yields and a significant reduction in the investment return relative to gilt yields used by insurers in setting a buy-out price.

8. Risks and Sensitivity Analysis

Purpose of section

This section comments on some of the key risks faced by the Scheme. It concentrates on the deterioration to the Scheme's finances that may arise in various hypothetical downside scenarios (where the actual experience is less favourable than the assumptions made at this valuation). However, as the assumptions used to determine the **funding target** are best estimate assumptions, it needs to be recognised that upside scenarios (where the experience is more favourable than the assumptions) are just as likely.

Key risks

Here is a recap of some of the key factors that could lead to deficiencies in future:

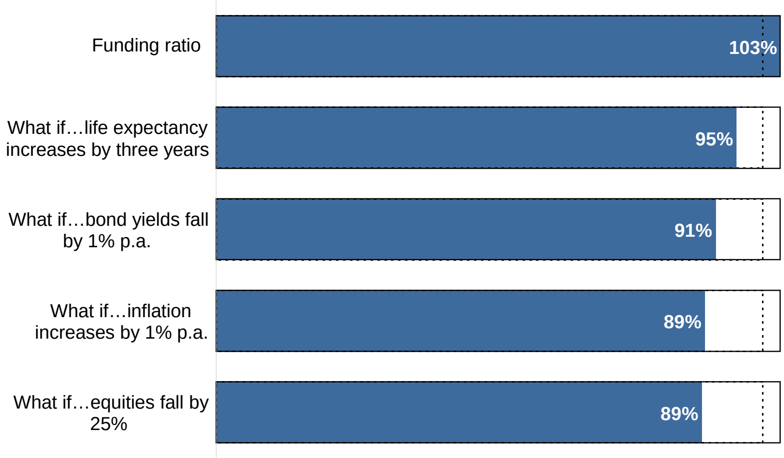
- Investment performance—the return achieved on the Scheme's assets may be lower than allowed for in the valuation.
- Investment volatility—the assets may not move in line with the value of benefits. The Scheme invests in assets (e.g. equities) that are expected to achieve a greater return than the assets (i.e. index-linked gilts and investment grade derivatives) that most closely match the expected benefit payments. The less matched the investment strategy is, the greater the risk that the assets may not move in line with the value of benefits.
- Mortality—members could live longer than foreseen, for example, as a result of a medical breakthrough. This would mean that benefits are paid for longer than assumed, resulting in a higher cost of providing the benefits.
- Options for Members—members may exercise options resulting in unanticipated extra costs. For example, members could swap less of their pension for cash at retirement than is assumed.

Quantifying the risks

To help the Committee of Management understand the susceptibility of the funding position on the valuation assumptions, we have considered the hypothetical impact on the **funding ratio** of the following one-off step changes.

- Life expectancy at age 60 is three years greater than anticipated (with corresponding increases at other ages).
- Yields on both gilts and corporate bonds decrease by 1% p.a. (with no change in equity markets and assuming the anticipated outperformance of the Scheme assets over gilt yields remains the same).
- Real yields on index-linked gilts decrease by 1% p.a. (with fixed-interest gilt yields, corporate bond yields, and equity markets unchanged)—this is equivalent to a 1% p.a. increase in the assumed rate of inflation.
- The market value of equities and alternatives falls by 25% (with no change in bond markets).

Please see the chart below for the results.



The accrued benefits position is similarly sensitive to these factors.

The scenarios considered are not “worst case” scenarios, and could occur in combination (rather than in isolation). Opposite step changes, such as what happens if bond yields rise by 1% p.a. for example, would improve the funding position by broadly similar amounts to the reductions identified above.

Investment strategy

The Scheme’s liabilities are influenced by Jersey inflation either directly via pension increases or indirectly via pay increases. The assets that most closely match the Scheme’s liabilities are index-linked gilts and investment grade derivatives. However, a large proportion of the Scheme’s assets are invested in asset classes such as equities which are expected to produce higher returns over the long term than those more closely matching assets.

The Committee of Management recognises the degree of risks, as well as the potential rewards, that this holds for the Scheme. In particular the financial position of the Scheme can be affected by sudden (or gradual) changes in market values of equities and/or changes in bond yields, as illustrated above.

The investment strategy of the Scheme is set by the Committee of Management and is kept under regular review.

If Scheme were closed to new entrants

If the Scheme were ever to be closed to new entrants, the investment strategy would require fundamental review. It is likely that the **funding target** would need to be revised to allow for a greater degree of investment in bond-like assets (in relation to the pre-retirement liabilities, the post-retirement liabilities or both). Furthermore the pre-1987 debt repayments would need to be rescheduled to ensure repayment of the debt over an appropriate period.

The valuation assumptions do not take account of the possibility of the Scheme being closed to new entrants. If a closure of the Scheme to new entrants is every contemplated in future, a fresh valuation would need to be carried out to assess the financial implications.

Implications

The analysis in this section emphasises that the Scheme is highly susceptible to:

- Equity markets falling, or bond yields falling. This risk arises because the Scheme is not invested in the assets that most closely match the expected future cashflows (i.e. index-linked gilts and investment grade derivatives)
- Members living longer than expected

9. Summary and Conclusions

Headline results

Here are the headlines at the valuation date:

- There is a past service surplus of £62.2M.
- The overall surplus, after allowing for the anticipated shortfall in future contributions, is £40.6M. This corresponds to a **funding ratio** of 102.8%.

The surplus of £40.6M will need to be dealt with in accordance with the terms of the Scheme's Regulations.

Developments since the valuation date

The valuation results reflect the financial position of the Scheme as at the valuation date, 31 December 2010.

Since the valuation date, the returns on the Scheme's assets have so far been below those assumed at this valuation, and the funding position of the Scheme will have worsened, to the extent that in our opinion there would no longer be a surplus if a valuation were carried out at a current effective date. It is, of course, not known whether the current worsened funding position will persist until the next valuation. The experience so far, and other future experience up to the next valuation date, will be reflected in the next valuation of the Scheme.

Dealing with the surplus

The surplus of £40.7M as at 31 December 2010 is based on the provisions of the Scheme at that date and therefore assumes that future increases in pensions and deferred pensions will be based on the annual increase in the Jersey Cost of Living Index minus 0.3% p.a.. The reduction of 0.3% p.a. arose from a deficiency at the previous Scheme valuation.

Where a surplus is disclosed at a valuation, the Regulations governing the Scheme require the Committee of Management to restore any previous reduction or cancellation of increase in pension or deferred pension which has taken effect in the previous six years. In accordance with the Regulations, the Committee of Management will therefore apply the surplus as follows:

- Firstly, full reimbursement will be made to those surviving members who have suffered a reduction in pension increases paid from the Scheme during 2011 and 2012, excluding those members under the 1967 Regulations and FHS Regulations (defined within Appendix C) who received a top-up payment from their former employer.
- Secondly, the benefits for all current deferred pensioners and pensioners will be restored to the amount that would have applied had the pension increases granted on 1 January 2011 and 1 January 2012 been equal to the full increase in the Jersey Cost of Living Index (i.e. assuming the 0.3% p.a. reduction in pension increases had not applied).

- Finally, a reduction of less than 0.3% p.a. will be applied to future increases in pensions and deferred pensions due on or after 1 January 2013 such that the balance of the surplus is utilised.

In order to utilise the surplus based on the approach set out above, we calculate that all future increases to pensions and deferred pensions due on or after 1 January 2013 should be based on the annual increase in the Jersey Cost of Living Index less 0.15% p.a..

JPL sub-fund

The revised certificate in Appendix R sets out the required employer contribution rate for JPL of 8.14% of salaries effective from 1 July 2012. This compares with the rate of 15.35% currently being paid.

The required JPL employer contribution rate of 8.14% of salaries comprises:

- The "standard" contribution rate of 15.07% of salaries which is the rate required to support future service benefits of JPL's current active members over their future working lifetimes in PECRS; less
- An adjustment of 6.93% of salaries to eliminate the past service surplus in the JPL sub-fund over a period of around 12 years.

A revised Actuary's Certificate is included in Appendix R to this paper.

JTL sub-fund

The revised certificate in Appendix S sets out the required employer contribution rate for JTL of 7.19% of salaries effective from 1 July 2012. This compares with the rate of 14.12% currently being paid.

The required JTL employer contribution rate of 7.19% of salaries comprises:

- The "standard" contribution rate of 13.14% of salaries which is the rate required to support future service benefits of JTL's current active members over their future working lifetimes in PECRS; less
- An adjustment of 5.95% of salaries to eliminate the past service surplus in the JTL sub-fund over a period of around 15 years.

A revised Actuary's Certificate is included in Appendix S to this paper.

Next valuation

We recommend that the next valuation should be carried out no later than 31 December 2013.

Signed

Jonathan F. Teasdale

Jonathan Teasdale FIA

Appendix A—Scope of advice

Scope of advice

This report is prepared under the terms of the Actuary Agreement dated 26 November 2007 between Hewitt Bacon & Woodrow Limited (now Aon Hewitt Limited) and the Committee of Management, on the understanding that it is for the benefit of the addressees.

Unless prior written consent has been given by me or Aon Hewitt 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, neither I nor Aon Hewitt Limited accepts or assumes any responsibility to anyone other than the addressees of this report.

Appendix B—Assets

Assets

The Scheme's assets are held separately from those of the States of Jersey.

The audited Scheme accounts for the year ended 31 December 2010 show its assets as £1,335.5M. This figure covers the whole of the Scheme's assets, inclusive of those notionally attributable to JTL's and JPL's employees. The assets can be categorised as follows:

Asset type	Market value (£M)	% of Total
Equities	1,030.1	65.2
Alternatives	158.3	11.9
Bonds	288.5	21.6
Cash and net current assets	16.9	1.3
Total	1,335.5	100.0

The value of assets notionally attributed to JTL's and JPL's employees at 31 December 2010 were £35.9M and £32.5M respectively. The Scheme also holds insurance policies worth £0.5M.

After disregarding the assets notionally attributed to JTL's and JPL's employees and adding in the value of the Scheme's insurance policies, the value of Scheme assets taken into account for the purposes of this valuation was £1,267.6M.

Appendix C—Provisions of Scheme

Regulations

The Scheme is governed by Regulations made under the Public Employees (Retirement) (Jersey) Law, 1967 (as amended). At the valuation date, the provisions of the Scheme were specified in the following Regulations, namely:

a) The Public Employees (Contributory Retirement Scheme) (Former Hospital Scheme) (Jersey) Regulations, 1992 (as amended) - known as the FHS Regulations

b) The Public Employees (Contributory Retirement Scheme) (Jersey) Regulations, 1967 (as amended) - known as the 1967 Regulations

c) The Public Employees (Contributory Retirement Scheme) (Existing Members) (Jersey) Regulations, 1989 (as amended) - known as the Existing Members Regulations

d) The Public Employees (Contributory Retirement Scheme) (New Members) (Jersey) Regulations, 1989 (as amended) - known as the New Members Regulations.

In addition, the provisions of the Scheme which are common to each of the above Regulations are specified in the Public Employees (Contributory Retirement Scheme) (General) (Jersey) Regulations, 1989 (as amended) - known as the General Regulations.

History

All members joining the Scheme after 30 August 1989 (1 January 1990 for former members of the Former Hospital Scheme) are subject to the New Members Regulations. However, members joining the Scheme on or before that date were given the following options:

a) Members who joined the Scheme prior to 1 January 1988 (1 January 1990 for former members of the Former Hospital Scheme) were given the option either to elect for benefits under the Existing Members Regulations or the New Members Regulations, or to remain subject to the 1967 Regulations (FHS Regulations for former members of the Former Hospital Scheme).

b) New entrants to the Scheme between 1 January 1988 and 30 August 1989 inclusive had the choice of benefits under the Existing Members Regulations or the New Members Regulations.

c) Special arrangements were made for employees who were not previously eligible for membership of either the Scheme or the Former Hospital Scheme (e.g. part-timers).

Insured benefits

The benefits of the Scheme are not insured, with the exception of the insurance policies transferred from the Former Hospital Scheme at the end of 1992.

Main features The main features of the Scheme in force at the valuation date are summarised on the following pages where the term "uniformed" members includes members of the Police, Fire, Prison, Airport Fire Service, Port Control Unit, Air Traffic Control and Emergency Ambulance Services.

	1967 or FHS Regulations	Existing Members or New Members Regulations
Normal Retiring Age		
"Uniformed" Members	55 or 60 as appropriate	55 or 60 as appropriate
"Non-uniformed" Members	65 (males) 60 (females)	65 (males and females)
Average Salary	Average salary received during the 3 years prior to retirement	Salary received in best successive 365 days during the 3 years prior to retirement
Normal Retirement Pension		
"Uniformed" Members	1/45th of average salary for each year of reckonable service Note: "Uniformed" members cannot be subject to the FHS Regulations	Existing Members Regulations 1/45th of average salary for each year of pensionable service New Members Regulations 1/60th of average salary for each year of pensionable service
"Non-uniformed" Members	FHS Regulations (females) 1/80th of average salary for each year of reckonable service 1967 & FHS Regulations (males) 1/60th of average salary for each year of reckonable service	Existing Members Regulations 1/60th of average salary for each year of pensionable service New Members Regulations 1/80th of average salary for each year of pensionable service
Cash at retirement	FHS Regulations (females) A tax free cash sum of 3/80ths of average salary for each year of reckonable service 1967 & FHS Regulations (males) Not available	Option to exchange up to 25% of commencing pension for a tax free cash sum of £13.50 for each £1 of pension given up

Optional Retirement	Any time up to 5 years before normal retiring age subject to 10 years' reckonable service <u>Note</u>: Under the FHS Regulations, the prior approval of the employer is required	Generally any time up to 5 years before normal retiring age subject to 10 years' pensionable service, but in certain circumstances special provisions apply <u>Note</u>: Non-uniformed members can retire after age 60 if they have completed 2 years' qualifying service For post-1 January 2006 joiners, pensions paid before normal retiring age are subject to 2.4% p.a. reduction for early retirement
	Note: Uniformed members who became Category A members on or after 1 March 2009 do not have the option of taking early retirement in normal health before age 55, their Normal Retiring Age.	
Ill-Health Retirement	Subject to 10 years' reckonable service, immediate benefits on grounds of serious ill health or incapacity. Benefits based on reckonable service up to date of retirement only	Subject to 2 years' qualifying service, immediate benefits on grounds of serious ill health or incapacity. Benefits based on enhanced pensionable service in most cases
Death in Service	1. Cash sum - paid to spouse, child, dependant or estate according to circumstances: a) Less than 5 years' reckonable service: a refund of contributions with 3% p.a. interest** b) At least 5 years' reckonable service: one year's current salary or a refund of contributions with 3% p.a. interest, whichever gives the greater amount** 2. Widow's Pension Subject to 10 years' reckonable service: 50% of member's pension, based on salary at death and reckonable service to normal retiring age	1. Cash sum - paid to spouse, child, dependant or estate according to circumstances: a) Less than 5 years' qualifying service: a cash sum of 2/5ths of current salary for each year of service b) At least 5 years' qualifying service: a cash sum of twice current salary 2. Spouse's Pension (widow/widower) Subject to 2 years' qualifying service: 50% of member's pension, based on salary at death and pensionable service to normal retiring age

Death in Service (continued)	3. Dependant's Pension None	3. Dependant's Pension Subject to 2 years' qualifying service: an amount equal to a spouse's pension may be paid to an adult dependant (male or female) - except that no dependant's pension can be awarded where a spouse's pension is payable
	4. Children's Pension Subject to 10 years' reckonable service: a flat rate allowance of £100 p.a. (1967 Regulations) or £80 p.a. (FHS Regulations) per child, if there is a widow. If the spouse is also deceased, or on the subsequent death of the spouse, the allowance is £150 p.a. (1967 Regulations) or £110 p.a. (FHS Regulations) per child ** less 10%, being the tax levied by the Comptroller of Income Tax in regard to tax relief which may have been enjoyed when the contributions were paid.	4. Children's Pension Subject to 2 years' qualifying service: a pension is payable to each eligible child. The total payable is restricted to the equivalent of the spouse's pension, but no one child may receive more than half of that sum. The children's pension is doubled if a spouse's or dependant's pension is not payable
Death after Retirement	1. Widow's Pension From date of death, 50% of member's pension	1. Spouse's Pension (widow/widower) From date of death, 50% of member's pension, ignoring any reduction for cash sum taken at retirement
	2. Dependant's Pension None	2. Dependant's Pension An amount equal to a spouse's pension may be paid to an adult dependant (male and female) - except that no dependant's pension can be awarded where a spouse's pension is payable

Death after Retirement (continued)	3. Children's Pension Provided retirement is due to ill health: a flat rate allowance of £100 p.a. (1967 Regulations) or £80 p.a. (FHS Regulations) per child, if there is a widow. If the spouse is also deceased, or on the subsequent death of the spouse, the allowance is £150 p.a. (1967 Regulations) or £110 p.a. (FHS Regulations) per child	3. Children's Pension A pension is payable to each eligible child. The total payable is restricted to the equivalent of the spouse's pension, but no one child may receive more than half that sum. The children's pension is doubled if a spouse's or dependant's pension is not payable
Leaving Service	Refund of contributions with 3% p.a. interest** or subject to 10 years' reckonable service and over age 50 (45 in the case of women and "uniformed" members) a deferred pension (and, for women under FHS Regulations, a deferred cash sum) payable at normal retiring age or a transfer value payable to a new employer's pension scheme or to a personal pension scheme	Refund of contributions with 3% p.a. interest** (not available if joined after 1 August 2000 and left with 2 or more years' qualifying service) or subject to 2 years' qualifying service at any age: a deferred pension payable at age 60 or normal retiring age, if earlier or a transfer value payable to a new employer's pension scheme or to a personal pension scheme
	** less 10%, being the tax levied by the Comptroller of Income Tax in regard to tax relief which may have been enjoyed when the contributions were paid.	
Voluntary Early Retirement	Subject to being over age 55 (or 50 in special circumstances) and not being entitled to an immediate pension from the Scheme: the employer may offer a supplementary pension, equal to the member's deferred pension entitlement (which may be enhanced), payable until the date the deferred pension is due, provided that: a) the member has volunteered to retire in consequence of abolition of office, or to make possible the continued employment of another member of staff, or in the interests of efficiency; and b) the employer pays the capital cost of the supplementary pension to the Scheme	
Additional Voluntary Contributions	Not available (except under the FHS Regulations by certain special arrangements made prior to 1 January 1990)	May be paid to purchase extra years of pensionable service

Increases to Pensions	Annual increases in line with the Jersey Cost of Living Index guaranteed by the member's former employer. The first increase will be proportionate to the period of retirement in the first year	Annual increases in line with the Jersey Cost of Living Index less 0.3% p.a., but not guaranteed where actuarial review has disclosed the financial condition of the Scheme is no longer satisfactory. The first increase will be proportionate to the period of retirement in the first year
Contributions		
by members	6% of salary less a fixed sum of 61 pence per week (women 58 pence per week)	Existing Members Regulations 6.25% of salary New Members Regulations 5% of salary
by Employers	13.6% of salary***	13.6% of salary***
	*** Except for Admitted Bodies, where the contributions payable are those certified by the Actuary and may differ. Additional contributions are payable to cover the cost of Emergency Ambulance Service benefit improvements, as certified by the Actuary. The Employers' contribution rate of 13.6% of salary, together with "pre-1987 debt contributions" required in accordance with the changes to the Scheme's Regulations approved by the States of Jersey on 27 September 2005, is payable until 31 December 2083. After that date, the Employers' contribution rate will increase to 15.16% of salary.	
Note:	▪ Category A member means a front line officer of the uniformed services such as the States of Jersey Police Force, the States of Jersey Fire Service, the States of Jersey Prison Service, the States of Jersey Airport Fire Service and the States of Jersey Ambulance Service. ▪ Category B member means a Chief Officer of the States of Jersey Police Force, the Prison Governor, a Chief Officer of the States of Jersey Prison Service, the Chief Fire Officer, the Chief and Deputy Chief of the Airport Fire Service or the Chief or Assistant Chief Ambulance Officer or an Air Traffic Control Officer.	

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Appendix D—Membership Data

Active members at 31 December 2010 *(31 December 2007)*

		Number	Average age	Total salaries (£000pa) (see note 1)	Average salaries (£pa) (see note 2 for median)	Average service (years)
Men	**2010**	**2,660**	**45.9**	**112,816**	**42,412**	**11.9**
	2007	*2,631*	*45.3*	*102,662*	*39,020*	*12.7*
Women	**2010**	**4,102**	**45.5**	**113,130**	**27,579**	**7.3**
	2007	*3,914*	*44.6*	*99,531*	*25,429*	*7.7*
Total	**2010**	**6,762**	**45.6**	**225,946**	**33,414**	**9.1**
	2007	*6,545*	*44.9*	*202,193*	*30,893*	*9.7*

Notes:
1) Additional data relating to the pensionable allowances which give rise to added years of pensionable service is not included in the salaries shown in this table.
2) The average salaries shown in the summary above are mean salaries. The median salary for active members at 31 December 2010 is £29,160 p.a. (£36,771 p.a. for males and £25,406 p.a. for females).
3) JTL and JPL members are not included in the 2007 or 2010 summaries.
4) Average service includes service credits from transfers-in.

Deferred pensioners at 31 December 2010 *(31 December 2007)*

		Number	Average age	Total pensions (£000pa)	Average pension (£pa)
Men	**2010**	**635**	**45.5**	**4,415**	**6,953**
	2007	*457*	*45.1*	*3,318*	*7,261*
Women	**2010**	**1,235**	**45.0**	**3,677**	**2,977**
	2007	*957*	*44.4*	*3,298*	*3,446*
Total	**2010**	**1,870**	**45.2**	**8,092**	**4,327**
	2007	*1,414*	*44.6*	*6,616*	*4,679*

Note: The pension amounts quoted include pension increases up to and including the following 1 January.

Pensioners at 31 December 2010 *(31 December 2007)*

		Number	Average age	Total pensions (£000pa)	Average pension (£pa)
Men	**2010**	**1,709**	**70.0**	**31,066**	**18,178**
	2007	*1,568*	*69.5*	*26,716*	*17,038*
Women	**2010**	**1,250**	**69.2**	**9,126**	**7,301**
	2007	*997*	*68.6*	*6,676*	*6,696*
Dependants	**2010**	**590**	**69.9**	**4,950**	**8,389**
	2007	*539*	*69.3*	*4,066*	*7,543*
Total	**2010**	**3,549**	**69.7**	**45,142**	**12,720**
	2007	*3,104*	*69.2*	*37,458*	*12,068*

Notes:

1) The pension amounts quoted include pension increases up to and including the following 1 January
2) "Dependants" consists of spouses, children and adult dependants in receipt of a pension.

Breakdown of active members at 31 December 2010 *(31 December 2007)*

1967 Regulations		**Number**	**Average age**	**Total salaries (£000pa)**	**Average salaries (£pa)**	**Average service (years)**
Men	**2010**	**86**	**54.9**	**3,060**	**35,581**	**29.1**
	2007	*119*	*54.1*	*3,805*	*31,976*	*27.0*
Women	**2010**	**12**	**57.0**	**492**	**41,038**	**29.7**
	2007	*22*	*54.5*	*851*	*38,685*	*27.3*
Total	**2010**	**98**	**55.2**	**3,552**	**36,250**	**29.2**
	2007	*141*	*54.2*	*4,656*	*33,023*	*27.1*

Notes:
1) The 1967 Regulations do not have provisions for pensionable allowances giving rise to added years.
2) All the remaining active members under the 1967 Regulations are non-uniformed, except for 3 men who are entitled to Category A benefits.
3) JTL and JPL members are not included in the 2007 or 2010 summaries.
4) Average service includes service credits from transfers-in.

FHS Regulations		**Number**	**Average age**	**Total salaries (£000pa) (see note 2)**	**Average salaries (£pa) (see note 2)**	**Average service (years)**
Total	**2010**	**14**	**52.8**	**547**	**39,049**	**26.1**
	2007	*20*	*50.9*	*755*	*37,769*	*26.1*

Notes:
1) All members of the Former Hospital Scheme Regulations are non-uniformed. There are 2 men and 12 women.
2) Additional data relating to the pensionable allowances which give rise to added years of pensionable service is not included in the salaries shown in this table.
3) JTL and JPL members are not included in the 2007 or 2010 summaries.
4) Average service includes service credits from transfers-in.

Breakdown of active members at 31 December 2010 *(31 December 2007*) (continued)

Existing Members Regulations		Number	Average age	Total salaries (£000pa) (see note 1)	Average salaries (£pa) (see note 1)	Average service (years)
Category A						
- Men	**2010**	59	48.3	3,298	55,902	24.2
- Women	**2010**	7	46.6	375	53,569	23.1
- Total	**2010**	**66**	**48.1**	**3,673**	**55,655**	**24.0**
Category B						
- Men	**2010**	9	48.9	729	80,947	26.8
- Women	**2010**	-	-	-	-	-
- Total	**2010**	**9**	**48.9**	**729**	**80,947**	**26.8**
Non-uniformed						
- Men	**2010**	378	54.3	19,153	50,670	26.5
- Women	**2010**	299	53.9	9,844	32,922	22.4
- Total	**2010**	**677**	**54.1**	**28,997**	**42,832**	**24.6**
Overall						
- Men	**2010**	**446**	**53.4**	**23,180**	**51,973**	**26.2**
	2007	*555*	*51.7*	*26,496*	*47,740*	*24.2*
- Women	**2010**	**306**	**53.7**	**10,219**	**33,395**	**22.4**
	2007	*393*	*52.5*	*12,374*	*31,485*	*20.9*
- Total	**2010**	**752**	**53.5**	**33,399**	**44,414**	**24.6**
	2007	*948*	*52.0*	*38,870*	*41,001*	*22.9*

Notes:

1) Additional data relating to the pensionable allowances which give rise to added years of pensionable service is not included in the salaries shown in this table.
2) JTL and JPL members are not included in the 2007 or 2010 summaries.
3) Average service includes service credits from transfers-in.
4) See page 29 for definition of Category A and Category B members.

Breakdown of active members at 31 December 2010 *(31 December 2007)* (continued)

New Members Regulations (Pre-2006 joiners)		Number	Average age	Total salaries (£000pa) (see note 1)	Average salaries (£pa) (see note 1)	Average service (years)
Category A						
- Men	**2010**	221	41.4	10,629	48,093	12.6
- Women	**2010**	66	39.6	2,945	44,625	9.7
- Total	**2010**	**287**	**41.0**	**13,575**	**47,295**	**11.9**
Category B						
- Total	**2010**	**11**	**36.0**	**834**	**75,792**	**11.1**
Non-uniformed						
- Men	**2010**	1,231	47.1	49,892	40,529	12.2
- Women	**2010**	2,591	47.3	69,205	26,710	8.6
- Total	**2010**	**3,822**	**47.2**	**119,097**	**31,161**	**9.7**
Overall						
- Men	**2010**	**1,460**	**46.2**	**61,107**	**41,854**	**12.2**
	2007	*1,653*	*44.0*	*62,344*	*37,716*	*9.7*
- Women	**2010**	**2,660**	**47.1**	**72,398**	**27,217**	**8.6**
	2007	*2,968*	*44.6*	*73,693*	*24,829*	*6.7*
- Total	**2010**	**4,120**	**46.8**	**133,505**	**32,404**	**9.9**
	2007	*4,621*	*44.4*	*136,037*	*29,439*	*7.8*

Notes:
1) Additional data relating to the pensionable allowances which give rise to added years of pensionable service is not included in the salaries shown in this table.
2) There are currently 8 men and 3 women in category B membership.
3) JTL and JPL members are not included in the 2007 or 2010 summaries.
4) Average service includes service credits from transfers-in.
5) See page 29 for definition of Category A and Category B members.

Breakdown of active members at 31 December 2010 *(31 December 2007)* (continued)

New Members Regulations (Post-2006 joiners)		Number	Average age	Total salaries (£000pa) (see note 1)	Average salaries (£pa) (see note 1)	Average service (years)
Category A and B						
- Men	**2010**	88	34.2	3,597	40,873	3.6
- Women	**2010**	32	32.5	1,213	37,901	3.2
- Total	**2010**	**120**	**33.8**	**4,810**	**40,080**	**3.5**
Non-uniformed						
- Men	**2010**	578	39.7	21,679	37,507	3.0
- Women	**2010**	1,080	39.2	28,456	26,348	2.4
- Total	**2010**	**1,658**	**39.4**	**50,134**	**30,238**	**2.6**
Overall						
- Men	**2010**	**666**	**39.0**	**25,276**	**37,952**	**3.1**
	2007	*302*	*37.0*	*9,833*	*32,559*	*1.4*
- Women	**2010**	**1,112**	**39.0**	**29,669**	**26,681**	**2.4**
	2007	*513*	*37.7*	*12,042*	*23,473*	*1.4*
- Total	**2010**	**1,778**	**39.0**	**54,944**	**30,902**	**2.7**
	2007	*815*	*37.5*	*21,875*	*26,840*	*1.4*

Notes:

1) Additional data relating to the pensionable allowances which give rise to added years of pensionable service is not included in the salaries shown in this table.
2) The "Category A and B" figures include 6 male Category B members. All other members are Category A.
3) JTL and JPL members are not included in the 2007 or 2010 summaries.
4) Average service includes service credits from transfers-in.
5) See page 29 for definition of Category A and Category B members.

Appendix E—Rationale for Best Estimate Assumptions

Best estimate assumptions

Following advice from ourselves, the Committee of Management has confirmed that the assumptions adopted to determine the **funding target** should be best estimate assumptions. The rationale for using best estimate assumptions is discussed below.

Range of assumptions

The results of a valuation are sensitive to the assumptions made and therefore the choice of appropriate assumptions is important.

There is a wide range of assumptions that could be used ranging from optimistic, through best estimate to cautious:

- Under optimistic assumptions the future outcome is more likely to be worse than assumed;
- Under cautious assumptions the future outcome is more likely to be better than assumed;
- Under best estimate assumptions the future outcome is just as likely to be better or worse than assumed.

The Committee of Management has a duty to protect members' benefits. Therefore it would not be appropriate to use optimistic assumptions when determining the adequacy or otherwise of the contributions to support the benefits payable under the Scheme.

This leaves a choice of assumptions in the range from best estimate to cautious. The more cautious the valuation assumptions, the greater the valuation liabilities will be and consequently the greater the possibility of members' benefits or future pension increases having to be cut back (or members' or employers' contributions having to be increased) if there is a deficiency.

Advantages of using best estimate assumptions (and disadvantages of using more cautious assumptions)

The advantage of using best estimate assumptions is that it complies with the principle of only cutting back on the members' pensions where this appears genuinely necessary.

Using more cautious assumptions would lead to a larger deficiency, which may potentially trigger reductions to benefits or future pension increases (or increases to members' or employers' contributions). In the long term, given the extra returns targeted under the Scheme's investment strategy, there would be quite a high probability that experience would prove more favourable than assumed, leading to surpluses at later valuations. Therefore, using more cautious assumptions may result in cutting back benefits (or increasing contributions) in a way that with hindsight was unnecessary.

Disadvantages of using best estimate assumptions (and advantages of using more cautious assumptions)

The disadvantage of using best estimate assumptions is that it leads to a larger chance of actual scheme experience being worse than assumed than if more cautious assumptions are used. This increases the likelihood of deficiencies arising at later valuations which have to be dealt with through future reductions in benefits, or by increasing members' or employers' contributions. If experience is adverse, the reductions in benefits (or increases in contribution) eventually required may need to be bigger at that time than if they had been made earlier (and therefore impacting disproportionately on a later "generation" of members). Although there is no provision in the Regulations for the Scheme to be discontinued, this could be particularly problematic if the Scheme were discontinued. It could be equally problematic if the financial strength of the States of Jersey were to become poor. Significant benefit reductions may be required in such situations.

A further potential disadvantage of using best estimate assumptions is that it involves anticipating a degree of outperformance from growth assets, which may limit the Committee of Management's scope to reduce the Scheme's investment allocation to growth assets in future.

Recommendation

Following advice from ourselves, the Committee of Management has confirmed that the assumptions used to determine the **funding target** should be best estimate because:

- It complies with the principle of only cutting back on members' pensions where this appears genuinely necessary, and
- The Committee of Management does not currently consider the financial strength of the States of Jersey to be poor.

Appendix F—Valuation Method

Valuation method	The valuation method for the main valuation calculations is known as the “aggregate funding” method. This differs from the "indefinite aggregate funding" method (adopted at the 31 December 2004 valuation) in that no allowance is made for the continued future admission of new entrants to the Scheme over the indefinite future. Instead, the financing of future new entrants' benefits is considered in isolation as a separate item.
Method adopted for the current valuation	To establish whether the **funding target** (see Section 4) is met, we have compared the value of the benefits payable in respect of all current members (including pensioners and deferred pensioners) with the sum of the following: ▪ the value of the Scheme’s existing assets ▪ the value of the future pre-1987 debt repayment supplements anticipated from the employers over the period up to 31 December 2083 ▪ the value of future contributions due from and in respect of current active members. This “aggregate funding” approach involves consideration of the values of benefits in respect of service completed after the valuation date and future contributions in respect of current active members, as well as the values of benefits in respect of service completed before the valuation date and the Scheme’s existing assets. It also involves taking credit for the future pre-1987 debt repayment supplements anticipated over the period up to 2083.
Value of liabilities and future contributions	To calculate “the value” of the benefits payable we use our assumptions to estimate the payments which will be made from the Scheme throughout the future lifetimes of current members, pensioners, deferred pensioners and their dependants. We then calculate the amount of money which, if invested now, would be sufficient to make these payments in future, using our assumptions about investment returns. The same technique is adopted to value future contributions to the Scheme.
Value of assets	We have taken the assets into account at their market value.
Value of insurance policies	The insurance policies that were transferred from the Former Hospital Scheme at the end of 1992 have been valued in the same way as the corresponding liabilities, by calculating the discounted value of the anticipated payments. The value of insurance policies valued in this way amounts to £0.5M.

JPL / JTL valuation method

The funding objective used for the valuation of the JPL and JTL sub-funds is the objective set out within the Terms of Admission Document for JPL and the Terms of Participation Document for JTL. Because of the requirements of these documents, the funding objective is different to that used for the main valuation of PECRS as at 31 December 2010.

The funding objective prescribed within the Terms of Admission and Participation Documents is that the assets held in the relevant sub-fund should be sufficient to meet the "Employer's funding target". The "Employer's funding target" is the liabilities attributable to the sub-fund's current active members based on pensionable service up to the valuation date calculated on the actuarial assumptions adopted for the main valuation of the PECRS. The funding target includes full allowance for projected future salary and pension increases in accordance with the actuarial assumptions.

We have determined the employer's contributions as:

- A standard contribution rate sufficient to support future service benefits for the current active members, measured over their future working lifetimes in the Scheme (the technical term for the derivation of this standard contribution rate is the Attained Age Method); plus
- An allowance to cover the sub-fund's share of the future administration expenses incurred by the Scheme; plus
- An adjustment to reflect any excess or shortfall in the sub-fund relative to the funding target. The objective of this adjustment is to bring the assets of the sub-fund into line with the funding target over the average expected future working lifetime of the sub-fund's current active members.

  The adjustment will be either to reduce the employer's contributions if there is an excess in the sub-fund relative to the funding target or to increase the employer's contributions if there is a shortfall in the sub-fund relative to the funding target.

This method for determining the employer's contribution rate is consistent with the requirements of the Terms of Admission and Participation Documents.

The employer's contribution rate for JPL and JTL will remain stable if the funding objective and assumptions remain unchanged, there are no new entrants to the sub-fund and all assumptions made are borne out in practice. In practice, to the extent that experience is not in line with the assumptions, the contribution rate is likely to change.

If there are new entrants to the sub-funds then we would expect the profile of the membership to change, with a higher proportion of the members being subject to the New Members Regulations, resulting in a decrease in the contribution rate over time.

Appendix G—Financial Assumptions

Introduction

In this appendix we describe the financial assumptions. The financial assumptions that have been chosen are consistent with the **funding target** set out in section 4 of this report and each assumption is intended to represent a reasonable best estimate of the future.

When assessing a set of financial assumptions, greater importance should be attached to the relative differences between the assumptions, rather than to the individual assumptions in isolation. This is because the differences have a greater effect on the results of the valuation than the absolute values of each assumption.

Discount rate (investment return)

The most important individual assumption in terms of its impact on the overall valuation results is the choice of **discount rate**, i.e. assumed future investment returns. The discount rate is used to value payments due out of the Scheme (benefit payments) and into the Scheme (future contributions and pre-1987 debt repayment instalments).

For valuing the liabilities, an assumption which could be described as “low risk” would be to discount future benefit payments at the market yields available on index-linked gilts at the valuation date. This approach recognises that a good matching asset for the Scheme’s cash flows is obtained by investing in index-linked gilts of appropriate term. The yields available on such index-linked gilts at the valuation date were of the order 0.7% p.a. in excess of UK price inflation.

It is common for UK occupational schemes to adopt a **funding target** which incorporates a higher discount rate than the returns available on gilts. The consequence of using a higher discount rate is that a lower **funding target** is adopted. This does not mean that the actual cost of providing the benefits is reduced, but it does result in an increase in disclosed surpluses or decrease in disclosed deficiencies.

The **funding target** adopted requires that the assumptions chosen should be reasonable best estimates. In principle, we need to set the discount rate at this valuation by considering the best estimate returns available on the Scheme's invested assets, over the period starting now and ending in the long-term future. The expected returns depend critically on what asset classes are assumed to be held.

For the purposes of assessing suitable assumptions, the Committee of Management has agreed that the Actuary should make allowance for continued future investment in return-seeking assets, such as equities, by assuming that pre-retirement liabilities are backed 100% by growth assets and that post-retirement liabilities are backed ⅓ by growth assets and ⅔ by bond-like assets. This differs in one respects from the previous valuation, where it was assumed that pre-retirement liabilities were backed ⅔ by growth assets and ⅓ by bond-like assets. The change has been made to ensure consistency between the **funding target** and the strategic investment benchmark at the valuation date.

For valuing the liabilities, we have used discount rates for this valuation at the following levels:

- Fixed interest gilt yield (at 20 year duration) plus 3.8% p.a. for the period prior to members' retirement
- Fixed interest gilt yield (at 20 year duration) plus 1.7% p.a. for the period after members' retirement

These margins reflect the Scheme's investment consultant's best estimate at the valuation date of the out-performance the Scheme may obtain through the assets assumed to be held.

For valuing future contributions, we have used a discount rate of 3.8% p.a. more than the yield on fixed interest gilts (at 20 year duration). This is consistent with the discount rate used for valuing the liabilities over the period prior to members' retirement.

For valuing pre-1987 debt repayment supplements, we have used a discount rate of 2.35% p.a. more than the yields on fixed interest gilts (at 20 year duration). This is the discount rate that would give the same total service liabilities as the above pre-retirement/post-retirement discount rate approach. We have also assumed that the debt repayments increase in line with general salary increases plus allowance for promotional increases.

Increases to pensions in payment and deferred pensions

The Scheme provides for annual increases to pensions in payment and deferred pensions in line with the Jersey Cost of Living Index, less 0.3% p.a.

At the 2007 actuarial valuation, the UK inflation assumption was derived on a market-implied basis from yields on the most appropriate readily available fixed and index-linked gilt indices. Nowadays, the Bank of England produces data, based on the UK fixed and index-linked gilt markets, which can be used to calculate market-implied ("break-even") RPI inflation over a specific period. Using a duration of 20 years (which is approximately equal to the mean term of the liabilities), this suggests break-even inflation of 3.76% p.a. as at 31 December 2010.

Aon Hewitt's view is that at the valuation date, break-even inflation over a 20-year duration overstates likely inflation over that period, due to supply/demand distortions in the gilt market. Our best estimate is that actual inflation over the duration of the liabilities will be around 0.2% p.a. below break-even inflation (this difference is called an "inflation risk premium").

We have therefore assumed UK price inflation will be 3.55% p.a..

In deciding on an appropriate assumption for Scheme increases, it is necessary to take a view on the likely relationship between Jersey inflation and UK inflation.

Over the period since 1990, Jersey inflation has often been considerably in excess of UK inflation – sometimes by over 2% p.a.. However in the two years prior to the valuation date, Jersey inflation has been only marginally higher than UK inflation. This is more consistent with the gap experienced over the long-term past. For example, over the period between 1949 and 1989 the average inflation rates of Jersey and the UK were almost identical.

Given that the two economies have a tied currency and the same interest rates, our view is that over the medium to long term, Jersey inflation can be expected to be fairly close to UK inflation. We have therefore assumed that Jersey price inflation will on average be equal to UK price inflation plus 0.25% p.a., in line with the gap assumed at the 2007 valuation.

General salary increases

In recent years, States pay awards have generally been at or below Jersey RPI. Over the longer term, it may be realistic to anticipate reversion to the higher levels historically experienced, but in the short term, "austerity" measures may hold increases at fairly low levels.

Taking these points into account, we have allowed for general salary increases to be on average 1% p.a. above Jersey price inflation - a 0.25% p.a. reduction compared with the 2007 valuation assumption.

Promotional salary increases

In addition to the allowance for general salary increases, an explicit age-related promotional scale was adopted at the 2007 valuation (the same scale for males as for females).

Based on our analysis of Scheme experience, our view is that the overall allowance made in the 2007 valuation for promotional salary increases remains reasonable.

The allowance included for promotional salary increases (in addition to general salary increases) at specimen ages is:

Age	Promotional salary increases
20	7.1% p.a.
25	5.3% p.a.
30	4.2% p.a.
35	1.8% p.a.
40	0.0% p.a.

Expenses

Excluding investment-related expenses (which are taken into account in the net investment return assumption), we have analysed the expenses of administering the Scheme during 2008-2010 and compared this with the assumption of 0.6% of salaries adopted at the 2007 valuation. Our analysis confirms that the 2007 valuation assumption remains appropriate.

AON Hewitt

Appendix H—Demographic Assumptions

Introduction

In this appendix, the demographic assumptions are described and we comment on how they compare with actual experience over the period 2008-2010. The demographic assumptions that have been chosen are consistent with the **funding target** set out in Section 4 of this report and each assumption is intended to represent a reasonable best estimate of the future.

Mortality rates before retirement

For mortality before retirement we have compared the mortality experience of the Scheme over the period 2008-2010 against expected rates of mortality based on the AM92 table for males and the AF92 table for females. Those tables were used for the 2007 valuation.

The experience analysis suggested that the previous valuation assumptions remain appropriate.

Mortality rates after retirement – current mortality rates

We have analysed the mortality experience of the Scheme over the three year period from 1 January 2008 to 31 December 2010. We have set out below the ratio of actual deaths to expected deaths over the period (weighted by pension amount), with expected deaths based on the SAPS tables. We also show an approximate 90% confidence interval—this provides an indication of the result's statistical credibility.

Mortality Assumption	Males	Females
100% of SAPS "All lives"	111% ± 19%	89% ± 21%

We have also had regard to experience over the previous three year period to 31 December 2007. Over the three year period to 31 December 2010 there have been somewhat more male deaths, and fewer female deaths, than over the three year period to 31 December 2007.

Taking account of experience over the six years to 31 December 2010, we have assumed current mortality rates in line with the SAPS "All lives" tables (S1PXA) with 100% scaling factor.

Mortality rates after retirement – allowance for future improvements

It is not straightforward to make an assumption about future rates of mortality improvement. In forming a best estimate assumption, we believe it is appropriate to have regard to:

- Current trends
- Long-term trends
- Observed generational differences, which suggest faster improvements within certain generations of pensioner (known as the cohort effect)
- The outlook for future medical advances

However, the allowance made must inevitably be subjective.

We have reviewed the continuing appropriateness of adopting "UK-based" improvement assumptions for a Jersey-based scheme. Based on our discussions with the Head of the Jersey Statistics Unit, our conclusion is that there is no reason not to continue using "UK-based" improvement assumptions, particularly given that Jersey population projections allow for future improvements in mortality in line with the improvements assumed for the UK population projections.

In determining an allowance for future improvements in life expectancy, it makes sense to consider the near future and longer term separately:

- Recent improvements in life expectancy are likely to be the best guide for what will happen in the near future and so improvements in the near future are best modelled by continuing recent trends.
- The forces driving longer term improvements may be very different to those behind recent improvements. This means that the assumption for long-term improvements is more subjective and should take into account analysis of historic long-term rates of improvements (and what has caused them) as well as opinions on what might happen in the future.

In November 2009, the Continuous Mortality Investigation (CMI), a group set up by the UK Actuarial Profession, published its Mortality Projections Model. The model uses sophisticated methods for taking recent rates of mortality improvements and blending these to the long-term rate of improvements. The first annual update to the model was published in November 2010. Projections from the 2010 version of the CMI's model are known as the 'CMI_2010' projections.

Apart from the long-term rate of improvements, the CMI has provided default values for the model inputs which are known as the 'Core Projections'.

Our analysis of long-term improvements suggests improvements in mortality rates of between 1.0% p.a. and 1.5% p.a. for both men and women are likely to be most realistic.

We have therefore assumed future improvements in mortality rates in line with the CMI_2010 Core Projections with a long-term rate of future improvements in mortality rates of 1.25% p.a..

Retirement in normal health

We have assumed that active members will retire at the ages set out in the following table:

Normal Health retirement ages

Membership category	Normal retiring age	Assumed age at retirement
Category A members (male & female)	55	53[1]
Category B members (male & female)	60	58
Non-uniformed male members	65	62
Non-uniformed female members:		
- Existing and New Member regulations	65	62
- 1967 and Former Hospital Scheme regulations	60	59

[1]*Except post 1 March 2009 entrants to category A status who are assumed to retire at age 55.*

The analysis of the retirement experience over the period 2008-2010 for the uniformed membership categories shows the average retirement ages over the period 2008-2010 to be in line with the assumptions adopted for the 2007 valuation.

For non-uniformed members (excluding females who fall under the 1967 and Former Hospital Scheme Regulations) experience over the last 12 years suggests reducing the assumed retirement age for these members from 63 to 62. A reduction in the assumed retirement age was considered at the last valuation but the evidence at that stage was not compelling.

There have been only 12 retirements of non-uniformed females who fall under the 1967 and Former Hospital Scheme Regulations so we have retained the assumption used for the 2007 valuation.

Retirements in ill-health

An explicit allowance has been made for retirements in ill-health.

Over the period 2008-2010, the overall levels of ill-health retirement across the non-uniformed membership have been considerably lower than those implied by the assumptions. We have therefore reduced the assumed number of ill health retirements for non-uniformed members by 50% compared with the assumptions adopted for the 2007 valuation.

The analysis for the uniformed membership categories suggests that the assumptions adopted for the 2007 valuation remain appropriate.

Specimen rates of retirement due to ill-health assumed at this valuation are set out below:

Age	Number leaving service each year per thousand members at age last birthday as shown	
	Category A or B	Non-Uniformed
30	2.60	0.33
35	2.96	0.37
40	4.60	0.58
45	8.28	1.04
50	15.12	1.89
55	27.00	3.38

Withdrawal rates

At previous valuations we have set the withdrawal rate assumptions so that actual withdrawals for non-uniformed members were expected to be around 140% of the assumed level of withdrawal. This was done to set the withdrawal rate assumption at a level lower than that likely to be experienced in order that implicit allowance was made for the costs that are incurred:

- Where additional service is credited for transfers received under the Public Sector Transfer Club; and
- Where leavers are subsequently re-admitted to the Scheme and are re-credited with their original pensionable service.

If we were to continue with this approach, we would not suggest any changes to the withdrawal rate assumptions for non-uniformed members as actual withdrawals over the relevant age range have not been significantly different from 140% of the assumed rate.

However, for the 2010 valuation, we have adopted a revised approach where the adjustment in respect of transfers received under the Public Sector Transfer Club is stripped out. Instead, we have treated the impact of these transfers as a new entrant strain (as members must opt to transfer under the Public Sector Transfer Club within 12 months of joining PECRS) and we have quantified the financial impact of continued membership of the Public Sector Transfer Club in Appendix J (New Entrant Rates).

To reflect this change in approach, we have increased the withdrawal rate assumptions for non-uniformed members by 25%. In future, we expect actual withdrawal rates for non-uniformed members to be around 110% of those assumed. Setting the assumption at a slightly lower level than that likely to be experienced is intended to make implicit allowance for leavers that are subsequently re-admitted to the Scheme and are re-credited with their original pensionable service.

We have carried out a similar analysis of the rates of withdrawal for uniformed members. The analysis suggests that the assumptions adopted for the 2007 valuation remain appropriate.

Specimen rates of withdrawal assumed at this valuation are as follows:

Age	Number leaving service each year per hundred members at age last birthday as shown			
	Category A or B		Non-Uniformed	
	Men	Women	Men	Women
30	3.29	3.75	8.21	11.25
35	2.13	2.81	5.33	8.44
40	1.23	1.88	3.08	5.63
45	0.52	0.94	1.30	2.81
50	0.00	0.00	0.00	0.00

Family assumptions

Family assumptions cover:

- the proportions of deaths of members and pensioners which give rise to a spouse's or dependant's pension
- the age difference between the member and spouse/dependant at date of death
- the allowance for children's pensions

There is not sufficient data to carry out a detailed analysis by age of the proportion of cases which give rise to a spouse's/dependant's pension but we have reviewed the assumptions having regard to:

- Office for National Statistics data on expected proportions of people married (or having a dependant) in the UK population, both now and in the future
- Other UK government data on the extent to which economically active individuals are more likely to be married
- The definition of "dependant" in the Scheme Regulations, which requires dependency on the member "for the provision of all or most of the ordinary necessities of life"
- The provisions in the Scheme's Regulations that, in determining entitlement to a spouse's pension, marriages after the member's normal retirement age are disregarded

Taking these factors into account, we have reduced the assumed proportion of male members who are married or have a dependant (at retirement or earlier death) from 90%, assumed at the 2007 valuation, to 80%.

The corresponding proportion for females is 70% under the Existing/New Members Regulations, and 0% under the 1967/Former Hospital Scheme Regulations (where widowers' and dependants' pensions are not provided).

We have assumed that husbands are aged 3 years older than their wives on average.

A 10% loading is applied to death before retirement liabilities in the Existing and New Members Regulations to cover children's pensions.

Allowance for commutation

The 2007 valuation made allowance for members covered by the Existing Members and the New Members Regulations to commute 17.5% of their pension.

The 2008-2010 experience is in line with this assumption.

Appendix I—Summary of Assumptions

Financial assumptions

Discount rate	8.2% p.a. (i.e. fixed interest gilt yield at 20 year duration plus 3.8% p.a.) for valuing liabilities over the period prior to retirement and for valuing future service contributions 6.1% p.a. (i.e. fixed interest gilt yield at 20 year duration plus 1.7% p.a.) for valuing liabilities over the period after retirement 6.75% p.a. (i.e. fixed interest gilt yield at 20 year duration plus 2.35% p.a.) for valuing pre-1987 debt repayment supplements
UK inflation	3.55% p.a. (i.e. UK break-even inflation less 0.2% p.a.)
Jersey inflation	3.80% p.a. (i.e. UK inflation plus 0.25% p.a.)
Rate of pension and deferred pension increases	3.50% p.a. (i.e. Jersey inflation less 0.30% p.a.)
Rate of salary increases	4.8% p.a. (i.e. 1.0% p.a. above Jersey inflation) plus an allowance for promotional increases
Management expenses (other than investment related expenses)	0.6% of members' salaries

Demographic assumptions

Mortality before retirement	Men: Standard table AM92 Ultimate, 75% scaling Women: Standard table AF92 Ultimate, 75% scaling
Mortality in retirement	SAPS "All lives" tables (S1PXA) with 100% scaling factor, allowing for year of birth. Future improvements in line with CMI_2010 Core Projections with a long-term rate of future improvements in mortality of 1.25% p.a..
Retirements	Allowance has been made for active members to retire before Normal Retiring Age. Deferred members are assumed to retire at the earliest age at which they can retire with unreduced benefits.
Withdrawals	Allowance has been made for withdrawals from service
Family Details	80% of male members and 70% of female members married at retirement or earlier death (with percentage reducing in line with mortality assumptions for current pensioners). Husbands 3 years older than their wives. 10% loading is applied to death before retirement liabilities in the Existing and New Members Regulations to cover children's pensions
Commutation	17.5% of pension under Existing Members Regulations and New Members Regulations is assumed to be exchanged for a lump sum at retirement.

Appendix J—New Entrant Rates

New entrants rates

The new entrant rate for a category of member is the overall (i.e. employers' plus members') contribution rate required to finance the benefits for future new entrants in that category who are subject to the New Members Regulations. Contributions at this rate should finance the benefits for future new entrants provided the profile of new entrants, for example with regard to age, sex and normal retiring age, remains stable over time and provided the assumptions are borne out in practice.

The rates below have been calculated using assumptions consistent with the main valuation for existing Scheme members except the discount rate assumes that pre-retirement liabilities for new entrants are backed 50% by growth assets and 50% by bond-like assets. This assumption has been made recognising the difficulty in speculating how contributions in relation to new entrants will be invested at future points in time.

The discount rates assumed are:

- 6.6% p.a. (i.e. fixed interest gilt yield at 20 year duration plus 2.2% p.a.) for valuing liabilities over the period prior to retirement; and
- 6.1% p.a. (i.e. fixed interest gilt yield at 20 year duration plus 1.7% p.a.) for valuing liabilities over the period after retirement

The new entrant rates for each category of member are set out below. The overall new entrant rate is an average of the individual rates, weighted by the proportion of members' salaries in each category.

Membership Category	Proportion of members' salaries (including all pensionable allowances) %	New entrant contribution rate as percentage of salaries %
Category A uniformed members (normal retiring age 55)		
Males	7.6	31.4
Females	2.0	30.8
Category B uniformed members (normal retiring age 60)		
Males	0.8	29.1
Females	0.1	28.4
Non-uniformed members (normal retiring age 65)		
Males	41.5	18.5
Females	48.0	17.8
Overall	100.0	19.5

The global employers' share of the new entrant rate is obtained by subtracting members' contributions at 5% of salaries, leading to an employers' new entrant rate of 14.5% of salaries.

In calculating the above contribution rates we have adopted the assumptions set out elsewhere in this report and have assumed the following ages at entry:

- Uniformed members – age 30
- Non-uniformed members – age 37

These assumed entry ages are consistent with recent Scheme experience.

The employers' new entrant rate of 14.5% of salaries exceeds the employers' contribution rate of 13.6% of salaries provided for in the Regulations. This means that on the assumptions adopted, the continued admission of new entrants can be expected to result in a strain on the finances of the Scheme.

To illustrate this point, we have considered what might happen if all active members leaving service over the three-year period until the next valuation date were replaced by new entrants, with the new entrants following the assumed membership profile set out above. We estimate on this scenario, that the valuation deficiency might be around £7M higher at the end of the three-year period than if there were no new entrants. However the actual impact could vary significantly depending on the actual profile of the new entrants (category of member, sex, age, etc.).

Public Sector Transfer Club

Continued membership of the Public Sector Transfer Club will lead to additional costs arising each year in relation to service credited to members for transfers received by the Scheme. Based on recent experience, we estimate that the annual costs might be of the order of £0.7M p.a. (although it should be noted that the actual costs can vary significantly depending on the circumstances of individual members).

Appendix K—Analysis of change in deficiency

Development of the Scheme's financial position

We set out below how the Scheme's financial position has developed since the previous valuation. We have separately identified how each factor affects the past service position and future service position.

We start with the result quoted in the formal report on the previous valuation, which showed a deficiency of £63.2M. This comprised a past service surplus of £30.7M and a future service shortfall of £93.9M.

However, the deficiency was reduced to nil by the reduction of 0.3% p.a. applied to all future increases to pensions and deferred pensions due from the Scheme on or after 1 January 2011.

Positive and negative effects

Positive (+) and negative (-) effects shown in the following analysis of the development of the Scheme's financial position since the previous valuation are interpreted as follows:

- a positive effect reduces the extent of the deficiency (or increases the surplus)
- a negative effect increases the extent of the deficiency (or reduces the surplus).

Scheme experience

We have calculated that over the 3 years since the previous valuation, Scheme experience has been unfavourable, creating an increase in the deficiency of £46M. We have broken down the overall experience effect into the following broad constituents:

	Effect on surplus / (deficiency) £M		
	Past service	**Future service**	**Total service**
a) investment returns having been lower than assumed	-100	-	-100
b) effect of difference between actual and expected salary increases (including promotional increases) on liabilities / future contributions	14	6	20
c) effect of difference between actual and expected pension increases	24	-	24
d) effect of difference between actual and expected ill-health retirement experience	4	2	6
e) effect of difference between actual and expected mortality	2	-	2
f) effect of approximations in this analysis, and other experience items	12	-10	2
Total impact of the Scheme experience	**-44**	**-2**	**-46**

Changes in assumptions

Since the previous valuation there have been a number of changes to the assumptions, which have an overall positive effect on the valuation result of £87M. We have broken this effect down into the following items:

	Effect on surplus/(deficiency) £M		
	Past service	**Future service**	**Total service**
a) change in discount rate assumptions			
- element due to change in expected returns on assets held	35	20	55
- element due to change in assumed allocation to growth assets	68	37	105
b) change in Jersey inflation assumption	-30	-16	-46
c) change in salary increases relative to inflation	3	10	13
d) change in assumed mortality rates after retirement	-46	-16	-62
e) other changes to demographic assumptions	3	19	22
Total impact of changes in assumptions	**33**	**54**	**87**

Further details of the changes to the assumptions are shown in Appendices G, H and I.

Overall summary

In summary, the change in the valuation result is analysed as follows:

	Effect on surplus/(deficiency) £M		
	Past service	**Future service**	**Total service**
Valuation surplus/(deficiency) at 31 December 2007	31	-94	-63
Reduction in future pension increases of 0.3% p.a.	43	20	63
Scheme experience	-44	-2	-46
Changes in assumptions	33	54	87
Valuation surplus/(deficiency) at 31 December 2010	**62**	**-22**	**41**

Appendix L—Assumptions for Discontinuance Test

Derivation of assumptions

In setting the assumptions for the discontinuance test we have taken into account actual buy-out terms available in the market at the valuation date. However, we have not carried out a detailed analysis of the cost of risks that might apply specifically to the Scheme and so our estimate is only a guide. Market changes to both interest rates, and demand and supply for this type of business, mean that no reliable estimate can be made, and that ultimately the actual true position can only be established by completing a buy-out.

We have set the **discount rate** for this estimate equal to:

- Current pensioners: the yield on fixed interest gilts of appropriate term at the valuation date minus 0.25% p.a.
- Future pensioners: the yield on gilts of appropriate term at the valuation date minus 0.75% p.a. (this applies over the period before and after retirement).

The allowance we have made for expenses is separate.

We have made an allowance for increases to pensions before and during payment in line with the UK Retail Prices Index. This differs from the provisions under the Regulations governing the Scheme which provide for annual increases in line with the Jersey Cost of Living Index, although lower increases may be paid where an actuarial review has disclosed that the financial condition of the Scheme is no longer satisfactory. Currently, increases to pensions and deferred pensions are based on the annual increase in the Jersey Cost of Living Index minus 0.3% p.a..

The reason we have not made allowance for increases in line with the actual Scheme increases is that, based on the principles an insurer might use, these would be, at best, extremely expensive, and at worst, impossible to reserve for, as there are no available assets which match the increases in the Jersey Cost of Living Index. Therefore, it is unlikely to be possible to purchase annuities based on such increases in the market.

Summary of assumptions

Here is a summary of the main assumptions underlying the Discontinuance Test, where these are different to the main valuation basis:

Assumption	What is used for Discontinuance Test
Discount rate	
- future pensioners	3.7% p.a.
- current pensioners	4.2% p.a.
Rate of pension and deferred pension increases	3.8% p.a.
Withdrawals	All members assumed to immediately withdraw from service with entitlement to deferred pension
Commutation	No allowance
Expenses of winding up	Allowance made (see below)

Expenses

The reserve for expenses allows for deductions to allow for the cost of forced sales of equity and property holdings, an allowance for the management expenses associated with winding up, and an estimate of the per member charges expected to be levied by an insurance company on buy-out.

For the purposes of disclosure in the valuation, assets are taken at their audited market value. The above allowances for expenses are therefore all presented as additions to the liabilities.

Appendix M—Agreed arrangements for dealing with the Pre-1987 Debt

The framework agreed between the Policy and Resources Committee and the Committee of Management for dealing with the pre-1987 debt was documented in a ten-point agreement approved by Act of the Policy and Resources Committee dated 20 November 2003. The provisions of the agreement, which have subsequently been reflected in Regulations approved by the States of Jersey on 27 September 2005, enable us to treat the pre-1987 debt as an asset of the Scheme for valuation purposes. The text of the agreement is reproduced below.

"1. The States confirms responsibility for the Pre-1987 Debt of £192.1 million as at 31 December 2001 and for its servicing and repayment with effect from that date on the basis that neither the existence of any part of the outstanding Debt nor the agreed method of servicing and repayment shall adversely affect the benefits or contribution rates of any person who has at any time become a member of the Scheme.

2. At the start of the servicing and repayment period, calculated to be 82 years with effect from 1 January 2002, the Employers' Contribution rate will be increased by 0.44% to the equivalent of 15.6%. These contributions will be split into 2 parts, namely a contribution rate of 13.6% of annual pensionable salary and an annual debt repayment. The Employer's Contribution rate will revert to 15.16% after repayment in full of the Debt.

3. During the repayment period the annual Debt repayment will comprise a sum initially equivalent to 2% of the Employers' total pensionable payroll, re-expressed as a cash amount and increasing each year in line with the average pay increase of Scheme members.

4. A statement of the outstanding debt as certified by the Actuary to the Scheme is to be included each year as a note in the States Accounts.

5. In the event of any proposed discontinuance of the Scheme, repayment and servicing of the outstanding Debt shall first be rescheduled by the parties on the advice of the Actuary to ensure that paragraph (1) above ("Point 1") continues to be fulfilled.

6. For each valuation the States Auditor shall confirm the ability of the States to pay off the Debt outstanding at that date.

7. If any decision or event causes the Actuary at the time of a valuation to be unable to continue acceptance of such servicing and repayment of the Debt as an asset of the Scheme, there shall be renegotiation in order to restore such acceptability.

8. In the event of a surplus being revealed by an Actuarial Valuation, negotiations for its disposal shall include consideration of using the employers' share to reduce or pay off the Debt.

9. As and when the financial position of the States improves there shall be consideration of accelerating or completing repayment of the Debt.

10. The recent capital payment by JTL of £14.3m (plus interest) reduced the £192.1m total referred to in (1) by £14.3m and if any other capital payments are similarly made by other Admitted Bodies these shall similarly be taken into account."

Appendix N—JPL membership data

1967 Regulations		Number	Average age	Total salaries (£000pa)	Average salaries (£pa)	Average service (years)
Total	**2010**	**24**	**55.3**	**676**	**28,186**	**29.4**
	2007	*32*	*53.5*	*879*	*27,467*	*27.1*

Note: In 2010 there are no female members, and in 2007 there was one female member

Existing Members Regulations		Number	Average age	Total salaries (£000pa)	Average salaries (£pa)	Average service (years)
Total	**2010**	**44**	**51.7**	**1,493**	**33,943**	**27.0**
	2007	*57*	*49.8*	*1,779*	*31,213*	*24.5*

Note: In 2010 there are no female members, and in 2007 there was one female member

New Members Regulations (Pre-2006 joiners)		Number	Average age	Total salaries (£000pa)	Average salaries (£pa)	Average service (years)
Men	**2010**	**140**	**45.9**	**4,312**	**30,803**	**11.9**
	2007	*182*	*43.2*	*5,246*	*28,828*	*9.0*
Women	**2010**	**41**	**44.1**	**1,150**	**28,049**	**9.1**
	2007	*59*	*41.4*	*1,526*	*25,862*	*6.2*
Total	**2010**	**181**	**45.5**	**5,462**	**30,179**	**11.2**
	2007	*241*	*42.7*	*6,772*	*28,102*	*8.3*

New Members Regulations (Post-2006 joiners)		Number	Average age	Total salaries (£000pa)	Average salaries (£pa)	Average service (years)
Men	**2010**	**25**	**39.3**	**685**	**27,408**	**2.7**
	2007	*26*	*35.4*	*613*	*23,575*	*0.9*
Women	**2010**	**21**	**41.1**	**641**	**30,526**	**3.7**
	2007	*12*	*36.1*	*327*	*27,213*	*0.9*
Total	**2010**	**46**	**40.1**	**1,326**	**28,831**	**3.2**
	2007	*38*	*35.6*	*940*	*24,724*	*0.9*

Summary for all JPL members		Number	Total salaries (£000pa)
Men	**2010**	**233**	**7,167**
	2007	*295*	*8,424*
Women	**2010**	**62**	**1,791**
	2007	*73*	*1,946*
Total	**2010**	**295**	**8,959**
	2007	*368*	*10,370*

Note: 1) The 2010 figures are data at 31 December 2010 (although for consistency with the calculation of the JPL sub-fund asset value at 31 December 2010, the value we have placed on past service benefits for JPL includes the liability for 7 JPL members who left service on 31 December 2010 and are excluded from the above summary). The 2007 figures are data at 31 December 2007.

2) The JPL members are all non-uniformed.

3) Additional data relating to the pensionable allowances which gives rise to added years of pensionable service is not included in the salaries shown in the table.

4) Average service includes service credits from transfers-in.

Appendix O—JTL membership data

1967 Regulations		Number	Average age	Total salaries (£000pa)	Average salaries (£pa)	Average service (years)
Total	**2010**	**4**	**47.0**	**196**	**48,960**	**26.9**
	2007	*7*	*46.3*	*311*	*44,370*	*24.4*

Note: In 2010 there was one female member, and in 2007 there was one female member

Existing Members Regulations		Number	Average age	Total salaries (£000pa)	Average salaries (£pa)	Average service (years)
Men	**2010**	**44**	**50.1**	**1,930**	**43,871**	**27.3**
	2007	*71*	*49.5*	*3,375*	*47,530*	*26.0*
Women	**2010**	**5**	**50.2**	**171**	**34,266**	**25.6**
	2007	*10*	*51.1*	*357*	*35,751*	*22.9*
Total	**2010**	**49**	**50.1**	**2,102**	**42,891**	**27.1**
	2007	*81*	*49.7*	*3,732*	*46,075*	*25.6*

New Members Regulations (Pre-2006 joiners)		Number	Average age	Total salaries (£000pa)	Average salaries (£pa)	Average service (years)
Men	**2010**	**138**	**39.5**	**5,857**	**42,446**	**11.0**
	2007	*190*	*37.1*	*7,262*	*38,223*	*8.4*
Women	**2010**	**60**	**43.5**	**2,271**	**37,852**	**10.5**
	2007	*98*	*39.8*	*3,273*	*33,400*	*7.3*
Total	**2010**	**198**	**40.7**	**8,129**	**41,054**	**10.8**
	2007	*288*	*38.0*	*10,535*	*36,582*	*8.0*

New Members Regulations (Post-2006 joiners)		Number	Average age	Total salaries (£000pa)	Average salaries (£pa)	Average service (years)
Men	**2010**	**48**	**32.3**	**2,177**	**45,344**	**2.2**
	2007	*33*	*31.1*	*1,074*	*32,539*	*1.0*
Women	**2010**	**27**	**31.5**	**903**	**33,461**	**2.2**
	2007	*15*	*29.1*	*409*	*27,296*	*1.0*
Total	**2010**	**75**	**32.0**	**3,080**	**41,066**	**2.2**
	2007	*48*	*30.4*	*1,483*	*30,900*	*1.0*

Summary for all JTL members		Number	Total salaries (£000pa)
Men	**2010**	**233**	**10,125**
	2007	*300*	*11,990*
Women	**2010**	**93**	**3,382**
	2007	*124*	*4,071*
Total	**2010**	**326**	**13,506**
	2007	*424*	*16,061*

Note:
1) The 2010 figures are data at 31 December 2010 (although for consistency with the calculation of the JTL sub-fund asset value at 31 December 2010, the value we have placed on past service benefits for JTL includes the liability for 2 JTL members who left service on 31 December 2010 and are excluded from the above summary). The 2007 figures are data at 31 December 2007.
2) The JTL members are all non-uniformed.
3) Additional data relating to the pensionable allowances which gives rise to added years of pensionable service is not included in the salaries shown in the table.
4) Average service includes service credits from transfers-in.

Appendix P—Valuation of JPL sub-fund

Introduction

Jersey Post Limited (JPL) has participated in the Public Employees Contributory Retirement Scheme (PECRS) as an Admitted Body with effect from 1 July 2006, subject to special arrangements including a notional ringfencing of the assets and liabilities attributable to its employees.

A Terms of Admission Document, dated 10 May 2007, describes how the contributions to and assets of JPL's notional sub-fund are to be determined under this ringfencing approach.

Under the Terms of Admission Document the contributions payable by JPL must be redetermined following the completion of each PECRS valuation. The results of the formal valuation of PECRS as at 31 December 2010 are set out in the main body of this report.

In this Appendix we set out the results of the valuation of the JPL sub-fund. A revised Actuary's Certificate prepared in accordance with Regulation 9(1)(c)(ii) of the Public Employees (Contributory Retirement Scheme)(General)(Jersey) Regulations 1989 (the "General Regulations") is set out in Appendix R.

Purpose

The purpose of the JPL sub-fund valuation is to review the financial position of the JPL sub-fund and the JPL employer contribution rate. The valuation identifies:

- The past service funding position of the JPL sub-fund as at 31 December 2010 i.e. the comparison of the value of the past service liabilities in respect of JPL's active members and the assets attributable to the JPL sub-fund as at 31 December 2010.
- The future contribution rate required from JPL to be included in the Actuary's Certificate.

Current contribution rate

Following the valuation as at 31 December 2007, the contribution rate for JPL was determined as 15.35% of salaries (this has been paid since 1 August 2009).

Assumptions

In accordance with the Terms of Admission Document we have used actuarial assumptions consistent with those used for the main valuation of PECRS as at 31 December 2010 to carry out the JPL sub-fund valuation.

A summary of the assumptions used for the main valuation is given in Appendix I.

The only difference in the assumptions used for the sub-fund valuation relates to the assumption for pension and deferred pension increases. For the purpose of the JPL sub-fund calculations we have reflected the partial restoration of pension increases detailed in section 9 of this report and have assumed future increases will be based on the annual increase in the Jersey Cost of Living Index less 0.15% p.a. with effect from 1 January 2013. We have therefore assumed pension and deferred pension increases will be 3.65% p.a., rather than the 3.5% p.a. used for the main valuation.

Assets

The assets attributable to the JPL sub-fund as at 31 December 2010 were £32.5M. This value was determined in accordance with the principles set out in the Terms of Admission Document. Details of the calculation of the sub-fund as at 31 December 2010 are set out in our paper "Ongoing tracking of the Jersey Post Limited Sub-Fund" dated 20 February 2012, prepared for the Committee of Management. We understand that the data used for the sub-fund calculation has been audited.

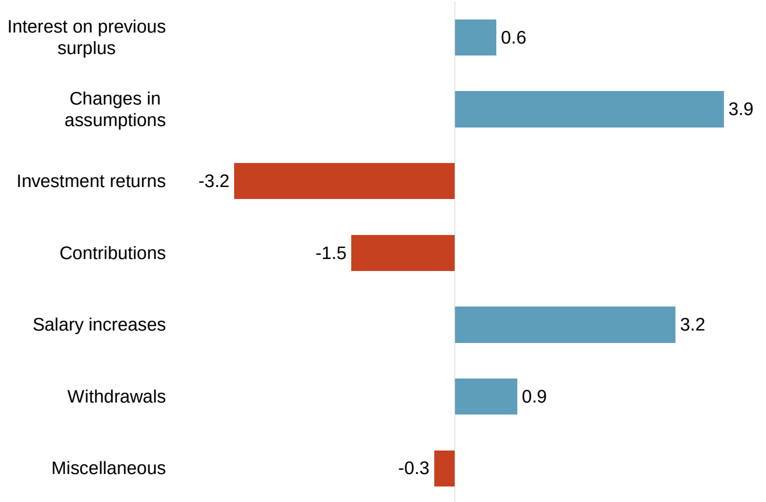
Past service funding position

The past service position for the JPL sub-fund as at 31 December 2010 is as follows:

	£M
Value of assets (the JPL sub-fund)	32.5
Less: value of past service benefits for JPL's current active members	26.3
Past service surplus	6.2
Past service funding ratio (assets divided by liabilities)	124%

As at 31 December 2007 the sub-fund had a past service surplus of £2.6M. The past service surplus has therefore increased by £3.6M over the three years since 31 December 2007. We have analysed the reasons for the change indicating the impact of each factor on the valuation result this time.

Sources of change in past service position:



The funding position has therefore improved, primarily due to the changes in assumptions and through salary increases being lower than assumed. However, the effect of these changes has been partially offset by other factors, primarily the lower than assumed investment returns.

Actuarial certificate and contribution rate

The Terms of Admission Document describes how, for the purpose of preparing the Actuary's certificates in accordance with Regulation 9(1)(c), the future contribution rate required by JPL should be determined. We have prepared a revised Actuary's certificate on that basis. The revised Certificate is included in Appendix R.

JPL's contribution rate has been calculated as 8.14% of salaries.

The rate of 8.14% of salaries comprises a "standard" contribution rate of 15.07% of salaries less an adjustment of 6.93% of salaries.

The standard contribution rate of 15.07% of salaries is the rate which is sufficient to support future service benefits for JPL's current active members measured over their future working lifetimes in PECRS. This compares with the corresponding standard contribution rate of 17.30% of salaries previously determined as at 31 December 2007. The main reason for the reduction in the standard contribution rate is the changes in the assumptions used.

The adjustment of 6.93% of salaries meets the objective of bringing JPL's share of the assets into line with JPL's funding target over the future average expected working lifetime of JPL's active members (around 12 years at 31 December 2010). This compares with an adjustment to the standard contribution rate of 1.95% of salaries determined as at 31 December 2007. The main reasons for the higher adjustment to the standard contribution rate are the increased surplus and the lower total salaries.

Allowance for expenses

The standard contribution rate includes allowance for the future expenses of administering the Scheme as a whole, which we assumed in the main PECRS valuation would amount to 0.6% of members' salaries, plus the estimated additional costs of administering JPL's sub-fund including the initial costs incurred when the sub-fund was established, which we have previously assumed would amount to 0.5% of members' salaries.

In setting the assumption for the additional costs of administering JPL's sub-fund we have analysed the actual initial legal and actuarial fees incurred in setting up the sub-fund as well as the ongoing actuarial and audit fees incurred since the sub-fund was established. Our analysis shows that the additional contributions of 0.5% of salaries paid since 1 July 2006 have been more than sufficient to cover the annual ongoing costs of administering the sub-fund but have not yet been sufficient to cover the initial set-up costs as well. Therefore it is appropriate to continue to make an allowance for these expenses of 0.5% of salaries. We will review this again at the next valuation of the sub-fund.

Therefore, included in the standard contribution rate are allowances of:

a) 0.60% of salaries, to reflect JPL's share of the ongoing PECRS administrative expenses, plus

b) 0.50% of salaries, to reflect the whole of the estimated additional costs of administering JPL's sub-fund.

Discontinuance test

Even though the Regulations governing the Scheme do not envisage the possibility of the Scheme being discontinued, it is our practice at valuations to review what the financial position of the Scheme would have been had discontinuance occurred at the valuation date. In this hypothetical scenario, we have assumed that the assets of the JPL sub-fund would be amalgamated with the rest of the Scheme assets.

The results of our discontinuance test for the Scheme as a whole are set out in section 7 of this report.

Risks and sensitivity analysis

We have commented in section 8 of this report on some of the factors that could lead to deterioration to the Scheme's finances in various hypothetical downside scenarios. The key factors that could lead to deterioration in the JPL sub-fund's finances are the same.

In section 8 we have estimated the possible percentage change in the Scheme's overall funding ratio if certain adverse scenarios did arise. In proportionate terms, the percentage change in the JPL sub-fund's past service funding ratio in such scenarios would be quite similar.

Recommended contributions

The revised certificate included in Appendix R sets out the required new employer contribution rate of 8.14% of salaries effective from 1 July 2012.

The Terms of Admission Document does not contain provisions to back-date a change of contributions to the effective date of the valuation. To the extent that the actual contributions paid by JPL since 1 January 2011 have been higher than the new rate, this will be reflected in the determination of the assets attributable to the JPL sub-fund and then consequently in the determination of the employer’s contribution rate at the next valuation of the sub-fund.

Contribution rate subject to review

The Terms of Admission provide for JPL’s contribution rate to be re-determined following the completion of each PECRS actuarial valuation. The next such valuation is scheduled to be as at 31 December 2013.

Appendix Q—Valuation of JTL sub-fund

Introduction

Jersey Telecom Limited (JTL) has participated in the Public Employees Contributory Retirement Scheme (PECRS) as an Admitted Body with effect from 1 January 2003, subject to special arrangements including a notional ringfencing of the assets and liabilities attributable to its employees.

A Terms of Participation Document, dated 10 May 2007, describes how the contributions to and assets of JTL's notional sub-fund are to be determined under this ringfencing approach.

Under the Terms of Participation Document the employer's contributions payable by JTL must be redetermined following the completion of each PECRS valuation. The results of the formal valuation of PECRS as at 31 December 2010 are set out in the main body of this report.

In this Appendix we set out the results of the valuation of the JTL sub-fund. A revised Actuary's Certificate prepared in accordance with Regulation 9(1)(c)(ii) of the Public Employees (Contributory Retirement Scheme)(General)(Jersey) Regulations 1989 (the "General Regulations") is set out in Appendix S.

Purpose

The purpose of the JTL sub-fund valuation is to review the financial position of the JTL sub-fund and the JTL employer contribution rate. The valuation identifies:

- The past service funding position of the JTL sub-fund as at 31 December 2010 i.e. the comparison of the value of the past service liabilities in respect of JTL's active members and the assets attributable to the JTL sub-fund as at 31 December 2010.
- The future contribution rate required from JTL to be included in the Actuary's Certificate.

Current contribution rate

Following the valuation as at 31 December 2007, the contribution rate for JTL was determined as 14.12% of salaries (this has been paid since 1 August 2009).

Assumptions

In accordance with the Terms of Admission Document we have used actuarial assumptions consistent with those used for the main valuation of PECRS as at 31 December 2010 to carry out the JPL sub-fund valuation.

A summary of the assumptions used for the main valuation is given in Appendix I.

The only difference in the assumptions used for the sub-fund valuation relates to the assumption for pension and deferred pension increases. For the purpose of the JTL sub-fund calculations we have reflected the partial restoration of pension increases detailed in section 9 of this report and have assumed future increases will be based on the annual increase in the Jersey Cost of Living Index less 0.15% p.a. with effect from 1 January 2013. We have therefore assumed pension and deferred pension increases will be 3.65% p.a., rather than the 3.5% p.a. used for the main valuation.

Assets

The assets attributable to the JTL sub-fund as at 31 December 2010 were £35.9M. This value was determined in accordance with the principles set out in the Terms of Participation Document. Details of the calculation of the sub-fund as at 31 December 2010 are set out in our paper “Ongoing tracking of the Jersey Telecom Limited Sub-Fund” dated 20 February 2012, prepared for the Committee of Management. We understand that the data used for the sub-fund calculation has been audited.

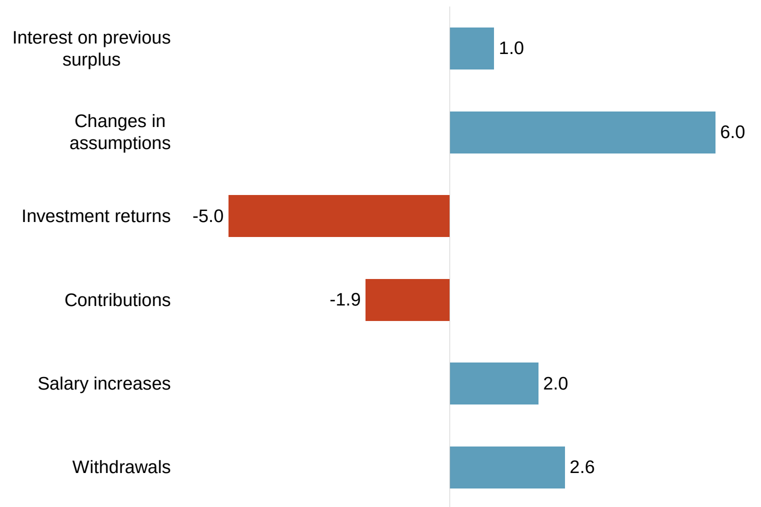
Past service funding position

The past service position for the JTL sub-fund as at 31 December 2010 is as follows:

	£M
Value of assets (the JTL sub-fund)	35.9
Less: value of past service benefits for JTL's current active members	26.6
Past service surplus	9.3
Past service funding ratio (assets divided by liabilities)	135%

As at 31 December 2007 the sub-fund had a past service surplus of £4.6M. The past service surplus has therefore increased by £4.7M over the three years since 31 December 2007. We have analysed the reasons for the change indicating the impact of each factor on the valuation result this time.

Sources of change in past service position:



The funding position has therefore improved, primarily due to the changes in assumptions and favourable salary increase / withdrawal experience. However, the effect of these changes has been partially offset by other factors, primarily the lower than assumed investment returns.

Actuarial certificate and contribution rate

The Terms of Participation Document describes how, for the purpose of preparing the Actuary's certificates in accordance with Regulation 9(1)(c), the future contribution rate required by JTL should be determined. We have prepared a revised Actuary's certificate on that basis. The revised Certificate is included in Appendix S.

JTL's contribution rate has been calculated as 7.19% of salaries.

The rate of 7.19% of salaries comprises a "standard" contribution rate of 13.14% of salaries less an adjustment of 5.95% of salaries.

The standard contribution rate of 13.14% of salaries is the rate which is sufficient to support future service benefits for JTL's current active members measured over their future working lifetimes in PECRS. This compares with the corresponding standard contribution rate of 16.17% of salaries previously determined as at 31 December 2007. The main reason for the reduction in the standard contribution rate is the changes in the assumptions used.

The adjustment of 5.95% of salaries meets the objective of bringing JTL's share of the assets into line with JTL's funding target over the future average expected working lifetime of JTL's active members (around 15 years at 31 December 2010). This compares with an adjustment to the standard contribution rate of 2.05% of salaries determined as at 31 December 2007. The main reasons for the higher adjustment to the standard contribution rate are the increased surplus and the lower total salaries.

Allowance for expenses

The standard contribution rate includes allowance for the future expenses of administering the Scheme as a whole, which we assumed in the main PECRS valuation would amount to 0.6% of members' salaries, plus the estimated additional costs of administering JTL's sub-fund, which we have previously assumed would amount to 0.15% of members' salaries.

Our analysis shows that the additional contributions of 0.15% of salaries to cover the annual ongoing costs of administering JTL's sub-fund continue to be appropriate. We will review this again at the next valuation of the sub-fund.

Therefore, included in the standard contribution rate are allowances of:

a) 0.60% of salaries, to reflect JTL's share of the ongoing PECRS administrative expenses, plus

b) 0.15% of salaries, to reflect the whole of the estimated additional costs of administering JTL's sub-fund.

Discontinuance test

Even though the Regulations governing the Scheme do not envisage the possibility of the Scheme being discontinued, it is our practice at valuations to review what the financial position of the Scheme would have been had discontinuance occurred at the valuation date. In this hypothetical scenario, we have assumed that the assets of the JPL sub-fund would be amalgamated with the rest of the Scheme assets.

The results of our discontinuance test for the Scheme as a whole are set out in section 7 of this report.

Risks and sensitivity analysis	We have commented in section 8 of this report on some of the factors that could lead to deterioration to the Scheme's finances in various hypothetical downside scenarios. The key factors that could lead to deterioration in the JTL sub-fund's finances are the same. In section 8 we have estimated the possible percentage change in the Scheme's overall funding ratio if certain adverse scenarios did arise. In proportionate terms, the percentage change in the JTL sub-fund's past service funding ratio in such scenarios would be quite similar.
Recommended contributions	The revised certificate included in Appendix S sets out the required new employer contribution rate of 7.19% of salaries effective from 1 July 2012. The Terms of Participation Document does not contain provisions to back-date a change of contributions to the effective date of the valuation. To the extent that the actual contributions paid by JTL since 1 January 2011 have been higher than the new rate, this will be reflected in the determination of the assets attributable to the JTL sub-fund and then consequently in the determination of the employer's contribution rate at the next valuation of the sub-fund.
Contribution rate subject to review	The Terms of Participation provide for JTL's contribution rate to be re-determined following the completion of each PECRS actuarial valuation. The next such valuation is scheduled to be as at 31 December 2013.

AON Hewitt

Appendix R—Actuary's Certificate for JPL

Participation of Jersey Post Limited in the Public Employees Contributory Retirement Scheme (PECRS) – Regulation 9(1)(c) certificate

In accordance with Regulation 9(1)(c)(ii) of the General Regulations, we have reviewed the certificate as to the amount to be contributed to the Public Employees Contributory Retirement Scheme ("the Scheme") by Jersey Post Limited ("the Employer") issued in accordance with Regulation 9(1)(c)(ii) of the General Regulations on 2 July 2009. This certificate is the new certificate issued in accordance with Regulation 9(1)(c)(ii).

We hereby certify that the Employer shall pay to the Scheme, at such regular intervals as the Chief Minister shall specify:

1. with effect from 1 July 2012, contributions at the rate of 8.14% of the salary of each of its employees who is a member
2. the contributions payable to the Scheme by each of its employees who is a member
3. such contributions as may be required under Regulations 7, 17 or 18 of the 1989 New Members Regulations or the 1989 Existing Members Regulations
4. such contributions as may be required under Regulation 16 of the 1967 Regulations.

The contributions in 1 above shall, where appropriate, be subject to the provisions of Regulations 2(13) and 3(4) of the 1989 New Members Regulations and Regulations 2(11) and 3(4) of the 1989 Existing Members Regulations.

Where the above contributions or repayments are paid after the specified dates, they shall be subject to the addition of interest at the rate of 8.2% per annum compound or such other basis as shall be notified from time to time.

In this certificate:

"General Regulations" means the Public Employees (Contributory Retirement Scheme) (General) (Jersey) Regulations, 1989, as amended;

"1967 Regulations" means the Public Employees (Contributory Retirement Scheme) (Jersey) Regulations, 1967, as amended;

"1989 Existing Members Regulations" means the Public Employees (Contributory Retirement Scheme) (Existing Members)(Jersey) Regulations, 1989, as amended;

"1989 New Members Regulations" means the Public Employees (Contributory Retirement Scheme) (New Members) (Jersey) Regulations, 1989, as amended;

the terms "employee", "member", and "salary" have the meaning given in Regulation 1 of the 1989 New Members Regulations, the 1989 Existing Members Regulations or the 1967 Regulations, as appropriate.

For Aon Hewitt Limited

Jonathan F. Teasdale

J F Teasdale FIA

23 May 2012

AON Hewitt

Appendix S—Actuary's Certificate for JTL

Participation of Jersey Telecom Limited in the Public Employees Contributory Retirement Scheme (PECRS) – Regulation 9(1)(c) certificate

In accordance with Regulation 9(1)(c)(ii) of the General Regulations, we have reviewed the certificate as to the amount to be contributed to the Public Employees Contributory Retirement Scheme ("the Scheme") by Jersey Telecom Limited ("the Employer") issued in accordance with Regulation 9(1)(c)(ii) of the General Regulations on 2 July 2009. This certificate is the new certificate issued in accordance with Regulation 9(1)(c)(ii).

We hereby certify that the Employer shall pay to the Scheme, at such regular intervals as the Chief Minister shall specify:

1. with effect from 1 July 2012, contributions at the rate of 7.19% of the salary of each of its employees who is a member
2. the contributions payable to the Scheme by each of its employees who is a member
3. such contributions as may be required under Regulations 7, 17 or 18 of the 1989 New Members Regulations or the 1989 Existing Members Regulations
4. such contributions as may be required under Regulation 16 of the 1967 Regulations.

The contributions in 1 above shall, where appropriate, be subject to the provisions of Regulations 2(13) and 3(4) of the 1989 New Members Regulations and Regulations 2(11) and 3(4) of the 1989 Existing Members Regulations.

Where the above contributions or repayments are paid after the specified dates, they shall be subject to the addition of interest at the rate of 8.2% per annum compound or such other basis as shall be notified from time to time.

In this certificate:

"General Regulations" means the Public Employees (Contributory Retirement Scheme) (General) (Jersey) Regulations, 1989, as amended;

"1967 Regulations" means the Public Employees (Contributory Retirement Scheme) (Jersey) Regulations, 1967, as amended;

"1989 Existing Members Regulations" means the Public Employees (Contributory Retirement Scheme) (Existing Members)(Jersey) Regulations, 1989, as amended;

"1989 New Members Regulations" means the Public Employees (Contributory Retirement Scheme) (New Members) (Jersey) Regulations, 1989, as amended;

the terms "employee", "member", and "salary" have the meaning given in Regulation 1 of the 1989 New Members Regulations, the 1989 Existing Members Regulations or the 1967 Regulations, as appropriate.

For Aon Hewitt Limited

Jonathan F. Teasdale

J F Teasdale FIA

23 May 2012

Glossary

Discount rate	This is used to place a **present value** on a future payment. A "risk-free" **discount rate** is usually derived from the investment return achievable by investing in UK government gilt-edged stock. A **discount rate** higher than the "risk-free" rate is often used to allow for some of the extra investment return that is expected by investing in assets other than gilts.
Funding ratio	This is the ratio of the resources of the Scheme (its assets, plus the value of the future pre-1987 debt repayment supplements) to the resources that would be required to meet the **funding target**.
Funding target	This is that, based on best estimate assumptions, the assets and future contributions should be sufficient over the long term to support the benefits payable from the Scheme in respect of the current members of the Scheme. The resources of the Scheme required to meet the **funding target** are determined by assessing the **present value** of the benefits that will be paid from the Scheme in the future, based on pensionable service prior to the valuation date, plus the extent to which the **present value** of future service benefits for current members exceeds the **present value** of anticipated future service contributions for such members.
Present value	Actuarial valuations involve projections of pay, pensions and other benefits into the future. To express the value of the projected benefits in terms of a cash amount at the valuation date, the projected amounts are discounted back to the valuation date by a **discount rate**. This value is known as the **present value**. For example, if the **discount rate** was 6% a year and if we had to pay a lump sum of £1,060 in one year's time the **present value** would be £1,000.