Hymans Robertson LLP has carried out an actuarial valuation of the London Borough of Redbridge Pension Fund ("the Fund") as at 31 March 2010, details of which are set out in the report dated 11 March 2011 ("the Report"), addressed to London Borough of Redbridge ("the Client"). The Report was prepared for the sole use and benefit of our Client and not for any other party; and Hymans Robertson LLP makes no representations or warranties to any third party as to the accuracy or completeness of the Report.

The Report was not prepared for any third party and it will not address the particular interests or concerns of any such third party. The Report is intended to advise our Client on the past service funding position of the Fund at 31 March 2010 and employer contribution rates from April 2011, and should not be considered a substitute for specific advice in relation to other individual circumstances.

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HYMANS ROBERTSON

London Borough of Redbridge Pension Fund

ACTUARIAL VALUATION 2010

Valuation Report

PUBLIC SECTOR

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Executive summary

I have carried out an actuarial valuation of the London Borough of Redbridge Pension Fund ('the Fund') as at 31 March 2010. The results are presented in this report and are briefly summarised below.

Funding position

The table below summarises the financial position of the Fund at 31 March 2010 in respect of benefits earned by members up to this date.

Past Service Position	(£m)
Past Service Liabilities	560
Market Value of Assets	397
Surplus / (Deficit)	(162)
Funding Level	**71.0%**

The results show that the Fund had not met its objective of holding sufficient assets to meet the estimated current cost of past service benefits at 31 March 2010. The funding level has fallen from 74% at the previous valuation at 31 March 2007 to 71% at this valuation. This has resulted in the deficit increasing from £122m at 31 March 2007 to £162m at 31 March 2010.

The deterioration of the funding position reflects the adverse conditions which the Fund has had to contend with since the previous valuation. In particular, investment returns for the three years to 31 March 2010 were significantly poorer than anticipated.

Contribution rates

The table below summarises the average employer contribution rate that would be required, based on this triennial valuation.

Contribution Rates	(% of pay)
Future Service Rate	14.8%
Past Service Adjustment (20 year spread)	10.1%
Total (Common) Contribution Rate	**24.9%**

The common contribution rate for the whole Fund at 31 March 2010 is 24.9% of pay. This comprises the anticipated cost of new benefits being earned by members in future (14.8%) plus the additional contributions required to repay the deficit over a 20 year period (10.1%). These rates are in addition to the contributions that will be made by members.

The common contribution rate is a theoretical figure – an average across the whole Fund. In practice, each employer that participates in the Fund has its own underlying funding position and circumstances, giving rise to its own contribution rate requirement. Accordingly, an adjustment to the common rate has been determined for each employer. The minimum contributions to be paid by each employer from 1 April 2011 to 31 March 2014 are shown in the Rates and Adjustment Certificate in **Appendix H**.

Assumptions

The results shown above make a prudent allowance for the expectation that the Fund's equity-type investments will outperform gilts/bonds over the long term – the latter being in theory a closer match to the Fund's liabilities. If we were to make no allowance for this anticipated outperformance, I estimate that the funding level at 31 March 2010 would be 50%, the deficit £402m and the common contribution rate 46.9%.

My calculations explicitly allow for the change in benefit indexation from RPI to CPI, as announced in the Emergency Budget of June 2010. No allowance has been made for the possible effect on the Fund of the outcomes of Lord Hutton's review of public sector pensions as these are still uncertain at the time of writing.

The results of the valuation are highly sensitive to the actuarial assumptions I have made about the future. If actual future demographic and economic experience does not match these assumptions, the financial position of the Fund could improve or deteriorate materially. This is precisely why the position of the Fund is monitored via regular valuations.

Barry McKay

Fellow of the Institute and Faculty of Actuaries

For and on behalf of Hymans Robertson LLP

11 March 2011

Introduction

I have carried out an actuarial valuation of the London Borough of Redbridge Pension Fund as at 31 March 2010. This is my report to London Borough of Redbridge ('the Administering Authority') on the results of the valuation.

Purpose

The main purposes of this valuation are:

- to assess the extent to which the Administering Authority's funding objectives were met at 31 March 2010;
- to identify the future contributions payable by the employers that participate in the Fund in order to meet the Administering Authority's funding objectives;
- to enable completion of all relevant certificates and statements in connection with all relevant regulations;
- to comment on the main risks to the Fund that may result in future volatility in the funding position or to employers' contributions.

Scope

This report is provided solely for the purpose of the Administering Authority to consider the management of the Fund and, in particular, to fulfil their and my statutory obligations. It should not be used for any other purpose (e.g. for accounting purposes under FRS17 / IAS19 or termination valuations under Regulation 38 of the Administration Regulations). It should not be released or otherwise disclosed to any third party except as required by law or with my prior written consent, in which case it should be released in its entirety. This report can be passed to the Fund's employers for the purpose of providing information on the funding position at 31 March 2010.

Hymans Robertson LLP accepts no liability to any other party unless we have expressly accepted such liability.

Reliances and limitations

This valuation report complies with all of the relevant regulations and professional standards, as set out in **Appendix A.**

The figures in this report are based on our understanding of the benefit structure of the LGPS as at 31 March 2010. Details of this are provided in **Appendix B**.

The results of the valuation are dependent on the quality of the data provided to us by the Administering Authority for the specific purpose of this valuation. I am satisfied that the data provided was fit for the purposes of this valuation. This data is summarised in **Appendix C**.

About the Fund

The Fund is part of the Local Government Pension Scheme (LGPS) and is a multi-employer defined benefit pension scheme. It is contracted out of the State Second Pension.

Funding Strategy Statement

The Administering Authority prepares a Funding Strategy Statement (FSS) in respect of the Fund, in collaboration with me (the Fund's actuary) and after consultation with the Fund's employers and investment adviser. The FSS has been reviewed as part of the 2010 triennial valuation exercise and I have taken account of this as part of my valuation of the Fund.

Funding objectives

The objectives of the Fund's funding policy are broadly as follows:

- to ensure the long-term solvency of the Fund as a whole and of the share of the Fund attributable to each individual employer;
- to ensure that sufficient funds are available to meet all benefits as they fall due for payment;
- not to restrain unnecessarily the investment strategy of the Fund, so that the Administering Authority can seek to maximise investment returns (and hence minimise the cost of the benefits) for an appropriate level of risk;
- to minimise the degree of short-term change in the level of each employer's contributions where the Administering Authority considers it reasonable to do so;
- to use reasonable measures to reduce the risk to other employers and ultimately to the Council Tax payer from an employer defaulting on its pension obligations.

What are the Fund's liabilities?

The Fund's liabilities are essentially the benefits promised to Fund members (past and current contributors) and, upon their death, any benefits promised to their dependants. This valuation places a current or present value on these liabilities in order to arrive at an estimated cost at the valuation date.

It is important to realise that the results of this valuation can only ever be an estimate. The actual cost of providing members' benefits is not known in advance, as it will be influenced by future events which are uncertain.

The final cost of members' benefits will depend on three main factors:

(i) The benefits promised to members.

The Fund provides pensions and other benefits to members and their beneficiaries. The benefits in force on the valuation date are set out in the following pieces of legislation:

- The Local Government Pension Scheme (Benefits, Membership and Contributions) Regulations 2007 (the "Benefits Regulations")
- The Local Government Pension Scheme (Administration) Regulations 2008 (the "Administration Regulations")

- The Local Government Pension Scheme (Transitional Provisions) Regulations 2008 (the "Transitional Regulations")

These benefits are common to all employers participating in the Fund.

The benefits and member contributions payable by and to the LGPS respectively were amended with effect from 1 April 2008. The results presented in this valuation report make full allowance for these changes.

There are a small number of discretionary powers that may be exercised by the Administering Authority or by individual employers. With the exception of an employer's power to augment a member's benefits or to allow a member to receive their benefits earlier than planned without reduction (e.g. upon early retirement) I would not expect the exercise of these powers to have a material effect on the valuation results. In any event, I would expect additional employer payments, in addition to the employer contributions set out in the rates and adjustments certificate, to be made in respect of such events unless agreed otherwise.

(ii) The profile of the membership.

The profile of the members (e.g. their pensionable pay, age, sex and category) affects how much their future benefits will ultimately cost the Fund.

The cost of the benefits is expressed as a percentage of the pensionable pay of employee members. As the proportion of pensioner and deferred members increases relative to employee members so the contribution rate (as a percentage of pay) becomes more sensitive to the funding position and not simply the cost of new benefits being earned by members in future. A summary of the data at this and the previous valuation is given in **Appendix C.**

(iii) The level of benefits paid, when they will come into payment and how long they will be paid for.

All of these factors depend on future experience, such as when members will retire and how long they will live for after retirement. In assessing the anticipated cost of members' benefits, I need to make assumptions about this future experience. I explain these actuarial assumptions later in this report.

The purpose of the valuation is to assess how much the Fund needs to hold now to pay those benefits, taking into account the above factors and its funding objectives.

What are the Fund's assets?

The Fund's assets are invested by the Administering Authority. The market value of assets at 31 March 2010 (excluding money purchase AVC funds) was £397m, as shown in the audited accounts for the Fund for the period ending on 31 March 2010 that have been provided to me by the Administering Authority. No part of the Fund was comprised of insurance policies at 31 March 2010.

Funding method and assumptions

I have used a funding method and set of assumptions for this valuation that are consistent with the Administering Authority's funding objectives set out in its FSS. The methodology and assumptions are described below, and in more detail in **Appendix D** and **Appendix E** respectively.

Funding method

For this valuation, as for the previous valuation, I have used a funding method which identifies separately the estimated cost of members' benefits in respect of scheme membership completed before 31 March 2010 ('past service') and in respect of scheme membership expected to be completed after 31 March 2010 ('future service').

Past service

The method I have adopted compares the assets (taken at market value) with the value placed on the Fund's past service liabilities (calculated using a market-based approach) at the valuation date. By maintaining a link to the market in both cases, this helps ensure that the assets and liabilities are valued in a consistent manner. My calculation of the Fund's liabilities also explicitly allows for anticipated future pay and pension increases.

The funding level is the value of the assets divided by the value of the past service liabilities. Where the funding level is greater than 100% there is a surplus in the fund (i.e. where assets are greater than the value of the past service benefits). Where the funding level is less than 100% there is a shortfall (i.e. where the assets are lower than the value of the past service benefits). The funding target is to achieve a funding level of at least 100% over a specific period.

Future service

To determine the contribution rate required to cover the estimated cost of future service benefits, I have adopted the following methods:

- For the Fund as a whole and for employers who will continue to admit new entrants to the Fund: the "Projected Unit Method".
- For employers who no longer admit new entrants to the Fund: the "Attained Age Method".

In both cases, an allowance for the anticipated future expenses of the Fund is added to the calculated contribution rate.

Total contribution rate

The total contribution rate comprises the future service rate plus any "past service adjustment".

The past service adjustment is the additional employer contribution required to bring the funding level back to 100% over an agreed period if there is a deficit (conversely, a contribution reduction can apply if there is a surplus). The past service adjustment can be expressed as a monetary amount or as a percentage of the value of the members' pensionable pay over the period.

Actuarial assumptions

In the actuarial valuation, I must use assumptions about the factors affecting the Fund's finances in the future. Broadly speaking, our assumptions fall into two categories – financial and demographic.

Demographic assumptions typically try to forecast **when** exactly benefits will come into payment and what form these will take, for example, when members will retire (e.g. at their normal retirement age or earlier), how long they will then survive and whether they will exchange some of their pension for tax-free cash.

Financial assumptions typically try to anticipate the **size** of these benefits, for example, how large members' final salaries will be at retirement and how their pensions will increase over time. In addition, the financial assumptions also help us to estimate how much all these benefits will cost the Fund in today's money.

Details of our recommended assumptions for this valuation are set out below.

Financial assumptions

A summary of the main financial assumptions adopted for the valuation of members' benefits is shown below.

		31 March 2010	
Assumption	**Description**	**Nominal**	**Real**
Price Inflation (CPI)	Market expectation of long term future inflation as measured by the difference between yields on fixed and index-linked Government bonds at the valuation date, less 0.5% p.a.	3.3%	-
Pay increases*	CPI plus 1.5% p.a.	4.8%	1.5%
"Gilt-based" discount rate	Yield on fixed interest (nominal) and index-linked (real) Government bonds	4.5%	1.2%
Funding basis discount rate	"Gilt-based" discount rate plus an Asset Outperformance Assumption of 1.6% p.a.	6.3%	3.0%

** 1% p.a. for 2010/11, 2011/12, and 2012/13, followed by 2 years at 3.3% (CPI), reverting to 4.8% p.a. thereafter. There is an additional allowance for promotional pay increases.*

Discount rate

The funding valuation is effectively a budgeting exercise, to assess the funds needed to meet the benefits as they fall due. In order to place a current value on the future benefit payments from the Fund, I need to 'discount' these future cashflows back to the valuation date at a suitable rate.

Different valuations can be categorised by the approach taken to setting the discount rate. For example, under the accounting standard FRS17, the discount rate is determined as the yield on AA-rated corporate bonds. By comparison, a discontinuance valuation will likely use the yield on suitably dated Government bonds. For a funding valuation such as this one, I have set the discount rate by taking into account the Fund's current and expected future investment strategy and, in particular, how this strategy is expected to outperform the returns from Government bonds over the long term. I allow for this by applying an Asset Outperformance Assumption, which is effectively a margin in excess of the yield available on Government bonds.

For the purposes of this valuation, I have adopted an Asset Outperformance Assumption of 1.8% p.a. This results in a discount rate of 6.3% p.a.

The selection of an appropriate Asset Outperformance Assumption is a matter of judgement, based on available evidence. It is one way of measuring the degree of prudence in the funding strategy. I believe that an Asset Outperformance Assumption of 1.8% p.a. is a prudent one for the purposes of this valuation. However, the degree of risk inherent in the Fund's investment strategy should always be considered as fully as possible when setting out a funding strategy.

Price inflation / pension increases

The Chancellor of the Exchequer announced in his Emergency Budget on 22 June 2010 that the Consumer Price Index (CPI) rather than the Retail Prices Index (RPI) will be the basis for future increases to public sector pensions in payment and in deferment. I have allowed for this in my valuation calculations as at 31 March 2010.

At the previous valuation, the assumption for RPI was derived from market data as the difference between the yield on long-dated fixed interest and index-linked government bonds. At this valuation, I have adopted a similar approach. However, I have then adjusted this market-derived RPI rate downwards by 0.5% p.a. to derive the assumption for CPI. The move to CPI has reduced the value placed on the Fund's liabilities by around £30m and reduced the future service rate by around 0.9% of pay.

Salary increases

My long term assumption for salary increases is CPI plus 1.5% p.a.

However, the Government has announced that pay for public sector employees will be frozen for a period of two years, with a flat increase of £250 being applied to all those earning less than £21,000 p.a. Although this "pay freeze" does not officially apply to local government employers, it has been suggested that they will be expected to show similar restraint in respect of pay awards. Based on an analysis of the membership in LGPS funds, I believe that the average expected increase in pensionable pay across all employers should be around 1% p.a. I have set the salary increase assumption at this valuation to 1% p.a. for 2010/11, 2011/12, and 2012/13. I have also made an additional allowance for salary growth of CPI for the following 2 years. After this point, the assumption will revert back to the long-term rate of CPI plus 1.5% p.a.

Note that this assumption is made in respect of the general level of salary increases (e.g. as a result of inflation and other macroeconomic factors). I have also made a separate allowance for expected pay rises granted in the future as a result of members achieving promotion. This assumption takes the form of a set of tables which model the expected promotional pay awards based on each member's age and class.

Longevity

The main demographic assumption to which the valuation results are most sensitive is that relating to the longevity of the Fund's members. For this valuation, I have adopted assumptions which give the following sample average future life expectancies for members:

	Actives & Deferreds		Current Pensioners	
Assumed life expectancy at age 65	Male	Female	Male	Female
2007 valuation longevity	20.7	23.6	19.6	22.5
2010 valuation - baseline	18.9	21.6	18.9	21.6
2010 valuation - improvements	23.8	26.5	21.9	24.7

Further details of the mortality assumptions adopted for this valuation can be found in **Appendix E**.

Assets

I have taken the assets of the Fund into account at their market value as indicated in the audited accounts for the period ended 31 March 2010.

In my opinion, the basis for placing a value on members' benefits is compatible with that for valuing the assets - both are related to market conditions at the valuation date.

Funding position at 31 March 2010

The Administering Authority has prepared a Funding Strategy Statement which sets out its funding objectives for the Fund. In broad terms, the main 'funding' objective is to hold sufficient assets in the Fund to meet the assessed cost of members' past service benefits and the main 'contribution' objective is to maintain a relatively stable employer contribution rate. These objectives are potentially conflicting.

Past service

In assessing the extent to which the past service funding objective was met at the valuation date, I have used the funding method and actuarial assumptions described in the previous section of this report. My results are presented in the form of a 'funding level'. This is the ratio of the value of assets to the assessed cost of members' past service benefits (based on service accrued by members prior to the valuation date). A funding level of 100% would correspond to the objective being met exactly. The table below compares the value of the assets and liabilities at 31 March 2010.

Valuation Date	**31 March 2010**
Past Service Position	**(£m)**
Past Service Liabilities	
Employees	239
Deferred Pensioners	85
Pensioners	235
Total Liabilities	560
Market Value of Assets	397
Surplus / (Deficit)	**(162)**
Funding Level	**71.0%**

At 31 March 2010 the funding level was 71%.

The main funding objective was not met: there was a shortfall of assets compared to the assessed cost of members' benefits of £162m.

Future service

I have calculated the average long-term contribution rate that the Fund employers would need to pay to meet the estimated cost of members' benefits that will be earned after 31 March 2010 (the 'future service contribution rate'). Again, I have used the method and assumptions set out in the previous section of this report. The resulting contribution rate is that which should (if the actuarial assumptions about the future are borne out in practice) ensure that the Administering Authority's main future service funding objective is met. The table below details this future service contribution rate:

Valuation Date	**31 March 2010**
Future service rate	**% of pay**
Cost of new benefits earned in future	20.9%
Expenses	0.5%
Total	21.4%
Employee contribution rate	6.6%
Future service rate (employer)	**14.8%**

Note that this future service contribution rate makes no allowance for the £162m past service shortfall in the Fund described above. The employee contribution rate includes any Additional Voluntary Contributions being paid into the Fund by employees as at 31 March 2010.

The average future service rate for Fund employers is 14.8% of pensionable pay. This rate is calculated at 31 March 2010 and, in theory, forms part of the total contribution rate payable by employers from 1 April 2011. However, in practice, I have calculated a future service rate for each employer which is based on their particular circumstances and their total contribution rates are based on this, rather than the average future service rate for the Fund as a whole.

A comparison of the results of this valuation and the previous one at 31 March 2007 is provided in **Appendix F**.

Funding position: changes since the previous valuation

The previous formal actuarial valuation of the Fund was carried out with an effective date of 31 March 2007. Since then, there have been changes to the Fund and its membership and to the economic environment in which the Fund operates. Many of these changes have affected the valuation results and these are summarised below.

Changes to the Fund's benefit structure

The various changes to the benefit structure of the LGPS that took effect from 1 April 2008 were detailed in the previous valuation report dated March 2008. As I had already made an allowance for these changes in my valuation calculations at 31 March 2007, they are not responsible for the change in the funding position between 31 March 2007 and 31 March 2010.

Changes to the Fund's membership

The Fund membership has changed since the previous valuation, as new employee members have joined the Fund and members have left the Fund, retired and died. Whilst membership changes were anticipated at the previous valuation, the actual changes have inevitably not exactly matched the assumptions made at the previous valuation.

Changes to the Fund's assets

The Fund's assets have been augmented by employer and employee contributions paid in and transfer values received. However, the assets have been depleted by retirement benefit payments, transfer values, refunds paid and payment of administration and other expenses. Most importantly, investment returns for the three years to 31 March 2010 were much lower than anticipated.

Overall, the Fund's assets have grown since the previous valuation but by a much smaller amount than anticipated. This has had an adverse impact on the funding position.

Changes to the estimated cost of the Fund's liabilities

Economic factors

The underlying bond yields that form the foundation of our discount rate assumption were the same at 31 March 2010 as they were at the previous valuation. My Asset Outperformance Assumption has also remained constant. The discount rate I have used to estimate the cost of future benefit payments is therefore unchanged.

Benefit payments themselves are linked to inflation – via pension increases and also salary increases. Market expectations of inflation, as measured by the Retail Prices Index (RPI), have risen since the previous valuation. However, this has been largely offset by the Government's policy to link future pension increases to the Consumer Price Index (CPI).

Rising price inflation is often accompanied by rising salary inflation. However, salaries in the public sector are under considerable pressure at present and many LGPS employee members are likely to receive much lower pay rises in the short term and I have made an allowance for this in my calculations.

The overall effect of economic factors on the value of the Fund's liabilities at this valuation is broadly neutral.

Demographic factors

The value placed on the Fund's liabilities is also affected by when future benefits are expected to come into payment and how long they are expected to be paid for. A key factor in this is the life expectancy of members.

The assumptions relating to the longevity of current and future pensioners have changed since the previous valuation, to reflect the recent experience of the Fund and other evidence published by the Actuarial Profession. More detail is given in **Appendix E**.

Some of the other demographic assumptions that we use have also changed since the previous valuation in light of recent experience e.g. the predicted nature and amount of early leavers and ill health early retirements.

Since the introduction of the new LGPS many members now have two tranches of pension - namely that which was accrued before and after 1 April 2008. In theory, these can be paid without reduction from two different retirement ages. In practice, the member can only retire once and so both pensions are paid from a single age.

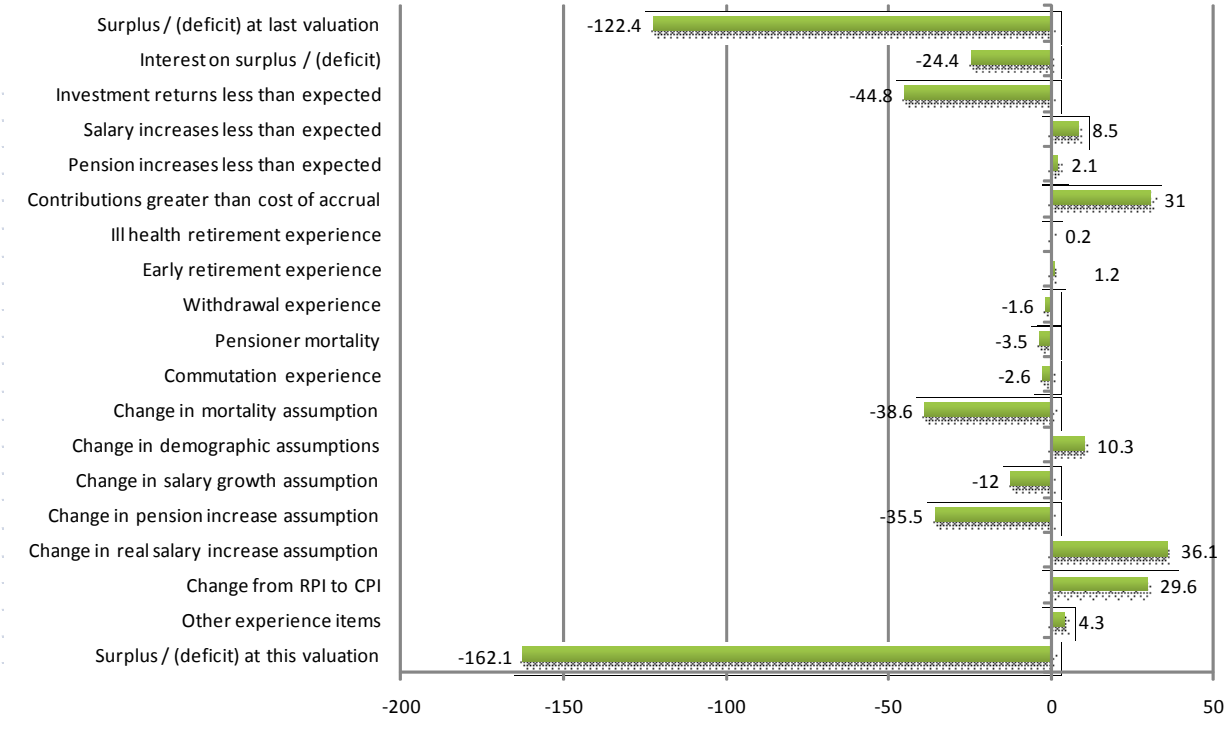
In order to ensure that we are treating these accrued benefits correctly in our valuation calculations, we are now explicitly calculating the appropriate retirement age for each member (rather than simply using the age provided in the membership data extract).

We have assumed that employees who joined before 1 October 2006 (and are subject to Rule of 85 protections on their pre-April 2008 benefits) but reach age 60 after 31 March 2020 will, on average, draw all of the benefits at age 65.

The overall effect of changes in demographic factors has been to increase the value of the Fund's liabilities.

Summary of changes to the funding position

The chart below illustrates the factors that caused the funding position to deteriorate between 31 March 2007 and 31 March 2010:



Experience

- Investment returns being lower than expected since 2007 lead to a loss of £44.8m. This is roughly the difference between the actual and expected three-year return (7% - 20.1%) applied to the whole fund assets from the previous valuation of £344m with a further allowance made for cashflows during the period.
- Contributions paid were slightly higher than the cost of benefits accrued over the inter-valuation period. This resulted in a profit of around £31m.
- Early retirement experience over the inter-valuation period resulted in a small profit of around £1.2m.
- The overall impact of demographic experience (including contributions higher than benefits accruing and early retirement experience) has been a profit arising of around £35.3m. Underlying this figure, withdrawals and pensioner mortality have had a negative impact but this has been offset by salary and pension increases being lower than expected.

Assumptions

- The change in financial conditions and long term financial assumptions between the previous valuation and this one, have given rise to a gain of £18.2m. This figure consisted of:
  - restricting our salary assumption to 1% p.a. over the next 3 years resulting in a reduction in the value placed on liabilities of about £36.1m;
  - allowing for the change in the inflation index from RPI to CPI for setting future pension increases resulting in a reduction in the value placed on liabilities of about £29.6m; and
  - the change in underlying financial conditions and the increase in the asset outperformance which (overall) increased the value placed on liabilities by about £47.5m.
- The change in longevity assumptions has given rise to a loss of £38.6m. This figure is the aggregate of a loss of about £20m due to adjustments in baseline mortality and an increased allowance for future longevity improvements which required an increase in reserves of about £19m.
- The change in demographic assumptions has given rise to a profit of around £10.3m. This figure consists of changes to the cost and incidence of ill-health early retirements, withdrawals and an assumption that younger members of the scheme will take their pensions at age 65 (rather than at their ‘Rule of 85’ age), as described in the previous page of this report.

Employer contributions payable

Whole Fund

The average future service rate for Fund employers is 14.8% of pensionable pay. This is the average future contribution rate payable over the long term by the Fund employers to meet the cost of benefits earned by members after the valuation date. This reflects the Administering Authority's funding objectives and is based on the assumptions set out in this report.

The total (or "common") contribution rate payable is the average future service rate for Fund employers plus an additional amount to recover the deficit and bring the funding level back to 100% over a period of 20 years, as set out in the FSS. This additional amount is referred to as the past service adjustment.

The common contribution rate based on the funding position as at 31 March 2010 is detailed below:

Valuation Date	31 March 2010
Total contribution rate	**% of pay**
Future service rate	14.8%
Past Service Adjustment (20 year spread)	10.1%
Total contribution rate	**24.9%**

Individual employers

The common contribution rate is very much a theoretical figure for the Fund as a whole. In practice, each employer in the Fund has its own underlying contribution rate based on:

- The future service rate that covers the cost of new benefits being earned by that particular employer's membership after the valuation date.
- The funding position of that particular employer's share of the Fund (i.e. their share of the Fund's surplus or deficit and an assessment of an appropriate period of time over which the employer can eliminate this).
- Any mechanisms employed to promote the stability of that particular employer's contribution rate. These are agreed with the Administering Authority and may involve mechanisms such as phasing in any changes in contribution rates over a number of years or pooling the valuation results of a number of employers.
- Any employers that have opted to implement a stabilised contribution rate, whereby any increases or decreases to the employer's rate over an agreed period are curtailed. This can usually only be justified for long term, secure employers following a rigorous modelling exercise. Those employers that have opted for this approach are listed below the Rates and Adjustments certificate in **Appendix H**.

All of these issues come together in a contribution rate strategy which is set out in general terms in the FSS. The contribution rates to be paid by individual employers from 1 April 2011 are set out in the Rates and Adjustments Certificate in **Appendix H**. Note that these are the minimum contribution requirements for each employer.

Employers may make voluntary additional contributions to recover any shortfall over a shorter period, subject to agreement with the Administering Authority and after receiving the relevant actuarial advice.

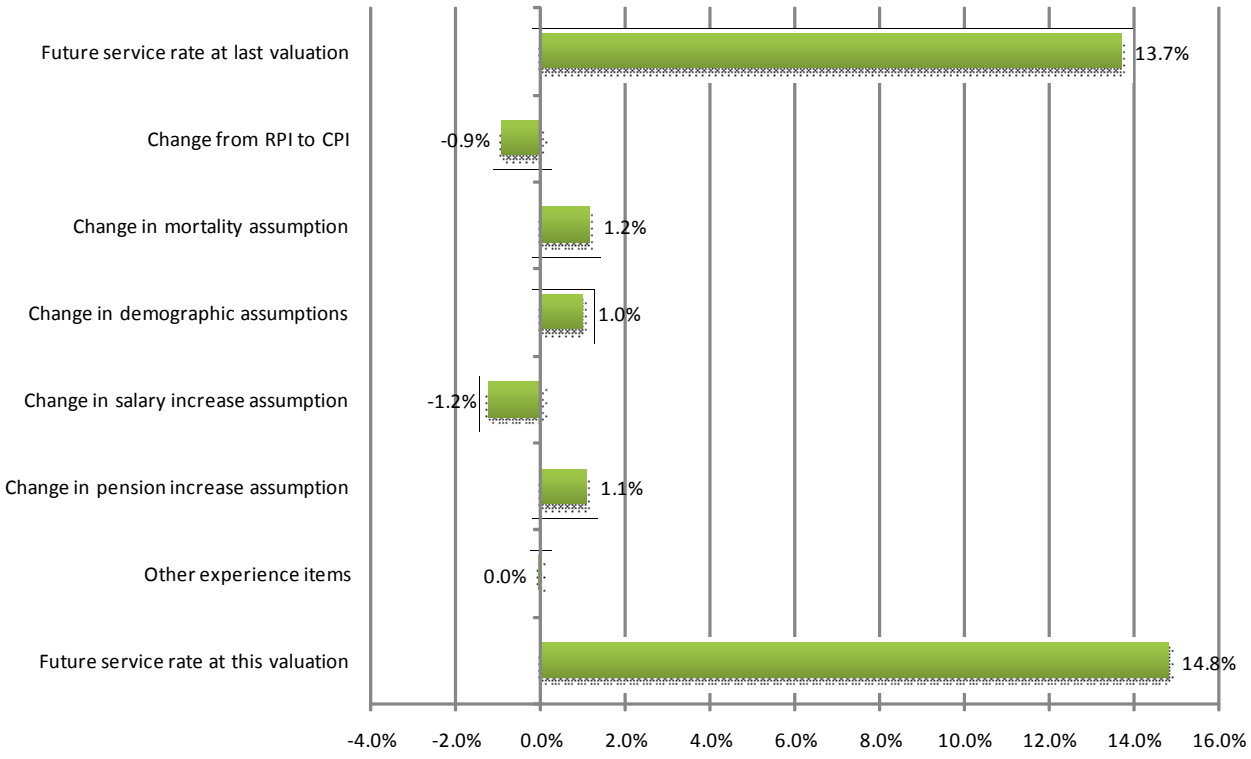
Further sums should be paid to the Fund by employers to meet the capital costs of any unreduced early retirements, reduced early retirements before age 60 and/or augmentation (i.e. additional membership or additional pension) using the methods and factors issued by me from time to time or as otherwise agreed.

In addition, payments may be required to be made to the Fund by employers to meet the capital costs of any ill-health retirements that exceed those allowed for within my assumptions.

The contributions shown in the Rates and Adjustment Certificate include expenses and the expected cost of lump sum death benefits but exclude early retirement strain and augmentation costs which are payable by Fund employers in addition.

Summary of changes to the future service rate

The chart below illustrates the factors that caused the future service rate to increase between 31 March 2007 and 31 March 2010:



Further recommendations

Valuation frequency

Under the provisions of the LGPS regulations, the next formal valuation of the Fund is due to be carried out as at 31 March 2013. In light of the uncertainty of future financial conditions, I recommend that the financial position of the Fund (and for individual employers in some cases) is monitored by means of interim funding reviews in the period up to this next formal valuation. This will give early warning of changes to funding positions and possible contribution rate changes.

Investment strategy and risk management

I recommend that the Administering Authority continues to regularly review its investment strategy and ongoing risk management programme.

New employers joining the Fund

Any new employers or admission bodies joining the Fund should be referred to me as the Fund actuary for individual calculation as to the required level of contribution. They should also agree to pay the capital costs (as a one-off lump sum payment) of any early retirements or augmentation based on my advice and using methods and factors issued by the actuary from time to time, together with any additional contributions that may be required if their ill-health early retirement experience is worse than assumed.

Other matters

Any Admission Body who ceases to participate in the Fund should be referred to me in accordance with Regulation 38 of the Administration Regulations.

Any bulk movement of scheme members:

- involving 10 or more scheme members being transferred from or to another LGPS fund, or
- involving 2 or more scheme members being transferred from or to a non-LGPS pension arrangement

should be referred to me to consider the impact on the Fund.

Risk assessment

The valuation results depend critically on the actuarial assumptions that are made about the future of the Fund. If all of the assumptions made at this valuation were exactly borne out in practice then the results presented in this document would represent the true cost of the Fund as it currently stands at 31 March 2010.

However, no one can predict the future with certainty and it is unlikely that future experience will exactly match all of our assumptions. The future therefore presents a variety of risks to the Fund and these should be considered as part of the valuation process.

In particular:

- The main risks to the financial health of the Fund should be **identified**.
- Where possible, the financial significance of these risks should be **quantified**.
- Consideration should be given as to how these risks can then be **managed**.
- These risks should then be **monitored** to assess whether any risk management strategy is actually working.

This section investigates the potential implications of the actuarial assumptions not being borne out in practice.

Set out below is a brief assessment of the main risks and their effect on the valuation results, beginning with a look at the effect of changing the main assumptions and then focusing on two of the most significant risks – namely investment risk and longevity risk.

Sensitivity of valuation results to changes in assumptions

The table below gives an indication of the sensitivity of the valuation results to small changes in some of the main assumptions used.

		Impact	
Assumption	**Change**	**Funding level**	**Deficit**
Discount rate	Increases by 0.5%	Rises by 6%	Falls by £43m
Salary increases	Increases by 0.5%	Falls by 1%	Rises by £12m
Price inflation / pension increases	Increases by 0.5%	Falls by 4%	Rises by £35m
Life expectancy	Increases by 1 year	Falls by 2%	Rises by £17m
Exchange of pension for tax-free cash	Increase take-up by 10%	Rises by 1%	Falls by £6m

This is not an exhaustive list of the assumptions used in the valuation. For example, changes to the assumed level of withdrawals and ill health retirements will also have an effect on the valuation results. However, the table contains those assumptions that typically are of most interest and have the biggest impact.

Note that the table shows the effect of changes to each assumption in isolation. In reality, it is perfectly possible for the experience of the Fund to deviate from our assumptions simultaneously and so the precise effect on the funding position is therefore more complex.

Investment risk

Valuation results at 31 March 2010 on a gilts basis

The current investment strategy of the Fund includes a high proportion of equity-type assets (such as equities and property). In the long term, it is expected that such assets will outperform gilts, which are generally considered to be a closer match to the future benefit outflows from the Fund. The scale of this outperformance is a matter of judgement based on available evidence. In deriving the discount rate for the purposes of this valuation, I have assumed that the assets held by the Fund will outperform index-linked gilts by 1.8% p.a. I consider this to be a prudent assumption.

However, this outperformance cannot be guaranteed and the Administering Authority must consider the implications of this on the funding position. The following chart summarises the effect on the valuation results if no advance credit is taken for additional outperformance above gilt returns (i.e. if a 'gilts basis' was used to value the liabilities).

Valuation Date	31 March 2010
Past Service Position	**(£m)**
Total Liabilities	799
Market Value of Assets	397
Surplus / (Deficit)	**(402)**
Funding Level	**49.7%**
Contribution rates	**% of pay**
Future service rate	28.1%
Past Service Adjustment (20 year spread)	18.7%
Total contribution rate	46.9%

On this basis, the Administering Authority would need assets of some £799m to fully fund the liabilities at the valuation date. Given the actual market value of the Fund's assets, this would result in a funding shortfall of £402m.

Sensitivity of valuation results to market conditions and investment performance

As the assets of the Fund are taken at their market value, volatility in investment performance can have an immediate and tangible effect on the funding level and deficit. This is particularly relevant because the Fund is invested predominantly in riskier assets such as equities and equity-type investments (e.g. property). A rise or fall in the level of equity markets has a direct impact on the financial position of the Fund, which may seem obvious.

Less obvious is the effect of anticipated investment performance on the Fund's liabilities (and future service cost). Here it is the returns available on government bonds that are of crucial importance, as the discount rate that we use to place a value on the Fund's liabilities is based on gilt yields at the valuation date plus a margin of 1.8% p.a.

The table below shows how the funding level (top), deficit (middle) and total contribution rate (bottom) would vary if investment conditions at 31 March 2010 had been different. The level of the FTSE 100 Price index is taken as a suitable proxy for asset performance whilst the index-linked gilt yield is taken as a yardstick for the valuation of liabilities.

Index Linked Gilt Yield	4680	5180	5680	6180	6680
0.50%	62% (222) 29.4%	65% (201) 28.2%	69% (180) 26.9%	72% (160) 25.6%	76% (139) 24.3%
0.70%	64% (204) 27.6%	67% (183) 26.3%	71% (162) 24.9%	75% (141) 23.7%	78% (120) 22.4%
0.90%	66% (186) 25.8%	69% (165) 24.5%	73% (144) 23.2%	77% (124) 21.8%	81% (103) 20.5%
	FTSE 100 Price Index				

The shaded box contains the results for this valuation. Note that this does not take account of the performance of all asset classes held by the Fund (e.g. overseas equities, property, bonds, cash etc) but it does serve to highlight, in broad terms, the sensitivity of the valuation results to investment conditions at the valuation date.

Note that the scenarios illustrated above are by no means exhaustive. They should not be taken as the limit of how extreme future investment experience could be. The discount rate assumption adopted at this valuation is expected to be appropriate over the long term. Short term volatility of equity markets does not invalidate this assumption.

Longevity risk

The valuation results are also very sensitive to unexpected changes in future longevity. All else being equal, if longevity improves in the future at a faster pace than allowed for in the valuation assumptions, the funding level will decline and the required employer contribution rates will increase.

Recent medical advances, changes in lifestyle and a greater awareness of health-related matters have resulted in life expectancy amongst pension fund members improving in recent years at a faster pace than was originally foreseen. It is unknown whether and to what extent such improvements will continue in the future.

For the purposes of this valuation, we have selected assumptions that we believe make an appropriate allowance for future improvements in longevity, based on the actual experience of the Fund since the previous valuation.

The table below shows how the valuation results at 31 March 2010 are affected by adopting different longevity assumptions.

	Impact		
Longevity assumption	**Funding level**	**Deficit (£m)**	**Future service rate**
2007 valuation longevity	77%	(116)	12.7%
2010 valuation (baseline)	79%	(105)	12.1%
2010 valuation (with improvements)	71%	(162)	14.8%
2010 valuation (further improvements)	68%	(184)	15.7%
1 year extra longevity	66%	(188)	16.3%

The shaded box contains the results for this valuation. This allows for a "cohort effect". The cohort effect allows for a generation of people born between the two world wars whose life expectancy seems to continue to increase i.e. that generation continues to survive in large numbers each year. A key question would be how much longer we will continue to see this. Current evidence suggests people are living 2 years longer every decade and this phenomenon presently shows no signs of slowing. The mortality assumptions adopted for this valuation allow for people living around 0.75 years longer per decade. We have not allowed for the potential full improvements in life expectancy at this valuation and have effectively adopted a "wait and see" approach.

The "further improvements" are a more cautious set of assumptions that make an allowance for the continuation of recently observed high levels of improvement in life expectancy, arising from this "cohort effect". The assumptions adopted here result in people living around 1.5 years longer per decade over the long term.

The last row illustrates the effect of assuming that members live for one year longer than these further improvements imply.

Again, the range of assumptions shown here is by no means exhaustive and should not be considered as the limits of how extreme future longevity experience could be.

Other risks to consider

The table below summarises the effect that changes in some of the other valuation assumptions and risk factors would have on the funding position. Note that these are probably unlikely to change in such a way that would rank them as amongst the highest risks facing the Fund and therefore the analysis is qualitative rather than quantitative.

	Impact	
Risk	**Funding level**	**Future service rate**
Greater level of ill health retirement	Decreases	Increases
Greater level of withdrawals	Increases	Decreases
Rise in average age of employee members	Marginal effect	Increases
Pay and price inflation higher than anticipated	Decreases	Increases
Members convert less pension to cash at retirement than assumed	Decreases	Increases
Changes to Regulations that make benefit package more favourable to members	Decreases (if changes affect past service)	Increases

Managing the risks

Whilst there are certain things, such as the performance of investment markets or the life expectancy of members, that are not directly within the control of the pension fund, that does not mean that nothing can be done to understand the risks further and to mitigate their effect. Although these risks are difficult (or impossible) to eliminate, steps can be taken to manage them.

Ways in which some of these risks can be managed could be:

- Set aside a specific reserve to act as a cushion against adverse future experience (possibly by selecting a set of actuarial assumptions at future valuations that are purposely more prudent).
- Take steps internally to monitor the decisions taken by members and employers (e.g. relating to early / ill health retirements or salary increases) in a bid to curtail any adverse impact on the Fund.
- Pooling certain employers together at the valuation and then setting a single (pooled) contribution rate that they will all pay. This can help to stabilise contribution rates (at the expense of cross-subsidy between the employers in the pool during the period between valuations).
- Carrying out a review of the future security of the Fund's employers (i.e. assessing the strength of employer covenants).
- Carrying out a bespoke analysis of the longevity of Fund members and monitor how this changes over time, so that the longevity assumptions at the valuation match as closely as possible the experience of the Fund.
- Undertake an asset-liability modelling exercise that investigates the effect on the Fund of thousands of possible investment scenarios that may arise in the future. An assessment can then be made as to whether long term, secure employers in the Fund can stabilise their future contribution rates (thus introducing more certainty into their future budgets) without jeopardising the long-term health of the Fund.
- Insuring against adverse experience (e.g. ill-health strain insurance, longevity swaps etc).

Adopting one or more of these measures can assist with the management of risk within the pension fund.

Summary

I have carried out an actuarial valuation of the London Borough of Redbridge Pension Fund ('the Fund') as at 31 March 2010. The results are presented in this report and are briefly summarised below.

Funding position

The table below summarises the financial position of the Fund at 31 March 2010 in respect of benefits earned by members up to this date.

Past Service Position	(£m)
Past Service Liabilities	560
Market Value of Assets	397
Surplus / (Deficit)	(162)
Funding Level	**71.0%**

The deterioration of the funding position reflects the adverse conditions which the Fund has had to contend with since the previous valuation. In particular, investment returns for the three years to 31 March 2010 were significantly poorer than anticipated.

Contribution rates

The table below summarises the average employer contribution rate that would be required, based on this triennial valuation.

Contribution Rates	(% of pay)
Future Service Rate	14.8%
Past Service Adjustment (20 year spread)	10.1%
Total (Common) Contribution Rate	**24.9%**

The common contribution rate is a theoretical figure – an average across the whole Fund. In practice, each employer that participates in the Fund has its own underlying funding position and circumstances, giving rise to its own contribution rate requirement. Accordingly, an adjustment to the common rate has been determined for each employer. The minimum contributions to be paid by each employer from 1 April 2011 to 31 March 2014 are shown in the Rates and Adjustment Certificate in **Appendix H**.

Barry McKay

Fellow of the Institute and Faculty of Actuaries

11 March 2011

Appendix A: Regulations and professional standards

LGPS regulations

This valuation is carried out in accordance with regulation 36 of the Administration Regulations, which specifies that the Administering Authority must obtain:

- an actuarial valuation of the assets and liabilities of the Fund as at 31 March 2010 and in every third year thereafter;
- a report by an actuary in respect of the valuation; and
- a rates and adjustments certificate prepared by an actuary.

Within the rates and adjustment certificate I am required to specify:

- the employers' common contribution rate which, in my opinion, should be paid by all employers so as to ensure the Fund's solvency, and
- any individual adjustments (increases or decreases) to the common contribution rate which, in my opinion, are required by reason of any circumstances peculiar to a particular employer,

which for this valuation apply for each year of the period of three years beginning with 1 April 2011.

The rates and adjustments certificate must also contain a statement of the assumptions on which the certificate is given as respects:

- The number of members who will become entitled to payment of pensions under provisions of the Scheme; and
- The amount of the liabilities arising in respect of such members.

Under the provisions of the Regulations, I am required to have regard to:

- the existing and prospective liabilities of the Fund arising from circumstances common to all those bodies participating in the Fund,
- the desirability of maintaining as nearly constant a common rate as possible, and
- the current version of the Administering Authority's FSS.

Professional standards

Guidance Note 9 (GN9)

This report has been prepared in accordance with version 8.1 of the guidelines 'GN9: Funding Defined Benefits - Presentation of Actuarial Advice' published by the Board for Actuarial Standards. However the following aspects of GN9 are not relevant to the LGPS and its funds in the current circumstances and I have therefore not reported on them:

- Paragraph 3.4.16 of GN9 requires the actuary to include the certification of technical provision in relation to a valuation under Part 3 of the Pensions Act 2004. As Part 3 of the Pensions Act 2004 does not apply to the LGPS, this report does not comply with paragraph 3.4.16 of GN9; and

- Part 3.5 of GN9 requires the actuary to report on the value of the liabilities that would arise had the Fund wound up on the valuation date (based on the cost of buying out the accrued benefits with insurance policies). As the LGPS is a statutory scheme, there is no regulatory provision for scheme wind up and the scheme members have a statutory right to their accrued benefits. Therefore the concept of solvency on a buy-out basis does not apply to the Fund. Accordingly, this report does not comply with part 3.5 of GN9.

The previous formal actuarial valuation was carried out as at 31 March 2007 by Bryan Chalmers and the results were set out in his report dated March 2008.

Technical Actuarial Standards

Technical Actuarial Standards (TASs) are issued by the Board for Actuarial Standards and they set the standard for certain items of actuarial work, in terms of the type of information provided and the way it is communicated. As your actuary, I must comply with these standards when presenting the results of the triennial valuation.

This valuation report complies with the Technical Actuarial Standards on Reporting (TAS R) and Data (TAS D) for the purpose of recording the results of the actuarial valuation at 31 March 2010.

In order to further ensure that the requirements of TAS R are met and in the interests of clarity, I have issued a separate letter summarising the various pieces of advice that I have issued during this valuation process which have allowed you to make the necessary decisions on funding strategy and contribution rates.

Appendix B: Summary of the Fund's benefits

The non-discretionary Fund benefits that I have taken into account in this valuation for active members are summarised below.

Provision	Benefit Structure To 31 March 2008	Benefit Structure From 1 April 2008
Normal retirement age (NRA)	Age 65.	Age 65.
Earliest retirement age (ERA) on which immediate unreduced benefits can be paid on voluntary retirement	As per NRA (age 65). Protections apply to active members in the scheme immediately prior to 1 October 2006 who would have been entitled to immediate payment of unreduced benefits prior to 65, due to: (a) having previously had an NRA of age 60 (or after age 60 on attaining 25 years of scheme membership), due to being a member of the scheme immediately prior to 1 April 1998; or (b) having the potential to satisfy the rule of 85 prior to age 65 (if the sum of age (whole years) and membership (whole years) is 85 or more). The benefits relating to various segments of scheme membership are protected as follows, which means their benefits are calculated based on the above definitions of earliest retirement age in relation to these protected periods of scheme membership. (a) A member born on 31 March 1956 or earlier – membership up to 31 March 2016 protected; (b) A member born between 1 April 1956 and 31 March 1960 inclusive and who would reach their Earliest Retirement Age by 31st March 2020 – Membership prior to 31 March 2008 fully protected and membership between 1 April 2008 and 31 March 2020 subject to some protection (tapered); (c) All other members in the scheme immediately prior to 1 October 2006 – membership up to 31 March 2008 protected.	
Member contributions	Officers - 6% of pensionable pay Manual Workers – 5% of pensionable pay if has protected lower rates rights or 6% for post 31 March 1998 entrants or former entrants with no protected rights.	Banded rates (5.5%-7.5%) depending upon level of full-time equivalent pay. A mechanism for sharing any increased scheme costs between employers and scheme members is included in the LGPS regulations.
Pensionable pay	All salary, wages, fees and other payments in respect of the employment, excluding non-contractual overtime and some other specified amounts. Some scheme members may be covered by special agreements.	
Final pay	The pensionable pay in the year up to the date of leaving the scheme. Alternative methods used in some cases, e.g. where there has been a break in service or a drop in pensionable pay.	
Period of scheme membership	Total years and days of service during which a member contributes to the Fund. Additional periods may be granted (e.g. transfers from other pension arrangements, augmentation, or from April 2008 the award of additional pension). For part time members, the membership is proportionate with regard to their contractual hours and a full time equivalent.	

Provision	Benefit Structure To 31 March 2008	Benefit Structure From 1 April 2008
Normal retirement benefits at NRA	Annual Retirement Pension - 1/80th of final pay for each year of scheme membership. Lump Sum Retirement Grant - 3/80th of final pay for each year of scheme membership. Additional lump sum can be provided by commutation of pension (within overriding limits) on a basis of £12 additional lump sum for each £1 of pension surrendered.	Scheme membership to 31 March 2008: Annual Retirement Pension - 1/80th of final pay for each year of scheme membership. Lump Sum Retirement Grant - 3/80th of final pay for each year of scheme membership. Scheme membership from 1 April 2008: Annual Retirement Pension - 1/60th of final pay for each year of scheme membership. Lump Sum Retirement Grant – none except by commutation of pension.
Option to increase retirement lump sum benefit	At the time that benefits come into payment, members have the option to exchange ('commute') some of the retirement pension into additional lump sum. The terms for the conversion of pension in to lump sum is £12 of lump sum for every £1 of annual pension surrendered.	Scheme membership to 31 March 2008: At the time that benefits come into payment, members have the option to exchange ('commute') some of the retirement pension into additional lump sum. The terms for the conversion of pension in to lump sum is £12 of lump sum for every £1 of annual pension surrendered. Scheme membership from 1 April 2008: No automatic lump sum. Any lump sum is to be provided by commutation of pension. The terms for the conversion of pension in to lump sum is £12 of lump sum for every £1 of annual pension surrendered.
Voluntary early retirement benefits (non ill-health)	On retirement after age 60 a pension and lump sum based on actual scheme membership completed may be paid, subject to reduction on account of early payment in some circumstances (in accordance with ERA protections).	
Employer's consent early retirement benefits (non ill-health)	On retirement after age 50 with employer's consent a pension and lump sum based on actual scheme membership completed may be paid. Benefits paid on redundancy or efficiency grounds are paid with no actuarial reduction. Otherwise, benefits are subject to reduction on account of early payment, unless this is waived by the employer.	On retirement after age 55 with employer's consent a pension and lump sum based on actual scheme membership completed may be paid. Benefits paid on redundancy or efficiency grounds are paid with no actuarial reduction. Otherwise, benefits are subject to reduction on account of early payment, unless this is waived by the employer. Active members in the scheme immediately prior to 1 April 2008 who leave before 31 March 2010 have a protected earliest retirement age of 50.

Provision	Benefit Structure To 31 March 2008	Benefit Structure From 1 April 2008
Ill-health benefits	In the event of premature retirement due to permanent ill-health or incapacity, an immediate pension and lump sum are paid based on actual scheme membership plus an enhancement period of scheme membership. The enhancement period is dependent on scheme membership at date of leaving and is seldom more than 6 years 243 days. No reduction is applied due to early payment.	In the event of premature retirement due to permanent ill-health or incapacity and a reduced likelihood of obtaining gainful employment (local government or otherwise) before age 65, an immediate pension and lump sum are due based on actual scheme membership plus an enhanced period of scheme membership. The enhancement period is: 25% of the period to age 65, if there is no likelihood of undertaking gainful employment within 3 years of leaving employment; or 100% of the period to age 65, if there is no likelihood of undertaking gainful employment prior to age 65. A third tier, with no enhancement, is due where there is a likelihood of undertaking gainful employment within 3 years of leaving employment.
Flexible retirement	After 5th April 2006, a member who has attained the age of 50, with his employer's consent, reduces the hours he works, or the grade in which he is employed, he may elect in writing to the appropriate administering authority and such benefits may, with his employer's consent, be paid to him notwithstanding that he has not retired from that employment. Benefits are paid immediately and subject to actuarial reduction unless the reduction is waived by the employer.	A member who has attained the age of 55 and who, with his employer's consent, reduces the hours he works, or the grade in which he is employed, may make a request in writing to the appropriate administering authority to receive **all or part** of his benefits. Benefits are paid immediately and subject to actuarial reduction unless the reduction is waived by the employer.
Pension increases	All pensions in payment, deferred pensions and dependant's pensions other than benefits arising from the payment of additional voluntary contributions are increased annually. Pensions are increased partially under the Pensions (Increases) Act and partially in accordance with statutory requirements (depending on the proportions relating to pre 88 GMP, post 88 GMP and excess over GMP).	
Death after retirement	A spouse's or civil partner's pension of one half of the member's pension (generally post 1 April 1972 service for widowers' pension and post 6 April 1988 for civil partners) is payable; plus If the member dies within five years of retiring and before age 75 the balance of five years' pension payments will be paid in the form of a lump sum; plus Children's pensions may also be payable.	A spouse's, civil partner's or nominated cohabiting partner's pension payable at a rate of 1/160th of the member's total membership multiplied by final pay (generally post 1 April 1972 service for widowers' pension and post 6 April 1988 for civil partners and nominated cohabiting partners) is payable; plus If the member dies within ten years of retiring and before age 75 the balance of ten years' pension payments will be paid in the form of a lump sum; plus Children's pensions may also be payable.

Provision	Benefit Structure To 31 March 2008	Benefit Structure From 1 April 2008
Death in service	A lump sum of two times final pay; plus A spouse's or civil partner's pension of one half of the ill-health retirement pension that would have been paid to the scheme member if he had retired on the day of death (generally post 1 April 1972 service for widowers' pension and post 6 April 1988 for civil partners); plus Children's pensions may also be payable.	A lump sum of three times final pay; plus A spouse's, civil partner's or cohabiting partner's pension payable at a rate of 1/160th of the member's total (augmented to age 65) membership (generally post 1 April 1972 service for widowers' pension and post 6 April 1988 for civil partners and nominated cohabiting partners), multiplied by final pay; plus Children's pensions may also be payable.
Leaving service options	If the member has completed three months' or more scheme membership, deferred benefits with calculation and payment conditions similar to general retirement provisions ; or A transfer payment to either a new employer's scheme or a suitable insurance policy, equivalent in value to the deferred pension; or If the member has completed less than three months' scheme membership, a return of the member's contributions with interest, less a State Scheme premium deduction and less tax at the rate of 20%.	
State pension scheme	The Fund is contracted-out of the State Second Pension and the benefits payable to each member are guaranteed to be not less than those required to enable the Fund to be contracted-out.	

Note: Certain categories of members of the Fund are entitled to benefits that differ from those summarised above.

Discretionary benefits

The Local Government Pension Scheme (Benefits, Membership and Contributions) Regulations 2007 give employers a number of discretionary powers, including:

- the power to increase membership of an active member (Regulation 12);
- the award of additional pension to active members (Regulation 13)
- the payment of benefits with the employer's consent prior to age 60 (Regulation 30;
- the payment of benefits due to flexible retirement (Regulation 18)
- the determination that the early payment of pension benefits should not reduced for compassionate reasons (Regulation 30(5);
- not applying the suspension of spouses' pensions on remarriage or cohabitation for members who retired before 1 April 1998.

The effect on benefits or contributions as a result of the use of these provisions has been allowed for in this valuation to the extent that this is reflected in the membership data provided. No allowance has been made for the future use of discretionary powers. My assumptions do not anticipate any saving from the suspension of spouses' pension; to the extent that this continues, there will be a saving.

Appendix C: Data

This section contains a summary of the membership, investment and accounting data provided to me by the Administering Authority for the purposes of this valuation (the corresponding membership and investment data from the previous valuation is also shown for reference).

Membership data – whole fund

Employee members

Employee membership	31 March 2010		31 March 2007	
	Number	Pensionable Pay* (£000)	Number	Pensionable Pay* (£000)
Full-time employee members				
Male officers	265	10,512	339	12,595
Female officers	310	9,642	401	11,379
Male manuals	123	2,989	164	3,589
Female manuals	14	315	18	393
Post-April 1998 males	741	21,170	630	16,514
Post-April 1998 females	869	24,459	731	18,773
Total full-time employee members	**2,322**	**69,087**	**2,283**	**63,243**
Part-time employee members				
Male officers	21	382	29	395
Female officers	300	4,538	359	4,733
Male manuals	5	22	11	97
Female manuals	107	841	159	1,329
Post-April 1998 males	333	3,808	207	2,066
Post-April 1998 females	2,469	25,450	1,875	17,020
Total part-time employee members	**3,235**	**35,040**	**2,640**	**25,639**
Total employee membership	**5,557**	**104,126**	**4,923**	**88,882**

*actual pay (not full-time equivalent)

The average age of employee members at 31 March 2010 was 52.2 and the average expected future working lifetime of employee members is 7.2 years. Both of these figures are weighted by liability.

Deferred pensioners

Deferred pensioner membership	31 March 2010		31 March 2007	
	Number	Deferred pension (£000)	Number	Deferred pension (£000)
Male officers	1,039	1,775	884	1,447
Female officers	2,868	2,913	2,229	2,303
Male manuals	337	480	365	484
Female manuals	385	123	437	143
Total deferred pensioner members	**4,629**	**5,290**	**3,915**	**4,376**

The deferred pension shown includes revaluation up to and including that granted by the 2010 Pension Increase Order. The average age of deferred pensioners at 31 March 2010 was 50.7 (this figure is weighted by liability). The figures above also include any “status 2” and “status 9” members at the valuation date.

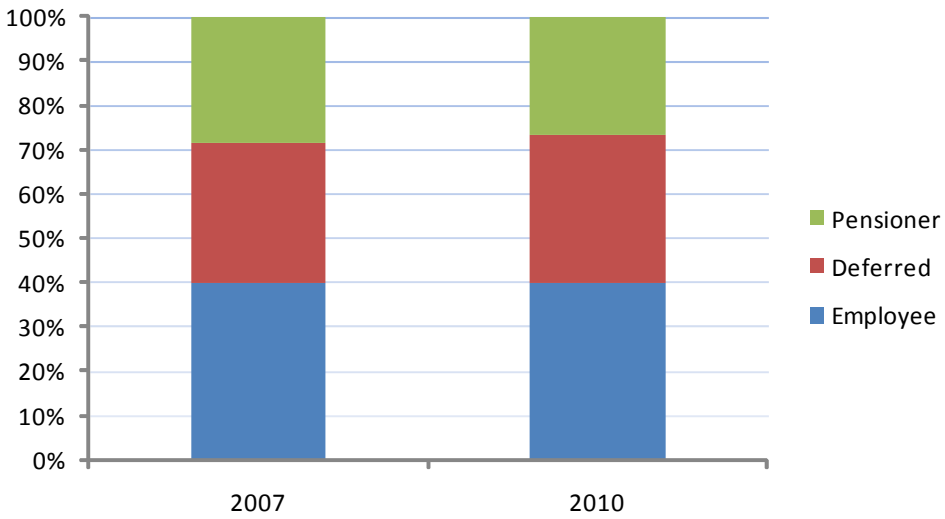
Current pensioners, spouses and children

Pensioner membership	31 March 2010		31 March 2007	
	Number	Pension (£000)	Number	Pension (£000)
Normal / early retirement				
Male officers	586	6,032	522	4,931
Female officers	899	3,455	754	2,370
Male manuals	463	1,562	481	1,379
Female manuals	462	484	466	425
Ill health retirement				
Male officers	135	1,561	153	1,518
Female officers	221	1,228	229	1,134
Male manuals	210	1,000	240	1,012
Female manuals	131	229	135	215
Dependants				
Widows	506	1,521	476	1,165
Widowers	78	166	52	85
Male children	7	8	6	6
Female children	16	28	18	27
Total pensioner members	**3,714**	**17,275**	**3,532**	**14,266**

The average age of current pensioner members at 31 March 2010 (weighted by liability and excluding spouses', civil partners' and children's pensions in payment) was 67.8.

Note that the membership numbers in the table above refer to the number of records provided to us and so will include an element of double-counting in respect of any members who are in receipt (or potentially in receipt of) more than one benefit.

The chart below summarises the membership at this valuation and at the previous one.



Membership data – individual employers

Employer code	Employer name	Employees		Deferreds		Pensioners	
		Number	Actual Pay (£000)	Number	Pension (£000)	Number	Pension (£000)
1	London Borough of Redbridge	5,132	94,990	4,375	5,003	3,548	16,652
986	Vision	16	203	2	1	1	0
987	SRG Solutions	7	45	3	2	0	0
988	Morrisons Facilities Services Ltd	60	2,242	8	18	6	49
989	Mayfield High School	71	1,052	47	15	8	16
992	Housing 21	0	0	0	0	5	30
993	Redbridge College	108	2,024	94	115	34	140
994	London & Quadrant	1	17	39	78	80	241
995	Little Heath School	31	473	9	8	4	11
996	Chadwell Heath School	30	472	16	5	8	22
997	Ursuline High School	29	547	23	15	4	11
999	Redbridge Theatre	1	49	0	0	0	0
4225	Redbridge Homes	71	2,013	13	25	12	93
991	Ray Lodge TMO	0	0	0	0	1	4
998	Redbridge Sports Centre	0	0	1	2	3	7
990	Magistrates Courts	0	0	2	7	0	0

Assets at 31 March 2010

A summary of the Fund's assets (excluding members' money-purchase Additional Voluntary Contributions) as at 31 March 2010 is as follows:

Asset class	Market Value at 31 March 2010 (£000)	Allocation %
UK equities	117,948	30%
UK fixed interest gilts	42,568	11%
UK corporate bonds	34,640	9%
UK index-linked gilts	2,169	1%
Overseas equities	107,110	27%
Overseas bonds	55,343	14%
Property	11,531	3%
Cash and net current assets	26,099	6%
Total	**397,407**	**100%**

A brief comparison of the asset allocation of the Fund at this and the previous valuation is shown below:

Asset class	Asset Allocation	
	31 March 2010	31 March 2007
Equities	57%	57%
Bonds	34%	29%
Property	3%	5%
Cash & other assets	6%	9%
Total	**100%**	**100%**

Accounting data – revenue account for the three years to 31 March 2010

Consolidated accounts (£000)	Year to			Total
	31 March 2008	31 March 2009	31 March 2010	
Income				
Employer - normal contributions	19,360	22,618	23,595	65,573
Employer - additional contributions	1,403	558	344	2,305
Employer - early retirement and augmentation strain contributions	305	599	184	1,087
Employee - normal contributions	5,783	6,712	6,955	19,451
Employee - additional contributions	0	7	7	15
Transfers In Received (including group and individual)	3,128	2,280	2,998	8,406
Other Income	0	0	0	0
Total Income	**29,979**	**32,774**	**34,084**	**96,837**
Expenditure				
Gross Retirement Pensions	14,837	15,962	17,052	47,852
Lump Sum Retirement Benefits	2,628	3,339	3,146	9,113
Death in Service Lump sum	142	434	337	913
Death in Deferment Lump Sum	0	0	0	0
Death in Retirement Lump Sum	0	0	0	0
Gross Refund of Contributions	32	15	45	92
Transfers out (including bulk and individual)	2,114	3,426	5,435	10,975
Fees and Expenses	492	503	491	1,486
Total Expenditure	**20,246**	**23,679**	**26,506**	**70,431**
Net Cashflow	**9,733**	**9,094**	**7,578**	**26,406**
Assets at start of year	**343,927**	**349,637**	**313,108**	
Net cashflow	9,733	9,094	7,578	
Change in value	-4,024	-45,623	76,720	
Assets at end of year	**349,637**	**313,108**	**397,407**	
Approximate rate of return on assets	**-1.2%**	**-12.9%**	**24.2%**	**7.0%**

Note that the figures above are based on the Fund accounts provided to me for the purposes of this valuation, which were fully audited at the time of my valuation calculations.

Appendix D: Funding method

Using the actuarial assumptions described earlier (and summarised in **Appendix E**) I have estimated the payments which will be made from the Fund throughout the future lifetimes of existing employee members, deferred pensioners, pensioners and their dependants. I have then calculated the amount of money which, if invested now, should be sufficient to meet all of these payments in future, assuming that future investment returns are in line with the discount rate. This amount is the estimated cost of members' benefits. I have calculated separately the estimated cost of benefits arising from scheme membership accrued by members before the valuation date ('past service') and from scheme membership after the valuation date ('future service').

Past service funding position

I have compared the value of the assets with the estimated cost of members' past service benefits (i.e. the past service liabilities) at 31 March 2010. My calculation of the liabilities allows for all expected future pay and pension increases. The ratio of the asset value to the past service liabilities is known as the 'funding level'. If the funding level is more than 100% there is a 'surplus'; if it is less than 100% there is a 'shortfall'.

Future service contribution rate

Whole fund and employers admitting new entrants

I have calculated the estimated cost of benefits that will be earned by existing employee members over the year following 31 March 2010, allowing for all expected future pay and pension increases. This amount is expressed as a percentage of the members' pensionable pay over the year following the valuation date and is known as the 'future service contribution rate'.

This method of assessing the future contribution requirement is applied only to the Fund's membership at the valuation date. If new entrants are admitted to the Fund to the extent that the membership profile remains broadly unchanged (and if the actuarial assumptions are unchanged) then the future service contribution rate assessed at future valuations should be reasonably stable. However, if the average age of employee members rises (for example if few or no new entrants are admitted to the Fund), and if the actuarial assumptions are unchanged, then the future service contribution rate will increase.

This funding method is known as the Projected Unit Method.

Employers not admitting new entrants

I have calculated the estimated cost of benefits that will be earned by existing employee members over their expected future working lifetime, allowing for all expected future pay and pension increases. This amount is expressed as a percentage of the members' pensionable salaries over their expected future working life and is known as the 'future service contribution rate'.

This method of assessing the future contribution requirement is applied only to the Fund's membership at the valuation date. If no new entrants are admitted to the Fund, so that the membership profile gradually ages, (and if the actuarial assumptions are unchanged) then the contribution rate assessed at future valuations should be reasonably stable, provided that any surplus or shortfall in the past service position is reflected in the contribution rate.

This funding method is known as the Attained Age Method.

Future service contribution rate: all cases

Under each of the two methods described above to calculate the future service contribution rate, the estimated cost of any lump sum death in service benefits is separately assessed as the amount which is likely to be paid out in an average year, based on the membership structure at the valuation date.

The total 'future service contribution rate' is then the sum of the 'Projected Unit Method' rate or the 'Attained Age Method' rate (whichever is appropriate to the employer) plus the lump sum death benefit cost. It is the rate at which the Fund's employers, together with the employee members, should contribute to the Fund to meet the cost of members' benefits expected to arise from service after the valuation date. Employee members will be contributing at fixed rates (albeit with various tiers). Therefore the employer future service contribution rate is the total future service contribution rate less the member contribution rate. An addition is then made to cover the expected future expenses of administering the Fund.

Appendix E: Assumptions

Financial assumptions

Financial assumptions	31 March 2007 Funding basis (%pa)	31 March 2010 Funding basis (%pa)	31 March 2010 Gilts basis (%pa)
Discount rate	6.3%	6.3%	4.5%
Price inflation	3.2%	3.8%	3.8%
Pay increases*	4.7%	4.8%	4.8%
Pension increases:			
pension in excess of GMP	3.2%	3.3%	3.3%
post-88 GMP	2.8%	2.8%	2.8%
pre-88 GMP	0.0%	0.0%	0.0%
Revaluation of deferred pension	3.2%	3.3%	3.3%
Expenses	0.5%	0.5%	0.5%

*An allowance is also made for promotional pay increases (see table below). Note that the assumption at 31 March 2010 is actually 1% p.a. for 2010/11, 2011/12 and 2012/13, followed 3.3% for two years, reverting to 4.8% p.a. thereafter.

Mortality assumptions

Longevity assumptions	31 March 2010
Longevity - baseline	S1NMA / S1NFA
Longevity - improvements	Medium Cohort with 1% minimum improvements

Various scaling factors have been applied to the mortality tables to reflect the predicted longevity for each class of member and their dependants. Full details of these are available on request.

Other demographic valuation assumptions

Retirements in ill health	Allowance has been made for ill-health retirements before Normal Pension Age (see table below).
Withdrawals	Allowance has been made for withdrawals from service (see table below).
Family details	A varying proportion of members are assumed to be married (or have an adult dependant) at retirement or on earlier death. For example, at age 60 this is assumed to be 90% for males and 85% for females. Husbands are assumed to be 3 years older than wives.
Commutation	Future pensioners are assumed to elect to exchange pension for additional tax free cash up to 50% of HMRC limits for service to 31 March 2008 and 75% of HMRC limits for service from 1 April 2008.

The tables below show details of the assumptions actually used for specimen ages. The promotional pay scale is in addition to the allowance for general pay inflation described above. For membership movements, the figures represent the number of members per 1000 at each age that are assumed to leave service within the following twelve months.

Withdrawals for members with less than 2 years service

Age	Incidence for 1000 active members per annum											
	Male Officers		Male Manuals		Female Officers		Female Manuals		Post 98 Males		Post 98 Females	
	Withdrawals		Withdrawals		Withdrawals		Withdrawals		Withdrawals		Withdrawals	
	FT	PT	FT	PT	FT	PT	FT	PT	FT	PT	FT	PT
20	202.69	337.82	202.69	337.82	192.26	267.03	192.26	267.03	371.61	743.21	256.35	427.25
25	133.89	223.15	133.89	223.15	129.33	179.63	129.33	179.63	245.46	490.92	172.44	287.41
30	94.97	158.29	94.97	158.29	108.39	150.54	108.39	150.54	174.11	348.23	144.51	240.86
35	74.19	123.65	74.19	123.65	93.48	129.84	93.48	129.84	136.01	272.03	124.64	207.74
40	59.70	99.50	59.70	99.50	77.75	107.99	77.75	107.99	109.45	218.90	103.67	172.78
45	48.85	81.42	48.85	81.42	64.00	88.90	64.00	88.90	89.56	179.12	85.34	142.23
50	37.84	63.07	37.84	63.07	48.77	67.74	48.77	67.74	69.37	138.75	65.03	108.38
55	32.79	54.65	32.79	54.65	37.59	52.21	37.59	52.21	60.11	120.23	50.12	83.54
60	19.87	33.12	19.87	33.12	17.47	24.27	17.47	24.27	36.43	72.86	23.29	38.82

Withdrawals for members with more than 2 years service

Age	Incidence for 1000 active members per annum											
	Male Officers		Male Manuals		Female Officers		Female Manuals		Post 98 Males		Post 98 Females	
	Withdrawals		Withdrawals		Withdrawals		Withdrawals		Withdrawals		Withdrawals	
	FT	PT	FT	PT	FT	PT	FT	PT	FT	PT	FT	PT
20	149.82	249.70	149.82	249.70	142.11	197.37	142.11	197.37	274.67	549.33	189.48	315.79
25	98.96	164.93	98.96	164.93	95.59	132.77	95.59	132.77	181.43	362.85	127.46	212.43
30	70.20	116.99	70.20	116.99	80.11	111.27	80.11	111.27	128.69	257.39	106.81	178.02
35	54.84	91.39	54.84	91.39	69.09	95.97	69.09	95.97	100.53	201.06	92.13	153.54
40	44.13	73.54	44.13	73.54	57.47	79.82	57.47	79.82	80.90	161.79	76.62	127.70
45	36.11	60.18	36.11	60.18	47.31	65.71	47.31	65.71	66.20	132.40	63.08	105.13
50	27.97	46.61	27.97	46.61	36.05	50.07	36.05	50.07	51.28	102.55	48.06	80.10
55	24.24	40.39	24.24	40.39	27.78	38.59	27.78	38.59	44.43	88.86	37.05	61.74
60	14.69	24.48	14.69	24.48	12.91	17.94	12.91	17.94	26.93	53.86	17.22	28.70

Ill health retirements – Tier 1

Age	Incidence per 1000 active members per annum							
	Male Officers & Post 98		Male Manuals		Female Officers & Post 98		Female Manuals	
	Ill Health		Ill Health		Ill Health		Ill Health	
	FT	PT	FT	PT	FT	PT	FT	PT
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.34	0.27	0.06	0.05	0.39	0.31
30	0.06	0.05	0.55	0.44	0.11	0.08	0.54	0.43
35	0.08	0.07	0.82	0.66	0.21	0.17	0.78	0.62
40	0.15	0.12	1.13	0.91	0.27	0.22	1.08	0.86
45	0.34	0.27	1.64	1.31	0.44	0.35	1.38	1.10
50	0.92	0.74	2.39	1.92	0.86	0.69	2.04	1.63
55	5.10	4.08	10.43	8.35	6.12	4.90	10.37	8.29
60	20.92	16.73	40.67	32.54	24.18	19.35	40.67	32.54

Ill health retirements – Tier 2

Age	Incidence per 1000 active members per annum							
	Male Officers & Post 98		Male Manuals		Female Officers & Post		Female Manuals	
	Ill Health		Ill Health		Ill Health		Ill Health	
	FT	PT	FT	PT	FT	PT	FT	PT
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	1.43	1.14	0.27	0.21	1.66	1.33
30	0.27	0.21	2.32	1.86	0.45	0.36	2.30	1.84
35	0.36	0.29	3.48	2.78	0.89	0.71	3.32	2.65
40	0.62	0.50	4.82	3.86	1.16	0.93	4.59	3.67
45	1.43	1.14	6.96	5.57	1.87	1.50	5.87	4.69
50	4.97	3.98	12.89	10.31	4.64	3.71	10.98	8.79
55	7.12	5.70	14.56	11.65	8.55	6.84	14.47	11.58
60	4.07	3.26	7.91	6.33	4.71	3.76	7.91	6.33

Ill health retirements – Tier 3

Age	Incidence per 1000 active members per annum							
	Male Officers & Post 98		Male Manuals		Female Officers & Post		Female Manuals	
	Ill Health		Ill Health		Ill Health		Ill Health	
	FT	PT	FT	PT	FT	PT	FT	PT
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.48	0.38	0.09	0.07	0.55	0.44
30	0.09	0.05	0.77	0.62	0.15	0.12	0.77	0.61
35	0.12	0.07	1.16	0.93	0.30	0.24	1.11	0.88
40	0.21	0.12	1.61	1.29	0.39	0.31	1.53	1.22
45	0.48	0.29	2.32	1.86	0.62	0.50	1.96	1.56
50	0.26	0.16	0.68	0.54	0.24	0.20	0.58	0.46
55	0.37	0.22	0.77	0.61	0.45	0.36	0.76	0.61
60	0.21	0.13	0.42	0.33	0.25	0.20	0.42	0.33

Death in service

Age	Incidence per 1000 active members per annum			
	Male Officers & Post 98	Male Manuals	Female Officers & Post 98	Female Manuals
	Death	Death	Death	Death
20	0.30	0.38	0.16	0.20
25	0.30	0.38	0.16	0.20
30	0.36	0.45	0.24	0.30
35	0.42	0.53	0.40	0.50
40	0.72	0.90	0.64	0.80
45	1.20	1.50	1.04	1.30
50	1.92	2.40	1.52	1.90
55	3.00	3.75	2.00	2.50
60	5.40	6.75	2.56	3.20

Promotional salary scale

Age	Promotional Salary Scales							
	Male Officers & Post 98 Males		Male Manuals		Female Officers & Post 98 Females		Female Manuals	
	FT	PT	FT	PT	FT	PT	FT	PT
20	100	100	100	100	100	100	100	100
25	135	116	100	100	118	105	100	100
30	169	134	100	100	137	111	100	100
35	192	146	100	100	151	116	100	100
40	208	153	100	100	163	121	100	100
45	222	154	100	100	166	122	100	100
50	236	154	100	100	166	122	100	100
55	239	154	100	100	166	122	100	100
60	239	154	100	100	166	122	100	100

Appendix F: Comparison of valuation results with 2007

The tables below summarise the valuation results for the Fund as a whole at this valuation and at the previous valuation.

Valuation Date	*31 March 2007*	31 March 2010
Past Service Position	***(£m)***	**(£m)**
Past Service Liabilities		
Employees	*224*	239
Deferred Pensioners	*64*	85
Pensioners	*178*	235
Total Liabilities	*466*	560
Market Value of Assets	*344*	397
Surplus / (Deficit)	***(122)***	**(162)**
Funding Level	*73.8%*	71.0%

Valuation Date	*31 March 2007*	31 March 2010
Future service rate	***% of pay***	**% of pay**
Cost of new benefits earned in future	*19.9%*	20.9%
Expenses	*0.5%*	0.5%
Total	*20.4%*	21.4%
Employee contribution rate	*6.7%*	6.6%
Future service rate	***13.7%***	**14.8%**

Appendix G: Post-valuation events

Post-valuation events

These valuation results are effectively a snapshot of the Fund as at 31 March 2010. Since that date, various events have had an effect on the financial position of the Fund. Whilst we have not explicitly altered the valuation results to allow for these events (other than for the switch from RPI to CPI-based pension increases) a short discussion of these "post-valuation events" can still be beneficial in understanding the likelihood of meeting the various funding objectives.

Investment conditions since 31 March 2010

In the period since the valuation date, investment markets moved in the following manner:

- equity markets have risen slightly
- bond yields have fallen slightly
- anticipated price inflation has fallen slightly

The table below compares the initial valuation results presented in this report with those that would have applied if our assumptions had been based on current market conditions (i.e. assumptions as at 31 January 2011).

Assumptions as at:	*31 March 2010*	*31 January 2011*
Past Service Position	***(£m)***	***(£m)***
Total Liabilities	*560*	*598*
Market Value of Assets	*397*	*428*
Surplus / (Deficit)	***(162)***	***(170)***
Funding Level	*71.0%*	*71.6%*
Contribution rates	***% of pay***	***% of pay***
Future service rate	*14.8%*	*15.5%*
Past service adjustment (20 year spread)	*10.1%*	*8.8%*
Total contribution rate	*24.9%*	*24.3%*

Lord Hutton review of public sector pensions

As you will be aware, the Government has set up an independent review of public sector pensions including the LGPS, chaired by Lord Hutton. This review will look at issues such as affordability, fairness, impact on mobility and plurality of current public service provision.

Ultimately, this review may or may not recommend changes to the LGPS. These could have far-reaching effects on the Fund. However, at this point in time the possibilities are so wide-ranging that it would be inappropriate to make any allowance for this in the results of this particular valuation. If that situation changes then we will keep you informed of the likely impact of any proposals from Lord Hutton on the Fund's financial position, as and when they arise.

Appendix H: Rates and adjustments certificate

In accordance with regulation 36(1) of the Administration Regulations I have made an assessment of the contributions that should be paid into the Fund by participating employers for the period 1 April 2011 to 31 March 2014 in order to maintain the solvency of the Fund.

The method and assumptions used to calculate the contributions set out in the Rates and Adjustments certificate are detailed in the current Funding Strategy Statement and my report on the actuarial valuation dated March 2011.

The required minimum contribution rates are set out in the attached table.

Signature: Barry McKay

Date:	11 March 2011
Name:	Barry McKay
Qualification:	Fellow of the Institute and Faculty of Actuaries
Firm:	Hymans Robertson LLP
	20 Waterloo Street
	Glasgow
	G2 6DB

Statement to the rates and adjustments certificate

The Common Rate of Contribution payable by each employing authority under regulation 36(4)(a) of the Administration Regulations for the period 1 April 2011 to 31 March 2014 is 24.9% of pensionable pay (as defined in **Appendix B**).

Individual Adjustments are required under regulation 36(4)(b) of the Administration Regulations for the period 1 April 2011 to 31 March 2014 resulting in Minimum Total Contribution Rates expressed as a percentage of pensionable pay are as set out below:

Employer code	Employer name	Contributions currently being paid in 2010/11	Minimum Contributions for the Year Ending		
			31 March 2012	31 March 2013	31 March 2014
1	London Borough of Redbridge	23.1%	23.1%	23.1%	23.1%
986	Vision	16.5%	16.5%	16.5%	16.5%
987	SRG Solutions	0.0%	12.3%	12.3%	12.3%
988	Morrisons Facilities Services Ltd	17.6%	21.0%	21.0%	21.0%
989	Mayfield High School	23.1%	23.1%	23.1%	23.1%
992	Housing 21	-	£32k	£32k	£32k
993	Redbridge College	12.5%	12.5%	12.5%	12.5%
994	London & Quadrant	18.0%	22.3% plus £330k	22.3% plus £330k	22.3% plus £330
995	Little Heath School	23.1%	23.1%	23.1%	23.1%
996	Chadwell Heath School*	23.1%	18.0%	18.0%	18.0%
997	Ursuline High School	23.1%	23.1%	23.1%	23.1%
999	Redbridge Theatre	18.5%	11.2%	11.2%	11.2%
4225	Redbridge Homes	23.1%	23.1%	23.1%	23.1%
991	Ray Lodge TMO	-	-	-	-
998	Redbridge Sports Centre	-	-	-	-
990	Magistrates Courts	-	-	-	-

* This school has moved to Academy status since 31 March 2010 and the contribution rate has been separately calculated.

Further comments

Stabilisation

The following employers have had their contribution rates stabilised following a separate modelling exercise that I carried out on their behalf:

- London Borough of Redbridge
- Mayfield High School
- Little Heath School
- Ursuline High School