Falkirk Council Pension Fund

Actuarial valuation as at 31 March 2008

February 2009

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For and on behalf of Hymans Robertson LLP

PUBLIC SECTOR

Contents

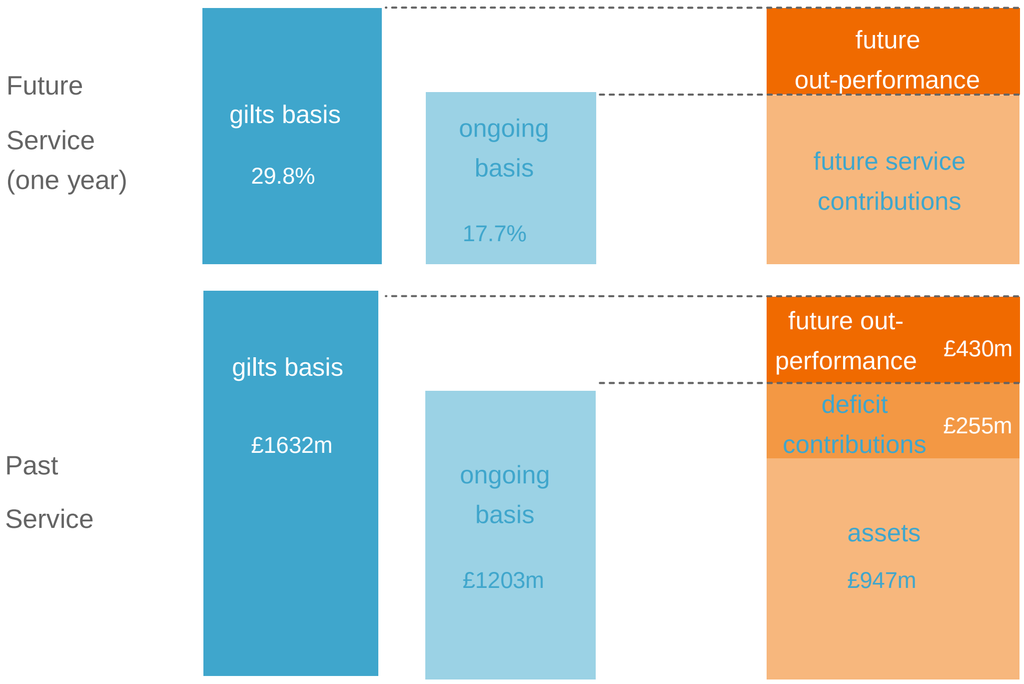
Executive summary

We have carried out an actuarial valuation of the Falkirk Pension Fund ('the Fund') as at 31 March 2008 ('the valuation date'). The results are presented in this report and summarised below.

The Fund's objective of holding sufficient assets to meet the estimated current cost of providing members' past service benefits was not met at the valuation date. The funding level was 78.8% (compared to 86.4% at 31 March 2005) and there was a funding shortfall of £255m.

Without anticipating an element of future equity out-performance, the 'gilt-based' funding level would be 58.0% at the valuation date, and there would be a shortfall of £685m.

The Fund's financial position at the valuation date is illustrated graphically in the chart below.



The employers' average future service contribution rate as at 31 March 2008 (ignoring the past service shortfall) is 17.7% of pensionable pay. Assuming that a funding level of 100% is to be targeted over a period of 20 years, the common employers' contribution rate is 23.8% of pensionable pay. These figures take advance credit from outperformance of the Fund's assets relative to gilt yields on the valuation basis, as set out in the Funding Strategy Statement. Ignoring this credit for outperformance, the employers' average future service rate would be 29.8% of pay and the theoretical common contribution rate would be 43.9% of pay.

Adjustments have been made to the common rate of employers' contribution to take account of certain circumstances that are peculiar to individual employers, as required by Regulation 76(6) of the Local Government Pension Scheme (Scotland) Regulations 1998. The minimum contributions to be paid by each employer from 1 April 2009 to 31 March 2012 are shown in the Rates and Adjustment Certificate at Appendix H.

The results of the valuation are very sensitive to the actuarial assumptions made. If actual future demographic and economic experience does not match the assumptions, the financial position of the Fund could deteriorate. Market conditions since the valuation have deteriorated, significantly. The modelling work which has been undertaken to support the Fund's contribution strategy has allowed for market conditions to 31 October 2008.

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1 Introduction

We have carried out an actuarial valuation of the Falkirk Council Pension (‘the Fund’) as at 31 March 2008 (‘the valuation date’) and this is our report to Falkirk Council (‘the Administering Authority’) on the results of the valuation.

The main purposes of this valuation are:

- to assess the extent to which the Administering Authority‘s funding objectives were met at the valuation date;
- to identify the contributions payable by the employers to the Fund in future in order to meet the Administering Authority‘s funding objectives;
- to enable completion of all relevant certificates and statements in connection with the Local Government Pension Scheme (Scotland) Regulations 1998 (‘the Regulations’), and other relevant regulations (see Appendix A); and
- to comment on the circumstances that may give rise to future fluctuations in the funding level of the Fund or employers’ contributions.

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 our statutory obligations. It should not be used for any other purpose. It should not be released or otherwise disclosed to any third party except as required by law or with our prior written consent, in which case it should be released in its entirety. This report can be passed to Fund employers for the purpose of providing information on the funding of the Fund.

Neither we, nor Hymans Robertson LLP, accept any liability to any other party unless we have expressly accepted such liability in writing.

2 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.

The Funding Strategy Statement

The Administering Authority prepares a Funding Strategy Statement (FSS) in respect of the Fund, in collaboration with us (the Fund's actuaries) and after consultation with the Fund's employers and investment adviser. The FSS has been reviewed as part of the 2008 triennial valuation exercise. We are required to have regard to this statement when carrying out our valuation.

Funding objectives

The objectives of the Fund's funding policy, as set out in the FSS are as follows:

- to ensure the long-term solvency of the Fund;
- to ensure that sufficient funds are available to meet all benefits as they fall due for payment;
- to enable employer contribution rates to be kept as nearly constant as possible and at a reasonable cost to the participating employers and to the taxpayers;
- to manage employers' liabilities effectively;
- to use reasonable measures to reduce the risk to scheme employers, and ultimately the taxpayers, from an employer defaulting on its pensions obligations;
- to maximise the income from investments within reasonable risk parameters; and
- to address the different characteristics of the various employers to the extent that this is practical and cost-effective.

What are the Fund's liabilities?

The Fund's liabilities are essentially the benefits promised to Fund members (past and current contributors) and to members' dependants on their death. The valuation places a current or present value on these liabilities on the valuation date.

The cost of members' benefits depends on three main factors:

1 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 Local Government Pension Scheme (Scotland) Regulations 1998, as amended ("the Regulations"). Employee members are required to pay contributions to the Fund, generally at the rate of 6% of pensionable pay[1], although changes to be introduced from April 2009 will see the introduction of variable employee contribution rates for all members. The principal elements of the Fund's benefit structure are summarised in Appendix B. These benefits are common to all employers participating in the Fund.

[1] A closed group of manual workers who joined before April 1998 have had the right to contribute 5% of pay protected, although this will change from April 2009.

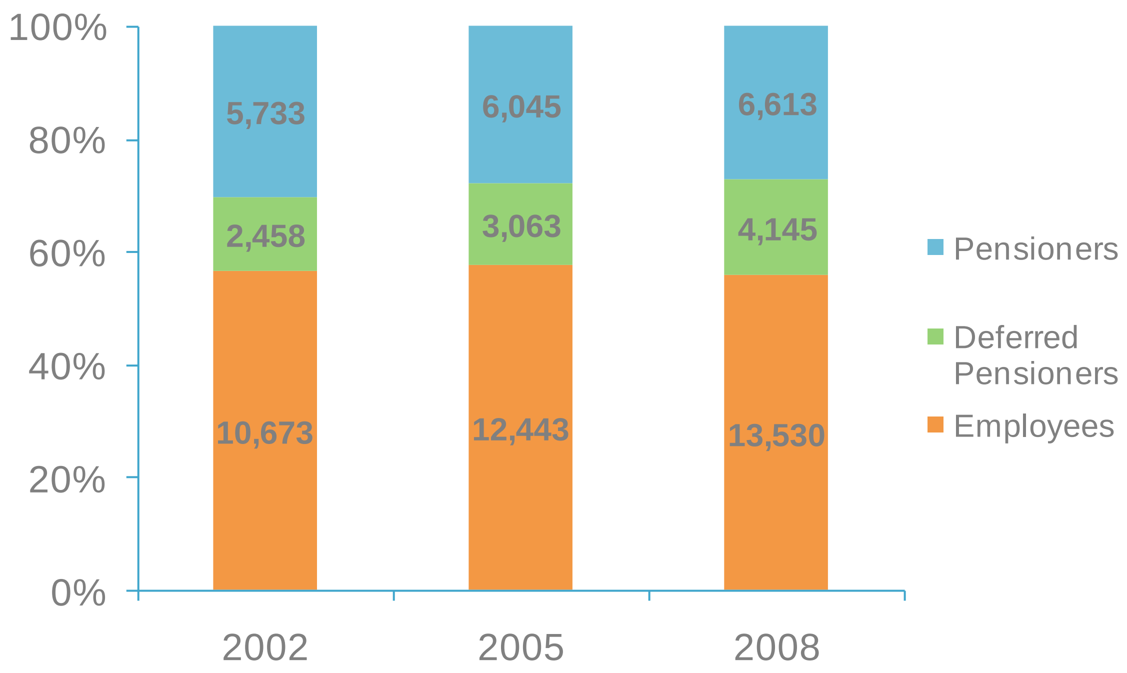
Subsequent to the valuation date, the benefits and member contributions payable by, and to, the LGPS respectively, have been amended, with effect from 1 April 2009. As the Rates and Adjustments certificate specifies employer contributions from 1 April 2009 to 31 March 2012, we have allowed for the changes in assessing the cost of future service benefits. The allowance made is based on our understanding of the provisions of the new scheme and is subject to change as any changes are made to the new scheme. A summary of the changes is set out in Appendix B.

There are a small number of discretionary powers that may be exercised by the Administering Authority or by individual employers. The principal discretions are also summarised in Appendix B. With the exception of the employers' powers to pay early unreduced benefits or augment benefits on early retirement, we would not normally expect the exercise of these powers to have a material effect on the valuation results. In any event, we 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 early retirements unless agreed otherwise.

The requirements of sex-equality legislation (for example in respect of differences in the guaranteed minimum pensions for men and women) and age-equality legislation are not clear cut. In this valuation, we have not taken account of any additional costs which may arise from any future requirement to amend the LGPS benefit structure in respect of these issues.

2 The profile of the members.

The membership of the Fund at the current and previous two valuations are summarised in the chart below and described in more detail in Appendix C.



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, the contribution rate (as a percentage of pay) becomes more sensitive to the past service position. The profile of the employee members (age, sex and category) also affects how much future benefits will cost.

3 When and for how long will the benefits be paid.

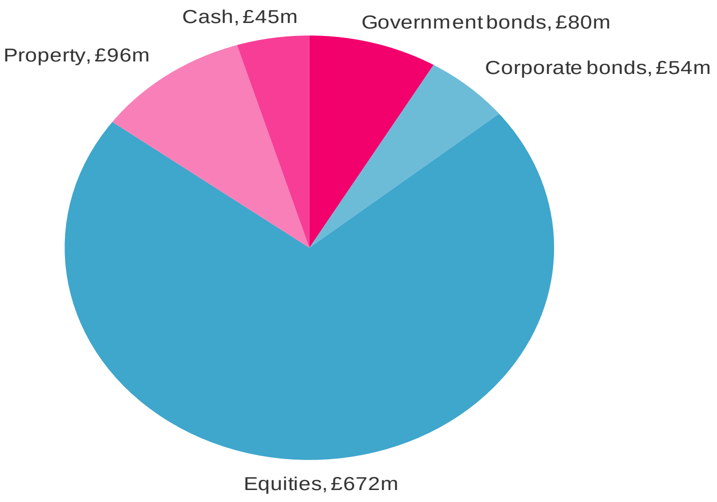
The timing and amount of benefit payments depends on future experience, such as when members will retire and how long they will live in retirement. In assessing the expected cost of members' benefits, we need to make actuarial assumptions about such experience. We explain the actuarial assumptions later in this report.

It should be noted that the actual future cost of providing members' benefits is not known in advance. 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 the valuation date (excluding money purchase AVC funds) was £947m as shown in the audited accounts for the Fund for the period ending on 31 March 2008. No part of the Fund is comprised of insurance policies.

The Fund's assets at 31 March 2008 are summarised in the chart below and in more detail in Appendix C. The consolidated Revenue Account for the three year period to 31 March 2008 is also summarised in Appendix C.



Notes:

(1) Cash includes net current assets (liabilities).

(2) The assets taken into account for valuation purposes include the present value of future contributions scheduled to be made by employers in respect of early retirements granted before the valuation date.

The membership and accounting data has been provided by the Administering Authority and we have relied on the accuracy of the information provided.

3 Funding method and assumptions

We have used a funding method and assumptions for this valuation consistent with the Administering Authority's funding objectives set out in its Funding Strategy Statement. The methodology and assumptions are described below, and in more detail in Appendices D and F.

Methodology

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

The method we have chosen compares the value of assets with the value of past service benefits, taking account of all expected future salary 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 100% over a specific period. The "past service adjustment" is the additional employer contribution calculated to be required to target 100% over that period if there is a deficit (a contribution reduction will be calculated if there is a surplus). The past service adjustments can be expressed as a monetary amount or as a percentage of the value of the members' pensionable pay over the period.

To determine the employer contribution requirement for future service for the Fund as a whole, and for employers who continue to admit new members, we have assessed the cost of future service benefits for the year following the valuation date, taking account of expected future salary increases. The contribution rate required to meet the expected cost of future service benefits is derived as this value less expected member contributions expressed as a percentage of the value of members' pensionable pay over the year. This is known as the 'Projected Unit method' and is explained in further detail in Appendix D.

To determine the employer contribution requirement for future service for employers who no longer admit new members, we have assessed the cost of future service benefits over the expected remaining period of contributory membership of employee members, again taking account of expected future salary increases. The contribution rate required to meet the expected cost of future service benefits is derived as this value less expected member contributions expressed as a percentage of the value of members' pensionable pay over their expected future period of contributory membership. This is known as the 'Attained Age method' and is explained in further detail in Appendix D.

Finally, an allowance for expenses is added to the Employer contribution rate.

Actuarial assumptions

In the actuarial valuation, we must use assumptions about the factors affecting the Fund's finances in the future. The assumptions to which the valuation is most sensitive are described here and a full statement of the assumptions is given in Appendix E.

The principal assumptions we have adopted for the valuation of members' benefits are shown below.

Assumption	Derivation	Rate at 31 March 2008	
		Nominal	Real
Price Inflation (RPI)	Market expectation of long term future inflation as measured by the difference between yields on fixed and index-linked Government bonds as at the valuation date	3.6%	-
Pay Increases *	Assumed to be 1.5% p.a. in excess of price inflation	5.1%	1.5%
'Gilt-based' discount rate	The yield on fixed-interest (nominal) and index-linked (real) Government bonds	4.5%	0.9%
Funding basis discount rate	Assumed to be 1.6% p.a. above the yield on fixed interest Government bonds	6.1%	2.5%

* Plus an allowance for promotional pay increases.

Discount rate

In order to place a current value on the future benefit cashflows expected to be paid from the Fund, we need to 'discount' the future cashflows to the valuation date. 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 'gilt-based' valuation will use the yield on suitably dated Government bonds. These valuations are intended to place a 'value' on the pension promise.

The funding valuation is effectively a budgeting exercise, to assess the funds needed to meet the benefits as they fall due. For this purpose, we have set the discount rate taking into account the Fund's current and expected future investment strategy and assumed an asset outperformance assumption of 1.6% p.a. One way of measuring the degree of prudence in the funding strategy is to measure the extent to which advance credit is taken for expected future investment returns over and above gilt returns. Funding strategy should not however be considered in isolation and the degree of risk inherent in the Fund's investment strategy should also be considered. The modelling exercise we have undertaken allows us and the Administering Authority to consider the interaction of funding and investment strategy.

Longevity

In addition to the financial assumptions, the main assumption to which the valuation results are most sensitive is that relating to future longevity. For this valuation, we have adopted assumptions which give the following average future life expectancies for the member profiles shown at the valuation date:

	Assumptions to assess funding position and 'gilt based' position at 31 March 2008		Assumptions to assess funding position at 31 March 2005	
Males (M) or Females (F)	M	F	M	F
Average future life expectancy (in years) for a pensioner aged 65 at the valuation date	20.7	23.8	20.3	23.3
Average future life expectancy (in years) at age 65 for a non-pensioner aged 45 at the valuation date	22.0	25.0	21.4	24.4
Average future life expectancy (in years) at age 45 for a non-pensioner aged 45 at the valuation date	41.3	44.3	40.9	43.8

Assets

We have taken the assets of the Fund into account at their audited market value as indicated in the data submitted for the valuation.

We have included an allowance for the future expected payments in respect of early retirement strain and augmentation costs granted prior to the valuation date in the value of assets, for consistency with the liabilities and with the previous valuation.

In our 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.

4 Funding position: are the objectives met?

As we noted earlier, the Administering Authority has prepared a Funding Strategy Statement which sets out its funding objectives for the Fund. In broad terms, the main objectives are to hold sufficient assets in the Fund to meet the assessed cost of members' past service benefits i.e. to ensure the 'solvency' of the Fund, as required by the Regulations and to maintain a relatively stable employer contribution rate. These objectives are potentially conflicting.

Past service

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

Valuation date	2008
Past Service Liabilities	£m
Employees	688
Deferred Pensioners	125
Pensioners	390
Total Liabilities	1,203
Assets	947
Surplus/(Deficit)	(255)
Funding Level	78.8%

At the valuation date the funding level was 78.8%.

The past service funding objective was not met: there was a shortfall of assets to the assessed cost of members' benefits of £255m. More details of the funding position are given in Appendix G.

Future service

We have calculated the long-term contribution rate that the Fund employers would need to pay to meet the assessed cost of members' benefits as they are built up in the future (the 'future service contribution rate'). Again, we have used the method and assumptions set out in the previous section of this report and therefore the resulting contribution rate is that which should (if the actuarial assumptions match actual experience) ensure that the Administering Authority's funding objective is met for benefits earned after the valuation date. It ignores the shortfall in the Fund at the valuation date.

The combined employers' future service contribution rate (after deducting employee members' contributions) is 17.7% of pensionable pay, payable with effect from 1 April 2009. This contribution rate includes expenses and the expected cost of lump sum death benefits, but excludes early retirement strain and augmentation costs which are payable by Fund employers in addition to the contribution rate. The corresponding rate as at 31 March 2005 was 13.5% of pay. Even before the change in the past service position is allowed for, it is clear that maintaining stability of employer contributions would not be straightforward.

The total employer contribution rate requirement is given in Section 6, with further detail, including a comparison with 2005 rates, shown in Appendix G.

5 Changes since the previous valuation

The previous formal actuarial valuation of the Fund was carried out with an effective date of 31 March 2005. Since then, there have been changes to the Fund and its membership, to the economic environment in which the Fund operates and to the valuation process. Many of these changes have affected the valuation results. The relevant changes, and their effects on the actuarial valuation, are described in Appendix E and summarised below.

Changes to the Fund's benefit structure

Since the previous valuation, a number of changes have been made to the LGPS benefit structure. Full details of the scheme benefits are set out in Appendix B and the changes and their effect on the valuation are detailed in Appendix E.

Changes to the funding objectives

Whilst there have been no changes to the funding objectives per se, the Administering Authority has reviewed the balance between the need to ensure the solvency of the Fund and take a longer-term prudent view, with the desire to achieve a stable (and affordable) contribution rate for the long-term, secure employers. The steps taken are described in Section 6 and 7.

Changes to the assumptions

There have been some changes to the demographic assumptions since the previous valuation. The financial assumptions have been updated to reflect the changes in market conditions. The assumptions used in this and the previous valuation are shown in Appendix F. Further detail on changes is included in appendix E.

Changes to the economic environment

Since the previous valuation, equity markets have risen and gilt markets have risen (so yields have fallen). In particular, market expectations of inflation have risen and real index-linked gilt yields have fallen sharply. Overall, although investment returns have been greater than expected, this has been more than offset by the increase in liabilities due to the fall in yields and the increased allowance for inflation, resulting in an unfavourable impact on the funding level. Lower real gilt yields have also increased the assessed cost of future service benefits.

Changes to the Fund 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.

Further details of the Fund membership and its changes since the previous valuation are given in Appendix C.

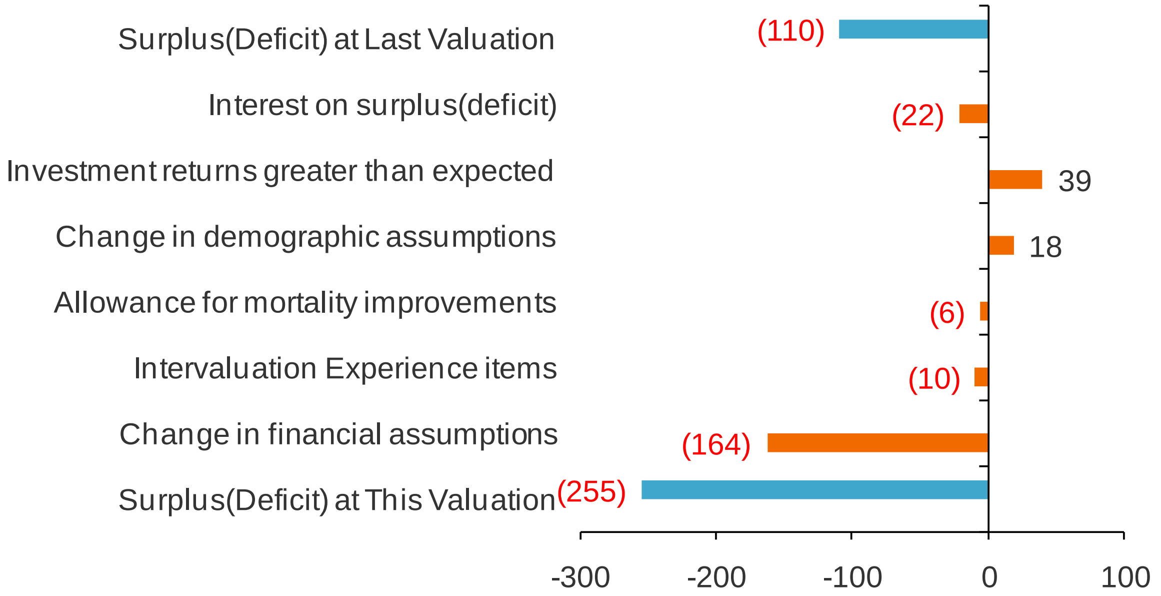
Changes to the Fund's assets

The Fund's assets have been augmented by employer and employee contributions paid in, transfer values received, and interest and investment gains. Conversely, the assets have been depleted by benefit payments to members and their beneficiaries, transfer values and refunds paid and payment of administration and other expenses. Overall, there has been a net increase in the market value of the Fund's assets, only some of which was anticipated in the previous valuation.

In the report on the previous actuarial valuation we recommended that contributions be paid in line with the rates shown in the Rates and Adjustment certificate appended to that report over the period from 1 April 2006 to 31 March 2009. The Fund employers have paid contributions over the period from 1 April 2006 at least in line with those recommended rates. These rates were, in general, higher than the cost of future service benefits in light of the deficit disclosed at the previous valuation.

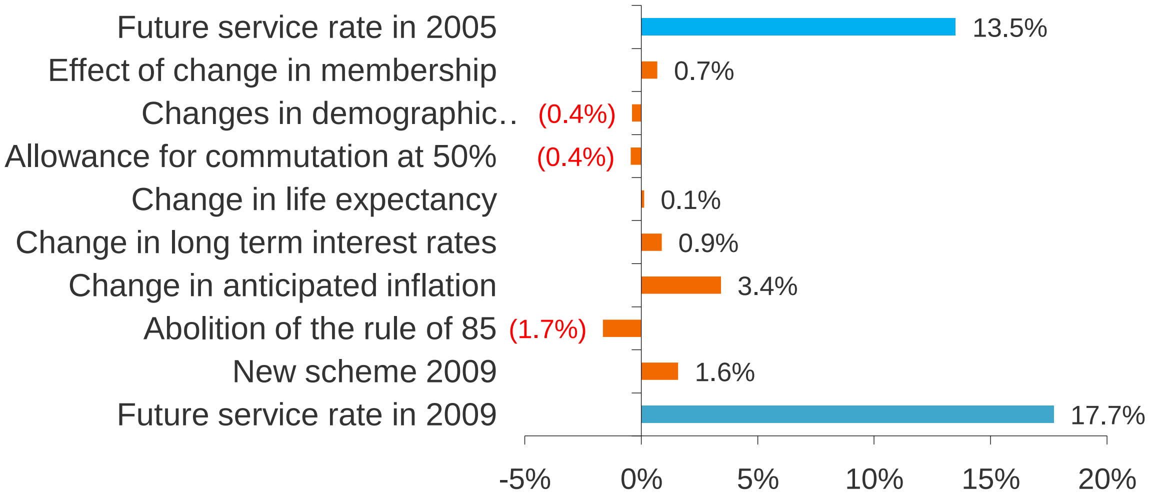
Changes to the funding position

The changes described above have combined to worsen the Fund's funding position since the previous valuation. The chart below illustrates the effect of the various factors on the funding position.



Changes to the contribution requirement

The fall in real gilt yields has been the principal reason for the increase in the assessed cost of future benefit accruing, as shown by the chart below.



The past service adjustment has increased due to the worsened funding position. Overall, then, the common contribution rate has increased from 16.8% at the previous valuation to 23.8% of pensionable pay. The way in which the actual contributions payable by employers are determined has changed and the details are outlined in Section 6.

6 Employer contributions payable

Whole Fund position

The employers' average cost of future service benefits (i.e. ignoring the past service shortfall) is 17.7% of pensionable pay (as defined in Appendix B). This is the future contribution rate payable over the long term by the Fund employers to meet the Administering Authority's past service funding objective, based on the assumptions set out in this report.

The common contribution rate payable is the cost of future benefit accrual, increased by an amount to bring the funding level back to 100% over a period of 20 years as set out in the Funding Strategy Statement.

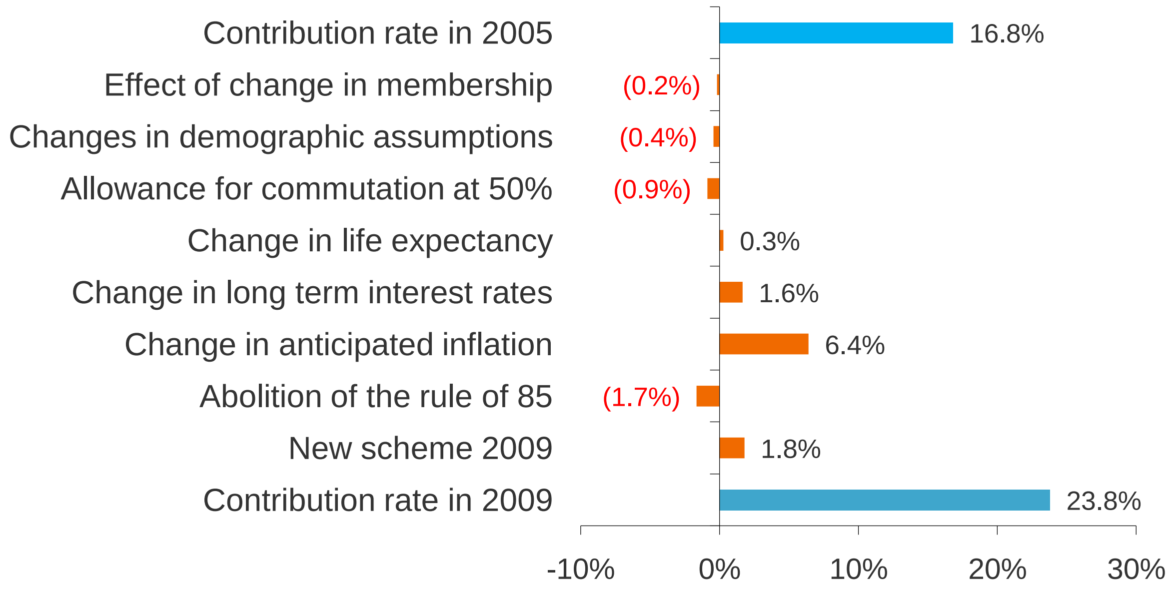
We have calculated the additional contribution rate in respect of the past service shortfall to be 6.1% of pensionable pay. This represents the cost of the past service shortfall spread over a period of 20 years.

The employer common contribution rate based on the funding position as at 31 March 2008 is as follows:

Employer contribution rates	31 March 2008
	% pensionable payroll
Total future service cost	23.9%
Employee contributions (excluding AVCs)	6.3%
Expenses	0.2%
Net employer future service cost	17.7%
Past service adjustment - 20 year spread	6.1%
Employer contribution rate	23.8%

Changes to the common contribution rate

The maturing of the Fund's employee membership, coupled with the fall in real gilt yields and changes to the benefits has led to an increase in the assessed cost of past service liabilities and future benefit accruing. Overall, then, the common contribution rate has increased since the previous valuation to 23.8% of pensionable pay. The impact of these changes is shown in the chart below.



Employer contribution rates

The Funding Strategy Statement sets out the steps which the Administering Authority has taken to ensure stability of employer contribution rates within the context of its stewardship obligations to the Fund and its other funding objectives. In setting employer contributions for 1 April 2009 to March 2012 we have taken these provisions of the Funding Strategy Statement into account.

For many employers the agreed contribution rates are below the theoretical contribution rate implied by the valuation results on the assumptions set out in this report. As part of the valuation process the Administering Authority commissioned statistical modelling of the assets and liabilities of the Fund to understand the implications of explicitly limiting employer contribution rate changes from one valuation to the next. The results of this modelling demonstrate that the contribution rates certified are consistent with the objective to secure the long-term solvency of the Fund, and meet the requirement for the Fund's funding strategy to take a prudent longer-term view. In determining the contribution rate for individual employers or groups of employers consideration has been given to the Administering Authority's view of the financial security of the employer and the likely period of its future participation in the Fund.

Other considerations and recommendations

Monitoring the funding position

Under the provisions of the Regulations, the next formal valuation of the Fund is due to be carried out as at 31 March 2011. In light of the uncertainty of future financial conditions we 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 the next triennial valuation. This will give early warning of changes to funding positions and possible contribution rate changes.

Investment strategy and risk management

We recommend that the Administering Authority keeps its investment strategy and ongoing risk management programme under review to ensure that its investment and funding strategies that meet its objectives and enable it to understand the long term implications in terms of prudence, affordability, stability and stewardship. We understand that a review of investment strategy is planned.

New employers joining the Fund

Any new employers or admission bodies joining the Fund should be referred to us as the Fund's actuaries 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 our 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 us in accordance with Regulation 77 of the 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 us to consider the impact on the Fund.

It is intended that, where possible, contribution rate changes (i.e. both up and down) will continue to be limited at the 2011 valuation in order to provide greater budgeting certainty. The Administering Authority will, however, review its approach as part of the 2011 valuation. Further a cost sharing mechanism may be in place at that time.

Employers may make voluntary additional contributions to recover any shortfall over a shorter period.

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 us from time to time or as otherwise agreed.

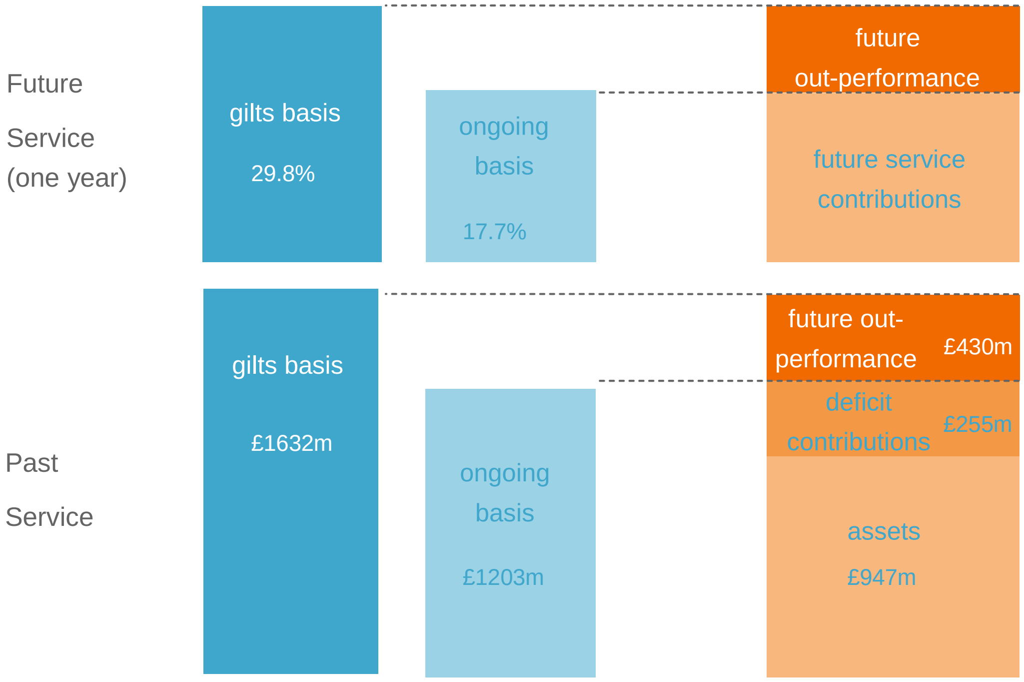
In addition, payments may be required to be made to the Fund by employers to meet the capital costs of any ill-health retirements that exceed those allowed for within our assumptions.

7 Actuarial risk analysis

The valuation results depend critically on the actuarial assumptions made, in particular the net discount rate (the gap between the discount rate and the rate at which benefits and pensionable pay increase in future), and the assumptions for future life expectancy.

In order to place a current value on the liabilities outlined in Section 4, we discounted the future expected benefit cashflows to the valuation date assuming that the assets held by the Fund will outperform index-linked gilts by 1.6% p.a. One way of measuring the degree of prudence in the funding strategy is to measure the extent to which advance credit is taken for expected future investment returns over and above gilt returns. While the current investment strategy is expected to yield investment returns in excess of those available on closely matching Government bonds, such returns cannot be guaranteed and can only be achieved with a higher level of risk of underperformance. To illustrate the potential costs of reducing this mismatching risk, we have also calculated the amount of assets that would be needed at the valuation date to enable the Administering Authority to invest in a basket of long-dated Government bonds[2].

The following chart summarises the effect on the valuation results if no advance credit was taken for additional outperformance above gilt returns (i.e. a 'gilts basis' was used to value the liabilities).



On this basis, the Administering Authority would need assets of some £1,632m resulting in a shortfall of £685m at the valuation date. Looked at another way, the assessed cost of members' past service benefits of £1,203m shown in Section 4 of this report implicitly assumes that the Administering Authority's investment strategy will generate investment growth of £430m in excess of that available on long-dated Government bonds.

[2] Measured by the over 15 year index-linked gilt index (3% inflation).

Over time, the funding position and theoretical contributions required will depend on the extent to which future experience matches the assumptions made. In section 5, we commented on the extent to which the assumptions made at the previous valuation did not reflect actual experience over the period to 31 March 2008. The valuation results do not include explicit contingency reserves for other unexpected financial and demographic effects. In this section we discuss the potential implications of the actuarial assumptions not being met in the future.

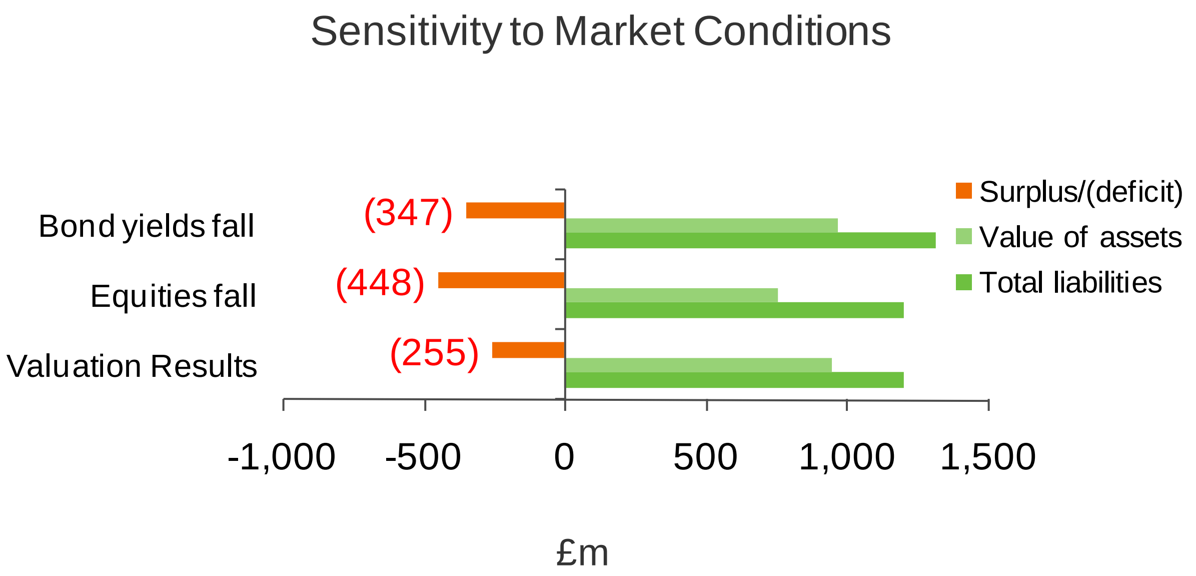
Investment risk

The valuation results are particularly sensitive to the assumed discount rate (i.e. the assumed future investment returns). If future investment returns are less than the assumed discount rate, the funding level will deteriorate. To illustrate the sensitivity of the funding level to changes in equity and bond markets, we have considered the impact of the following events occurring soon after 31 March 2008:

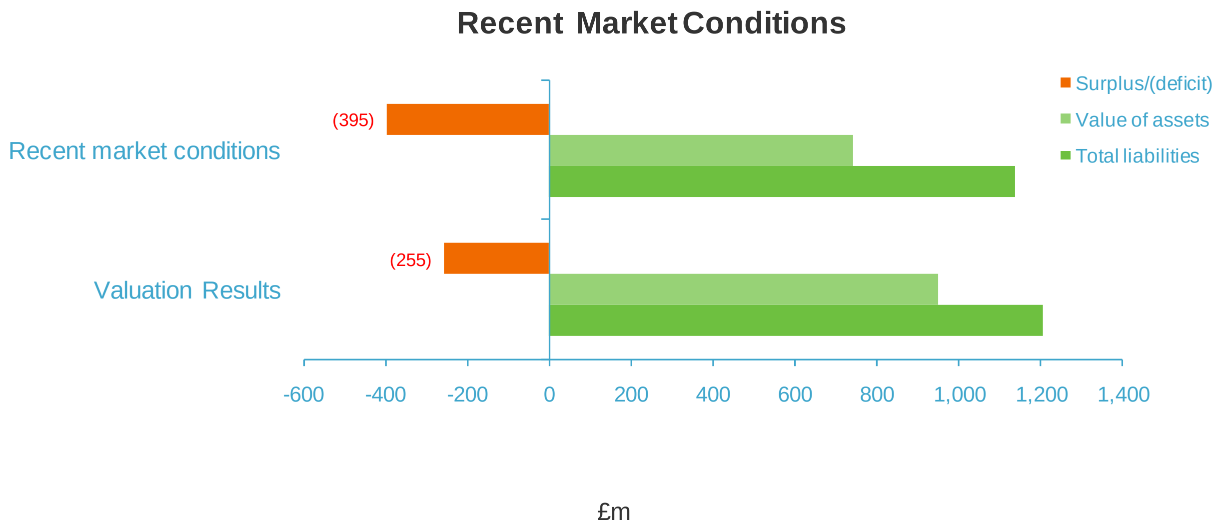
- Equities and property investments fall by 25%, with no change in bond markets;
- The price of bonds rises so that there is a 1% fall in the nominal redemption yields available on fixed interest bonds and a 0.5% fall in the real yield available on index-linked bonds, with no change in equity markets.

The events illustrated are by no means exhaustive. They should not be taken as the limit of how extreme future experience could be.

The chart below shows how the funding level would be affected if those events occurred on 31 March 2008.



In fact, over the period from 31 March 2008 to date, asset values have fallen although there have also been increases in the yields available on index-linked UK government bonds. If current market conditions had applied at 31 March 2008, the funding position would have been as shown in the chart below.



The actual funding position as at 25 February 2009 would be worse than shown above since the liabilities increase in line with the discount rate, leading to a bigger gap between the assets and liabilities.

In assessing the effect of setting employer contributions below the theoretical contribution rate on the long-term financial health of the fund, and the probability of achieving full funding, allowance was made for market conditions as at 31 October 2008 by which time much of the worsening in the funding position had already occurred.

Longevity risk

The valuation results are very sensitive to unexpected changes in future longevity. If longevity improves in the future at a faster pace than allowed for in the valuation assumptions, the Fund's funding level will decline and the required employer contribution rate will increase. Recent medical advances, changes in lifestyles and generally greater awareness of health-related matters have resulted in longevity improving in recent years at a faster pace than most experts had foreseen. It is unknown whether such improvements will continue in the future. Certain factors, such as advancements in genetic medicine would point towards even greater improvements in longevity in the future; conversely, the increase in childhood obesity may result in a decline in longevity in future generations.

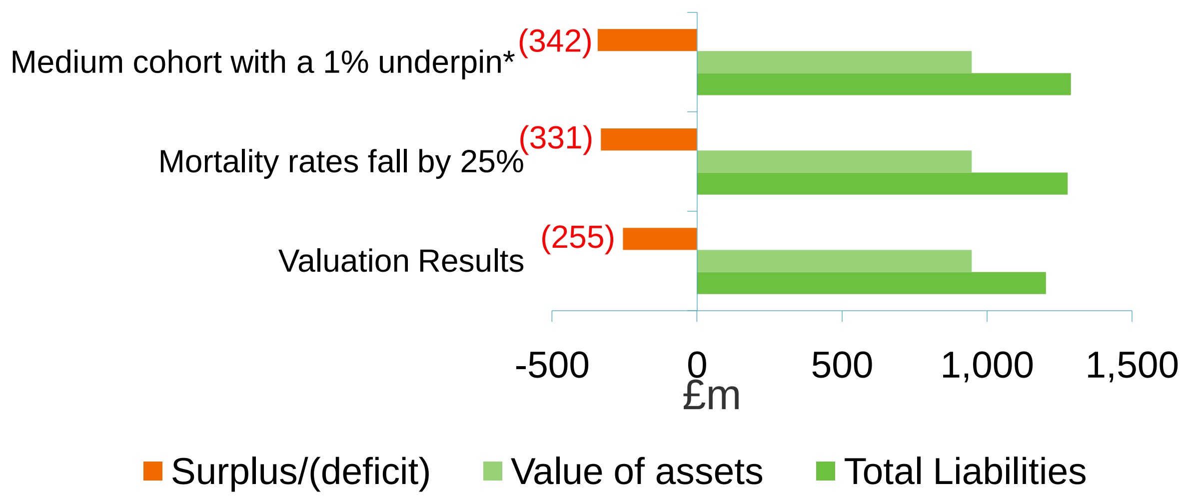
The approach taken at this valuation has been to allow for improvements in line with those initially envisaged by the Continuous Mortality Investigation Bureau and published with the 1992 series standard mortality tables. The Administering Authority is aware that this allowance may be inadequate but is comfortable that a longer-term view is taken and that the allowance for longevity may need to be increased at subsequent valuations as and when this experience emerges.

As a measure of the sensitivity of the valuation to future life expectancy we have considered the results which would arise if we assumed that

- mortality rates at all ages immediately fall by 25%;
- mortality rates improve in line with assumptions typically used in the private sector (i.e. using a 'medium cohort' projection with a 1% p.a. minimum improvement to mortality rates).

The events illustrated are by no means exhaustive. They should not be taken as the limit of how extreme future experience could be.

The chart below shows how the funding level would be affected if those events occurred on 31 March 2008.



*This represents a significant additional allowance for longevity improvements closer to that which might be adopted by private sector schemes.

Other risks and sensitivities

The other main assumptions, to which the valuation results are sensitive, together with their associated risks, are described below.

Risk	Effect on funding level	Effect on future service benefits
Fund assets fail to deliver returns in line with the anticipated returns underpinning valuation of liabilities over the long-term	Reduction	None (but will increase if future returns are expected to be lower than previously assumed)
Fall in returns on Government bonds, leading to rise in value placed on liabilities	Reduction	Increase
Pay and price inflation more than anticipated	Reduction	Increase if expected to continue
Pensioners living longer than anticipated in the valuation assumptions	Reduction	Increase if expected to continue
More members retiring early on ill-health grounds, and/or retiring at a younger age than assumed	Reduction	Increase if expected to continue
Fewer active members withdrawing from pensionable service (with refunds of contributions or deferred pensions) than assumed	Reduction	Increase if expected to continue
Members convert less pension to cash at retirement than	Reduction	Increase if expected to

Risk	Effect on funding level	Effect on future service benefits
assumed		continue
Average age of the employee membership rises	Marginal effect	Increase
Changes to regulations to be more favourable in respect of benefits package	Reduction if changes affect past service	Increase
Changes to national pension requirements and/or HMRC rules to be more favourable to members e.g. effect of abolition of earnings cap from April 2006 for post entrants	Reduction if changes affect past service	Increase

No account has been taken of the effect of future cost sharing.

Alison Murray FFA

For and on behalf of Hymans Robertson LLP

27 February 2009

Catherine McFadyen FFA

For and on behalf of Hymans Robertson LLP

27 February 2009

Appendix A – About the actuarial valuation

This valuation is carried out in accordance with Regulation 76 of the Local Government Pension Scheme (Scotland) Regulations 1998, as amended, ('the Regulations'), which specifies that the Administering Authority must obtain:

- an actuarial valuation of the assets and liabilities of the Fund as at 31 March 1999 and every three years thereafter;
- a report by an actuary; and
- a rates and adjustments certificate.

Within the rates and adjustment certificate we are required to specify:

- the employers' common contribution rate which, in our 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 our opinion, are required by reason of any circumstances peculiar to that employer,

which for this valuation apply for each year of the period of three years beginning with 1 April 2009.

Under the provisions of the Regulations, we are 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 rate as possible, and
- the Administering Authority's funding strategy statement.

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 we have not reported on them:

- 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
- 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 2005 by us and the results were set out in our report dated 10 March 2006.

Appendix B – Summary of the Fund's benefits

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

Provision	Benefit Structure To 31 March 2009	Benefit Structure From 1 April 2009
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 December 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 1960 or earlier – membership up to 31 March 2020 protected; (b) All other members in the scheme immediately prior to 1 December 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.	Tiered rates (5.5%-12%) depending upon level of full-time equivalent pay. Statutory guidance on the allocation of the correct employee rate provided by SPPA. This will apply to all members. Protected rates for manual workers will no longer apply. From 2011 a mechanism for sharing any increased scheme costs between employers and scheme members may be implemented. Active members may elect (on or after 15 December 2007) to make additional contributions to provide increased benefits for a civil partner, in respect of qualifying service before 6 April 2008.

<table>
<tr><th>Provision</th><th>Benefit Structure To 31 March 2009</th><th>Benefit Structure From 1 April 2009</th></tr>
<tr><td>Pensionable pay</td><td colspan="2">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.</td></tr>
<tr><td>Final pay</td><td colspan="2">The pensionable pay in the year up to the date of leaving the scheme. Alternative methods may be used in some cases.</td></tr>
<tr><td>Period of scheme membership</td><td colspan="2">Total years and days of service during which a member of the Fund. Additional periods may be granted (e.g. transfers from other pension arrangements or the award of an additional period of membership). From April 2009 employers will have the additional option of awarding additional pension.</td></tr>
<tr><td>Normal retirement benefits at NRA</td><td>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.</td><td>Scheme membership to 31 March 2009:
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 from 1 April 2009:
Annual Retirement Pension - 1/60th of final pay for each year of scheme membership.
Lump Sum Retirement Grant – none except by commutation of pension (within overriding limits) on a basis of £12 additional lump sum for each £1 of pension surrendered.</td></tr>
</table>

<table>
<tr><th>Provision</th><th>Benefit Structure To 31 March 2009</th><th>Benefit Structure From 1 April 2009</th></tr>
<tr><td>Option to increase or decrease retirement lump sum benefit</td><td>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.</td><td>Scheme membership to 31 March 2009:

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 2009:

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.</td></tr>
<tr><td>Voluntary early retirement benefits (non ill-health)</td><td colspan="2">On retirement after age 60 a pension (and lump sum in respect of membership prior to 1 April 2009) 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).</td></tr>
<tr><td>Employer’s consent early retirement benefits (non ill-health)</td><td>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.</td><td>On retirement after age 55 or, after age 50 if the person were a member of the 1998 scheme on 5 April 2006 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.</td></tr>
</table>

Provision	Benefit Structure To 31 March 2009	Benefit Structure From 1 April 2009
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 paid based on actual scheme membership plus an enhancement period of scheme membership. The enhancement period is: • 25% of the period to age 65, if there is some likelihood of obtaining gainful employment prior to age 65; or • 100% of the period to age 65, if there is no likelihood of obtaining gainful employment prior to age 65. No reduction is applied due to early payment. A discretionary third tier benefit, where there is a strong likelihood of obtaining gainful employment within a defined period prior to age 65, is expected to be included within the Local Government (Discretionary Payments and Injury Benefits) (Scotland) Regulations 1998.
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 under these Regulations, and the authority may pay those benefits 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.
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).	

Provision	Benefit Structure To 31 March 2009	Benefit Structure From 1 April 2009
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 service 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. [*]The civil partner's pension may allow for some pension in respect of a proportion of the members pre 6 April 1988 qualifying service where the member has elected to pay additional contributions while in active service.
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 service for civil partners[*] and nominated cohabiting partners), multiplied by final pay; plus Children's pensions may also be payable. [*]The civil partner's pension may allow for some pension in respect of a proportion of the members pre 6 April 1988 qualifying service where the member has elected to pay additional contributions while in active service.
Leaving service options	If the member has completed two years or more scheme membership or had a transfer value credited to them, 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 two years 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%.	

Provision	Benefit Structure To 31 March 2009	Benefit Structure From 1 April 2009
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 Regulations give employers a number of discretionary powers, including:

- the awards of periods of additional membership (augmentation) under Regulation 51;
- the payment of benefits on employer's consent prior to age 60 under Regulation 30;
- the payment of benefits due to flexible retirement under Regulation 34;
- not applying the suspension of spouses' pensions on remarriage or cohabitation for members who retired before 1 April 1998.

From 1 April 2009, employers will also be able to award additional pension.

The effect on benefits or contributions as a result of the use of these provisions prior to 1 April 2008 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.

Changes to the Fund's benefit structure

Since the previous valuation, there have been a number of changes to the benefit structure of the LGPS, including:

- The removal of the right for re-employed pensioners to elect to aggregate former LGPS membership on ceasing the re-employment (limited transitional arrangements were included for existing members who might be affected);
- The introduction of survivor benefits for civil partners, effective from 5 December 2005. This change entitled a surviving civil partner to receive survivor benefits on the same basis and calculated in the same manner as spouses benefits, albeit that account is only taken of scheme membership from 5 April 1988;
- Members in the scheme prior to 1 December 2006 are entitled to take benefits relating to service to 1 April 2008 at their 'rule of 85' age, with benefits relating to service thereafter payable from 65. There are transitional protections in place for some older members which will provide full protection for those reaching the age of 60 by 2020;
- The option for members to exchange part of their retirement pension for additional lump sum benefits, with effect from 6 October 2006;
- Other changes were also introduced with effect from 6 October 2006 in relation to the Finance Act 2004. Notably the removal of Schedule 4 (Revenue Restrictions) including removal of the earnings cap and maxima restrictions relating to membership, pension and lump sum;
- Flexible retirement, with effect from 6 October 2006, whereby 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, 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. Flexible retirement before a member's earliest retirement age results in actuarially reduced benefits unless the reduction is waived by the employer.

Appendix C – Membership data and assets

Membership data – employer members

	31-Mar-08		31-Mar-05	
	Number	Pensionable pay (£000) p.a.	Number	Pensionable pay (£000) p.a.
Full-time members				
Male officers	1,037	31,781	1,248	35,340
Female officers	1,387	33,078	1,675	36,039
Male manuals	593	10,865	734	12,270
Female manuals	61	970	72	987
Post April 1998 males	2,340	51,230	1,884	37,022
Post April 1998 females	2,654	55,894	2,253	41,356
Total full-time members	**8,072**	**183,818**	**7,866**	**163,014**
Part-time members				
Male officers	23	408	17	260
Female officers	622	8,443	681	8,036
Male manuals	8	70	12	101
Female manuals	324	2,627	462	3,298
Post April 1998 males	400	3,121	255	1,864
Post April 1998 females	4,081	32,562	3,150	20,641
Total part-time members	**5,458**	**47,230**	**4,577**	**34,200**
Total members	**13,530**	**231,048**	**12,443**	**197,213**

The average age of employee members is 49.0 years. The average expected period of future contributory membership of existing employee members is 10.8 years. All of these figures are weighted by liability.

Note that the numbers in the above table refer to the number of records and so will include ‘double counting’ of members in more than one employment.

Membership data – pensioners, spouses and children

	31-Mar-08		31-Mar-05	
	Number	Pensions (£000) p.a.	Number	Pensions (£000) p.a.
Normal/early retirements				
Male officers	924	8,921	849	7,239
Female officers	1,262	5,213	1,085	3,872
Male manuals	690	2,081	761	1,988
Female manuals	854	892	797	766
Ill-health retirements				
Male officers	236	1,800	201	1,439
Female officers	460	2,134	399	1,743
Male manuals	594	2,240	549	1,914
Female manuals	518	820	415	633
Dependants				
Widows	888	2,193	854	1,852
Widowers	130	152	84	90
Children	57	78	51	60
Total	**6,613**	**26,525**	**6,045**	**21,595**

The average age of pensioner members (weighted by liability and excluding spouses' and civil partners' pensions and children's pensions in payment) is 64.5 years. Note that the numbers in the above table refer to the number of records and so will include 'double counting' of members in receipt of, or potentially in receipt of, more than one benefit.

Membership data - deferred pensioners

	31-Mar-08		31-Mar-05	
	Number	Pensions (£000) p.a.	Number	Pensions (£000) p.a.
Men	1,494	3,825	1,130	2,545
Women	2,651	4,096	1,933	2,613
Total	**4,145**	**7,922**	**3,063**	**5,158**

The deferred pension shown includes revaluation up to and including that granted by the 2008 Pension Increase Order. The average age of deferred pensioners (weighted by liability) is 47.6 years. The figures above also include status 2 and status 9 members as at the valuation date.

Note that the numbers in the above table refer to the number of records and so will include 'double counting' of members in receipt of, or potentially in receipt of, more than one benefit.

Membership data – membership split by fund employer

Employer Code	Employer	Number of Members			Pensionable Pay
		Employees	Deferreds	Pensioners	PTE (£000s)
2	Clackmannan District Council	0	52	0	0
3	Falkirk District Council	0	179	0	0
4	Stirling District Council	0	128	0	0
5	Dollar Academy Trust	45	20	27	760
7	Stirling University	1	2	19	*
9	Snowdon School for Girls (Old)	0	0	5	0
10	St Ninians School	0	1	2	0
11	Ballikinrain School	70	15	22	1,483
13	Strathcarron Hospice	110	41	48	2,161
14	Stirling Enterprise Park Limited	13	11	2	278
15	Scottish Society for Autism	375	173	51	5,806
16	CESU	0	1	1	0
18	Snowdon School Ltd	10	3	1	196
19	Ceteris	38	24	5	576
22	Association of Scottish Colleges	7	7	1	223
23	Stirling University Innovation Park Ltd	0	4	4	0
24	Cowane's Hospital	0	3	5	0
25	Community Training and Development Unit	0	4	0	0
26	Falkirk Women's Technology Centre	0	4	1	0
27	Bo'ness Development Trust	0	1	1	0
28	Smith Art Gallery	7	2	0	117
29	VisitScotland	33	30	10	530
31	Alsorts	1	2	1	*
32	Langlees Community Dev. Project	0	1	0	0
33	Careers Central Ltd.	0	8	11	0
34	Scottish Children's Reporter Admin.	491	108	103	10,632
35	BOSS	0	0	0	0
36	Central Carers Association	9	2	1	161
37	Cent Scotland Coun. for Racial Equality	2	3	0	*
38	Scottish Environment Protection Agency	1228	285	84	31,113
39	Scottish Water and Sewerage Customers Council	0	1	0	0
52	Clackmannanshire Council	1735	499.6	1111.8	27,652
53	Falkirk Council	5438	1358.5	3013.5	80,611
54	Stirling Council	3012	910.9	1827.7	49,729
55	Central Scotland Police	307	82	122	5,762
56	Central Scotland Fire and Rescue Service	54	10	27	1,192
57	Central Scotland Joint Valuation Board	55	14	28	1,377
58	St Mary's Episcopal P.S.	0	1	0	0
59	Open Secret	5	3	0	73
60	Tourist Board Training	4	0	0	*
61	Water Industry Commissioner for Scotland	14	19	2	688
62	Clackmannanshire Leisure Trust	0	6	8	0
63	Playplus	5	2	0	88
64	Seamab School	28	3	1	513
65	McLaren Community Leisure Centre	8	2	0	127
66	Forth Valley College	230	87	43	4,612
67	Stirling District Tourism Ltd	2	0	0	*
68	Active Stirling Ltd	56	21	5	1,022
69	Forth and Oban Limited (Stirling Schools Contract)	41	0	0	444
70	Forth Valley GIS Ltd	22	0	0	640
71	Raploch URC	10	1	0	313
72	Scottish Police Services Authority	54	10	0	1,606
73	Waterwatch Scotland	7	0	0	199
74	Valad Management (UK) Ltd	3	0	0	*
90	Aberlour Trust	0	0	0	0
92	North Lanarkshire Council	0	0	4	0
93	Ex Stirling County (NHS Recharge)	0	0	1	0

* For data protection purposes pensionable pay figures are not shown for employers with fewer than 5 employee members at the valuation date.

Assets at 31 March 2008

A summary of the Fund's assets (excluding Members' money-purchase Additional Voluntary Contributions) as at 31 March 2008 is as follows:

	Market Value (£000)	Percentage of total Assets %
UK equities	367,369	39%
Overseas equities	304,931	32%
UK fixed interest bonds	53,502	6%
UK index linked bonds	26,751	3%
UK corporate bonds	53,502	6%
Overseas bonds	0	0%
Property	95,855	10%
Cash and net current assets	45,261	5%
Total	**947,170**	**100%**

Revenue account for the three years to 31 March 2008

Revenue Accounts		(£000)			
	Year to	31-Mar-08	31-Mar-07	31-Mar-06	Total
EXPENDITURE	Retirement pensions	25,134	23,454	22,010	70,599
	Retirement grants	7,260	6,255	3,269	16,783
	Death benefits	633	608	820	2,061
	Transfer values	4,832	3,969	4,957	13,758
	Refunds/CEPS	357	344	401	1,101
	Admin expenses	351	319	396	1,066
	Investment expenses	3,429	2,838	2,146	8,412
	Other expenditure				
INCOME	Employee contributions	14,878	14,079	13,127	42,084
	Employer contributions	40,074	35,506	28,539	104,120
	Transfer values	7,207	6,870	6,823	20,901
	Investment income	28,668	26,164	22,333	77,166
	Other income	0	0	0	0
Assets at start of year		958,975	882,375	699,969	699,969
Net cashflow		48,831	44,832	36,825	130,489
Change in value		-60,636	31,768	145,580	116,712
Assets at end of year		947,170	958,975	882,375	947,170
ANNUAL RETURNS	Approx rate of return	-3.6%	6.2%	23.4%	

Appendix D – Funding method

Using the actuarial assumptions described in section 3 (and Appendix F) we estimate the payments which will be made from the Fund throughout the future lifetimes of existing employee members, deferred pensioners, pensioners and their dependants. We then calculate the amount of money which, if invested now, would be sufficient to make 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. We make separate calculations for benefits arising from scheme membership before the valuation date ('past service') and from scheme membership after the valuation date ('future service').

Past service funding position

We compare the value of the assets with the estimated cost of members' past service benefits. The ratio of the asset value to the estimated cost of members' past service benefits 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

We calculate the estimated cost of benefits accruing to existing employee members over the year following the valuation date 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 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.

Future service contribution rate: employers not admitting new entrants

We calculate the estimated cost of benefits accruing to existing employee members over their expected future working life 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 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 cost of the lump sum death in service benefit 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 either the 'Projected Unit Method' rate or the 'Attained Age Method' rate, plus the lump sum death benefit cost. It is the rate at which the Fund 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. For the period from 1 April 2009 to 31 March 2012, employee members will be contributing at fixed rates (albeit with various tiers). Therefore the Fund employers' future service contribution rate is the total future service contribution rate less the member contribution rate. An addition is made to cover the expected future expenses of administering the Fund.

Appendix E – Changes since the previous valuation

Changes to the Fund's benefit structure

Since the previous valuation, a number of changes have been made to the LGPS benefit structure, some of which are listed below. Full details of the scheme benefits are set out in Appendix B.

- removal of the Rule of 85 for some or all service;
- introduction of commutation;
- restrictions on aggregation of former membership;
- introduction of survivor benefits for civil partners.

The overall effect of these changes is to reduce the cost of the benefits.

Changes to the Fund's benefit structure from 2009

A new scheme is to be introduced from 1 April 2009. Regulations have been laid but corrective changes are still expected to be made in the lead up to the introduction of the new benefit structure. As a general principle, benefits accrued up to 31 March 2009 will continue to be calculated in accordance with the scheme rules at that date. The details of the benefit structure relating to scheme membership from 1 April 2009 are included in Appendix B and the main changes are summarised below:

- pension calculated as 1/60 x final pay x period of scheme membership;
- option to exchange part of retirement pension for lump sum, up to a maximum of 25% of the capital value of benefits;
- employees' contribution rates ranging from 5.5% to 12.0% of full time equivalent pay.
- earliest retirement age for non ill-health retirements of age 55 (with employer consent) or from age 50 for existing members opting to draw benefits with employer consent before 31st March 2010;
- ill-health benefits if member found to be permanently unfit and has a reduced likelihood of obtaining gainful employment prior to age 65. Enhancement either 25% or 100% of the period to age 65, depending on likelihood of obtaining a gainful employment prior to age 65. A discretionary third tier ill health provision, with no enhancement, is also expected to be included in the scheme;
- death grant of 3 times final pay for death in service;
- death grant of 10 times pension less total of pension payments already paid for death after retirement;
- introduction of pensions to nominated co-habiting partners on the death of a scheme member;
- spouses, civil partners and co-habiting partners pensions calculated using a 1/160 accrual rate; and
- changes to the options for members to purchase or employers to award extra scheme pension.

In addition, a cost sharing mechanism is to be introduced. This, however, will only be effective from April 2011 and therefore does not need to be considered as part of this actuarial valuation.

Changes to the assumptions

The financial assumptions have changed since the previous valuation. The differences between the financial assumptions used for this and the previous valuation reflect a change in the economic environment between the two valuations, rather than being a change in funding policy or a change in investment policy. The financial assumptions used in this and the previous valuation are shown in Appendix F.

The assumptions relating to the mortality of current and future pensioners have changed since the previous valuation, to reflect recent experience in the Fund and more up-to-date standard mortality tables produced by the actuarial profession. The effect of the change in assumptions on the expected future lifespan of Fund members is illustrated in Section 3.

Some of the other demographic assumptions have also changed since the previous valuation. The changes reflect updated expectations of future experience based on an analysis of recent past experience in the Fund.

Changes to the economic environment

Since the previous valuation, equity markets have risen and bond markets have risen (so yields have fallen). Market expectations of inflation have risen. Overall, changes in economic factors have been unfavourable in terms of their effect on the funding level. Lower real gilt yields have also increased the assessed cost of future service benefits.

Changes to the Fund 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.

In general, the Fund has matured since the previous valuation: employee members are, on average, closer to retirement. Further details of the Fund membership and its changes since the previous valuation are given in Appendix C.

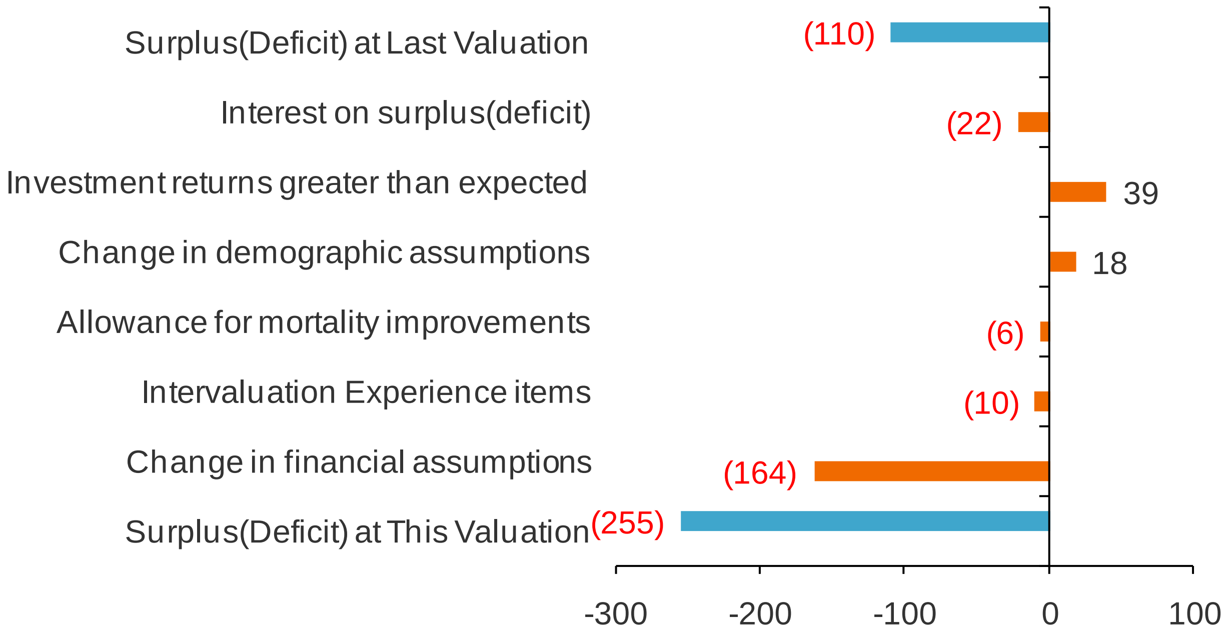
Changes to the Fund's assets

The Fund's assets have been augmented by employer and employee contributions paid in, transfer values received, and interest and investment gains. Conversely, the assets have been depleted by benefit payments to members and their beneficiaries, transfer values and refunds paid, and payment of administration and other expenses. Overall, there has been a net increase in the market value of the Fund's assets, only some of which was anticipated in the previous valuation.

In the report on the previous actuarial valuation we recommended that contributions be paid in line with the rates shown in the Rates and Adjustment certificate appended to that report over the period from 1 April 2006 to 31 March 2009. The Fund employers have paid contributions over the period from 1 April 2006 at least in line with those recommended rates.

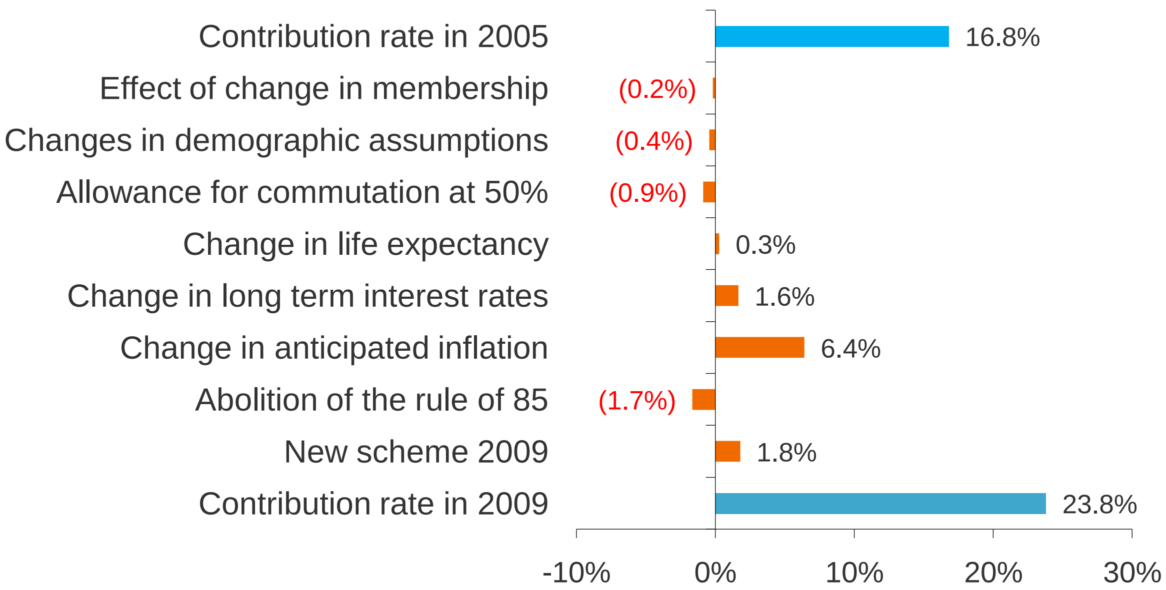
Changes to the funding position

The changes described above have combined to reduce the Fund's funding position since the previous valuation. The chart below illustrates the effect of the various factors on the funding position.



Changes to the contribution requirement

The maturing of the Fund's employee membership coupled with the fall in real gilt yields and changes to the funding assumptions have led to an increase in the assessed cost of future benefit accruing, as shown by the chart below.



The past service adjustment has increased due to the worsened funding position. Overall, then, the common contribution rate has increased since the previous valuation to 23.8% of pensionable pay.

Employer contribution rates were stabilised at this valuation. Further details on this, the funding level and general contribution requirements are shown in Section 6.

Appendix F – Actuarial assumptions

Financial assumptions

	Assumptions to assess funding position at 31 March 2005	Assumptions to assess funding position at 31 March 2008	Assumptions to assess 'gilt based' position at 31 March 2008
Annual rate of price inflation	2.9%	3.6%	3.6%
Annual rate of pension increases:			
- on pensions in excess of GMPs	2.9%	3.6%	3.6%
- on pensions accrued after April 1997	2.9%	3.6%	3.6%
- on post-88 GMPs in payment	2.0%	2.8%	2.8%
- on pre-88 GMPs in payment	0.0%	0.0%	0.0%
Annual rate of increase of deferred pensions	2.9%	3.6%	3.6%
Annual rate of pay increases *	4.4%	5.1%	5.1%
Discount rate	6.3%	6.1%	4.5%
Expenses	0.2%	0.2%	0.2%

* Plus an allowance for promotional pay increases.

Post retirement mortality assumptions

Mortality assumptions have been based on the PMA92 and PFA92 'year of birth' mortality tables with no allowance for any 'cohort effect' or other further improvements published by the Continuous Mortality Investigation Bureau (CMIB) or actuarial profession. Age ratings have been applied as set out below.

	Males	Females
Officers (& post-98 joiners)	- 1 years	- 1 years
Manuals	+ 2 years	+ 1 years

Ill Health Retirement – as above, except rated up by 5 years (6 years for male officers and male post-98 joiners)

Widows – one year older than female pensioners

Other demographic valuation assumptions

Retirement 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 80% for males and 75% for females. Husbands are assumed to be 3 years older than wives.
Commutation	50% of future retirements are assumed to exchange pension for additional tax free cash at retirement up to HMRC limits.

The tables below show details of the assumptions actually used for specimen ages. The promotional pay scale is an annual average for all employees at each age. It is in addition to the allowance for general pay inflation described above. For membership movements, the percentages represent the probability that an individual at each age leaves service within the following twelve months.

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	100	100	100	100	100	100	100	100
30	123	113	100	100	115	105	100	100
35	138	123	100	100	126	110	100	100
40	148	128	100	100	136	115	100	100
45	158	128	100	100	136	115	100	100
50	168	128	100	100	136	115	100	100
55	168	128	100	100	136	115	100	100
60	168	128	100	100	136	115	100	100

Age	Incidence per 1000 active members per anumm											
	Male Officers & Post 98			Male Manuals			Female Officers & Post 98			Female Manuals		
	Death	Ill Health		Death	Ill Health		Death	Ill Health		Death	Ill Health	
		FT	PT		FT	PT		FT	PT		FT	PT
20	0.25	0	0	0.32	0	0	0.14	0	0	0.18	0	0
25	0.25	0	0	0.32	1.79	1.79	0.14	0.34	0.25	0.18	2.08	2.08
30	0.30	0.34	0.25	0.38	2.91	2.91	0.21	0.56	0.42	0.26	2.88	2.88
35	0.35	0.45	0.34	0.44	4.37	4.37	0.35	1.12	0.84	0.44	4.16	4.16
40	0.60	0.78	0.59	0.76	6.05	6.05	0.56	1.46	1.09	0.70	5.76	5.76
45	1.00	1.79	1.34	1.26	8.74	8.74	0.91	2.35	1.76	1.14	7.36	7.36
50	1.60	4.93	3.70	2.02	12.77	12.77	1.33	4.59	3.44	1.67	10.88	10.88
55	2.50	10.08	7.56	3.15	20.61	20.61	1.75	12.10	9.07	2.20	20.48	20.48
60	4.50	20.16	15.12	5.67	39.20	39.20	2.24	0	0	2.82	0	0

Age	Incidence for 1000 active members per annum							
	Male Officers & Post 98 Males		Male Manuals		Female Officers & Post 98		Female Manuals	
	Withdrawals		Withdrawals		Withdrawals		Withdrawals	
	FT	PT	FT	PT	FT	PT	FT	PT
20	176.26	293.76	293.76	587.52	167.18	232.20	278.64	371.52
25	116.42	194.04	194.04	388.08	112.46	156.20	187.44	249.92
30	82.58	137.64	137.64	275.28	94.25	130.90	157.08	209.44
35	64.51	107.52	107.52	215.04	81.29	112.90	135.48	180.64
40	51.91	86.52	86.52	173.04	67.61	93.90	112.68	150.24
45	42.48	70.80	70.80	141.60	55.66	77.30	92.76	123.68
50	32.90	54.84	54.84	109.68	42.41	58.90	70.68	94.24
55	28.51	47.52	47.52	95.04	32.69	45.40	54.48	72.64
60	17.28	28.80	28.80	57.60	15.19	21.10	25.32	33.76

Appendix G – Detailed valuation results

In section 4 of this report, we showed that at the valuation date, the funding level calculated in relation to the Administering Authority's chosen funding objective was 78.8% and there was a funding shortfall of £255m. The table below shows these results, together with those from the previous valuation, in more detail.

Funding position (£000s)	31-Mar-08	31-Mar-05
A. Value of assets	**947,418**	**700,218**
Assessed cost of past service benefits in respect of:		
Employee members	687,690	444,698
Pensioner members	124,906	297,584
Deferred pensioner members	390,159	68,166
B. Total assessed cost of past service benefits	**1,202,754**	**810,447**
Funding surplus/(shortfall) (A minus B)	**(255,336)**	**(110,230)**
Funding level (A as a percentage of B)	**79%**	**86%**

Section 4 also showed that we calculate the overall 'future service contribution rate' payable by the Fund employers (ignoring the shortfall in the Fund at the valuation date) to be 17.7% of pensionable pay payable with effect from 1 April 2009. The derivation of this contribution rate, together with that calculated at the previous valuation and the past service adjustment, is shown below.

Employer contribution rates	31 March 2008	31 March 2005
	% pensionable payroll	% pensionable payroll
Total future service cost	23.9%	19.2%
Employee contributions (excluding AVCs)	6.3%	5.9%
Expenses	0.2%	0.2%
Net employer future service cost	17.7%	13.5%
Past service adjustment - 20 year spread	6.1%	3.3%
Employer contribution rate	23.8%	16.8%

Appendix H – Rates and adjustments certificate

In accordance with Regulation 76 of the Local Government Pension Scheme (Scotland) Regulations 1998, as amended, we have made an assessment of the contributions that should be paid to the Fund by the employing authorities as from 1 April 2009 in order to maintain the solvency of the Fund.

The required contribution rates are set out in the attached statement.

Signature:

Date: 27 February 2009

Name: Alison Murray

Qualification: Fellow of the 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 76 for the period 1 April 2009 to 31 March 2012 is 23.8% of pensionable pay (as defined in Appendix B).

Individual Adjustments are required under Regulation 76 for the period 1 April 2009 to 31 March 2012 resulting in Minimum Total Contribution Rates expressed as a percentage of pensionable pay as set out below:

Employer Code	Employer Name	Minimum contributions for the year ending % of Pensionable Pay		
		31 March 2010	31 March 2011	31 March 2012
	Council Pool			
53	Falkirk Council	18.0%	18.5%	19.0%
54	Stirling Council	18.0%	18.5%	19.0%
52	Clackmannanshire Council	18.0%	18.5%	19.0%
55	Central Scotland Police	18.0%	18.5%	19.0%
56	Central Scotland Fire and Rescue Service	18.0%	18.5%	19.0%
57	Central Scotland Joint Valuation Board	18.0%	18.5%	19.0%
5	Dollar Academy Trust	18.8%	19.3%	19.8%
7	Stirling University	24.3%[1]	24.3%[1]	24.3%[1]
11	Ballikinrain School	18.2%	18.7%	19.2%
13	Strathcarron Hospice	17.6%	18.1%	18.6%
14	Stirling Enterprise Park Limited	21.5%	23.8%	26.1%
15	Scottish Society for Autism*	15.2%	16.1%	17.1%
19	Ceteris	18.0%	21.9%	25.8%
29	VisitScotland	21.1%[2]	21.1%[2]	21.1%[2]
34	Scottish Children's Reporter Administration [3]	14.9%	14.9%	18.3%
38	Scottish Environment Protection Agency	15.7%	16.7%	19.0%
59	Open Secret	14.8%	17.5%	20.2%
64	Seamab School	17.4%	17.9%	18.4%
65	McLaren Community Leisure Centre	17.7%	19.2%	20.7%
66	Forth Valley College	17.4%	17.9%	18.4%
68	Active Stirling Ltd	16.6%	17.2%	17.7%
69	Forth and Oban Limited (Stirling Schools Contract)	17.3%	18.0%	18.7%
70	Forth Valley GIS Ltd	17.3%	17.3%	17.3%
71	Raploch URC	21.6%	23.7%	25.8%
72	Scottish Police Services Authority	19.1%	20.4%	21.8%
74	Valad Management (UK) Ltd	21.6%	21.9%	22.2%
	Small Admitted Bodies Pool			
18	Snowdon School Ltd	16.4%	19.1%	21.9%
22	Association of Scottish Colleges	16.4%	19.1%	21.9%
24	Cowane's Hospital	16.4%	19.1%	21.9%
28	Smith Art Gallery	16.4%	19.1%	21.9%
31	Alsorts	16.4%	19.1%	21.9%
37	Cent Scotland Council for Racial Equality	16.4%	19.1%	21.9%
63	Playplus	16.4%	19.1%	21.9%
67	Stirling District Tourism Ltd	16.4%	19.1%	21.9%
73	Waterwatch Scotland	16.4%	19.1%	21.9%

* Rate may be subject to adjustment.

Employer Code	Employer Name
	Employers with No Actives
1	Central Regional Council [4]
2	Clackmannan District Council [4]
3	Falkirk District Council [4]
4	Stirling District Council [4]
9	Snowdon School for Girls (Old)
10	St Ninians School
16	CESU
25	Community Training and Development Unit
26	Falkirk Women's Technology Centre [5]
27	Bo'ness Development Trust
32	Langlees Community Dev. Project
33	Careers Central Ltd.
35	BOSS
58	St Mary's Episcopal P.S. [6]
62	Clackmannanshire Leisure Trust [7]
90	Aberlour Trust
92	North Lanarkshire Council
93	Ex Stirling County (NHS Recharge)

[1,2] Annual Lump sum contributions are payable in addition to the above rates in line with the figures in the table below.

Employer Code	Employer Name	Lump Sum Payment (£000pa) for the Year Ending		
		31 March 2010	31 March 2011	31 March 2012
7	Stirling University	77.3k	£81.3k	£85.4k
29	Visit Scotland	79.7k	£83.8k	£88.1k

[3] In addition to the certified rate shown, Scottish Children's Reporter Administration is due to pay a lump sum of £500k on 31 March 2009.

[4] The assets and liabilities in the Fund attributable to these bodies have been shared amongst the Councils in agreed proportions.

[5] Falkirk Council has assumed responsibility for this employer's liabilities.

[6] Stirling Council has assumed responsibility for this employer's liabilities.

[7] Clackmannanshire Council has assumed responsibility for this employer's liabilities.

Further notes

1 Contributions expressed as a percentage should be paid into Falkirk Council Pension Fund ('the Fund') at a frequency in accordance with the requirements of the Regulations.

2 Further sums should be paid to the Fund to meet the costs of any non-ill health early retirements and/or augmentation (i.e. additional membership or additional pension) using methods and factors issued by us from time to time, or GAD guidance if we consider it to be appropriate.

3 In addition, further sums may be required to be paid to the Fund by employers to meet the capital costs of any ill-health retirements that exceed those included within our assumptions.

4 The certified contribution rates represent the minimum level of contributions to be paid. Employing authorities may pay further amounts at any time and future periodic contributions may be adjusted on a basis approved by the Fund actuary. In particular, contributions may be requested from bodies with no active members on termination of the admission agreement under Regulation 77.

Appendix I – Ill Health Retirements

Included in the valuation calculations is an assumption in relation to the expected incidence of retirements on the grounds of ill health for employees members for each year in the future

The following table sets out:

- the expected number per annum based on the employee membership at the valuation date;
- the expected number per annum per 1,000 employee members;
- the expected cost per annum as a monetary amount as at the valuation date; and
- the expected cost per annum as a percentage of pensionable pay.

Employer Code	Employer/ Pool Name	Expected number		Expected cost p.a.	
		per annum	per 1000 p.a.	£(000s)	% of payroll
53	Falkirk Council	32.4	6.0	1,468.0	1.8%
54	Stirling Council	17.2	5.7	777.2	1.6%
52	Clackmannanshire Council	11.8	6.8	514.4	1.9%
55	Central Scotland Police	1.9	6.2	77.8	1.4%
56	Central Scotland Fire and Rescue Service	0.3	6.0	14.4	1.2%
57	Central Scotland Joint Valuation Board	0.4	6.4	15.3	1.1%
5	Dollar Academy Trust	0.3	7.7	16.1	2.1%
7	Stirling University	0.0	13.7	0.6	2.1%
11	Ballikinrain School	0.4	5.4	15.6	1.1%
13	Strathcarron Hospice	0.7	6.3	32.9	1.5%
14	Stirling Enterprise Park Limited	0.1	6.4	3.7	1.3%
15	Scottish Society for Autism	1.3	3.5	58.5	1.0%
19	Ceteris	0.2	5.0	8.7	1.5%
29	VisitScotland	0.3	6.9	11.0	1.7%
34	Scottish Children's Reporter Admin.	2.3	4.6	106.1	1.0%
38	Scottish Environment Protection Agency	4.6	3.8	203.8	0.7%
59	Open Secret	0.0	4.6	1.1	1.5%
64	Seamab School	0.1	4.8	6.3	1.2%
65	McLaren Community Leisure Centre	0.0	4.2	1.6	1.3%
66	Forth Valley College	1.4	6.1	62.7	1.4%
68	Active Stirling Ltd	0.1	1.9	4.9	0.5%
69	Forth and Oban Limited (Stirling Schools Contract)	0.2	5.1	9.8	2.2%
70	Forth Valley GIS Ltd	0.0	1.3	1.3	0.2%
71	Raploch URC	0.1	7.0	3.3	1.0%
72	Scottish Police Services Authority	0.2	3.3	6.7	0.4%
74	Valad Management (UK) Ltd	0.0	4.7	0.8	1.0%
	Small Admitted Bodies Pool				
18	Snowdon School Ltd	0.1	5.2	2.6	1.3%
22	Association of Scottish Colleges	0.0	6.6	1.8	0.8%
28	Smith Art Gallery	0.1	11.5	3.5	3.0%
31	Alsorts	0.0	2.1	0.1	0.5%
37	Cent Scotland Council for Racial Equality	0.0	5.6	0.5	0.7%
63	Playplus	0.0	5.5	1.3	1.4%
67	Stirling District Tourism Ltd	0.0	12.9	1.2	2.0%
73	Waterwatch Scotland	0.0	3.6	1.0	0.5%