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West Midlands Integrated Transport Authority Pension Fund

Actuarial valuation report
as at 31 March 2010

March 2011

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Transport Authority Pension
Fund
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Summary

An actuarial valuation of the West Midlands Integrated Transport Authority Pension Fund has been carried out as at 31 March 2010.

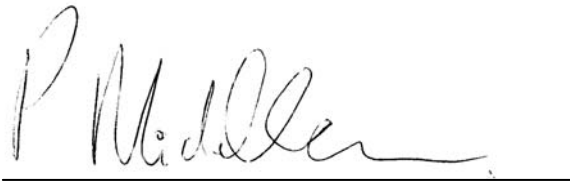
The key conclusions from the valuation are:

- The Fund showed a deficit of £71m at the valuation date based on the assumptions made for calculating its funding target. This measure compares the Fund's assets with the value of the past service benefits at 31 March 2010. It represents a funding level of 84% relative to the Fund's funding target.
- Based on the assumptions made for assessing the cost of future accrual, the Common Contribution Rate (i.e. the average employer contribution rate in respect of future service only) was 18.4% of Pensionable Pay.
- If the actuarial assumptions were to be based purely on the returns available on conventional and index-linked gilts (a so-called "least risk" basis) the deficiency would have increased to approximately £119 million.
- The deficit is to be recovered through additional employer contributions as specified for each employer payable as cash lump sums over the deficit recovery period in each case.
- Where an additional allowance has been made for certain employers for an increased investment return assumption over the duration of the recovery plan, this has offset the certified employer contribution requirement, as specified in the FSS. Contributions for each separate employer will be levied as a combination of a percentage of payroll in respect of future accrual of benefits and £s amounts in respect of deficit contributions under the recovery plan. These contributions will commence from 1 April 2011.
- The recommended employer contributions for the period 1 April 2011 to 31 March 2014 are set out in Appendix I to this report. Employee contributions are payable in addition to the employer contributions. These contributions are adequate to meet the funding objective based on the actuarial assumptions detailed in this report. No

additional contributions are required from employers to meet scheme expenses since allowance for these are included in the recommended contributions.

- Additional capital contributions will be paid on top of the rates shown in respect of any early retirements (including as a result of ill health).
- Any further possible adjustments to contributions for employers in the inter-valuation period are noted on the Certificate in Appendix H.

Signature



A handwritten signature in black ink, appearing to read 'P Middleman', written over a horizontal line.

Fund Actuary

Paul Middleman

Qualification

Fellow of the Institute and Faculty of Actuaries

Date of signing

31 March 2011

Compliance Statements

This report is addressed to the Administering Authority and has been prepared in accordance with the version of the Board for Actuarial Standards' 'Guidance Note 9: Funding Defined Benefits – Presentation of Actuarial Advice' current at the date this report is signed. Technical Actuarial Standard R: Reporting Actuarial Information and Technical Actuarial Standard D: Data issued by the Board for Actuarial Standards also apply to this report and the report complies with their requirements, where relevant.

However the following aspects of GN9 are not relevant to the LGPS in the current circumstances and so have not been reported on:

- Paragraph 3.4.16 of GN9 requires the actuary to include the certification of technical provisions 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
- Paragraph 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. Accordingly, this report does not comply with paragraph 3.5 of GN9.

The calculations in the report use methods and assumptions appropriate for reviewing the financial position of the Scheme and determining the appropriate contribution rate for the future. Mercer does not accept liability to any third party in respect of this report; nor does Mercer accept liability to the Administering Authority if the advice is used for any purpose other than that stated (for example for accounting disclosures or corporate mergers/acquisitions).

The data for the actuarial valuation was provided by the Administering Authority and its accuracy has been relied upon. Whilst reasonableness checks on the data have been carried out, they do not guarantee the completeness or the accuracy of the data. Consequently Mercer does not accept any liability in respect of its advice where it has relied on data which is incomplete or inaccurate.

The report may be disclosed to participating employers and others who have a statutory right to see it. It may also be disclosed, if the Administering Authority and Mercer consent, to any other third parties.

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- I. Schedule to the Rates and Adjustment Certificate dated 31 March 2011

1

Introduction

- 1.1 This report sets out the results of the actuarial valuation of the West Midlands Integrated Transport Authority Pension Fund (“the Fund”) as at 31 March 2010. The valuation has been carried out on the instructions of West Midlands Integrated Transport Authority (the “Administering Authority”) in accordance with the requirements of Regulation 36 of the Local Government Pension Scheme (Administration) Regulations 2008, as amended (the “Administration Regulations”).

Purpose of valuation

- 1.2 The primary aims of the valuation are to review the financial position of the Fund and to determine appropriate employer contributions to the Fund for the future.
- 1.3 In particular, the valuation aims:
- to assess the Fund’s funding position relative to its funding objective;
 - taking the above into account, to determine the appropriate future level of employer contributions.
- 1.4 Under the provisions of the Administration Regulations employer contributions are calculated by the actuary having regard to the assumptions and methodology set out in the Fund’s Funding Strategy Statement (FSS). In accordance with the LGPS Regulations, the FSS has been determined by the Fund’s Administering Authority, having taken the advice of the Fund’s Actuary and after consultation with those parties as it considers appropriate.

Funding objective

- 1.5 The Administering Authority has reviewed its approach to funding strategy and this is published in the Funding Strategy Statement. Consistent with the FSS the funding objective for the valuation is to achieve and then maintain assets equal to

the funding target. The funding target is the present value of 100% of projected accrued liabilities, including allowance for projected final pay. This approach is also considered appropriate to comply with the requirement of the Administration Regulations to secure the solvency of the Fund.

- 1.6 The funding objective is the same as at the previous valuation.
- 1.7 The methodology and assumptions by which the funding target and contribution rates are calculated have also been determined in accordance with the Fund's FSS.
- 1.8 For each individual employer, the funding objective, method and assumptions depend on the particular employer's circumstances and different approaches have been adopted where applicable, in accordance with the FSS.

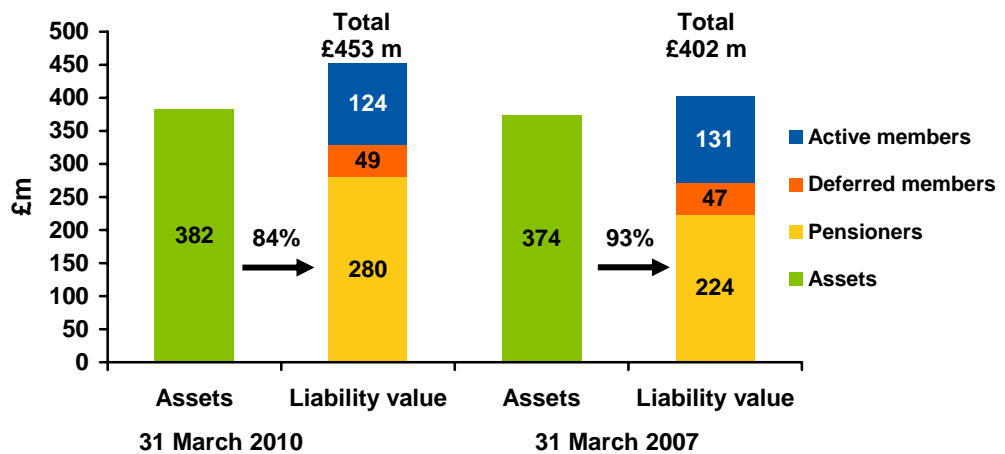
Previous actuarial valuation

- 1.9 The previous actuarial valuation of the Fund was carried out as at 31 March 2007 by ourselves.
- 1.10 At the previous valuation an average employer contribution rate of 19.1% of Pensionable Pay was determined, for benefits plus an amount for normal administration expenses and deficiency recovery contributions for each employer. The report on the 2007 actuarial valuation sets out the agreed contribution rates for individual employers for the period 1 April 2008 to 31 March 2011 (the corresponding rates for the year to 31 March 2008 being shown in the 2004 actuarial valuation report). Appendix F includes the amounts of employer contributions which have actually been paid since the last actuarial valuation.



Funding results – funding target

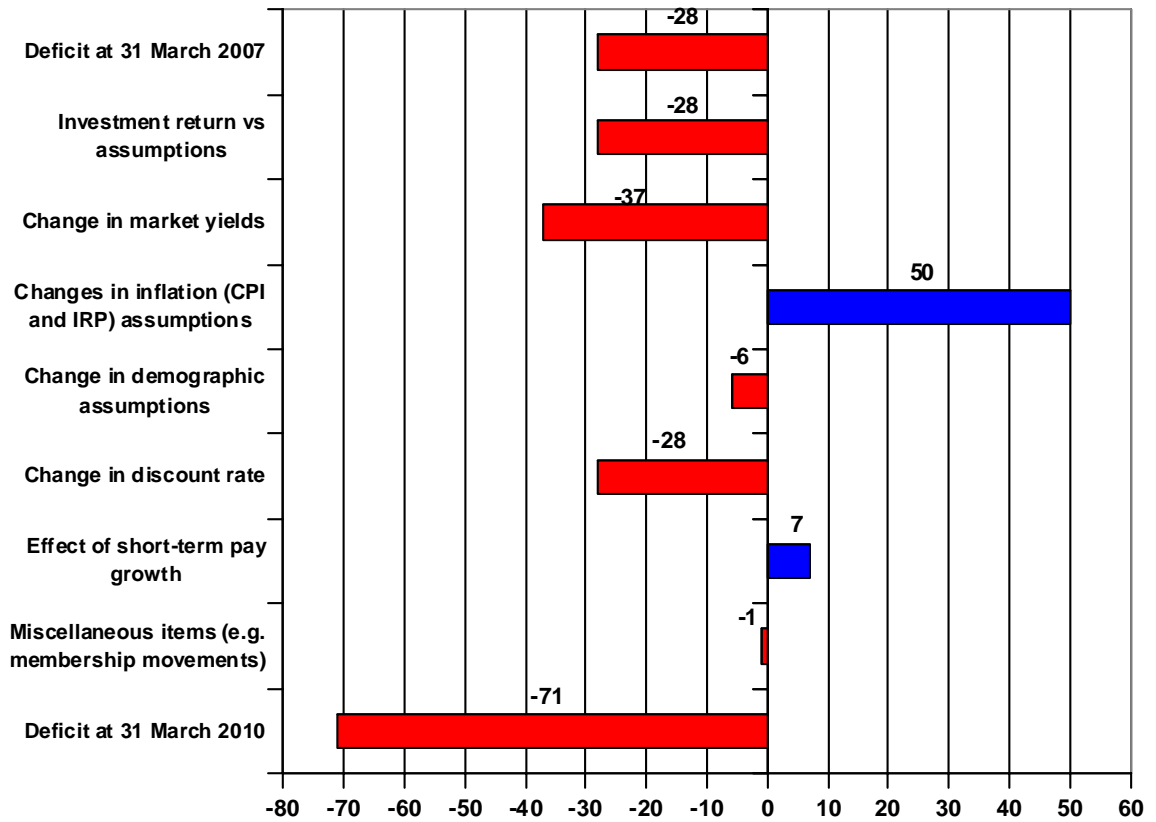
2.1 The market value of the Fund’s assets at the valuation date is compared with the value of the Fund’s past service liabilities (the funding target) below. The funding position at the previous valuation is shown for comparison.



2.2 The shortfall against the funding target at the valuation date was £71 million (£28 million at 2007). This represents a funding level of 84% relative to the funding target (93% at 2007).

Analysis of change in funding position

2.3 The key factors influencing the change in the value of the liabilities since the previous valuation are shown below (figures in £m):



2.4 The above analysis highlights a number of material developments affecting the Fund since the previous valuation:

- Revision of the assumptions adopted for the 2010 valuation, specifically rates of mortality and salary growth has overall acted to place a lower value on liabilities and so acted to improve the funding position.
- Revision of the discount rate and early retirements pattern; has overall acted to place a higher value on liabilities.
- The introduction of an Inflation Risk Premium (IRP) into the determination of the pension increase assumption used for the valuation has offset to a degree the adverse impact of the falls in market yields since the last valuation. Indeed the effect of the IRP in conjunction with the change from RPI to CPI indexation more than offsets the negative impact of the yields change.

2.5 It also highlights the key differences between what was assumed at the previous valuation and experience since then:

- Investment returns have been below the level required to keep pace with the assumptions adopted at the previous valuation.
- Liabilities have increased due to falls in real yields

3

Funding results – contribution requirements

- 3.1 This section provides details of the contribution requirements assessed for the Fund as a whole. The contributions payable by the employers for the period 1 April 2011 to 31 March 2014, and the timing and frequency of the contributions, have been certified in Appendices I and H respectively, as is required in accordance with the Administration Regulations.
- 3.2 These contributions have been determined using the funding objective described in Section 1, and are made up of the following elements:
- a contribution to cover the cost of the future service accrual (including death benefits), known as the “Common Contribution Rate”;
 - an additional lump sum to cover the expected administrative expenses of running the Fund;
 - an adjustment to address any imbalance of assets relative to the funding target.
- 3.3 In practice, each employer’s position is assessed separately. The individual rates shown in Appendix I take into account the differing circumstances of each employer and the funding plan, as laid down in the Funding Strategy Statement, in particular in relation to deficit recovery period, assumed level of investment returns over the deficiency recovery period, and implementation of changes in employer contributions where these are required.

Common Contribution Rate

- 3.4 The table below shows the first of these elements. This cost is calculated as the value of benefits expected to accrue to the membership in respect of service after the valuation date based on projected salaries. To this is added an allowance for expenses. The figures are expressed as percentages of Pensionable Pay (as

defined in Appendix H) and apply for the period to the next formal actuarial valuation.

	2010 %	2007 %
Normal contribution rate for retirement and death benefits	24.9	25.4
Average member contribution rate	6.5	6.3
Employer normal contribution	18.4	19.1

Contributions to cover normal administration expenses

- 3.5 The normal contribution expenses at this valuation have been expressed as a £ additional to the normal contribution rate. The expenses contributions are set at £290,000 per annum over the period of the Rates and Adjustments certificate.

Contributions to address shortfall

- 3.6 The funding objective is to achieve and maintain a funding level of 100% of liabilities (the funding target). Adopting the same method and assumptions as used for calculating the funding target, the deficit of £71 million could be eliminated by additional cash contributions for each employer as specified on the Rates and Adjustments Certificate appended to this report. These cash contributions are in addition to the future service rate and include the normal administration expense amounts above.
- 3.7 The Schedule to the Rates and Adjustments Certificate (attached as Appendix I) sets out the contributions for each employer over the three year period to 31 March 2014 towards the shortfall against the funding target. The corresponding figures for 2010/11 are set out in the report on the actuarial valuation of the Fund as at 31 March 2007. Contribution requirements for the period from 1 April 2014 onwards will be revised as part of the next actuarial valuation as at 31 March 2013 and will be confirmed in the Rates and Adjustments Certificate and Schedule accompanying that valuation report.

4

Method and assumptions

Funding method

- 4.1 The funding method adopted is known as the attained age method. The attained age method is consistent with the funding objective and is appropriate for the Fund given the fact that it is closed to new members and has an ageing membership profile. The salary increases assumed for each member are projected until the member is assumed to leave active service.
- 4.2 The method as specified above is the same as was used at the previous valuation.

Assumptions

- 4.3 The assumptions have been considered in light of detailed discussions with the employers regarding their financial covenant along with the intention to enter into a bulk annuity contract with an insurance company for a significant part of the pensions in payment. This has led to a variation in the assumptions used to assess the funding target between the two participating employers in the Fund (see 4.14 below).
- 4.4 The financial and demographic assumptions used to assess the funding target, the normal cost of benefit accrual and the recovery plan are set out in Appendix D. A number of changes have been made to the assumptions used, compared with the previous valuation, as noted below and in Appendix D.
- 4.5 The table below sets out a summary of the market (gilts) yields at the valuation date, implied inflation and inflation adjustment assumptions, together with the equivalent details at the date of the previous valuation:

	31 March 2010	31 March 2007
Long-dated gilt yield	4.5%	4.4%
Long-dated index-linked gilt yield	0.7%	1.3%
Market expectation for long-term inflation (RPI basis)	3.8%	3.1%
Adjustment for Inflation Risk Premium (IRP) and CPI Indexation	-0.8%	0.0%
Adjusted CPI inflation	3.0%	n/a

4.6 The assumptions to which the valuation results are particularly sensitive are shown below.

	2010 funding target	2010 normal cost	2007 funding target	2007 normal cost
Investment return pre-retirement	7.0% p.a.	7.0% p.a.	6.4% p.a.	6.4% p.a.
Investment return post-retirement (non-retired members)	5.0% p.a.	5.0% p.a.	5.4% p.a.	5.4% p.a.
Investment return (retired members)	4.5% p.a.	n/a	5.4% p.a.	n/a
Salary increases	4.5% p.a.	4.5% p.a.	4.6% p.a.	4.6% p.a.
Pension increases in payment	3.0% p.a.	3.0% p.a.	3.1% p.a.	3.1% p.a.
Retired members' mortality – base tables	CMI Self Administered Pension Schemes (SAPS) tables with scheme and member category specific adjustments (see appendix D)		PA92 YoB tables +1 year	
Retired members' mortality – future improvements	CMI 2009 model methodology with 1% p.a. long term trend		CMI Medium Cohort model	

4.7 The mortality rates shown above relate to members retiring in normal health. At this valuation, members retiring in ill-health are assumed to be 3 years older than the above tables (5 years older assumed at the 2007 valuation).

- 4.8 In respect of the active members of the Fund, pay agreements have been reached for the next two years with their employer. We have therefore made a short-term allowance for salaries to increase at the agreed rate for two years and subsequently reverting to the assumption above.
- 4.9 As the Fund is closed to new entrants, it is inevitable that the membership will mature over time. It is natural to seek to manage the liabilities of such a maturing membership by reducing the volatility and risk of the level of liabilities. To this end the Fund is intending to purchase a bulk annuity with the intention of backing the vast majority of the current pensioner liabilities. We have taken this into account and have made no allowance for any investment out-performance in respect of the assets backing the pensioners liabilities.
- 4.10 At this valuation, it has been assumed that, on average, 50% of retiring members will take the maximum tax-free cash available at retirement and 50% will take the standard 3/80ths cash sum. The option which members have to commute part of their pension at retirement in return for a lump sum is a rate of £12 cash for each £1 p.a. of pension given up. This assumption is unchanged from the last actuarial valuation.
- 4.11 The contributions payable under the recovery plan are calculated using the same assumptions as those used to calculate the funding target with the exception that, during the period of the recovery plan, for certain employers an increased investment return on existing assets and future contributions is assumed, as specified in Appendix D.
- 4.12 As an illustration of the mortality rates adopted for the valuation, the future life expectancies for a male/female at age 65 are shown in the table below:

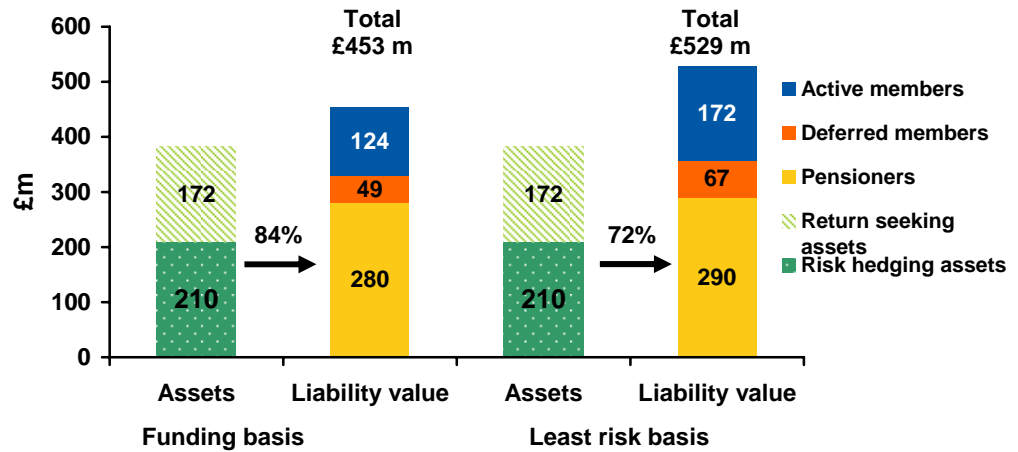
Pensioners	Life expectancy currently aged 65	
	2007 valuation assumptions	2010 valuation assumptions
Males normal health	21.2	20.7
Female normal health	24.1	23.5
Males ill health	17.1	18.3
Female ill health	19.8	21.0
Male dependants	21.2	21.1
Female dependants	24.1	22.2

- 4.13 The basis of valuing the assets (market value) is consistent with the assumptions used in assessing the funding target liabilities and the recovery plan.
- 4.14 When setting the funding target for Preston Bus Ltd, the discount rates here have reduced by 0.5% per annum pre and post-retirement. This adjustment reflects the view on covenant and the expected long term investment strategy for the assets backing the liabilities for this employer.

5

Least risk funding results

- 5.1 The results of the 2010 valuation show the funding target to be 84% covered by the current assets.
- 5.2 In assessing the value of the Fund's liabilities (the funding target), allowance has been made for asset out-performance as described in Section 4, taking into account the investment strategy adopted by the Fund, as set out in the Fund's Statement of Investment Principles (SIP).
- 5.3 It is not possible to construct a portfolio of investments which produces a stream of income exactly matching the expected liability outgo. However, it is possible to construct a portfolio which closely matches the liabilities and represents the least risk investment position. Such a portfolio would consist mainly of a mixture of long-term index-linked and fixed interest gilts. Investment of the Fund's assets in line with the least risk portfolio would minimise fluctuations in the Fund's ongoing funding level between successive actuarial valuations.
- 5.4 If, at the valuation date, the Fund had been invested in this portfolio, then in carrying out the valuation it would not be appropriate to make any allowance for out-performance of the Fund investments. On this basis of assessment, the assessed value of the Fund's liabilities at the 2010 valuation would have been significantly higher, by approximately 17% and the declared funding level would be correspondingly reduced to approximately 72%. This is illustrated in the following chart, which also shows the assets of the Fund broken down into return seeking and risk hedging classes, giving a broad indication of the degree to which a risk based investment strategy is being adopted in funding for the liabilities.



On the least risk basis the deficiency is £147 million.

- 5.5 Departure from a least risk investment strategy, in particular to include equity and other risk based return seeking investments, gives the prospect that out-performance by the assets will, over time, reduce the contribution requirements. The funding target might in practice therefore be achieved by a range of combinations of funding plan, investment strategy and investment performance.
- 5.6 The asset split shown above reflects the target benchmark at the valuation date. The Fund intends to purchase assets to match the pension liabilities. In this case the proportion of risk hedging assets would significantly increase and alter the risk : return balance of the portfolio as a whole.

6

Variability and risks

- 6.1 The employer contributions set out in the Schedule to the Rates and Adjustments Certificate have been determined as described in section 3 of this report. These in turn depend on the financial and demographic assumptions used as described in section 4.
- 6.2 The funding of defined benefits is by its nature uncertain. When actual experience is not in line with the assumptions adopted a surplus or shortfall will emerge at the next actuarial assessment and will require a subsequent contribution adjustment to bring the funding back into line with the target.
- 6.3 It is likely, especially in the short-term, that the assumptions will not be borne out in practice. It is therefore important to consider the potential impact on the employer contribution rates of actual experience differing from what has been assumed. The details in this section do this, based on the valuation results for the Fund as a whole.

Sensitivity to key assumptions

- 6.4 Real investment return, salary increase and life expectancy assumptions impact significantly on the funding position and the following table illustrates the sensitivity to variations in these key assumptions over the long term. The base point is the funding level of 84%. Each row of the table considers one change in isolation, with all other assumptions being unaltered. An equivalent change in the assumption in the opposite direction would change the funding level value by the equivalent amount in the opposite direction.

Change in assumption	Revised funding level at 31 March 2010
Pre and post-retirement return reduced by 0.25%	80%

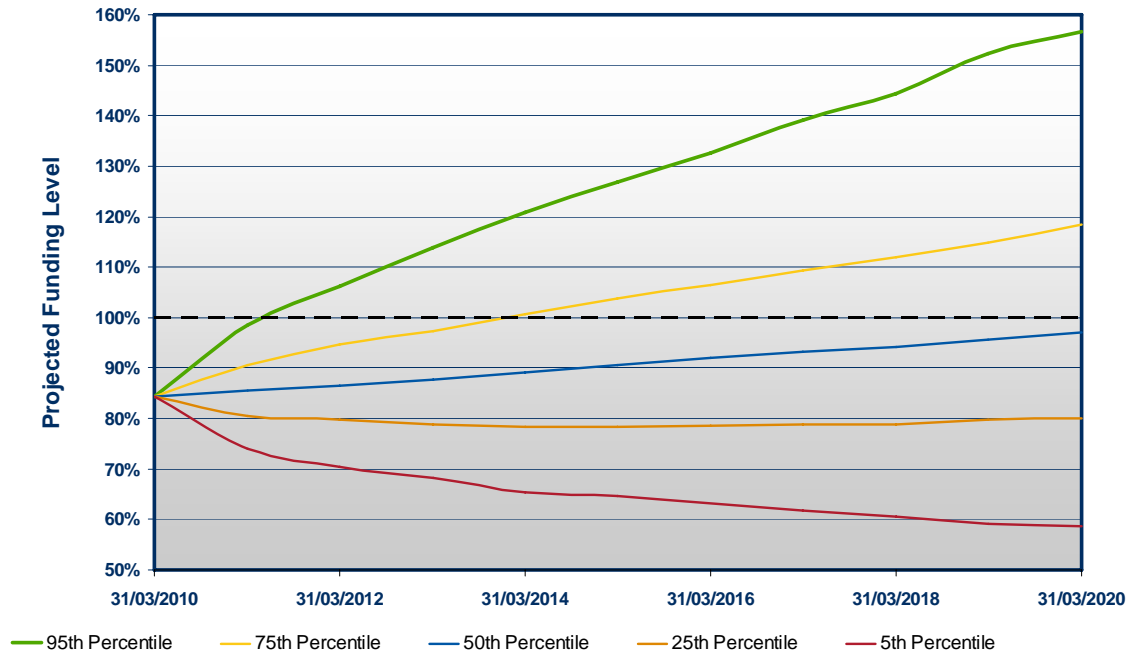
Change in assumption	Revised funding level at 31 March 2010
Inflation increased by 0.25% p.a.	80%
Life expectancy increased by 1 year	82%

- 6.5 Similarly these assumptions impact significantly on the cost of the benefits accruing over the year. The following table illustrates the sensitivity to variations in these key assumptions over the long term. The starting point is the normal contribution rate of 18.4% of Pensionable Pay. Each row of the table considers one change in isolation, with all other assumptions being unaltered. As before, a change in the assumption in the opposite direction would give rise to a change in the employer normal contribution rate of an equivalent amount in the opposite direction.

Change in assumption	Revised employer normal contribution rate at 31 March 2010 (% of Pensionable Pay)
Pre and post-retirement return reduced by 0.25%	19.6
Real salary growth increased by 0.25% p.a.	18.8
Life expectancy increased by 1 year	18.8

Funding level sensitivity to investment markets

- 6.6 The chart below shows a “funnel of doubt” funding level graph. This illustrates the range and uncertainty in the future progression of the funding level, relative to the funding target adopted at the valuation, due to possible changes in various risk factors such as investment markets and interest rates.
- 6.7 Using a simplified model, the chart shows the probability of exceeding a certain funding level over a 10 year period from the valuation date. For example, the top line shows the 95th percentile level (i.e. there is a 5% chance of the funding level at each point in time being better than the funding level shown, and a 95% chance of the funding level being lower).
- 6.8 The chart adopts the 2010 actuarial valuation results as a starting point, and allows for the planned contributions (the higher amounts shown on the certificate) into the Fund based on the valuation and funding strategy. It does not allow for the potential impact of the pensioner buy-in as this has not been completed at the valuation date. The chart assumes median investment returns in line with “best estimate” market expectations and variability of those returns broadly in line with historic experience. It assumes continuation of the Fund's current investment strategy, over the projection period.



Risks that the funding objective will not be met

- 6.9 The Administering Authority's policy for meeting the funding objective carries a number of risks outside of the Administering Authority's control. The following paragraphs comment on some potentially material risks.
- 6.10 One or both of the employers may not be able to pay contributions or to make good deficits in the future, the Fund's assets will be lower than expected and the funding level will be worse than expected. If the reason for the employer not paying the agreed contributions is one of financial difficulties, then the Administering Authority's focus would switch to the need to secure as far as possible that any debt from the employer on it exiting the fund can be recovered. This risk can be mitigated by regular employer covenant review, strengthening of covenant as appropriate, and monitoring of changes in employer covenant. In the ultimate default of an employer any shortfall could then become the responsibility of the guarantor of an employer. In addition the purchase of an insurance policy for certain pension payments will substantially reduce the risk.
- 6.11 If the future investment return on assets falls short of the rates assumed in the calculation of the funding target and recovery plan, the funding position will be worse than expected. It is likely that an increase in future employer contributions will be required. The analysis shown earlier in this section illustrates the potential volatility of contribution rates and funding levels to future investment returns.
- 6.12 If market levels and/or gilt yields change such that the liability values increase by more than the assets, or decrease by less than the assets, the funding position

would be worse than expected. An increase in employer contributions would be expected as a result. The same comments would apply if general population mortality studies and analysis of the Fund show that pensioners are living longer, or if improvements in mortality are found to be at a faster rate than allowed for. The analysis shown earlier in this section illustrates the quantitative impact of such changes.

- 6.13 If members make decisions around their options such that those decisions increased the Fund's liabilities (e.g. by not commuting pensions for cash to the extent assumed), the funding position would be worse than expected. As a result, future employer contributions might then need to be increased.
- 6.14 There is a specific investment matching risk that is particularly relevant for the Fund. This is the risk inherent in the proportion of equity-based investments, such that actual asset out-performance between successive valuations could diverge significantly from the investment return assumptions made, as set out in Appendix D.
- 6.15 As mentioned in Section 5, alternative investment strategies could be followed that would minimise the risk of deterioration in the funding position assessed relative to the funding target, for example by raising the proportion of bond investment. Such a strategy would reduce the risk that changing economic conditions would cause deterioration in the Fund's funding position. It would also tend to produce a more stable contribution rate but at a higher overall level than indicated in Section 3.

Appendix A

Summary of benefits

Local Government Pension Scheme Regulations

The benefits and contributions payable under the Fund are set out in the Local Government Pension Scheme (Benefits, Membership and Contributions) Regulations 2007 (as amended). These regulations have replaced the Regulations as were in force at the previous valuation, except for a number of saved regulations as specified by the Local Government Pension Scheme (Transitional Provisions) Regulations 2008.

With effect from 1 April 2008 new rules were introduced replacing the 1997 scheme, under the provisions of the Local Government Pension Scheme (Benefits, Membership and Contributions) Regulations 2007 (SI2007/1166). The principal changes were: the replacement, for future service, of the existing benefits structure based on a pension of 1/80th of Pensionable Pay for each year of pensionable service plus an automatic lump sum of three times this amount by one based on 1/60th of Pensionable Pay for each year of pensionable service; and an increase in the average level of employee contributions from that date. These changes were taken into account at the 2007 valuation.

The following supplementary Regulations have also been laid in relation to the new scheme:

- The Local Government Pension Scheme (Transitional Provisions) Regulations 2008 (SI2008/238)
- The Local Government Pension Scheme (Administration) Regulations 2008 (SI2008/239)
- The Local Government Pension Scheme (Management and Investment of Funds) Regulations 2009 (SI2009/3150)

The following further amendments to the above Regulations have subsequently been issued:

- The Local Government Pension Scheme (Benefits, Membership and Contributions) (Amendment) Regulations 2011 Statutory Instrument No. 561
- The Local Government Pension Scheme (Miscellaneous) Regulations 2010 Statutory Instrument No. 2090
- The Local Government Pension Scheme (Amendment) Regulations 2010 Statutory Instrument No. 528
- The Local Government Pension Scheme (Miscellaneous) Regulations 2009 Statutory Instrument No. 3150
- The Local Government Pension Scheme (Amendment) Regulations 2009 Statutory Instrument No. 1025
- The Local Government Pension Scheme (Administration) (Amendment) Regulations 2009 Statutory Instrument No. 447
- The Local Government Pension Scheme (Administration) (Amendment) Regulations 2008 Statutory Instrument No. 3245
- The Local Government Pension Scheme (Amendment) (No.2) Regulations 2008 Statutory Instrument No. 2989
- The Local Government Pension Scheme (Miscellaneous) Regulations 2008 Statutory Instrument No. 2425
- The Local Government Pension Scheme (Amendment) Regulations 2008 Statutory Instrument No. 1083 (including amendments as per Correction Slip issued in September 2009)

We have made no allowance for other changes which may be introduced in the future.

Benefits recharged to individual employers on a £ for £ basis have been excluded from the calculation of the valuation liabilities. In addition the pension increase liabilities in relation to pre-October 1986 service which are a responsibility of CENTRO (a participating employer in the West Midlands Pension Fund) have been excluded from the valuation.

The benefits arising from the award of compensatory added years (CAY) of service on premature retirement have been treated as fully funded within the Fund.

The benefits that will emerge from money purchase AVCs paid by members, and SCAVCs paid by employers, and the corresponding invested assets in respect of these AVCs and SCAVCs, have been excluded from the valuation.

UK and European law requires pension schemes to provide equal benefits to men and women in respect of service after 17 May 1990 (the date of the “Barber” judgement) and this includes providing equal benefits accrued from that date to reflect the differences in GMPs. There is no consensus or legislative guidance as to what adjustments have to be made to scheme benefits to correct these inequalities for ongoing schemes (i.e. for schemes other than those which are in the Pension Protection Fund). The valuation makes no allowance for removal of these inequalities. It is consequently possible that additional funding will be required for equalisation once the law has been clarified. It is recommended that the Administering Authority seek further professional advice if it is concerned about this issue.

The Government announced in June 2010 that the rate of increase and revaluation that applies to pensions in payment and deferment in the LGPS and the other public sector schemes will in future be determined by reference to the Consumer Price Index (CPI) rather than the Retail Prices Index (RPI). Historically, CPI increases have on average been lower than RPI increases and, due to the nature of the two calculations, they are expected to remain so over the long term. The change is expected, therefore, to lead to lower increases to pensions, both in deferment and once in payment. This change has been taken into account in determining the financial assumptions adopted at this valuation.

Appendix B

Summary of membership data

Pensionable Employees

	At 31 March 2007	At 31 March 2010	Increase (%)
Number	1,148	926	-19.3
Annual Pensionable Pay ¹ (£000s)	23,824	20,916	-12.2
Average Pensionable Pay (£)	20,752	22,588	8.8
Average Age ² (years)	52.2	53.3	N/A
Average Pensionable Service ³ (years)	25.1	27.2	8.4

Notes: 1 – Pensionable Pay figures include actual pay for part-time employees.

2 – Weighted by accrued pension.

3 – Weighted by salary.

Preserved Pensioners*

	At 31 March 2007	At 31 March 2010	Increase (%)
Number	1,052	1,009	-4.1
Annual Pensions inclusive of Pension Increase (£000s)	3,098	3,161	2.0
Average Pension including Pension Increase (£)	2,947	3,132	6.3
Average Age ² (years)	50.3	51.3	N/A

* including frozen refunds and leaver options pending

Current Pensioners

	At 31 March 2007	At 31 March 2010	Increase (%)
Number	2,732	2,939	7.6
Annual Pensions inclusive of Pension Increase (£000s)	15,955	18,485	15.9
Average Pension including Pension Increase (£)	5,857	6,290	7.4
Average Age ² (years)	64.6	66.8	N/A

Current Widow/Widower Pensioners etc.

	At 31 March 2007	At 31 March 2010	Increase (%)
Number	288	372	29.2
Annual Pensions inclusive of Pension Increase (£000s)	771	1,088	41.1
Average Pension including Pension Increase (£)	2,678	2,925	9.2
Average Age ² (years)	64.3	66.9	N/A

In addition there were 20 current dependant pensioners as at 31 March 2010 with pensions in payment totalling £41,262 per annum.

Note:

The above figures include the element in respect of pre October 1986 pension increases which are a responsibility of CENTRO although the liabilities have been excluded from the valuation.

Appendix C

Distribution of membership by employing bodies

Employing Body	Pensionable Employees	Preserved Pensioners	Pensioners
Preston Bus Ltd	0	38	110
West Midlands Travel Ltd	926	971	3,221
Totals	926	1,009	3,331



Appendix D

Actuarial assumptions used

Funding target assumptions

Financial assumptions

Investment return (discount rate)

A yield based on market returns on UK Government gilt stocks and other instruments which reflects a market consistent discount rate for the profile and duration of the Scheme's accrued liabilities, plus an Asset Out-performance Assumption ("AOA") of 2.5% p.a. for the period pre-retirement and 0.5% p.a. post-retirement for non-retired members. For retired members the AOA is 0% p.a. In relation to the liabilities for Preston Bus Ltd the AOA is reduced to 2.0% and 0.0% respectively.

The asset out-performance assumption represents the allowance made, in calculating the funding target, for the long term additional investment performance on the assets of the Fund relative to the yields available on long dated gilt stocks as at the valuation date. The allowance for this out-performance is based on the liability profile of the Scheme, with a higher assumption in respect of the "pre-retirement" (i.e. active and deferred pensioner) liabilities than for the "post-retirement" (i.e. pensioner) liabilities. This approach thereby allows for a gradual shift in the overall equity/bond weighting of the Fund as the liability profile of the membership matures over time. The AOA in respect of pensioner members reflects the intention to back these liabilities with a high proportion of matching assets.

Inflation (Consumer Prices Index)

The inflation assumption will be taken to be the investment market's expectation for RPI inflation as indicated by the difference between yields derived from market instruments, principally conventional and index-linked UK Government gilts as at the valuation date, reflecting the profile and duration of the Scheme's accrued liabilities but subject to the following two adjustments.

- An allowance for supply/demand distortions in the bond market is incorporated and
- Due to retirement pensions being increased annually by the change in the Consumer Price Index rather than the Retail Price Index, as announced in June 2010. This change will apply from April 2011 and the assumptions make due allowance for this revision as advised by the Actuary.

The overall reduction to market implied RPI inflation at the valuation date is 0.8% per annum.

Salary increases

The assumption for real salary increases (salary increases in excess of price inflation) will be determined by an allowance of 1.5 % p.a. over the CPI inflation assumption as described above. This includes allowance for promotional increases. This has been modified from the assumption at the previous valuation (of 1.5 % above the RPI inflation assumption) to reflect future expectations, averaged over the long-term, for real salary increases, and the change in inflation assumption from RPI to CPI.

An adjustment has been made reflecting the pay agreements in place for the next two years

Pension increases

Increases to pensions are assumed to be in line with the inflation (CPI) assumption described above. The pension increase assumption is modified appropriately to reflect any benefits which are not fully indexed in line with inflation (e.g. Guaranteed Minimum Pensions in respect of service prior to April 1997).

Demographic assumptions

Mortality

The mortality assumptions will be based on the most up-to-date information in relation to self-administered pension schemes published by the Continuous Mortality Investigation CMI, making allowance for future improvements in longevity and the experience of the scheme. The mortality tables used reflect the Fund's membership profile, and are set out in the summary section below. Members who retire on the grounds of ill health are assumed to exhibit average mortality equivalent to that for a good health retiree at an age 3 years older. For all members, it is assumed that the accelerated trend in longevity seen in recent years will continue in the longer term and as such, the assumptions build in a minimum level of longevity 'improvement' year on year in the future in line with the CMI projections subject to a minimum rate of improvement of 1% per annum.

Early retirement

Some members are entitled to receive their benefits (or a part of their benefits) unreduced from an age prior to the Fund's normal pension age under the "Rule of 85" provisions of the Regulations. This age will be at some point between ages 60 and 65, depending on the length of a member's pensionable service. The calculations in respect

of the relevant service to which these terms apply (basically pre April 2008 service but with transitional protections for certain members) allow for a proportion of the active membership to retire in normal health prior to age 65, as set out below.

% retiring per annum	
Age	
60	55
61	30
62	25
63	25
64	25

For post April 2008 service (other than protected service) the situation is different since the "Rule of 85" rule has been removed (and for post October 2006 service for new entrants to the Scheme from that date). For this service we have assumed the earliest age at which unreduced benefits become an entitlement is 65, except for those members who have protected status under the transitional provisions.

No allowance has been made for early retirements (including on the grounds of ill health) prior to the ages specified above. Additional capital contributions will be paid by employers in respect of the cost of these retirements.

Withdrawals

This assumption relates to those members who leave the scheme with an entitlement to a deferred pension or transfer value. It has been assumed that active members will leave the Scheme at the following sample rates:

Age	% leaving per annum	
	Males	Females
25	13.50	14.92
35	3.39	4.18
45	1.69	2.59

Commutation

It has been assumed that, on average, 50% of retiring members will take the maximum tax-free cash available at retirement and 50% will take the standard 3/80ths cash sum. The option which members have to commute part of their pension at retirement in return for a lump sum is a rate of £12 cash for each £1 p.a. of pension given up.

Proportion married/in civil partnership and age difference

It has been assumed that the proportions of members below will on death give rise to a spouse's/civil partner's/dependant's pension, and that spouses/partners of female (male) members are three years older (younger), on average than the member.

Age	% spouse/partner	
	Males	Females
45	92	93
55	95	95
65	90	90

Expenses

Expenses are met out of the Fund, in accordance with the Regulations. This is allowed for by additional contributions as required from participating employers. This addition is reassessed at each valuation. Investment expenses have been allowed for implicitly in determining the discount rates.

Discretionary Benefits

The costs of any discretion exercised by an employer in order to enhance benefits for a member through the Fund will be subject to additional contributions from the employer as required by the Regulations as and when the event occurs. As a result, no allowance for such discretionary benefits has been made in the valuation.

Summary of key assumptions used for calculating funding target and cost of future accrual for the 2010 actuarial valuation

Long-term gilt yields

Fixed interest	4.5% p.a.
Index linked	0.7% p.a.

Financial assumptions

Investment return pre-retirement	7.0 *% p.a.
Investment return post-retirement (non-retired members)	5.0*% p.a.
Investment return post-retirement (retired members)	4.5**% p.a.
CPI price inflation	3.0% p.a.
Salary increases	4.5 % p.a.
Pension increases	3.0 % p.a.

* 6.5% p.a. and 4.5% p.a. respectively for Preston Bus Ltd

** before short term adjustment

Post retirement mortality

	Table	Adjustment*
Males normal health pensioners	S1PMA CMI_2009_M [1%]	114%
Female normal health pensioners	S1PFA CMI_2009_F [1%]	104%
Males ill health pensioners	As for male normal health pensioners +3 years	
Female ill health pensioners	As for female normal health pensioners +3 years	
Male dependants	S1PMA CMI_2009_M [1%]	108%
Female dependants	S1DFA CMI_2009_F [1%]	119%
Male future dependants	S1PMA CMI_2009_M [1%]	113%
Female future dependants	S1DFA CMI_2009_F [1%]	112%

* An **age rating** applied to an actuarial table has the effect of assuming that beneficiaries have a life expectancy equal to those older (or younger) than their actual age.

For example, a "+1 year" rating would mean beneficiaries are assumed to have the mortality of someone one year their senior which has the effect of reducing their life expectancy and hence reducing the assessed value of the corresponding liabilities.

A **weighting** applied to an actuarial table has the effect of increasing or reducing the chance of survival at each age, which increases or reduces the corresponding life expectancy.

For example, a "114%" weighting would mean beneficiaries have mortality rates 14% higher than the unadjusted table which reduces the assessed value of the corresponding liabilities.

Other Demographic assumptions

Pre-retirement mortality	PA92 MC YoB tables + 1 year
Commutation	One half of members take maximum lump sum, others take 3/80ths
Other demographics	As for 2007 Valuation

Assumptions used in calculating contributions payable under the recovery plan

The contributions payable under the recovery plan are calculated using the same assumptions as those used to calculate the **funding target**, with the exception that, for certain employers who can provide a suitable guarantee of covenant to the satisfaction of the Administering Authority, the required contributions are adjusted to allow for the following variation in assumptions during the period of the recovery plan:

Investment return on existing assets and future contributions

A maximum additional return of up to 2.25% p.a. above the liabilities consistent gilt yield of 4.5% p.a. effective as at the valuation date. This additional return is only in respect of the remainder of the assets after fully funding the pension liabilities. The intention is to buy matching assets to back the vast majority of the pensioner liabilities, therefore it would not be appropriate to make allowance for any such out-performance in respect of those assets.

This is equivalent to a rate of investment return of 6.75% p.a. effective as at the 2010 valuation date in respect of the non-pensioner assets only.

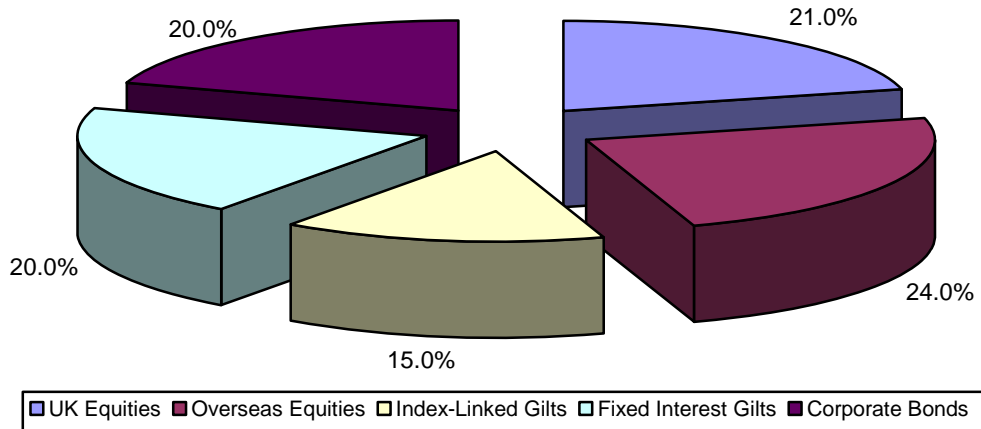
The investment return assumed for the contributions under the recovery plan is taken to apply throughout the recovery period. As a result, any change in investment strategy which would act to reduce the expected future investment returns could invalidate these assumptions and therefore the funding strategy.

The above variation to assumptions in relation to the recovery plan can only be applied for those employers which the Administering Authority deems to be of sufficiently high covenant to support the anticipation of investment returns, based on the current investment strategy, over the entire duration of the recovery period. No such variation in the assumptions will apply in any case to any employer which does not have a funding deficit at the valuation (and therefore for which no recovery plan is applicable). Where the variation in the assumptions does apply, the resultant total contribution rate(s) implemented following the 2010 valuation will be subject to a minimum of the normal future service contribution rate for the employer concerned.



Summary of assets

Based on the information supplied, the market value of the assets of the Fund (excluding those additional voluntary contribution funds (AVCs) which are separately invested) was £382 million on the valuation date. The target distribution of assets by asset class as per the Fund’s Statement of Investment Principles was as follows:-



The details of the assets at the valuation date and the financial transactions during the inter-valuation period (as summarised in Appendix F) have been obtained from the audited accounts for the Scheme.

Appendix F

Summary of income and expenditure

INCOME	Year ending 31 March			Total
	2008	2009	2010	
	£000s	£000s	£000s	£000s
Fund at beginning of year	373,934	365,069	311,752	373,934
Contributions to Fund:				
Employees	1,258	1,255	1,261	3,774
Employers	8,013	8,658	8,110	24,781
Transfer Values received				
Investment income	5,628	182	14	5,824
Change in market value of investments	520	-40,742	86,054	45,832
TOTAL:	389,353	334,422	407,191	454,145
EXPENDITURE	Year ending 31 March			Total
	2008	2009	2010	
	£000s	£000s	£000s	£000s
Pensions for members/spouses/partners/dependants	17,226	18,383	19,615	55,224
Lump sum benefits	4,328	3,373	3,906	11,607
Benefits Recharged	-13	0	0	-13
Refunds on withdrawal	1,538	282	859	2,679
Transfer values paid	9	11	14	34
Taxation	219	-25	0	194
Investment expenses	694	360	353	1,407
Administration expenses	283	286	284	853
Fund at end of year	365,069	311,752	382,160	382,160
TOTAL:	389,353	334,422	407,191	454,145

Appendix G

Experience analysis of the membership of the Fund for the period 1 April 2007 to 31 March 2010

The analysis below compares the actual experience over the 3 year period with the assumptions used for the 2010 valuation.

1. Withdrawals

	Actual	Expected	%
Males	192	29	662
Females	7	3	233
Total	199	32	622

Note that the actual number of withdrawals includes members moving to another LGPS Fund, bulk transfers and also transfers under the special transfer club terms.

2. Pensioner Deaths

a. Based on amounts of pension payable

	Actual (£000s)	Expected (£000s)	%
Males	706	760	93
Females	51	55	93
Total	757	815	93

b. Based on number of pensions in payment

	Actual	Expected	%
Males	119	124	96
Females	22	20	110
Total	141	144	98



Appendix H

Rates and Adjustments Certificate issued in accordance with Regulation 36 of the Administration Regulations

Name of Fund

West Midlands Integrated Transport Authority Pension Fund

Common Contribution Rate

I hereby certify that, in my opinion, the common rate of employers' contributions payable in each year of the period of three years beginning 1 April 2011 should be at the rate of 18.4% per cent of Pensionable Pay.

Individual Employer Contributions

I hereby certify that, in my opinion, the amount of the employers' contributions payable in each year of the period of three years beginning with 1 April 2011, as set out above, should be individually adjusted as set out in the attached schedule.

Regulation 36(8)

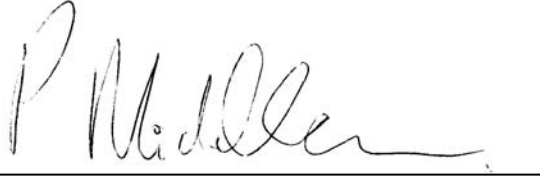
No allowance for early retirements (including on the grounds of ill health) has been made in determining the results of the valuation, on the basis that the costs arising will be met by additional contributions.

Payment of Contributions

Unless agreed with the Administering Authority contributions will be payable monthly in arrears with each payment normally being due by the 19th of the following month. Pensionable Pay is pay as determined under the LGPS regulations for the calculation of employee contributions.

A further individual adjustment shall be applied in respect of each early retirement (including on the grounds of ill health) occurring in the period of three years covered by this certificate. This further individual adjustment will be calculated in accordance with methods agreed from time to time between the Fund's actuary and the Administering Authority.

The contributions set out in the attached schedule represent the minimum contribution which may be paid by each employer. Additional contributions may be paid if requested by the employer concerned.

Signature	
Name	Paul Middleman
Qualification	Fellow of the Institute and Faculty of Actuaries
Date of signing	31 March 2011

Appendix I

Schedule to the Rates and Adjustment Certificate dated 31 March 2011

Employers	2011/12		2012/13		2013/14	
	Individual Adjustment	Future Service Rate (% of pay) plus Lump Sum (£s)	Individual Adjustment	Future Service Rate (% of pay) plus Lump Sum (£s)	Individual Adjustment	Future Service Rate (% of pay) plus Lump Sum (£s)
West Midlands Travel Ltd	£5,500,000	18.4% plus £5,500,000	£5,500,000	18.4% plus £5,500,000	£5,500,000	18.4% plus £5,500,000
Preston Bus Ltd	-18.4% plus £400,000	£400,000	-18.4% plus £400,000	£400,000	-18.4% plus £400,000	£400,000

Notes:

West Midlands Travel Ltd (WMTL)

The contribution rates as certified above for West Midlands Travel Limited are conditional on the provision of suitable guarantee arrangements being put in place relating to its participation in the Fund.

If the guarantee is not in place to the satisfaction of the Administering Authority by 30 June 2011, then the contributions will revert to those in the table below:

Employers	2011/12		2012/13		2013/14	
	Individual Adjustment	Future Service Rate (% of pay) plus Lump Sum (£s)	Individual Adjustment	Future Service Rate (% of pay) plus Lump Sum (£s)	Individual Adjustment	Future Service Rate (% of pay) plus Lump Sum (£s)
West Midlands Travel Ltd	£8,560,000	18.4% plus £8,560,000	£8,560,000	18.4% plus £8,560,000	£8,560,000	18.4% plus £8,560,000

A bulk annuity insurance arrangement is intended to take place as referred to in paragraph 4.9 of this report. The exact cost of the bulk annuity purchase is yet to be finalised and the above contributions are subject to variation if the final cost results in a funding gain(strain). The funding gain(strain) will be calculated as the cost of the insured benefits as measured on the assumptions set out in this report (updated for market conditions) less the cost of the insurance premium. If this figure is greater than £15 million or less than -£15 million, then a further adjustment will be required.

The adjustment will be:

- a reduction(increase) in contributions of £120,000 per annum for every £1 million gain above £15m (strain below -£15m) for the figures **without** a guarantee
- a reduction(increase) in contributions of £90,000 per annum for every £1 million gain above £15m (strain below -£15m) for the figures **with** a guarantee

Preston Bus Limited (PBL)

The contribution rates certified above for PBL are based on the Actuary's and Administering Authority's understanding of the financial covenant of the employer. The Administering Authority may vary the contributions if circumstances change subject to any variation being within the remit of the LGPS Regulations and in line with the advice from the Actuary.

MERCER

Argentina

Australia

Austria

Belgium

Brazil

Canada

Chile

China

Colombia

Czech Republic

Denmark

Finland

France

Germany

Hong Kong

India

Indonesia

Ireland

Italy

Japan

Malaysia

Mexico

Netherlands

New Zealand

Norway

Philippines

Poland

Portugal

Saudi Arabia

Singapore

South Korea

Spain

Sweden

Switzerland

Taiwan

Thailand

Turkey

United Arab Emirates

United Kingdom

United States

Venezuela

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