TfL Pension Fund - Public Sector Section

Report on the actuarial valuation as at 31 March 2012

17 May 2013

TOWERS WATSON

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Throughout this document:

- "Fund" refers to the TfL Pension Fund
- "Section" refers to the Public Sector Section
- "TfL" refers to Transport for London, in its capacity as Principal Employer

Further definitions and terms in italics are explained in the glossary (Appendix E).

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Section 1: Introduction

1.1 This is my report on the *actuarial valuation* of the TfL Pension Fund as at 31 March 2012. It is addressed to the Trustee of the TfL Pension Fund.

1.2 The *actuarial valuation* is required under Rule 43(3) of the Rules of the Fund and Part 3 of the Pensions Act 2004. Both the Trustee and Principal Employer have an interest in the valuation process. As required by Rule 43(7), a copy of this report is being submitted simultaneously to TfL in its capacity as Principal Employer and as representative for the other employers participating in the Section.

1.3 The main purposes of the *actuarial valuation* are to review 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 future contributions.

1.4 The report explains the financial health of the Section at 31 March 2012 using several different measures of the liabilities. It explains how the funding position has changed since the previous valuation as at 31 March 2009. It also describes the strategy that has been agreed between the Trustee and TfL for financing the Section in future and provides projections of the funding position at the expected date of the next valuation. Finally, it describes the approach adopted for managing the risks to which the Section is exposed.

1.5 With effect from 30 March 2010, all of the assets, liabilities and members of the LUL BCV Section and the LUL SSL Section were transferred to the Section. The effect of this merger was allowed for in the *recovery plan* and *Schedule of Contributions* agreed as part of the 31 March 2009 valuation.

1.6 This valuation is based on the *Statement of Funding Principles* agreed by the Trustee and TfL dated 1 May 2013.

1.7 The Trustee is required to disclose to members, in a *summary funding statement*, certain outcomes of this *actuarial valuation* within a reasonable period.

1.8 The financial position of the Section and the level of contributions to be paid will be reviewed at the next *actuarial valuation*, which is expected to be carried out as at 31 March 2015. However, in intervening years the Trustee will obtain annual *actuarial reports* on developments affecting the Section's assets and *technical provisions*. The next such report, which will have an effective date of 31 March 2013, must be completed by 31 March 2014.

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17 May 2013

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Section 2: Limitations and compliance

Third parties

2.1 I have written this report for the Trustee, as required under Rule 43(3) of the Rules of the Fund. I have prepared it to satisfy both the requirements of the Rules and the statutory requirements of section 224 of the Pensions Act 2004. 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 accepts any responsibility for any consequences arising from a third party relying on this report.

2.2 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 other than to meet any statutory requirements.

Data supplied

2.3 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 the employers who must provide and update certain membership information. Even so 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. 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, including that in respect of individual members and the asset details, is correct.

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

Assumptions

2.5 The choice of assumptions, as set out in the Section’s *Statement of Funding Principles* dated 1 May 2013, is the responsibility of the Trustee, after taking my advice. They are only assumptions; they are not predictions and there is no guarantee that they will be borne out in practice. In fact, I would expect the Section’s experience from time to time to be better or worse than that assumed. The Trustee and TfL must be aware that there are uncertainties and risks involved in any course of action they choose based on results derived from these assumptions.

Actuarial standards

2.6 This report falls within the scope of several Technical Actuarial Standards (TASs) published by the Board for Actuarial Standards, namely:

- *Pensions TAS*
- *TAS R: Reporting Actuarial Information*
- *TAS D: Data,* and
- *TAS M: Modelling*.

2.7 I confirm that this report complies with these TASs. In particular it complies with the requirements for a Scheme Funding report set out in section E.3 of the Pensions TAS.

Section 3: Funding position

3.1 The Trustee's *funding objective* is the *statutory funding objective*, which is to have sufficient and appropriate assets to cover the Section's *technical provisions* (ie the amount that the Trustee has determined to be required to make provision for the Section's liabilities).

3.2 The *technical provisions* are a measure of the Section's liabilities calculated as the present value of the projected benefits earned up to and including the valuation date, together with an allowance for prospective pensionable earnings increases for employed members at the valuation date. The benefits taken into account in this *actuarial valuation* are described in Appendix A of this report. They are mostly pension payments after each member's retirement.

3.3 The *technical provisions* are calculated by first projecting the benefits expected to be paid in each year after the valuation date and then discounting the resulting cashflows to obtain a present value. The projections allow for benefit payments being made from the Section over the next 100 or so years. Most of these payments depend on future increases in price inflation as measured by the Retail Prices Index (subject to certain limits).

3.4 The method and assumptions for calculating the *technical provisions* as at 31 March 2012 have been agreed between the Trustee and TfL, and are documented in the *Statement of Funding Principles* dated 1 May 2013. These methods and assumptions implicitly assume that the Section is not discontinued.

3.5 The key assumptions used to calculate the Section's *technical provisions* for this and the previous *actuarial valuation* are summarised below. The *financial assumptions* at each valuation date were determined in the light of investment and economic conditions as at the effective valuation date.

Key assumptions as at 31 March 2012 and 31 March 2009

3.6 The financial assumptions for determining the *technical provisions* and the cost of future accrual are set out below.

Assumption	31 March 2012		31 March 2009	
	Nominal % pa	Real[1] % pa	Nominal % pa	Real[1] % pa
RPI inflation	3.4	-	3.3	-
CPI inflation	2.4	(1.0)	n/a	n/a
Pension increases in payment				
- Pre-6.4.88 GMP	0.0	(3.3)	0.0	(3.2)
- Post-5.4.88 GMP	2.5	(0.9)	2.5	(0.8)
- Non-GMP				
- Existing Members	3.4	0.0	3.3	0.0
- New Members	3.2	(0.2)	3.2	(0.1)
Pension increases in deferment				
- GMP (section 148)	4.4	1.0	4.8	1.5
- Non-GMP				
- Existing Members	3.4	0.0	3.3	0.0
- New Members	3.2	(0.2)	3.3	0.0
General salary increases	4.15	0.73	4.3	1.0
Lower Earnings Limit increases	2.4	(1.0)	3.3	-
Discount rate (investment return)	6.38	2.88	7.04	3.62

[1] Relative to RPI inflation

3.7 For the purpose of determining the contributions required for the *recovery plan* and for certifying the *schedule of contributions*, it was assumed that, from 31 March 2012 to the end of the period covered by the *schedule of contributions*, the Section's assets will earn an additional 0.1% 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. For the 2009 valuation, an additional return of 0.3% pa was assumed.

3.8 Current mortality in deferment and payment is assumed to be in line with the following tables, projected to 2012 in line with the CMI_2011 1.5% model for the appropriate gender:

male members who retire on grounds of ill health	S1IMA	x 115%
female members who retire on grounds of ill health	S1IFA	x 102%
other male members	S1NMA	x 119%
other female members	S1NFA	x 127%
male dependants	S1NMAH	x 108%
female dependants	S1DFAH	x 97%

3.9 Allowance is made for mortality improvements after 2012 in line with the CMI_2011 1.6% model for the appropriate gender.

3.10 For the 2009 valuation, mortality in deferment and payment was assumed to be in line with the following tables, projected to 2009 in line with the medium cohort improvements:

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%

3.11 For the 2009 valuation, allowance was made for mortality improvements after 2009 in line with the medium cohort projections with a floor of 1% pa.

3.12 Please see the *Statement of Funding Principles* for a full description of the assumptions.

Funding position

3.13 The table below compares the Section's *technical provisions* at the date of the *actuarial valuation* with the market value of the Section's assets and the corresponding figures from the previous *actuarial valuation*:

Valuation statement	31 March 2012 £ million	31 March 2009 £ million
Amount required to provide for the Section's liabilities of:		
Contributing members, in respect of service up to the valuation date	2,592	1,477
Deferred pensioners	810	635
Retired members and dependants	3,052	2,434
AVCs	41	29
Technical provisions	6,495	4,575
Market value of assets (including AVCs)	5,796	3,369
Past service deficit (*technical provisions* less assets)	**699**	**1,206**
Funding level (assets ÷ *technical provisions*)	**89%**	**74%**

3.14 The funding level has increased from 74% to 89% since the previous valuation. The main factors contributing to this increase are shown below.

		Surplus/(deficit) £ million	Funding level %
Surplus/(deficit) at 31 March 2009		(1,206)	73.6
a.	Merger with LUL BCV and LUL SSL Sections	(125)	(0.1)
b.	Interest on surplus/(deficit)	(356)	-
c.	Investment performance compared to that assumed in 2009	894	14.5
d.	Actual contributions compared to cost of benefit accruals	330	4.6
e.	Actual salary growth compared to that assumed in 2009	152	2.3
f.	Actual pension increases compared to those assumed in 2009	171	2.7
g.	Miscellaneous items	34	0.6
h.	Change in assumptions	(593)	(9.0)
Surplus/(deficit) at 31 March 2012		**(699)**	**89.2**

3.15 The change in funding level has been analysed by considering the impact of each factor in turn on the assets and/or liabilities. If the items were analysed in a different order then this could lead to different intermediate results.

Future service contribution rates

3.16 The annual employer contribution rate required to meet the cost of the benefits that are expected to be earned after the valuation date is 20.40% of the total of the relevant pay definition (as set out in Fund rule 13 for the purpose of calculating members' contributions). This rate has been calculated using the method and assumptions described in the *Statement of Funding Principles*. The employer contributions will be at this new rate with effect from 1 April 2013.

3.17 This rate includes 0.60% of the total of the relevant pay definition (as set out in Fund rule 13 for the purpose of calculating members' contributions) in respect of non-investment expenses and 0.50% of the total of the relevant pay definition (as set out in Fund rule 13 for the purpose of calculating members' contributions) in respect of *PPF* and other levies.

3.18 The employer future service contribution rate has been calculated as the rate required over the year following the valuation date to meet the cost of benefits expected to be accrued over that year. On this basis, this rate will be sufficient, if the assumptions are borne out in practice, to cover the accrual of benefits in the future provided the age, gender and pensionable earnings profile of the employed membership remains reasonably stable.

Recovery Plan

3.19 As there were insufficient assets in relation to the Section's *technical provisions* at the valuation date, regulations require the Trustee and TfL to agree a *recovery plan*. This specifies how, and by when, the *statutory funding objective* is expected to be met.

3.20 The funding deficit is to be met over a period of 7 years from 1 April 2013 by a combination of:

- higher returns on the Section's assets than anticipated in the determination of the *technical provisions*. Returns are assumed to be 0.1% pa higher than the returns assumed for the *technical provisions* over the period of the *recovery plan;*

and

- additional employer contributions equal to 10.60% of the total of the relevant pay definition (as set out in Fund rule 13 for the purpose of calculating Members' contributions) from 1 April 2013 to 31 March 2020, plus a lump sum payment of £37.8 million on or before 31 March 2018 (increased in line with the RPI between September 2008 and September 2017).

3.21 If the assumptions documented in the *Statement of Funding Principles* are borne out in practice, the deficit will be removed by 31 March 2020.

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Section 4: Solvency

4.1 In the event that the Section is discontinued, employed members would become deferred pensioners with no entitlement to future service benefits. The Section would then have liabilities comprising:

- the pensions payable to pensioners and deferred pensioners (and contingent pensions payable to their dependants);
- future increases in the deferred pensions;
- future increases to pensions whilst in payment; and
- future expenses.

4.2 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.

4.3 On discontinuance, current legislation imposes a debt ("the employer debt") on the employers equal to any shortfall between the *Scheme Actuary's* estimate of the full cost of securing an accrued benefit with an insurance company (including expenses) and the value of the Section's assets. The Trustee would then normally try to make the benefits secure by buying insurance policies to provide the benefit payments. The Trustee may, however, decide to run the Section as a closed fund for a period of years before buying such policies if it is confident that doing so is likely to produce higher benefits for members or if there are practical difficulties with buying insurance policies, such as lack of market capacity.

4.4 If the discontinuance is a result of the insolvency of the employers, the Section will probably be assessed for possible entry to the *PPF*. In this case, it is also unlikely that any employer debt could be paid in full by the employers. If the assessment concluded that the assets were not sufficient to secure benefits equal to the *PPF* compensation, the Section would then apply for entry to the *PPF*. Otherwise the Section would be required to *wind-up*.

4.5 Under Section 179 of the Pensions Act 2004, the Trustee is required to provide the *PPF* with a valuation of the Section that the *PPF* can use to determine the levy it charges. This valuation uses assumptions specified by the *PPF* and covers only benefits similar to the *PPF* compensation benefits. I calculate that at 31 March 2012 the Section's assets covered 61% of the Section 179 liabilities as determined on the PPF's specified basis.

Solvency estimate

4.6 The Pensions Act 2004 requires that I provide the Trustee with an estimate of the solvency of the Section at the valuation date. Normally, this means an estimate of the proportion of the benefits described in paragraph 4.1 that could have been secured by buying insurance policies. For this purpose I have assumed that no further payments are received from the employers.

4.7 To estimate this cost, I have considered the possible terms that may have been available at the valuation date, based on recent experience of buy-out quotations at that time. The assumptions I have adopted are as used for *technical provisions* purposes, with the following exceptions:

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 0.1% pa
Non-pensioners – index-linked gilts yield curve less 0.4% pa

Pension increases in payment – increases assumed as follows:

Post-5 April 88 GMP – 2.6% pa (0.8% pa below RPI)
Non-GMP for New Members – 3.3% pa (0.1% pa below RPI)

Pension increases in deferment – increases assumed as follows:

GMP (Section 148) – 4.9% pa (1.5% pa above RPI)
Non-GMP for New Members – 3.3% pa (0.1% pa below RPI)

Future mortality improvements after 2012 – in line with the CMI_2011 1.75% model

Commutation – no allowance.

Expenses – an allowance equal to the amount prescribed for estimated expenses for section 179 PPF valuations.

4.8 My estimate of the solvency position of the Section at 31 March 2012 is that the assets of the Section would have met 44% of the cost of buying insurance policies to secure the benefits at that date. Further details are set out in the table below alongside the corresponding details as at the previous valuation date:

Solvency position	31 March 2012 £ million	31 March 2009 £ million
Amount required to provide for the Section's liabilities of		
Contributing members, in respect of service to the valuation date	6,418	3,522
Deferred pensioners	2,007	1,482
Retired members and dependants	4,524	3,236
AVCs	41	29
Winding-up expense reserve	94	63
Solvency liabilities	13,084	8,332
Market value of assets	5,796	3,369
Solvency deficit	**7,288**	**4,963**
Solvency level	**44%**	**40%**

4.9 The solvency level has improved since 2009 due mainly to the investment performance of the Section's assets being better than assumed and the additional contributions paid by the employers since 31 March 2009, partially offset by the estimated increase in insurance company prices.

4.10 The solvency estimate should not be relied upon to indicate the position on a future *winding-up*. Changes in market interest rates and in the supply and demand for annuities mean that the actual position at any particular point in time can be established only by buying the insurance policies required to secure the benefits.

4.11 The coverage for particular benefits depends on where they fall in the *statutory priority order* below (with the exception of money purchase liabilities, such as those arising from members' Additional Voluntary Contributions (AVCs) which are excluded from the *statutory priority order* and secured separately).

- category 1 – benefits relating to certain pension annuities secured by the Section before 6 April 1997 (of which there are none for the Section);
- category 2 – the cost to the Section of securing the liabilities for the compensation benefits that would be payable by the *PPF* if the employers became insolvent;
- category 3 – benefits in respect of defined benefit AVCs not dealt with above;
- category 4 – all other pensions and benefits due under the Section, including pension increases (where these exceed those under the *PPF*).

4.12 As the Section's assets did not cover the value of the Section 179 liabilities at 31 March 2012 the Section would probably have qualified for entry to the *PPF* had the employers become insolvent at 31 March 2012, in which case members would have received *PPF* compensation in place of their benefits.

Relationship between the *technical provisions* and the solvency liabilities

4.13 My estimate of the value of the Section's solvency liabilities of £13,084 million is £6,589 million higher than the Section's *technical provisions* of £6,495 million. This means that the cost of securing the Section's benefits with an insurer is higher than the amount that the Trustee has determined (with TfL's agreement) to be required to make provision for the Section's liabilities. This is because the *technical provisions* are intended to be a *prudent* assessment of the assets required under the Section's investment strategy to meet future benefit payments; by contrast the estimated value of the solvency liabilities reflects a rather different underlying asset allocation with lower expected returns and also takes into account different issues such as supply and demand for insured annuities, insurers' return on capital, statutory reserving requirements and the expenses of winding up.

4.14 If the *statutory funding objective* had been exactly met on 31 March 2012 (ie there had been no funding surplus or deficit), I estimate that the solvency level of the Section would have been approximately 50%. This compares with 55% at the 31 March 2009 *actuarial valuation*, which means that the Trustee's *funding target* has fallen relative to the solvency liabilities since the previous valuation.

Section 5: Projections and risks

5.1 Based on the assumptions underlying the *recovery plan* and allowing for contributions to be paid to the Section in accordance with the agreed *Schedule of Contributions* (as summarised in Section 3), the funding and solvency levels are projected to develop as follows by the expected date of the next *actuarial valuation*.

	31 March 2015 %	31 March 2012 %
Funding level	93	89
Solvency level	47	44

5.2 The table below illustrates the sensitivity of the *technical provisions* as at 31 March 2012 to variations of individual key assumptions. (If more than one assumption is varied, the effect may be greater than the sum of the changes from varying individual assumptions.)

Assumption	Adopted for the *technical provisions*	Alternative for illustration	Revised funding level %
Discount rates	6.38% pa	6.07% pa	85
Salary increases	4.15% pa	4.65% pa	87

5.3 The table below illustrates the sensitivity of the solvency position as at 31 March 2012 to variations of individual key assumptions. (If more than one assumption is varied, the effect may be greater than the sum of the changes from varying individual assumptions.)

Assumption	Adopted for the solvency estimate	Alternative for illustration	Revised solvency level %
Discount rates:			
Pensioners	Gilts +0.1% pa	Gilts -0.15% pa	
Non-pensioners	Gilts -0.4% pa	Gilts -0.65% pa	42
Future improvements in mortality	1.75% long-term annual rate	1.6% long-term annual rate	45

5.4 The table below summaries the key risks to the financial position of the Section and the actions taken to manage them:

What might happen?	**What is the Trustee's approach to deal with this risk?**
Employers unable to pay contributions or make good deficits in the future.	Trustee forms an opinion on each employer's ability to pay required contributions and to make good any shortfall arising from adverse experience. Trustee takes this view into account when determining the *technical provisions* and *recovery plan*. Monitor employers' financial strength regularly. Trustee keeps under review whether contingent assets could be used to mitigate this risk.
Investment returns on existing assets and future contributions could be insufficient to meet the Trustee's funding objectives.	Adopt *prudent discount rates*, lower than "best estimate" expected returns on Section assets. The Trustee may need to seek further contributions from the employer at subsequent valuations if future returns prove insufficient.
Investment returns on future income could be lower than returns available at valuation date.	Take this into account when determining the *technical provisions*.
Price inflation could be higher than that assumed resulting in higher liabilities.	Trustee invests in assets expected to be correlated with inflation in the longer term.
Falls in asset values might not be matched by similar falls in the value of liabilities	This risk is considered when determining investment strategy. Consultation with TfL has been undertaken to establish TfL's appetite for bearing this risk.
Members live longer than assumed.	Choosing *prudent* mortality assumptions reduces the risk of additional funding being required due to members living longer. At each valuation, wider developments in longevity are considered.
Options exercised by members could lead to increases in Section's liabilities	Trustee sets terms for converting benefits in respect of member options having received actuarial advice and TfL input for some factors. Aim to avoid possible strains on the Section's finances as far as is reasonably possible without disadvantaging members. Terms kept under regular review, eg following each *actuarial valuation.*

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.*

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:	A lump sum of 4 years' Pensionable Salary 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.
Leaving Service:	If under 3 months' total membership, members are entitled to a refund of their contributions. If over 3 months' and less than 2 years' total membership, members have the option to take a deferred pension, a transfer value or a refund of their contributions. If 2 years' or more total membership, members have the option to take a deferred pension or a transfer value. A dependant's pension of one half of the member's deferred pension is paid on death before SPA provided that the member had completed at least 2 years' total membership.
Pension Increases:	
- Existing Members	Pensions in excess of any GMP in payment are guaranteed to be increased each year in line with retail price inflation.
- New Members	Pensions in excess of any GMP in payment are guaranteed to be increased each year in line with retail 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 retail price inflation up to 3% pa.
Revaluation in deferment:	Increases in deferment on pensions in excess of any GMP are the same as those awarded to pensions in payment.
Contributions:	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. Employers make up any balance of cost of meeting the Fund's benefits.

Appendix B: Membership data

Membership data as at 31 March 2012 and 31 March 2009

Pensions in payment		31 March 2012			
	Numbers	Annual pensions £ million	Mean annual pensions £	Median annual pensions £	Average age (unweighted)
Existing Members					
Male	23,363	149.85	6,414	4,179	71
Female	3,179	12.03	3,784	2,507	75
	26,542	**161.88**	**6,099**	**3,998**	**71**
New Members					
Male	3,863	17.83	4,616	1,913	64
Female	706	2.65	3,754	2,051	61
	4,569	**20.48**	**4,482**	**1,931**	**64**
Dependants	10,790	34.52	3,199	2,597	76*
Total	**41,901**	**216.88**	**5,176**	**3,451**	**72**

Pensions in payment		31 March 2009			
	Numbers	Annual pensions £ million	Mean annual pensions £	Median annual pensions £	Average age (unweighted)
Existing Members					
Male	23,664	133.82	5,655	3,944	70
Female	3,378	11.43	3,384	2,368	74
	27,042	**145.25**	**5,371**	**3,768**	**70**
New Members					
Male	2,859	9.98	3,491	1,289	63
Female	485	1.48	3,052	1,347	60
	3,344	**11.46**	**3,427**	**1,303**	**63**
Dependants	10,807	30.60	2,831	2,333	76*
Total	**41,193**	**187.31**	**4,547**	**3,236**	**71**

* Excludes children

Deferred pensions	31 March 2012				
	Numbers	Annual pensions £ million	Mean annual pensions £	Median annual pensions £	Average age (unweighted)
Existing Members					
Male	6,283	25.41	4,044	2,522	54
Female	1,129	4.44	3,933	2,479	51
	7,412	**29.85**	**4,027**	**2,516**	**54**
New Members					
Male	7,912	20.40	2,578	1,468	45
Female	2,968	7.69	2,591	1,622	42
	10,880	**28.09**	**2,582**	**1,500**	**44**
Total	**18,292**	**57.94**	**3,168**	**1,969**	**48**

Deferred pensions	31 March 2009				
	Numbers	Annual pensions £ million	Mean annual pensions £	Median annual pensions £	Average age (unweighted)
Existing Members					
Male	7,868	27.88	3,543	2,350	52
Female	1,262	4.21	3,336	2,230	49
	9,130	**32.09**	**3,515**	**2,336**	**52**
New Members					
Male	7,138	14.56	2,040	1,243	43
Female	2,358	4.72	2,002	1,329	40
	9,496	**19.28**	**2,030**	**1,259**	**42**
Total	**18,626**	**51.37**	**2,758**	**1,796**	**47**

Current active members	31 March 2012 Numbers	31 March 2012 Pensionable salaries £ million	31 March 2012 Average age (unweighted)	31 March 2009 Numbers	31 March 2009 Pensionable salaries £ million	31 March 2009 Average age (unweighted)
Existing Members						
Male	3,232	153.72	53	2,972	127.56	51
Female	183	7.98	50	216	8.30	49
	3,415	**161.70**	**53**	**3,188**	**135.86**	**51**
New Members						
Male	13,605	499.15	43	11,368	361.99	42
Female	4,499	149.50	40	4,486	128.97	38
	18,104	**648.65**	**42**	**15,854**	**490.96**	**41**
Total	**21,519**	**810.35**	**44**	**19,042**	**626.82**	**43**

Notes

(1) The pensionable salaries shown at 31 March 2009 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 for New Members. The pensionable salaries shown at 31 March 2012 are annualised full-time equivalent pensionable salaries for all members and are after the deduction of the Lower Earnings Limit for New Members.

(2) The annual pensions shown (for pensions in payment and deferred pensions) exclude the increase due on 1 April immediately after the effective date.

(3) In addition, at 31 March 2009, there were 13 pension credit members who were receiving total annual pensions of £0.058 million and 45 deferred pension credit members with total annual pensions of £0.296 million. At 31 March 2012, there were 33 pension credit members who were receiving total annual pensions of £0.160 million and 72 deferred pension credit members with total annual pensions of £0.545 million.

(4) Pension increases applied to the excess over the GMP over the intervaluation period were as follows:

1 April 2009 5.0%
1 April 2010 0.0%
1 April 2011 4.6%
1 April 2012 5.6% for Existing Members; 5.0% for New Members.

Pension increase types

The largest proportion of the Section's liabilities in respect of pre-6 April 1997 accrual relates to RPI increases without any cap (ie increases granted to Existing Members).

The largest proportion of the Section's liabilities in respect of post-5 April 1997 accrual relates to RPI increases with a cap of 5% pa (ie increases granted to New Members).

Life expectancies

The average assumed ages of death, using the assumptions adopted for *technical provisions* purposes as at 31 March 2012, are as set out below.

	Averaged assumed age of death[1]	
	Cohort[2] years	Period[3] years
Males		
Current pensioners aged 65 at 31 March 2012	86.4	84.1
Future pensioners aged 65 at 31 March 2032	88.7	N/A
Females		
Current pensioners aged 65 at 31 March 2012	88.3	85.9
Future pensioners aged 65 at 31 March 2032	90.8	N/A

Notes

(1) Life expectancies provided for those who do not retire on grounds of ill-health.

(2) Cohort life expectancies allow for assumed future improvements in mortality.

(3) Period life expectancies assume no mortality improvements after 31 March 2012.

Appendix C: Financial data

Consolidated revenue account for intervaluation period (based on financial statements)

	£ million	£ million
Assets at 31 March 2009 (including AVCs)		**3,369.2**
Income		
Contributions:		
Employers	669.8	
Members - normal	107.7	
- AVCs	11.1	
Transfers in from other sections	573.9	
Transfers in from other pension schemes	91.7	
Investment income	18.7	
Total income		**1,472.9**
Expenditure		
Benefits paid:		
Members leaving and benefits payable	781.7	
Transfers out to other sections	6.8	
PPF and other levies	5.3	
Expenses	10.3	
Total expenditure		**804.1**
Change in market value of investments		1,758.3
Assets at 31 March 2012 (including AVCs)		**5,796.3**
Represented by:		
Equity units		3,233.0
Bond units		959.4
Alternative assets		1,536.0
Other assets (excluding AVCs)		27.0
AVCs		40.9
		5,796.3

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

Investment strategy

The investment strategy of the Section at 31 March 2012 was broadly to invest 56.9% in equities, 14.9% in alternatives and 28.2% in bonds.

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Appendix D: Statutory certificate

Actuarial certification for the purposes of regulation 7(4)(a) of the Occupational Pension Sections (Section 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 2012 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 1 May 2013.

R V Williams
Fellow of the Institute and Faculty of Actuaries

Towers Watson Limited
Watson House
London Road
Reigate
Surrey RH2 9PQ

17 May 2013

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Appendix E: Glossary

This glossary describes briefly the terminology of the regime for funding defined benefit pension schemes as introduced by the Pensions Act 2004. Defined terms are in *italics*.

Actuarial report: A report prepared by the *Scheme Actuary* in years when an *actuarial valuation* is not carried out that provides an update on developments affecting the Section's assets and *technical provisions* over the year.

Actuarial valuation: A report prepared by the *Scheme Actuary* that includes the results of the calculation of the *technical provisions* based on the assumptions specified in the *Statement of Funding Principles* and assesses whether the assets are sufficient to meet the *statutory funding target*.

Contingent asset: An arrangement separate from the assets already held by the trustee under trust (or agreed and documented in the *schedule of contributions*) that provides for the trustee to receive certain assets should certain pre-defined events take place.

Covenant: This represents an employer's legal obligation and its ability to provide the financial support to the scheme that may be required now and in the future. The trustee's assessment of the sponsor's *covenant* will inform both investment and funding decisions.

Demographic assumptions: Assumptions relating to social statistics for scheme members, which can affect the form, level or timing of benefits members or their dependants receive. This can include levels of mortality experienced by members of the scheme and the proportion of members electing to exercise benefit options.

Discount rates: Assumptions used to place a capital value at the valuation date on projected future benefit cash flows from the scheme. The lower the *discount rate* the higher the resulting capital value.

Financial assumptions: Assumptions relating to future economic factors which will affect the funding position of the scheme, such as inflation and investment returns.

Funding target/objective: An objective to have a particular level of assets relative to the accrued liabilities of the scheme. See also *statutory funding objective*.

Pension Protection Fund (PPF): Provides compensation to members of an eligible occupational scheme in the event that the scheme is wound up with insufficient assets and the employer is insolvent. The level of PPF compensation provided would not usually be at the full level of the benefits that would otherwise have been due from the scheme.

Prudence: Regulations require that assumptions are chosen *prudently* when assessing the level of *technical provisions*, although they do not define this term. We have interpreted *prudence* to be the level of conservatism in the assumptions. Where this is interpreted quantitatively, assumptions said to be *prudent* would result in higher *technical provisions* than a "best estimate" assumption (where a "best estimate" assumption is one where there is a 50% chance that the actual outcome will be higher or lower than assumed).

The Pensions Regulator: The regulatory supervisor for occupational pension schemes with statutory objectives to protect members' benefits and the *Pension Protection Fund*, and statutory powers to take interventionist action.

Recovery plan: A document required where an *actuarial valuation* discloses that the *statutory funding objective* is not met (i.e. the assets held are less than the *technical provisions)*. It is a formal agreement[1] between the trustee and the employer that sets out the steps to be taken to achieve the *statutory funding objective* by the end of an agreed period (the "recovery period").

Schedule of contributions: A document that sets out in detail the agreed[1] contributions payable to a scheme by members and the employers and the dates by which such contributions are to be paid. It includes, but is not limited to, contributions agreed under a *recovery plan*.

Scheme Actuary: The individual actuary appointed (under the Pensions Act 1995) by the trustee to perform certain statutory duties for the scheme.

Scheme-Specific Funding Regime: A term used to refer to the legislative and regulatory rules that stem from the Pension Act 2004 and which govern the funding of occupational defined benefit pension schemes in the UK.

Statement of Funding Principles (SFP): The SFP sets out the trustee's policy for ensuring that the *statutory funding objective* and any other *funding objectives* are met and, in particular, the assumptions for calculating the *technical provisions* at the effective date of the *actuarial valuation*. The trustee is responsible for preparing and maintaining this document, taking into account the advice of the *Scheme Actuary* and seeking the agreement[1] of the employer.

Statement of Investment Principles (SIP): The SIP sets out the trustee's policy for investing the scheme's assets. The trustee is responsible for preparing and maintaining this document, taking into account written investment advice from the appointed investment advisor and consulting the employer.

Statutory estimate of solvency: An estimate of the cost of discharging a scheme's liability to pay benefits through the purchase of insurance policies in respect of each member's full benefit entitlement under the scheme (unless the actuary considers that it is not practicable to make an estimate on this basis, in which case the estimate of solvency can be prepared on a basis that the actuary considers appropriate).

Statutory funding objective: To have sufficient and appropriate assets to cover a scheme's *technical provisions*.

Statutory priority order: The order in which the assets of a scheme must be applied in securing the benefits of different members in the event of the scheme being wound up. The order is consistent with the *Pension Protection Fund* (PPF) because benefits covered by the PPF are the highest priority class of defined benefit liabilities.

Summary funding statement: An update sent to members following the completion of each *actuarial valuation* or *actuarial report* informing them of the assessed financial position of the scheme.

Technical provisions: The amount of assets required to make provision for the accrued liabilities of the scheme. The technical provisions are calculated using the method and assumptions set out in the *Statement of Funding Principles*.

[1]*Agreement between the trustee and employer is needed in the majority of cases. However, in certain circumstances because of the interaction of the scheme's legal documentation with the provisions of the Pensions Act 2004 it is necessary only to consult with the employer and possibly to take into account the recommendations of another party.*

Wind-up: This is a particular method of discharging a scheme's liability to pay benefits. It typically arises where the employer no longer provides financial support to the scheme (for example if it becomes insolvent) and would usually involve using the scheme's assets to buy insurance policies that pay as much of the scheme's benefits as possible in accordance with the *statutory priority order*.