

TfL Pension Fund – Public Sector Section

**Actuarial valuation as at
31 March 2009**

30 June 2010

To the Trustee of the TfL Pension Fund

I have been instructed by the Trustee, in accordance with Rule 43(3) of the Rules of the TfL Pension Fund (the "Fund"), to carry out an actuarial valuation of the Public Sector Section (the "Section") of the Fund as at 31 March 2009. I now have pleasure in presenting my report.

As required by Rule 43(7), a copy of this formal report is being submitted simultaneously to Transport for London ("TfL"), in its capacity as Principal Employer and as representative for the other employers participating in the Section.

This report is subject to the limitations set out in Appendix H.

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Section 1: Summary of results

- 1.1 The main purpose of the actuarial valuation is to examine the financial position of the Section relative to its *statutory funding objective*, as required under the Pensions Act 2004, and to determine the appropriate level of contributions to be paid in the future.
- 1.2 The principal conclusions of the current valuation are that:
- The accumulated assets of the Section as at the valuation date (31 March 2009) were 74% of the Section's *technical provisions* in respect of past service benefits, as defined in the Statement of Funding Principles dated 19 May 2010. This represents a funding deficit of £1,206 million. The total funding level and funding deficit after including the deficits as at 31 March 2009 in the LUL BCV Section and the LUL SSL Section (the "BCV and SSL Sections") were 73% and £1,331 million.
 - On the basis of the method and assumptions described in the Statement of Funding Principles, the employer contributions required to cover the balance of the cost of the accrual of future service benefits (including an allowance for non-investment expenses and for Pension Protection Fund (PPF) and other levy payments and after allowing for the merger into the Section of the BCV and SSL Sections) was calculated to be 3.61 times the members' normal Rule 13 contributions (equivalent to 18.05% of relevant pay). (In this report, "relevant pay" means the pay on which members' normal Rule 13 contributions are based.)
 - If the Section had been discontinued at 31 March 2009 and had then been wound up, there would have been insufficient assets to buy out the accrued benefits through the purchase of annuity policies with an insurer. An approximate estimate of the proportion of the buy-out liabilities covered by the assets, ie the discontinuance funding level (or *solvency* position), for the Section as at the valuation date, on the assumptions described in Appendix F, is 40%. This estimate makes no allowance for the effect of the merger into the Section of the BCV and SSL Sections.
 - In accordance with the Statement of Funding Principles agreed between the Trustee and TfL dated 19 May 2010 and as set out in the Schedule of Contributions dated 19 May 2010, the Trustee and TfL have agreed that the employers should pay contributions with effect from 1 April 2010 as set out below:
 - Employer ongoing contributions equal to 3.61 times the members' normal Rule 13 contributions (equivalent to 18.05% of relevant pay) to meet the balance of future accruing benefit costs. This includes an allowance for non-investment expenses of 0.14 and an allowance for PPF and other levies of 0.10.
 - After making allowance for contributions, benefit accruals, expenses and assumed investment returns after the valuation date, the remaining deficit is to be financed over a period of 10 years via employer contributions (over and above the ongoing multiple of 3.61) of
 - 2.59 times the members' normal Rule 13 contributions (equivalent to 12.95% of relevant pay) payable until 31 March 2020, plus
 - £107.4 million on or before 31 March 2018, £107.4 million on or before 31 March 2019 and £107.4 million on or before 31 March 2020, increased in each case in line with retail price inflation between September 2008 and the September before the date of payment.

- 1.3 The financial position of the Section and the level of contributions required will be reviewed at the next actuarial valuation, which under the Section's Statement of Funding Principles is expected to be carried out as at 31 March 2012.



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Section 2: Background to the valuation

- 2.1 This report is addressed to the Trustee of the Fund. It sets out the results of the actuarial valuation of the Section as at 31 March 2009.
- 2.2 This report has been prepared in accordance with the relevant professional guidance set out in Version 8.1 of Guidance Note 9: 'Funding Defined Benefits – Presentation of Actuarial Advice' which was issued by the Board of Actuarial Standards and came into effect on 1 February 2008.
- 2.3 The sole purpose of this report is to provide the Trustee with a summary of the results of the actuarial valuation of the Section as at 31 March 2009 as required by Guidance Note 9: 'Funding Defined Benefits – Presentation of Actuarial Advice'. The only technical actuarial standard (TAS), published by the Board for Actuarial Standards, which applies to this work is TAS R: Reporting Actuarial Information. I confirm that this report complies with TAS R, on the premise that no decisions are intended to be made on the basis of this report (as distinct from the advice and other information provided by me earlier in the valuation process) and therefore most of the requirements of this TAS are not relevant.
- 2.4 This report is subject to the limitations set out in Appendix H.

Purposes of the valuation

- 2.5 The main purpose of the actuarial valuation is to examine the financial position of the Section relative to the Section's *statutory funding objective* as required by Section 224 of the Pensions Act 2004 and so to determine the appropriate level of contributions to be paid. Other purposes are:
- to provide the certificates required under UK pensions legislation, including the Scheme Actuary's certification that the *technical provisions* shown in this report have been calculated in accordance with legislative requirements
 - to examine whether the Section would have adequate resources to meet its accrued liabilities if it were discontinued (the Section's *solvency* position).

Previous valuation

- 2.6 The previous valuation of the Section was carried out by me and had an effective date of 31 March 2006. The results of that valuation are set out in a report dated 10 August 2007 and showed that the value of the assets at that time amounted to 95% of the value of the benefits earned in respect of service up to that date and measured in accordance with the method and assumptions described in the Section's Statement of Funding Principles dated 12 July 2007. The employers' ongoing contribution requirement (expressed as a multiple of the members' normal Rule 13 contributions) to finance accruing benefits for members was found to be 4.35 (including an allowance of 0.15 for non-investment expenses and 0.10 for PPF levies).

2.7 In accordance with the Statement of Funding Principles agreed between the Trustee and TfL dated 12 July 2007 and as set out in the Schedule of Contributions dated 12 July 2007, the Trustee and TfL agreed that the employers should pay contributions with effect from 1 April 2007 as set out below:

- Employer ongoing contributions equal to 4.35 times the members' normal Rule 13 contributions to meet the balance of future accruing benefit costs. This included an allowance for non-investment expenses of 0.15 and an allowance for PPF levies of 0.10.
- The deficit was to be financed over a period of 10 years via employer contributions (over and above the ongoing multiple of 4.35) of 1.85 times the members' normal Rule 13 contributions payable until 31 March 2010 and 0.15 times the members' normal Rule 13 contributions payable from 1 April 2010 until 31 March 2017.
- Since the Schedule of Contributions was not agreed until July 2007, in practice the employers continued to pay contributions totalling only 6.10 times the members' normal Rule 13 contributions for a short period after 31 March 2007. A lump sum payment of £157 million was made to the Section in August 2007 to meet the underpayment up to that date (as against the contributions set out above) and as advance payment of the foregoing employer contributions that fell due during a period after August 2007. This period was determined as the period starting on 1 September 2007 in respect of which the total employer contributions due under the above paragraphs totalled £157 million less the aforementioned underpayment.

Intervaluation period

2.8 Contributions have been paid by the employers at the rates in paragraph 2.7 above since 1 April 2007. Prior to that date contributions were paid at the rate of 6.10 times the members' normal Rule 13 contributions.

Fund benefits valued

2.9 I have valued the benefits defined in the Fund's legal documents as at the valuation date. A summary of the main benefit and contribution provisions is shown in Appendix A.

2.10 The Section is open to new entrants.

Sectionalised nature of Fund

2.11 The Fund consists of a number of separate sections, each of which is treated separately for the purpose of valuations. Further details of the sectionalised nature of the Fund are set out in Appendix D.

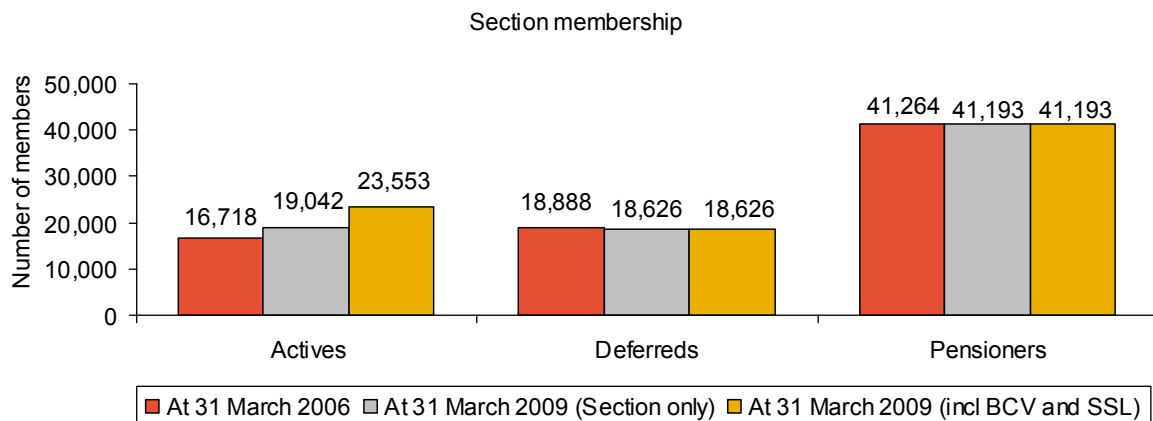
Merger of BCV and SSL Sections into the Section

2.12 With effect from 30 March 2010, all of the assets, liabilities and members of the BCV and SSL Sections were transferred to the Section. The effect of this transfer (or "merger") was allowed for in the Recovery Plan and Schedule of Contributions (both dated 19 May 2010) that have been agreed by the Trustee and TfL.

Section 3: Membership and financial data

Membership data

- 3.1 The changes to the numbers of Section members (excluding pension credit members), based on the data provided for the respective valuations, over the period since the last valuation date are illustrated in the following chart.



- 3.2 Further details of the membership data provided for valuation purposes and used to project the future benefits payable from the Section are included in Appendix B. Data was provided by extract from the computerised record-keeping system operated by the Fund's administrators. Overall checks were applied for consistency with previous valuation data and for general reasonableness and any queries raised were satisfactorily resolved. I have otherwise relied on the accuracy of the information provided to me.

Assets

- 3.3 I have been provided with a copy of the Section's audited financial statements for the three years ended 31 March 2009. These show that the market value of the Section's assets at 31 March 2009 was £3,369.2 million including Additional Voluntary Contributions ("AVCs"). The corresponding market value of assets at the previous valuation was £3,819.8 million.
- 3.4 I understand that the AVCs for members of all of the individual sections of the Fund have been included in the Section's audited Financial Statements. This does not affect the levels of the funding deficit and the required contributions shown in the report since I have included a liability value for the AVCs that is equal to their asset value.
- 3.5 The audited financial statements of the BCV and SSL Sections show they had a combined asset value of £317.2 million as at 31 March 2009, giving an aggregate asset value as at that date of £3,686.4 million (including AVCs) for the three sections that have now been merged.

- 3.6 The Section's investments are currently managed by a number of investment managers who have mandates covering specific asset classes, the allocation of which has been made in accordance with the Trustee's chosen strategic benchmark, which includes global equities, alternative assets and corporate bonds.
- 3.7 Details of the Section's investments at the valuation date together with a consolidated revenue account for the intervalation period are shown in Appendix C. Details are also shown for the BCV and SSL Sections.

Section 4: The nature of the Fund

- 4.1 In a final salary pension scheme such as the Fund, the main retirement benefit provided is expressed as a pension, commencing at the member's retirement age, linked to the pensionable salary earned shortly before leaving service and the length of the member's pensionable service.
- 4.2 A member of a final salary scheme can therefore in principle calculate, in current terms, what benefit he or she might expect at retirement. This is usually a deliberate part of the design of the scheme. It is intended, in the normal course, to give the member a chance to plan for retirement, based on an assessment of the amount of income that he or she will receive.
- 4.3 However, there is a drawback to such schemes – the benefits might only be provided if the scheme continues to operate normally. If the scheme discontinues, the member does not have a guarantee that the expected benefits will be paid – it depends on how much money is in the scheme.
- 4.4 Therefore, even though the fact that the Section is funded provides members with greater security for their pensions, there is still a risk that benefits would not be paid if the Section were to be discontinued. Security is one of the main reasons, but not the only reason, for funding pension schemes in the UK. The level of risk involved, from the members' viewpoint, depends on a number of factors, including:
- the difference between the value of the Section's discontinuance liabilities (its *solvency* liabilities) and the agreed funding target
 - the current level of assets held by the Section
 - the Section's investment policy
 - the strength of the employers' covenants.
- 4.5 Part of the purpose of a regular actuarial valuation is to provide the Trustee with an indication of the potential consequences if the Section were to be discontinued. In these circumstances, the Trustee would normally consider winding up the Section and securing the benefits, to the extent possible, by the purchase of annuities and deferred annuities from an insurance company. Some information about what might happen in these circumstances is included in Section 8 of this report.
- 4.6 In the normal course of events, however, pension schemes are not discontinued and members' benefits continue to be paid in full. The principal purpose of an actuarial investigation is therefore normally to help to determine the contributions that it is reasonable to put into the pension scheme on the assumption that the scheme continues, with the ongoing support of the employer.

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Section 5: Funding objective and valuation approach

Funding objective

- 5.1 In common with most UK occupational pension schemes, the Section is subject to the legislative requirement (referred to in the Pensions Act 2004 as the *statutory funding objective*) that it must have sufficient and appropriate assets to cover its *technical provisions* – these being the amount required (on the basis of certain assumptions) to be set aside in order to meet the Section’s liabilities as and when they become due.
- 5.2 In order to meet these requirements under the Pensions Act 2004, the Trustee has agreed a long-term funding strategy with TfL. As required by legislation, regular actuarial valuations are obtained to check how the Section’s financial position compares to its *statutory funding objective*, the results of which then form the basis for decisions concerning the level of contributions to be paid into the Section.
- 5.3 The legislation under the Pensions Act 2004 overrides some aspects of the Section’s own legal documentation, such as Rule 16(1), under which the employer contribution rate was previously set at such rate as TfL decides from time to time, after considering actuarial advice. The overall funding objective, namely to have sufficient assets to cover the accrued liabilities assessed on an ongoing basis, remains the same as that which applied at the 2006 valuation.

Valuation approach

- 5.4 In carrying out an actuarial valuation, an estimate is made of the benefits payable in future to members and their dependants under the Rules of the Fund. Benefits are payable on retirement, death or leaving service. The amount of the benefit payable depends on the length of pensionable service, on the level of pensionable earnings when service ends, and on the pension increases subsequently given. In estimating these payments, assumptions are made about the likelihood of a benefit becoming payable at any future date, as well as about financial matters such as increases in earnings and pensions.
- 5.5 In essence, the Section’s liabilities represent a series of future cash amounts that are to be paid from the Section. It follows that, in the scenario where the Section continues and benefits are paid as and when they fall due, an appropriate funding target can be determined by reference to the capitalised value of these expected benefit payments, which is the value of these payments discounted back to the valuation date at an appropriately defined interest rate (the “discount rate”). It is this calculation that determines the amount of the Section’s *technical provisions*, as defined under the Pensions Act 2004, which is in turn used to determine the level of future contributions that should be paid into the Section.
- 5.6 The valuation method agreed by the Trustee and TfL (the “projected unit credit method” with a one-year control period) is described in Appendix E. This is the same method as that used for the 2006 valuation.

- 5.7 Full details of the funding policy that has been agreed between the Trustee and TfL are set out in the Statement of Funding Principles (Appendix I) that has been prepared for the Section, as required by Section 223 of the Pensions Act 2004.
- 5.8 A number of assumptions need to be made about future events in carrying out the actuarial calculations. These are described in the Statement of Funding Principles.

Section 6: Comparison of the 2009 valuation assumptions with those used in 2006

- 6.1 The assumptions adopted for this valuation for determining the *technical provisions* and the contribution requirements for future accruing benefits, together with the corresponding assumptions at the previous valuation, are described below.

Financial assumptions

- 6.2 The financial assumptions used for this valuation and the previous valuation for the purpose of calculating the *technical provisions* and the contributions required to meet future service benefit accruals are summarised as follows:

Assumptions	31 March 2009		31 March 2006	
	Nominal % pa	Real % pa	Nominal % pa	Real % pa
Investment return	7.04	3.62	6.15	3.26
Price inflation	3.3	-	2.8	-
Increases in Lower Earnings Limit	3.3	0.0	2.8	0.0
General pay increases	4.3	1.0	4.3	1.5
Pension increases in payment				
- Pre-6 April 1988 GMP	0.0	(3.2)	0.0	(2.7)
- Post-5 April 1988 GMP	2.5	(0.8)	2.5	(0.3)
- Non-GMP				
- Existing Members	3.3*	0.0*	2.8	0.0
- New Members	3.2*	(0.1)*	2.8	0.0
Pension increases in deferment				
- GMP (section 148)	4.8	1.5	4.3	1.5
- Non-GMP	3.3*	0.0*	2.8	0.0

* plus a one-off 1.4% real increase in April 2010

- 6.3 For the 2009 valuation, for the purpose of determining the contributions required for the Recovery Plan, it was assumed that, from 31 March 2009 to the end of the period covered by the schedule of contributions, the Section's assets will earn an additional 0.3% pa investment return above that shown in paragraph 6.2 above. No such additional return was assumed for the 2006 valuation.

Demographic assumptions

- 6.4 The demographic (or "statistical") assumptions concern the likelihood of events (for instance, death, retirement, leaving service) taking place at different ages. They also cover family statistics, such as the proportion of deaths giving rise to dependants' benefits and the ages of those dependants.

- 6.5 Assumptions can be based on the experience of the Fund and other similar pension schemes. The number of members of the Fund is sufficient to provide, to some degree, a statistically significant set of data on which assumptions can be based.

Post-retirement mortality

- 6.6 The following post-retirement mortality assumptions were used for the 2006 valuation:

- The current mortality was assumed to be in line with the published PA92 standard mortality tables projected to calendar year 2006 and with the following age ratings:
 - members who retire on grounds of ill health rated up 6 years
 - other members rated up 1 year
 - members' dependants rated up 2 years.
- Allowance was made for mortality improvements after 2006 in line with the medium cohort projections.

- 6.7 The Fund's mortality experience over the intervaluation period was such that the numbers of pensioner deaths (weighted by size of pension) were generally lower than was assumed in the 2006 valuation. For female dependants, the reverse was true, with the actual number of deaths exceeding the assumed number.

- 6.8 For the purposes of the 2009 valuation, the post-retirement mortality assumptions were changed to the following:

- Current mortality in deferment and payment is assumed to be in line with the following tables, with medium cohort improvements to 2009:

male members who retire on grounds of ill health	S1NMA	x 195%
female members who retire on grounds of ill health	S1NFA	x 197%
other male members	S1NMA	x 109%
other female members	S1NFA	x 117%
male dependants	S1NMA	x 112%
female dependants	S1DFA	x 110%

- Allowance is made for mortality improvements after 2009 in line with the medium cohort projections with a 1% pa floor.

Ill-health early retirements

- 6.9 The Fund's intervaluation experience shows that, overall, the number of male ill-health retirements was around 50% lower than assumed in 2006 and the number of female ill-health retirements was around 65% lower than assumed. For the 2009 valuation, the assumed rates of ill-health retirements have been reduced by 35% for both males and females.

Early retirements (other than on grounds of ill health)

- 6.10 The intervaluation experience indicated that the level of early retirements from active service was below that assumed in 2006 at most ages. Furthermore, the experience data did not support the assumption previously made that more members retire at age 50 than at each age from 51 to 54. For ages from 60 to 64, the observed incidence of early retirement was closer to that assumed. For the 2009 valuation, the assumed decrements were reduced to 2% for males at each age from 50 to 54, to 4% for males at each age from 55 to 59, to 2.5% for females at each age from 50 to 54 and to 5% for females at each age from 55 to 59. The assumed decrements at ages from 60 to 64 were retained unchanged.
- 6.11 From April 2010, members who joined the Fund after 5 April 2006 have not been able to retire below age 55. Other members retain the right to retire between 50 and 55. However, the 2006 assumption that all members in active service may retire between 50 and 55 was retained for the 2009 valuation.
- 6.12 All deferred pensioners who survive to vesting age are assumed to draw all their retirement benefits in the form of pension at that age. An explicit allowance of 4% of the liability has been included for deferred pensioners in the 2009 valuation to make some provision for the strains arising for retirements before vesting age on grounds of ill health or otherwise. The same allowance was made for the 2006 valuation.

Withdrawal rates (early leavers)

- 6.13 An analysis of leavers with deferred pensions during the period 2006 to 2009 shows that male and female withdrawal rates were 30% and 40% respectively below the 2006 assumptions. For the current valuation, the assumed withdrawal rates have been reduced by 30% for males and 40% for females.

Deaths in service

- 6.14 Over the period from 2006 to 2009, the numbers of deaths in service were around 10% below those assumed in 2006 for males and around 40% higher than those assumed for females. However, the 2006 assumptions have been retained unchanged for the 2009 valuation.

Deaths in deferment

- 6.15 As for the last valuation, the deferred pensioners' mortality has been assumed to follow the same standard table, and with the same allowance for future improvements, as assumed for post-retirement mortality for pensioners who retire in normal health.

Pay increases

- 6.16 When analysing the level of pay increases granted to members during the intervaluation period, it is possible to identify the total level of increase compared with the 2006 funding assumptions. However, it is more difficult to judge the reasons why the actual level of increase differs from that assumed because there are a number of inter-related factors. The factors which influence pay increases may include the following:
- general pay increases awarded to all employees, reflecting the effects of inflation
 - the additional (age-related) increases granted to individual members as a result of career development and increasing responsibility) (the salary scale)
 - special one-off factors, such as restructuring of remuneration packages.
- 6.17 The analysis made at the valuation shows that for operational staff, taking account of the known general pay increases awarded during the intervaluation period, pay increases were overall close to those assumed for males at the 2006 valuation but around 2% pa higher than those assumed for females. For non-operational staff, overall increases were substantially ahead of the 2006 assumptions, by around 2% pa for males and around 2.5% pa for females. Taking operational and non-operational staff together, actual increases were about 0.5% pa ahead for males and 2% pa ahead for females. The actual increases were generally ahead of the 2006 assumptions by more at younger ages.
- 6.18 For the 2009 valuation, the 2006 salary scale has been revised to allow for around 1% pa higher salary increases for males up to age 45 and females up to age 40.

Late retirement

- 6.19 As for the 2006 valuation, it has been assumed that:
- all active members who are under age 65 at the valuation date retire by age 65;
 - all active members who are age 65 or over at the valuation date retire immediately;
 - all deferred pensioners who are below vesting age at the valuation date retire at vesting age (with a 4% loading applied to allow for strains arising from early retirement);
 - all deferred pensioners who are at or over vesting age at the valuation date retire immediately.

Family statistics

- 6.20 As for the 2006 valuation:
- the proportion of members assumed to have dependants varies with age and reaches a maximum of 87.5% for males and 60% for females at age 60
 - members are assumed to be of the opposite gender to their dependants
 - the age difference (male member – dependant) or (dependant – female member) ranges from 2 to 3.5 years, depending on age.

Commutation at retirement

- 6.21 For the 2006 valuation, no allowance was made for members exercising their commutation option. For the 2009 valuation, it has been assumed that 75% of members each commute pension at retirement to the maximum extent permitted and that the remaining 25% do not commute at retirement. It has been assumed that the current commutation factors are amended to reflect the post-service mortality assumptions appropriate to each member's year of birth.

Cash equivalent transfers

- 6.22 As for the 2006 valuation, it has been assumed that no cash equivalent transfer values will be paid.

Summary

- 6.23 The main changes in the statistical assumptions (as compared with those adopted for the 2006 valuation) may be summarised as follows.

- post-retirement mortality base tables – the adoption of the new S1 series tables, projected to 2009 in line with the medium cohort projections, adjusted by the application of multipliers
- post-retirement mortality future improvements – the introduction of a 1% pa floor to the medium cohort projections
- ill-health early retirements – a reduction of 35% in the assumed rates of ill-health early retirement for active members
- non-ill-health early retirements – a reduction in the assumed rates of early retirement for active members between ages 50 and 59
- withdrawal rates – a reduction in the assumed withdrawal rates for active members
- mortality in deferment – a move to the base tables and assumed future improvements for post-retirement mortality for members who retire in normal health
- pay increases – an allowance for higher age-related increases (the salary scale)
- commutation at retirement – the introduction of an allowance for commutation.

6.24 The following are the statistical assumptions that have been retained unchanged from the 2006 valuations.

- non-ill-health early retirements – no change in the assumed rates of early retirement for active members between ages 60 and 64
- early retirement of deferred pensioners – no change in the allowance made for early retirement from deferred pensioner status
- mortality in service – no change in the assumed rates of mortality
- late retirements – no change in the assumed late retirement patterns
- family statistics – no change in the proportions of members assumed to have dependants or in the assumed genders or ages of the dependants
- cash equivalent transfers – no change to the practice of assuming that no cash equivalents will be paid.

Section 7: Ongoing funding position

- 7.1 As noted in paragraph 2.5, the main purpose of the current actuarial investigation is to review the financial position of the Section relative to its *statutory funding objective* and hence to determine the level of contributions that should be paid in order to meet this objective.

Stage One – Past service

- 7.2 Using the actuarial method and assumptions set out in the Statement of Funding Principles (Appendix I), the following statement compares the market value of the Section's assets with its *technical provisions* (which are based on accrued benefits and include allowance for future salary increases) as at the valuation date. Also shown is the position allowing for the effect of the merger into the Section of the BCV and SSL Sections with effect from 30 March 2010.

Technical provisions statement as at 31 March 2009

	Excluding BCV and SSL Sections £ million	Including BCV and SSL Sections £ million
Value of benefits accrued to 31 March 2009		
- Retired members and dependants	2,434	2,434
- Deferred pensioners	635	635
- Contributing members	1,477	1,919
- AVCs	29	29
Total Technical Provisions	4,575	5,017
Market value of assets (including AVCs)	3,369	3,686
Surplus/ (deficit)	(1,206)	(1,331)
Funding level	74%	73%

My certificate to the effect that the *technical provisions* have been calculated in accordance with the Statement of Funding Principles is in Appendix G.

- 7.3 Based on the above figures, the Section had a funding deficit relative to its *statutory funding objective* as at the valuation date of £1,206 million, which is equivalent to a funding level of 74%. Allowing for the effect of the merger of the BCV and SSL Sections, the funding deficit was £1,331 million and the funding level was 73%. At the previous valuation the Section had a funding deficit of £192 million and a funding level of 95%.

- 7.4 The main factors contributing to this change in the funding deficit over the period since the last valuation date have been estimated and are summarised in the following table. These figures should be regarded as approximate and are intended only to provide an indication of the relative magnitude of the impact that each item has had on the funding position.

	£ million
Surplus/(deficit) at 31 March 2006	(192)
a. Interest on surplus/(deficit)	(37)
b. Investment performance compared to that assumed in 2006	(1,272)
c. Actual contributions compared to cost of benefit accruals	156
d. Actual salary growth compared to that assumed in 2006	(93)
e. Actual pension increases compared to those assumed in 2006	(102)
f. Miscellaneous items	9
g. Change in financial assumptions	352
h. Change in statistical assumptions	(27)
Surplus/(deficit) at 31 March 2009 before allowing for the effect of the merger into the Section of the BCV and SSL Sections	(1,206)
k. Effect of merger into the Section of the BCV and SSL Sections	(125)
Surplus/(deficit) at 31 March 2009, allowing for the effect of the merger into the Section of the BCV and SSL Sections	(1,331)

- 7.5 The main reasons for the deterioration in the funding position are the performance of the investments and the increases in salaries and pensions. (Pensions exceeded inflation during the three years, because they were based on inflation over a slightly different period.) These effects were partially offset by contributions over the intervaluation period exceeding the cost of new benefit accruals and by the net result of the changes made to the financial and statistical assumptions.

Stage Two – Normal contribution rate for future benefits

- 7.6 Using the valuation method and assumptions set out in the Statement of Funding Principles (Appendix I), the normal contribution multiple payable by the employers in respect of those members accruing benefits in the Section as at 31 March 2009 is calculated to be 3.59 times the members' normal Rule 13 contributions before allowing for the effect of the merger into the Section of the BCV and SSL Sections, and 3.61 times the members' normal rule 13 contributions after allowing for the merger. These include 0.14 times in respect of non-investment expenses and 0.10 times in respect of PPF and other levies. The corresponding multiple at the previous valuation was 4.35 times the members' normal Rule 13 contributions (inclusive of a multiple of 0.15 for non-investment expenses and 0.10 times in respect of PPF levies).

- 7.7 An analysis of the change in ongoing contribution rate from 31 March 2006 to 31 March 2009 is shown below. The main reasons for the reduction in the contribution multiple have been the changes in the financial and statistical assumptions (items b. and c.), offset to some extent by the change in the membership profile (item a.).

Ongoing employer contributions multiplier at 31 March 2006	4.35
a. Change in active member profile	0.11
b. Change in financial assumptions	(0.72)
c. Change in statistical assumptions	(0.14)
d. Change in non-investment expense allowance	(0.01)
Total employer contribution multiple at 31 March 2009, before allowing for the effect of the merger into the Section of the BCV and SSL Sections	3.59
e. Effect of merger into the Section of the BCV and SSL Sections	0.02
Total employer contribution multiple at 31 March 2009, allowing for the effect of the merger into the Section of the BCV and SSL Sections	3.61

Stage Three – Adjustment to the normal contribution rate

- 7.8 Under legislative requirements, if the assets of the Section are less than the *technical provisions* at the effective date of any actuarial valuation, a Recovery Plan must be agreed between the Trustee and TfL under which the funding deficit will be made good by additional employer contributions payable for an agreed period (the “recovery period”). When determining the recovery period that will apply at each valuation, the Trustee will have regard to the size of the funding shortfall and the employers’ financial circumstances.
- 7.9 Under the Recovery Plan agreed by the Trustee and TfL dated 19 May 2010 (see Appendix J), after making allowance for contributions, benefit accruals, expenses and assumed investment returns after the valuation date, the current funding deficit is to be met over a period of 10 years from 1 April 2010 by additional employer contributions equal to 2.59 times the members’ total contributions from 1 April 2010 to 31 March 2020, plus £107.4 million on or before 31 March 2018, £107.4 million on or before 31 March 2019 and £107.4 million on or before 31 March 2020, increased in each case in line with retail price inflation between September 2008 and the September before the date of payment.

Total contributions payable

7.10 The total employer contributions it has been agreed will be paid (see Schedule of Contributions in Appendix K) are as follows:

- Contributions equal to 3.61 times the members' normal Rule 13 contributions (including an allowance for non-investment expenses of 0.14 and an allowance for PPF and other levies of 0.10) – this is equivalent to 18.05% of relevant pay, plus
- Until 31 March 2020, additional contributions equal to 2.59 times the members' normal Rule 13 contributions – this is equivalent to 12.95% of relevant pay, plus
- £107.4 million on or before 31 March 2018, £107.4 million on or before 31 March 2019 and £107.4 million on or before 31 March 2020, increased in each case in line with retail price inflation between September 2008 and the September before the date of payment.

Employers' contributions that are expressed as a multiple of the members' contributions are payable on or before the same date as the members' contributions to which they relate.

7.11 The financial position of the Section and the level of contributions required will be reviewed at the next actuarial valuation, which under the Section's Statement of Funding Principles is expected to be carried out as at 31 March 2012.

Uncertainty concerning future events

7.12 The above funding calculations do not address the level of benefit cover in the specific event of discontinuance. This is discussed further in Section 8 of this report.

7.13 It should be noted that the funding assumptions used to derive the above results represent only one view of likely future events. How the Section's funding position will actually develop in practice cannot be known in advance. There is always a risk that contributions calculated in accordance with the funding policy will prove insufficient to meet the funding target.

7.14 The results of the valuation are particularly sensitive to the assumed level of the future returns that will be achieved on the Section's investments (which are merely assumptions, albeit ones which the Trustee believes to be prudent).

7.15 The possible variation in outcomes is considerable given the substantial proportion of the assets invested in volatile assets such as equities which may not move in line with the assessment of the liabilities. The Trustee should therefore be aware of the sensitivity of the results to future investment conditions.

7.16 If investment returns fall short of the assumptions made in the valuation, then the funding position of the Section will worsen and the long-term cost of providing the benefits will be higher.

- 7.17 By means of example, if the discount rate had been 0.25% pa lower at the valuation date, I estimate that the funding levels (before allowing for the effect of the merger of the BCV and SSL Sections) would have been as follows:

	Actual funding level %	Funding level assuming 0.25% pa reduction in the discount rate %
Ongoing (relative to <i>technical provisions</i>)	74	71
<i>Solvency</i> (see 8.14)	40	38

- 7.18 The normal employer contribution multiple (before allowing for the effect of the merger into the Section of the BCV and SSL Sections) would have increased from 3.59 to 3.86 times the members' normal Rule 13 contributions (including an allowance for non-investment expenses of 0.14 and an allowance for PPF and other levies of 0.10).
- 7.19 The future financial position of the Section could also be affected by future variations in the mortality experience of its pensioners relative to the assumptions adopted for valuation purposes. If I were to assume that mortality rates improved in future by a minimum of 2% each year instead of 1% each year, the Section's funding level (ie by reference to its *technical provisions*) would fall from 74% (before allowing for the effect of the merger into the Section of the BCV and SSL Sections) to approximately 71% and the normal employer contribution multiple would increase from 3.59 to 3.80 times members' total contributions, (including an allowance for non-investment expenses of 0.14 and an allowance for PPF and other levies of 0.10).

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Section 8: The position of the Section on discontinuance

- 8.1 One purpose of having a substantial, funded, pension scheme is that it provides some measure of security if the participating employers are unable to finance the benefits. This section of the report concentrates on what would happen if the discontinuance provisions of the Trust Deed and Rules were invoked.

What would happen if the Section were discontinued?

- 8.2 In this scenario, active members would become entitled to deferred benefits based on their pensionable service up to, and final pensionable earnings (as defined in the relevant documentation) at, the discontinuance date, together with revaluation in line with that applied to early leavers.
- 8.3 Under the Fund's discontinuance provisions (Rule 45B of the Trust Deed and Rules), the Trustee must secure the members' accrued benefits (as far as possible, given the assets available) by
- continuing the Section as a closed fund, or
 - purchasing annuities from an insurance company, or
 - transferring liabilities to another pension scheme.
- 8.4 The Section's assets are there to cover liabilities for service up to the date of discontinuance, but not beyond; members' expectations in relation to future service would therefore be lost. The Section's assets at the date of discontinuance would be available to provide benefits but the level of any further financial support for the Section from the employers would depend on whether or not the employers were solvent at the time of discontinuance.

Debt on employer

- 8.5 If the Section were discontinued, legislation would impose a "debt" on the employers equal to the additional funding required to meet the full cost of securing all accrued benefits with an insurance company. Depending on the circumstances, the employers might not be able to meet this debt. If the debt were met, it seems likely that the Trustee would choose to buy out the benefits with an insurance company, rather than to bear the risks of running the Section as a closed fund (see paragraph 8.7).

Winding-up priority order

8.6 In the following paragraphs I consider the position if the Section were discontinued with no further financial support available. If this were the case, the Section's benefits would be secured in the priority order specified in legislation, since this overrides the Fund's Trust Deed and Rules. Based on the priority orders effective from 31 August 2005, the benefits would need to be secured in broadly the following order (after allowing for expenses and any potential debts to third parties):

1. Pensions and other accrued benefits corresponding to those that would be payable by the PPF (if the Section were eligible for entry to the PPF).
2. All other pensions and benefits provided by the Section under the Fund Rules, including pension increases (where these exceed those under the PPF).

Money purchase AVCs are excluded from the priority order and secured separately with the matching assets.

Operating as a closed fund

8.7 The Trustee could decide to run the Section as a closed fund. In this case, unless the Section's assets were sufficient to cover the cost of buying out the full benefits with an insurance company, recent legislation would require members' benefits to be cut back, starting first with those in the lowest priority classes (see paragraph 8.6). Furthermore, various risks would remain, particularly as regards movements in asset values relative to liabilities. The Trustee would have to consider the degree of risk that it would be reasonable to take, although such decisions would not be straightforward. A low-risk investment policy, for example, might mean that future investment returns were lower than they might be otherwise, and that benefits would have to be reduced further, with benefits in the lowest priority classes being affected first.

8.8 In terms of reducing risk, if running the Section on as a closed fund, the Trustee may choose to buy gilts and other investments to reduce investment uncertainties. This cannot however eliminate all of the investment risk, and the Section would still be left with longevity and other risks.

Introduction of the PPF

8.9 As part of the changes introduced under the Pensions Act 2004, the Government introduced the Pension Protection Fund (PPF) with effect from 6 April 2005. Based on the current arrangements, for schemes admitted to the PPF on discontinuance, their members' benefits are at least partially protected and provided through the PPF. Members of at least normal pension age at an 'assessment date' would receive their benefits in full and younger members would receive 90% of their benefits, with these benefits being subject to restrictions in relation to pension increases and to an overall limit on the pension amount. (The maximum annual pension receivable is equal to £25,152 as at 31 March 2009 for members with a normal pension age of 60.)

- 8.10 The PPF is funded through a combination of the assets of “failed” schemes that enter it and levies on UK occupational defined benefit pension schemes, although in the event of it having insufficient funds to meet its liabilities the compensation payments it makes can be reduced. As noted in paragraph 7.6 an allowance has been made for these levies in the current valuation within the normal employer contribution rate.
- 8.11 To facilitate the assessment of the PPF levy, pension scheme trustees are required under Section 179 of the Pensions Act 2004 routinely to submit an assessment of their scheme’s discontinuance positions, based on assumptions specified by the PPF and accrued benefit entitlements similar in form to the compensation payments that could be provided by the PPF. The results of the Section 179 valuation for the Section as at 31 March 2009 are summarised below. These results take no account of the merger into the Section of the BCV and SSL Sections, since this did not take place until 30 March 2010.

PPF Section 179 statement as at 31 March 2009

	Excluding money purchase AVCs £ million
Protected Liabilities	6,237
Market value of assets	3,340
Section 179 valuation surplus/(shortfall)	(2,897)
Protected Liabilities coverage	54%

- 8.12 Since its assets fell short of its Protected Liabilities as at 31 March 2009, if the Section had been wound up at the valuation date with no financial support available from the employers, it would have been likely to have been admitted to the PPF, in which case the Section’s members would have received the PPF level of benefits.

Approximate cover on buy out

- 8.13 I have estimated the extent to which the Section’s assets at the valuation date would have been sufficient to secure the accrued benefits by purchasing annuities from an insurance company (on the assumption that there was sufficient capacity in the market). For this purpose I have used the assumptions set out in Appendix F.
- 8.14 The result of my calculations, based on the position at 31 March 2009, is to suggest that the cover for accrued benefits (*the statutory estimate of solvency*) would have been approximately 40%. This is summarised below. This result takes no account of the merger into the Section of the BCV and SSL Sections, since this did not take place until 30 March 2010.

Solvency statement as at 31 March 2009

	Including money purchase AVCs £ million
Liabilities	8,332
Market value of assets	3,369
Solvency surplus/(shortfall)	(4,963)
<i>Solvency level</i>	40%

- 8.15 Therefore, in these circumstances, the Section's assets would not have been sufficient to secure the accrued benefits in full with an insurance company.
- 8.16 The overall *solvency* level shown in paragraph 8.14 above can be compared with the previous estimate of approximately 56% in the valuation as at 31 March 2006. This was also on the assumption that benefits would have been secured with an insurance company. The main reason for the deterioration in the *solvency* level is the poor investment performance compared to changes in buy-out costs.
- 8.17 If the Section had been fully funded at 31 March 2009 compared to its *technical provisions* (ie if the *statutory funding objective* has been exactly met at the valuation date), the overall *solvency* level based on the assumptions in Appendix F would have been approximately 55%.
- 8.18 Taking account of the winding-up priority order, I estimate that, after allowing for expenses, the cover for category 1 benefits (as defined in 8.6) would have been approximately 58%. There would have been no funds available for category 2. However, if the reason for discontinuance had been insolvency and no further funds were available from the employers, then I would have expected the Section to have been eligible for entry to the PPF – in which case all of the benefits under category 1 would have been provided through the PPF.
- 8.19 If contributions are paid to the Section as summarised in paragraph 7.10, and the assumptions in the Statement of Funding Principles are borne out in practice, the overall *solvency* level noted above (and therefore that within each priority class) will increase as time passes, assuming no changes in the buy-out terms offered by insurance companies. I estimate that, under this scenario, the overall *solvency* level might increase to around 44% by the time of the next valuation. The level of cover for category 1 benefits would increase to around 64%.
- 8.20 The level of benefits that can be provided to individual members on winding up is particularly sensitive to fluctuations in the value of investments relative to gilts and changes in future expected mortality. The particular structure of the payments that might be provided through the PPF (and hence the benefits that fall under category 1 above) also means that the level of benefits can be impacted by changes in the membership profile.
- 8.21 As explained in paragraph 8.5, if the Section were discontinued, legislation would impose a "debt" on the employers equal to the additional funding required to meet the full cost of securing all accrued benefits with an insurance company. If this debt were settled, all of the benefits under categories 1 and 2 above could, in theory, be met. However, it is uncertain whether there would be sufficient capacity in the insurance market to take on all of the Section's liabilities immediately. In practice, the Section might have to be run on as a closed fund for a time, with a phased programme of securing benefits in the insurance market.

Appendix A: Main benefit and contribution provisions

The Fund is contracted out of the State Second Pension and is a registered scheme for tax purposes. The main benefit provisions of the Fund are the same for each section and are summarised as follows.

Existing Members	Mainly those who joined the Fund on or before 1 April 1989
New Members:	Mainly those who first joined after 1 April 1989
Scheme Pension Age (SPA):	Age 65 for men and women.
Pensionable Salary:	The greater of salary over the 12 months preceding date of retirement/leaving and total Contributory Pensionable Salary over the same period.
Contributory Pensionable Salary:	Set each April as the annual rate of salary as at previous November.

Note: for the purposes of the above two definitions

- *For an Existing Member, salary means basic salary excluding fluctuating emoluments but including any permanent additional allowance with the consent of the Principal Employer and the Trustee.*
- *For New Members, salary is as for Existing Members but less the Lower Earnings Limit.*
- *For LUL Company Plan Employees, salary is multiplied by 90% for pre-6 April 1998 accruals and by 100% for post-5 April 1998 accruals.*
- *For members who have sacrificed salary under a flexible benefits arrangement, the sacrifice is disregarded for the purpose of the Fund.*

Total Membership:	Service as a contributing member of the Fund, plus service credited by transfers-in or any other service granted by the former LT Board and Trustee.
Retirement at SPA:	A pension equal to one sixtieth of Pensionable Salary for each year of Total Membership less, for Existing Members, £10.10 pa for each year of Total Membership after 1 October 1993.
Retirement before SPA, on grounds of ill-health:	Subject to 5 years' service, an immediate pension calculated as for retirement at SPA but based on Total Membership at retirement, plus an extra period equal to the shorter of 10 years and prospective service to SPA.
Retirement before SPA, not on grounds of ill health:	An immediate pension calculated as for retirement at SPA, but reduced for early payment. No reduction applies on retirement on or after age 60.

Lump Sum at Retirement:	On retirement part of the pension may be exchanged for a lump sum.
Death after Retirement:	A dependant's pension equal to one half of the pension which would have been in payment at the date of death assuming no pension was commuted or surrendered at retirement. Children's allowances are also paid.
Death in Service:	<p>A lump sum of 4 years' Pensionable Salary</p> <p>A dependant's pension equal to one half of the pension which the member would have received on retirement on grounds of ill health at the date of death. Children's allowances are also paid.</p>
Leaving Service:	<p>If under two years' pensionable service has been completed, the member has a choice between a refund of contributions, a deferred pension calculated as on retirement at SPA and a transfer value. A refund is not available if more than two years' pensionable service has been completed. A dependant's pension of one half of the member's deferred pension is paid on death before SPA.</p> <p>The Fund Rules have been amended since the valuation date so that a refund of contributions is now only available to members who complete under three months' pensionable service.</p>
Pension Increases:	
- Existing Members	Pensions in excess of any GMP in payment are guaranteed to be increased each year in line with price inflation.
- New Members	Pensions in excess of any GMP in payment are guaranteed to be increased each year in line with price inflation up to 5% pa.
- All Members	The GMP arising from service between 6 April 1988 and 5 April 1997 is increased each year when in payment in line with price inflation up to 3% pa.
Contributions:	<p>Members pay 5% of Contributory Pensionable Salary, less £20 a year for Existing Members. Members may also pay additional voluntary contributions to increase their benefits.</p> <p>Employers make up any balance of cost of meeting the Fund's benefits.</p>

Appendix B: Membership data

Membership data as at 31 March 2009 and 31 March 2006

Pensions in payment	31 March 2009		31 March 2006	
	numbers	annual pensions £m	numbers	annual pensions £m
Male pensioners	26,523	143.80	26,449	131.29
Female pensioners	3,863	12.91	4,025	12.33
Dependants	10,807	30.60	10,790	27.59
Total	41,193	187.31	41,264	171.21

Deferred pensions	31 March 2009		31 March 2006	
	numbers	annual pensions £m	numbers	annual pensions £m
Male	15,006	42.44	15,680	40.61
Female	3,620	8.93	3,208	7.07
Total	18,626	51.37	18,888	47.68

Current active members - Public Sector Section	31 March 2009		31 March 2006	
	numbers	pensionable salaries £m	numbers	pensionable salaries £m
Existing Members				
Male	2,972	127.56	3,445	127.12
Female	216	8.30	258	8.18
	3,188	135.86	3,703	135.30
New Members				
Male	11,368	361.99	9,588	253.65
Female	4,486	128.97	3,427	81.47
	15,854	490.96	13,015	335.12
Total	19,042	626.82	16,718	470.42

Current active members - LUL BCV Section	31 March 2009		31 March 2006	
	numbers	pensionable salaries £m	numbers	pensionable salaries £m
Existing Members				
Male	572	25.37	664	24.62
Female	19	0.65	25	0.79
	591	26.02	689	25.41
New Members				
Male	1,574	56.49	1,109	33.14
Female	213	6.85	147	4.15
	1,787	63.34	1,256	37.29
Total	2,378	89.36	1,945	62.70

Current active members - LUL SSL Section	31 March 2009		31 March 2006	
	numbers	pensionable salaries £m	numbers	pensionable salaries £m
Existing Members				
Male	545	24.04	625	22.57
Female	16	0.50	17	0.48
	561	24.54	642	23.05
New Members				
Male	1,329	46.44	1,014	29.39
Female	243	7.23	166	4.56
	1,572	53.67	1,180	33.95
Total	2,133	78.21	1,822	57.00

Notes:

- The pensionable salaries shown are annualised actual pensionable salaries (not full-time equivalents) for all members and are after the deduction (pro-rata for part-timers) of the Lower Earnings Limit in the case of New Members.
- The annual pensions shown (for pensions in payment and deferred pensioners) at 31 March 2006 include the 1 April 2006 increase. The annual pensions shown at 31 March 2009 exclude the 1 April 2009 increase.
- In addition, at 31 March 2009, there were 13 pension credit members in the Public Sector Section and 4 pension credit members in the LUL BCV Section who were receiving total annual pensions of £0.058 million and £0.024 million respectively, and there were 45 deferred pension credit members in the Public Sector Section with total annual pensions of £0.296 million. At 31 March 2006, there were 26 pension credit members with total annual pensions of £0.1 million.

- Pension increases applied to the excess over the GMP over the intervaluation period were as follows:
 - 1 April 2006 2.7%
 - 1 April 2007 3.6%
 - 1 April 2008 3.9%
 - 1 April 2009 5.0%

These are in line with the year-on-year increase in the retail price index to the previous September.

No discretionary increases were paid under Fund Rule 28(5).

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Appendix C: Financial data

Consolidated revenue account for intervaluation period

	Public Sector Section £m	LUL BCV Section £m	LUL SSL Section £m	Total £m
Assets at 31 March 2006 (including AVCs)	3,819.8	177.8	153.8	4,151.4
Income				
Contributions:				
Employers	490.9	72.6	70.9	634.4
Members - normal	79.4	9.9	9.0	98.3
- AVCs	8.1	-	-	8.1
Net transfers in from other sections	139.6	(44.0)	(35.0)	60.6
Transfers in from other pension schemes	35.4	2.9	3.0	41.3
Investment income	11.3	-	-	11.3
Total income	764.7	41.4	47.9	854.0
Expenditure				
Benefits paid:				
Members leaving and benefits payable	648.1	0.1	0.1	648.3
PPF and other levies	4.2	3.5	3.2	10.9
Expenses	8.4	1.6	1.5	11.5
Total expenditure	660.7	5.2	4.8	670.7
Change in market value of investments	(554.6)	(48.5)	(45.2)	(648.3)
Assets at 31 March 2009 (including AVCs)	3,369.2	165.5	151.7	3,686.4
Represented by:				
Equity units	1,626.6	115.3	105.8	1,847.7
Bond units	679.1	49.4	45.3	773.8
Alternative assets	1,021.0	-	-	1,021.0
Other assets (excluding AVCs)	13.1	0.8	0.6	14.5
AVCs	29.4	-	-	29.4
Assets at 31 March 2009 (including AVCs)	3,369.2	165.5	151.7	3,686.4

Note:

The AVCs for members of all of the individual sections of the Fund have been included in the Public Sector Section's financial statements.

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Appendix D: Sectionalisation of the Fund

1. The sectionalised structure of the Fund was introduced in 2001 in order to minimise any financial cross-subsidies between different participating employers, in a way that meets the reassurances given to the Fund members at the time. In effect, each section of the Fund acts as a separate pension scheme (with its own assets and its own liabilities) but there are a number of special features designed to achieve the key objectives in the most cost-effective way. The main features of the sectionalised structure are outlined in the following paragraphs.
2. The Fund Rules use the term “New Section” to describe any section of the Fund other than the Public Sector Section and I have done likewise in this Appendix.
3. At the establishment of each section, the Trustee determined a share of assets to be credited to the section having regard to its initial membership and the accrued liabilities being transferred to it. From the date of its establishment, each section is credited or debited with monies relating to that section’s members or employers. For example, all ordinary contributions from the members of that section or the employers are credited to that section. (Any additional voluntary contributions payable by individual members are treated separately.)
4. For each New Section, TfL and the sponsoring employer had the opportunity to choose to transfer to the Public Sector Section the accrued liabilities in respect of the New Section’s members as they left service and ceased to accrue further benefits. Assets (equivalent in value to the transferring liabilities) would similarly be transferred to the Public Sector Section. The terms on which assets and liabilities are transferred to the Public Sector Section in this way are designed to be no less than the expected cost of providing benefits from the Public Sector Section and the transfer terms are reviewed periodically, in conjunction with, or after, each actuarial valuation. TfL and the New Sections’ sponsoring employers were not obliged to take advantage of this facility and had the option to retain the liabilities (and associated assets) within the New Section if the sponsoring employer wished to do so. In practice, the sponsoring employers of all the New Sections established by the valuation date have chosen to transfer their non-active member liabilities to the Public Sector Section as they leave active service. This means that, as at the valuation date, the accrued liabilities of each New Section consisted solely of the liabilities in respect of active members, ie current employees (and possibly pension credit members too). All of the Fund liabilities in respect of non-active members (current pensioners, dependants in receipt of pension and deferred pensioners) thus fall to the Public Sector Section.
5. Another way in which costs are smoothed and reduced is via the operation of a risk-pooling arrangement across all sections of the Fund which spreads the risk costs arising as a result of active members dying in service or retiring on ill-health grounds. This is done by considering each month the financial strains arising as a result of every death in service or ill-health retirement for the Fund as a whole, and then spreading this total Fund strain across all sections in a way that is intended to reflect each section’s potential exposure to these risk costs. In practice this means that the actual risk costs charged to the smaller sections are likely to be much less than if they were obliged to meet (probably via external reinsurance) the full cost of carrying their own risk.

6. For accounting purposes, the Fund's investments in equities and bonds have been unitised and each section is credited with appropriate numbers of equity units and bond units which are adjusted each month to reflect the net cashflows (arising from contributions, certain benefit payments, internal transfers between sections, risk pooling and expense charges). All assets other than equities or bonds (such as property or alternative assets) are held within the Public Sector Section, although some of the New Sections had small amounts of current assets and/or current liabilities at the valuation date.
7. The Fund Rules permit the merger of individual sections if the Trustee decides that this is appropriate and if the employers affected consent.

Appendix E: Description of the valuation method

Valuation method

1. The actuarial method used to calculate the *technical provisions* is the Projected Unit Credit Method with a one-year control period, under which the salary increases assumed for each member are projected until that member is assumed to leave active service by retirement, death or withdrawal from service. This is the same method as was used for the last actuarial valuation of the Section as at 31 March 2006. This valuation method separates benefits earned to date (and the assets so far accumulated to cover those benefits) from benefits arising in respect of future service. Following this approach, the valuation process can be considered in three stages as described below.
2. It is important that the value of the assets used in the actuarial calculations is consistent with that placed on the projected future benefit outgo. In the current valuation, the accumulated assets have been taken at their market value. It is primarily for this reason that the discount rates used in the assessment of the liabilities have been set by reference to investment market yields at the valuation date.

Stage One - Past service

3. The purpose of this stage in the process is to check the extent to which the accumulated assets as at the valuation date are likely to be sufficient to cover the accrued benefits, ie those earned for service before the valuation date. For pensioners and deferred pensioners, accrued benefits are their total benefits, because all of their pensionable service was completed before the valuation date. For current employed members, accrued benefits are the prospective benefits that are deemed to relate to service up to the valuation date, allowing for future earnings increases.
4. Based on the assumptions outlined in the Statement of Funding Principles, estimates are made of the projected future cashflows that may be paid from the Section in future, using the information available as at the valuation date. The projected future payments of accrued benefit are then discounted, at the selected discount rate (as set out in the Statement of Funding Principles). (In practice, actuarial techniques are used to avoid the need to derive the projected cashflows for individual years.)
5. This places a market-related value on the associated liabilities which can then be compared directly with the market value of the accumulated assets. This figure corresponds to the Section's *technical provisions* at the valuation date under the Pensions Act 2004. If the value of the assets is lower than the assessed liability figure then the difference is referred to as a past service deficit (and as a past service surplus if the reverse is true).

Stage Two – normal contribution rate

6. The second stage in the process is to calculate the normal contribution rate. Under the Section's *statutory funding objective* this is the contribution rate that is needed to build up the required reserve for the benefits that are earned in a period – the “control period” – following the valuation date, based on the selected assumptions. A one-year control period has been used for the Section's 2006 and 2009 valuations. (See also 8. below.) In calculating this contribution rate, it is assumed that the investment return secured on contributions will be in line with the discount rate used to determine the *technical provisions*. An addition is made to allow for non-investment expenses and for PPF and other levies payable by the Section.

Stage Three - Adjustments to the contribution rate

7. The final stage is to adjust the normal contribution rate. This adjustment is designed to remove any imbalance (positive or negative) between the assessed value of the accrued benefits (or *technical provisions*) and the accumulated assets, as revealed by Stage One, over an agreed period of time. The Trustee and TfL have agreed that a period of 10 years from 1 April 2010 is appropriate for this purpose in relation to the current valuation.

Stability of contributions

8. Under the Projected Unit Credit Method the normal contribution rate will be relatively stable if the active membership profile remains broadly similar in terms of age, sex, pensionable service, earnings and benefit category. Since the Section is open to new entrants, it might be expected that the active membership profile will remain reasonably stable over time, apart from a gradual reduction in the proportion of Existing Members. For this reason the contribution rate has been determined as that required over the year following the valuation date, thus allowing implicitly for the expected effect of future new entrants.
9. In addition, the Section's current investment strategy means that a high proportion of the investments are held in return-seeking assets such as equities. It is therefore possible that the assessed difference between the value of the assets and the Section's accrued liabilities could vary significantly from time to time, depending on relative investment market movements. The results in this report should not, therefore, be taken as an indication of the Section's financial position on any date other than 31 March 2009.

Appendix F: Assumptions adopted for discontinuance valuation

1. Section 8 shows that the estimate of the Section's discontinuance liabilities suggests an overall level of cover (*the statutory estimate of solvency*) of some 40% at 31 March 2009.
2. The starting point for this calculation is an assumption that the Section's assets would be invested in a portfolio of corporate bonds, fixed interest gilts and index-linked gilts, matched as far as possible with the liabilities. It is however appreciated that life assurance companies are exposed to significant investment and longevity risks at the longer duration. A typical approach to allow for these within the buy-out cost is to use a discount rate for non-pensioners that is lower than the redemption yield on gilts at the valuation date. The appropriate reduction in discount rate will vary depending on the expected term of the liabilities. However, when valuing benefits that are already in payment whose potential duration is shorter, there is less exposure to investment and longevity risks and a smaller reduction to gilt yields may be appropriate; depending on market conditions at the valuation date, this reduction may be more than offset by additional yields available for corporate bonds.
3. Based on Towers Watson's knowledge of the bulk annuity market as at 31 March 2009, I have adopted the following *solvency* basis:
 - Discount rate – term-dependent real discount rate taken from an index-linked gilts yield curve with the following adjustments:
 - Pensioners – index-linked gilts yield curve plus 0.3% pa
 - Non-pensioners – index-linked gilts yield curve less 0.4% pa
 - Mortality – future improvements in line with medium cohort projections with a 1.5% pa floor
 - Expenses within annuity premiums – £15 per member pa, increasing by 1% pa in excess of retail price inflation
 - Winding-up expenses – an allowance equal to the monetary amount included for estimated winding-up expenses in the Section 179 PPF valuation
 - Other – as in the Statement of Funding Principles (Appendix I).
4. The estimated *solvency* figures in Section 8 are intended to provide only an indication of the potential position on actual discontinuance of the Section. In addition, market changes, whether in interest rates, in asset values or in the supply of and demand for this type of insurance business, mean that such an estimate cannot be relied upon. The true position can be established only by completing a buy out.

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Appendix G: Statutory certificate

Actuarial certification for the purposes of regulation 7(4)(a) of the Occupational Pension Schemes (Scheme Funding) Regulations 2005

Name of scheme: TfL Pension Fund – Public Sector Section

Calculation of technical provisions

I certify that, in my opinion, the calculation of the Section's technical provisions as at 31 March 2009 is made in accordance with regulations under section 222 of the Pensions Act 2004. The calculation uses a method and assumptions determined by the Trustee of the Fund and set out in the Statement of Funding Principles dated 19 May 2010.



R V Williams
Fellow of the Institute of Actuaries

25 May 2010

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Appendix H: The limitations of the investigation

There are three important limitations to the work that underlies this report.

The first is that I have provided this report for the Trustee and others should not rely on it or take action based on it without seeking their own independent advice. The second is that I have relied on the Trustee and its advisers to provide accurate information. The third is that the assumptions made about future economic and demographic conditions are precisely that; they are assumptions, and not predictions or guarantees.

Third parties

I have written this report for the Trustee of the TfL Pension Fund (which is referred to in this report as the Fund), as provided for by Fund Rule 43. I have prepared it to satisfy the requirements of the Trust Deed and the Rules and the various statutory requirements referred to in it. It has not been prepared for any other purpose. As such, it should not be used or relied upon by any other person for any other purpose, including, without limitation, by individual members of the Fund for individual investment or other financial decisions, and those persons should take their own professional advice on such investment or financial decisions. Neither I nor Towers Watson Limited accept any responsibility for any consequences arising from any third party relying on this report.

Except with the prior written consent of Towers Watson Limited, the recipient may not reproduce, distribute or communicate (in whole or in part) this report to any other person.

Data supplied

This report was based on data available to me as at the effective date of the valuation and takes no account of developments after that date except where explicitly stated otherwise.

The Trustee bears the primary responsibility for the accuracy of the information provided, but will, in turn, have relied on others for the maintenance of accurate data, including TfL and the in-house administrator who must provide and update the membership information. Nevertheless it is the Trustee's responsibility to ensure the adequacy of these arrangements. I have taken reasonable steps to satisfy myself that the data provided is of adequate quality for the purposes of the investigation, including carrying out basic tests to detect obvious inconsistencies. As stated in the report, these checks have given me no reason to doubt the correctness of the information supplied. It is not possible, however, for me to confirm that the detailed information provided in respect of individual members is correct.

Investment assumptions

The assumptions used for the valuation are specified in the Section's Statement of Funding Principles which has been agreed by the Trustee and TfL. These form one view only and others may have different opinions. They inevitably contain elements of subjective judgement. These assumptions and the analysis in this report are intended to be reflective of the likely behaviour of the finances of the Section over the long term.

There is no guarantee that the assumptions made will be borne out in practice and the expectation is that the Section's experience will, from time to time, be better or worse than that assumed.

Appendix I: Statement of Funding Principles

The Section's Statement of Funding Principles dated 19 May 2010 forms this Appendix.

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TfL Pension Fund – Public Sector Section

Statement of funding principles

This statement has been prepared by the Trustee of the TfL Pension Fund (the "Fund") to satisfy the requirements of Section 223 of the Pensions Act 2004 (the "Act") and regulations made under the Act in relation to the Public Sector Section (the "Section") of the Fund, after obtaining the advice of Richard Williams (the "Scheme Actuary"). The Trustee has discussed and agreed this statement with the Principal Employer, Transport for London ("TfL").

This statement covers the Section's statutory funding objective, the principles used to determine that objective and the Trustee's policy for securing that it is met. It contains other information required under the Act and relates to the actuarial valuation of the Section as at 31 March 2009.

Statutory funding objective

The statutory funding objective is that the Fund must have sufficient and appropriate assets to cover its technical provisions. This statement sets out, among other things, the Trustee's policy for securing that this objective is met.

The Trustee will adopt a prudent approach when determining the assumptions used to calculate the technical provisions. Where appropriate it will consider whether, and to what degree, margins for adverse deviations should be taken into account when selecting this approach. The assumptions adopted will be chosen on the basis that the Section is not expected to be wound up in the foreseeable future.

TfL and the Trustee have agreed that, in relation to the matters covered in this statement, the Scheme Actuary will advise solely the Trustee. TfL will take advice from its own actuarial adviser.

Technical provisions

Method

The Section's "technical provisions" means the amount required, on an actuarial calculation, to make provision for the Section's liabilities. The method used in calculating the Section's technical provisions must be an accrued benefits funding method.

Having regard to the above, the Trustee and TfL have agreed that the Section's technical provisions at any given date are to be calculated as the capital value of the prospective benefits arising from service completed up to that date, including allowance for prospective salary increases for members in active service at that date and for prospective pension increases for all members. The regular contributions payable are at a level sufficient to provide for the accrual of technical provisions over the year following the effective date of the valuation and to meet regular non-investment expenses and Pension Protection Fund levies (when aggregated with expenses and levies recovered from the non-TfL sections). Overall this method of determining the technical provisions is known as the projected unit credit method with a one-year control period.

Assumptions

The Trustee and TfL have further agreed that:

- prudent assumptions will be made regarding the future returns on the Section's investments and future contributions, anticipating some of the additional returns expected to be obtained by holding investments other than gilts;
- the remaining financial assumptions, in particular future price inflation, will take into account information available in respect of economic conditions and bond markets at the effective date of the actuarial valuation;
- demographic assumptions will have regard to an analysis of recent changes in the Section's and the Fund's membership as well as relevant statistics applicable to similar pension schemes and the Trustee's and TfL's views about how these may change in future.

Taken together, the assumptions adopted at a particular date will be prudent and consistent with the Trustee's desired level of confidence that assets equal to the technical provisions will prove adequate to meet benefits already accrued as they fall due without the need for further contributions from TfL.

Discretionary benefits

There are a number of areas where the benefits payable are subject to some exercise of discretion on the part of the Trustee and/or TfL, the principal details of which are set out below:

- Pensions in deferment or in the course of payment are guaranteed under the Fund rules to receive annual increases in line with price inflation (subject to a maximum of 5% in any one year in the case of New Members) (subject to statutory requirements). The Trustee, subject to the consent of TfL, has discretion to increase pensions above this level. For the purpose of calculating the technical provisions, the Trustee has agreed with TfL that no allowance will be made for any discretionary increases.
- At the request of any employer, and upon payment by that employer (and/or the member concerned) of any contributions that the Trustee (having consulted the Actuary) may decide, the Trustee may increase any benefit or provide additional benefits under the Section. The Trustee and TfL have agreed that such discretionary benefits will not be taken into account in the calculation of technical provisions, but that the capital value of any such benefits granted would be paid in full by the employer (and/or the member concerned) at the time the discretion is exercised.
- Members may commute pension for cash at retirement using commutation factors that are determined by the Trustee. The Trustee and TfL have agreed that an allowance should be made in the technical provisions to anticipate to some extent the financial effect of commutations.

Eliminating a shortfall

The Trustee and TfL have agreed that any funding shortfalls identified at an actuarial valuation of the Section should be eliminated as quickly as the employers can reasonably afford by means of a one-off additional contribution shortly after the valuation has been completed and/or by the payment of specified additional annual contributions and/or additional multiples of member contributions over the recovery period.

When determining the recovery plan the Trustee may take into account factors such as the size of the shortfall, the employers' business plans, the Trustee's assessment of the strength of the covenants from the employers and any contingent security offered by the employers.

Frequency of actuarial valuations

The Section's second actuarial valuation under Part 3 of the Pensions Act 2004 is being carried out as at 31 March 2009. In the normal course of events the Trustee will request subsequent valuations three years after the preceding one. The Scheme Actuary will provide an estimate of the up-to-date financial position of the Section, relative to the statutory funding objective, as at each 31 March for which a full valuation is not requested.

The Trustee and TfL recognise that there is likely to be short-term volatility between the value of assets and the technical provisions. The updates provided by the Scheme Actuary will not normally lead to changes in the required contributions ahead of the next valuation unless, after discussion, the Trustee and TfL agree that changes are required.

The Trustee may call for a formal funding valuation at any date if it is of the opinion that events have made it unsafe to rely on the results of the previous valuation for funding purposes. In reaching such a view, the Trustee will consider the advice of the Scheme Actuary and consult with TfL.

Actuarial valuation as at 31 March 2009

The Trustee (having taken the advice of the Scheme Actuary) and TfL have agreed assumptions for the valuation as at 31 March 2009, in line with the process described above. They have based the investment return assumption on the Section's actual asset allocation as at 31 March 2009 and have assumed this will continue unchanged indefinitely.

Financial assumptions as at 31 March 2009

The financial assumptions made, both for the purpose of establishing the technical provisions and when assessing the contributions required to meet future service benefit accruals, are set out below.

	% pa
Investment return	7.04
Price inflation	3.3
Increases in Lower Earnings Limit	3.3
General pay increases	4.3
Pension increases in payment	
- Pre-6.4.88 GMP	0.0
- Post-5.4.88 GMP	2.5
- Non-GMP	
- Existing Members	3.3*
- New Members	3.2*
Pension increases in deferment	
- GMP (section 148)	4.8
- Non-GMP	3.3*

* plus a one-off 1.4% real increase in April 2010

For the purpose of determining the contributions required for the recovery plan and also for the purpose of determining whether or not the Scheme Actuary can certify the schedule of contributions, it is assumed that, from 31 March 2009 to the end of the period covered by the schedule of contributions, the Section's assets will earn an additional 0.3% pa investment return above that assumed for the purposes of establishing the technical provisions and assessing the contributions required to meet future service benefit accruals.

Demographic assumptions as at 31 March 2009

Details (including sample rates) of the demographic assumptions are shown in the appendix to this statement.

Expenses

Investment management costs are assumed to be met out of future investment income and the assumed investment return is regarded as being net of such costs. Non-investment expenses payable by the Fund and Pension Protection Fund levies are met in full by the Section from its resources as they arise, although part of these expenses and levies are recouped from the other sections of the Fund. An allowance of 0.7% of pensionable payroll (equivalent to 0.14 times member contributions) is included within the employer contribution rate to cover those non-investment expenses that are not recouped from the other sections. An allowance of 0.5% of pensionable payroll (equivalent to 0.10 times member contributions) is included to cover those parts of the levies that are not recouped from other sections.

Merger of the LUL BCV Section and the LUL SSL Section into the Section

The Trustee has agreed with TfL that allowance is to be made in the 31 March 2009 valuation for the merger of the LUL BCV Section and the LUL SSL Section into the Section which took place on 30 March 2010.

Recovery plan

The Trustee has agreed with TfL that the shortfall of funds below the technical provisions revealed by the valuation as at 31 March 2009 should be made good over a period of ten years from 1 April 2010 by the payment for this period of additional employer contributions expressed as a multiple of member contributions, together with additional lump sum payments made on or before 31 March 2018, 31 March 2019 and 31 March 2020.

Arrangements for other parties to contribute to the Section

There are no arrangements for a person other than one of the employers or a member of the Section to contribute to the funds held by the Section.

Payments of funding surpluses to the employers

The Fund rules do not include provisions for the Trustee to make payments to the employers out of funds held for the purposes of the Section unless there exists a surplus following a winding up of the Section.

Cash equivalent transfer value calculations

The Trustee will from time to time consider whether or not to reduce cash equivalent transfer values in the light of the Section's financial position and the amount and volume of cash equivalent payments made from the Section. At the time of preparing this statement, the Trustee was not reducing cash equivalent transfer values.

Dates of review of this statement

This statement will be reviewed, and if necessary revised, by the Trustee either:

- within 15 months after the effective date of each actuarial valuation; or
- within a reasonable period after any occasion on which the Regulator has used its powers to modify future accrual of the Section, directed as to the manner in which technical provisions are to be calculated or the period over which failure to meet the statutory funding objective is to be remedied, or imposed a schedule of contributions.

The Trustee may also elect to review, and if necessary revise, the statement at other times.

Date of statement (for reference purposes): 19 May 2010

Signed on behalf of Transport for London

Signature: *S. D. Allen*

Print name: *S D Allen*

Position: *MD Finance*

Date: *21/5/10*

Signed on behalf of the Trustee of the TfL Pension Fund:

Signature: *M Antonio*

Print name: *M. ANTONIO*

Position: *Chairman*

Date: *25/5/10*

Appendix – Demographic assumptions

In-service – specimen decrement rates per 10,000 members at each age and salary scale

Age	Withdrawal rates		Mortality rates		Ill-health retirement rates		Other early retirement rates		Salary scale	
	males	females	males	females	males	females	males	females	males	females
25	635	864	3	2	3	2	-	-	930	210
30	508	648	2	3	3	12	-	-	1,087	246
35	381	432	4	5	15	24	-	-	1,190	273
40	275	324	7	6	37	39	-	-	1,270	293
45	169	216	10	8	53	54	-	-	1,337	293
50	64	130	20	14	72	107	200	250	1,337	293
55	4	22	34	22	131	194	400	500	1,337	293
60	-	-	55	31	234	320	1,500	3,000	1,337	293

Mortality rates in deferment/retirement

Current mortality in deferment and payment is assumed to be in line with the following tables, with medium cohort improvements to 2009:

male members who retire on grounds of ill health	S1NMA	x 195%
female members who retire on grounds of ill health	S1NFA	x 197%
other male members	S1NMA	x 109%
other female members	S1NFA	x 117%
male dependants	S1NMA	x 112%
female dependants	S1DFA	x 110%

Allowance is made for mortality improvements after 2009 in line with the medium cohort projections with a 1% pa floor.

Family statistics

The proportion of members assumed to have dependants varies with age and reaches a maximum of 87.5% for males and 60% for females at age 60. Members are assumed to be of the opposite gender to their dependants. The age difference (male member – dependant) or (dependant – female member) ranges from 2 to 3.5 years, depending on age.

Allowance for option of members to commute pension for cash at retirement

It is assumed that 75% of members each commute pension at retirement to the maximum extent permitted and that the remaining 25% do not commute at retirement. It is assumed that the current commutation factors are amended to reflect the post-service mortality assumptions appropriate to each member's year of birth.

Allowance for retirement of deferred pensioners before vesting age

It is assumed that each deferred pensioner retires at his or her vesting age (60 in most cases, but 62 for some males). A 4% loading is applied to the liabilities for deferred pensioners to allow for strains arising from earlier retirements on grounds of ill health or otherwise.

Allowance for deferred pensioners to take cash equivalent transfer values

It is assumed that no cash equivalent transfer values will be paid.

Appendix – Demographic assumptions

Allowance for late retirement

It is assumed that:

- all active members who are under age 65 at the valuation date retire by age 65;
- all active members who are age 65 or over at the valuation date retire immediately;
- all deferred pensioners who are below vesting age at the valuation date retire at vesting age (with a 4% loading applied to allow for strains arising from early retirement);
- all deferred pensioners who are at or over vesting age at the valuation date retire immediately.

Appendix J: Recovery Plan

The Section's Recovery Plan dated 19 May 2010 forms this Appendix.

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TfL Pension Fund – Public Sector Section Recovery Plan

This recovery plan relates to the Public Sector Section (the "Section") of the TfL Pension Fund (the "Fund"). It has been prepared by the Trustee of the Fund on 19 May 2010 after obtaining the advice of Richard Williams, the scheme actuary to the Fund.

Funding shortfall

The actuarial valuation of the Section as at 31 March 2009 revealed a funding shortfall (technical provisions minus value of assets) of £1,206 million. (The total funding shortfall after including the shortfalls as at 31 March 2009 in the LUL BCV Section and the LUL SSL Section was £1,331 million.)

Steps to be taken to ensure that the statutory funding objective is met

To eliminate this funding shortfall, the Trustee and Transport for London ("TfL"), the Principal Employer, have agreed that (after making due allowance for contributions, benefit accruals, expenses and interest since the valuation date and for the merger into the Section of the LUL BCV Section and the LUL SSL Section which took place on 30 March 2010) contributions to meet the shortfall will be paid to the Section by the employers as follows:

- contributions until 31 March 2020 equal to 12.95% of the total of the relevant pay definition (as set out in Fund rule 13 for the purpose of calculating Members' contributions) for all Members of the Section, and payable on the same dates as the Members' contributions are due to be remitted to the Section; plus
- on or before each of 31 March 2018, 31 March 2019 and 31 March 2020, a lump sum of £107.4 million increased in line with the increase in the RPI between September 2008 and the September before the payment is made.

Period within which the statutory funding objective is expected be met

The funding shortfall is expected to be eliminated by 31 March 2020.

This expectation is based on the following assumptions:

- technical provisions calculated according to the method and assumptions set out in the statement of funding principles dated 19 May 2010;
- the investment return on existing assets and on new contributions during the period being as described in the statement of funding principles dated 19 May 2010.

Progress towards meeting the Statutory Funding Objective

It is expected that 50% of the above additional contributions due after 30 April 2010 will be paid within 7 years and 1 month, which is by 31 May 2017.

This recovery plan has been agreed by the Trustee and TfL.

Date of recovery plan (for reference purposes): 19 May 2010

Signed on behalf of the Trustee of the TfL Pension Fund

Signed M. Antonios

Print name M. ANTONIOS

Position Chairman

Date 25/5/10

Signed on behalf of Transport for London

Signed S. D. Allen

Print name S. D. Allen

Position MD Finance

Date 21/5/10

Appendix K: Schedule of Contributions

The Section's Schedule of Contributions dated 19 May 2010 forms this Appendix.

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TfL Pension Fund – Public Sector Section

Schedule of Contributions

This schedule of contributions relates to the Public Sector Section (the "Section") of the TfL Pension Fund (the "Fund"). It has been prepared by the Trustee of the Fund after obtaining the advice of Richard Williams, the scheme actuary to the Fund.

Contributions to be paid towards the Section from 1 April 2010 to 31 March 2020

By Members of the Section who are in Contributory Membership:

- 5% of the relevant pay definition as set out in Fund rule 13.

By the employers participating in the Section (the "Employers"):

- In respect of the future accrual of benefits, non-investment expenses and levies (including those payable to the Pension Protection Fund):

18.05% of the total of the relevant pay definition (as set out in Fund rule 13 for the purpose of calculating Members' contributions) for all Members of the Section.

- In respect of the shortfall in funding in accordance with the recovery plan dated 19 May 2010:

12.95% of the total of the relevant pay definition (as set out in Fund rule 13 for the purpose of calculating Members' contributions) for all Members of the Section, payable from 1 April 2010 to 31 March 2020;

£107.4 million increased in line with the increase in the RPI between September 2008 and September 2017, payable by 31 March 2018;

£107.4 million increased in line with the increase in the RPI between September 2008 and September 2018, payable by 31 March 2019; and

£107.4 million increased in line with the increase in the RPI between September 2008 and September 2019, payable by 31 March 2020.

As long as together they are no less than the amounts of the Employers' contributions and Members' contributions payable under this schedule in respect of the future accrual of benefits, the Employers' contributions and Members' contributions may vary provided that this is in accordance with the Rules.

In accordance with Fund rule 13(3), Members' contributions are due to be paid to the Section within five working days from the end of the period in respect of which the relevant payment of the member's wages or salary was made. Under the Pensions Act 1995, Members' contributions are legally due to be paid to the Section no later than 19 days after the end of the month in which they were deducted from the Members' pay. The Employer undertakes to pay Members' contributions to the Section in accordance with the Fund rules. However, Members' contributions will not be deemed to be late under this schedule unless they are paid later than the legal due date.

The Employer's contributions that are expressed as a percentage of the relevant pay definition are due to be paid on or before the same date as the Members' contributions to which they relate and similarly are not deemed to be late under this schedule unless they are paid later than the legal due date for the Members' contributions.

Signed on behalf of the Trustee of the TfL Pension Fund

Signed M. Antonio

Print name M. ANTONIO

Position Chairman

Date 25/5/10

Signed on behalf of Transport for London

Signed S. D. Allen

Print name S D Allen

Position M.D Finance

Date 21/5/10

Date of schedule (for reference purposes): 19 May 2010

Actuary's certification of schedule of contributions

Name of section: TfL Pension Fund – Public Sector Section

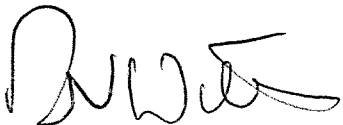
Adequacy of rates of contributions

- 1 I certify that, in my opinion, the rates of contributions shown in this schedule of contributions are such that the statutory funding objective could have been expected on 31 March 2009 to be met by the end of the period specified in the recovery plan dated 19 May 2010.

Adherence to statement of funding principles

- 2 I hereby certify that, in my opinion, this schedule of contributions is consistent with the Statement of Funding Principles dated 19 May 2010.

The certification of the adequacy of the rates of contributions for the purpose of securing that the statutory funding objective can be expected to be met is not a certification of their adequacy for the purpose of securing the section's liabilities by the purchase of annuities, if the section were to be wound up.


R V Williams
Fellow of the Institute of Actuaries
Towers Watson Limited

Date 25/5/10

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