The Highland Council Pension Fund

Actuarial Valuation as at 31 March 2011
Valuation Report

Barnett Waddingham
Public Sector Consulting

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Director of Finance
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Dear Sirs

Actuarial Valuation as at 31 March 2011

We have carried out an actuarial valuation of The Highland Council Pension Fund ("the Fund") as at 31 March 2011. The Fund is part of the Local Government Pension Scheme ("LGPS").

The valuation is being carried out in accordance with Regulation 32 of The Local Government Pension Scheme (Administration) (Scotland) Regulations 2008 ("the Regulations") as amended.

The purpose of this report is to set out the results of the actuarial valuation of the Fund.

This report is addressed to The Highland Council as administering authority to the Fund. It is not intended to assist any user other than The Highland Council in making decisions. Neither we nor Barnett Waddingham LLP accepts any liability to third parties in respect of this report.

This report has been written in accordance with "Technical Accounting Standard R: Reporting Actuarial Information" and "Technical Actuarial Standard D: Data" and the Pensions Technical Actuarial Standard issued by the Board for Actuarial Standards, insofar as they apply to the LGPS.

Our report is set out in the following sections.

1 Introduction

1.1 Purpose of the Valuation

1.1.1 The main purpose of the valuation is to review the financial position of the Fund and to determine the rate at which the employing bodies participating in the Fund should contribute in the future to ensure that the existing assets and future contributions will be sufficient to meet future benefit payments from the Fund.

1.1.2 The figures in this report count as part of a "planning exercise" for the purposes of the Board for Actuarial Standards' Technical Actuarial Standard R. This means the primary purpose of the figures is for "budgeting" or "target setting" – in this case setting the future levels of employer contributions payable to the Fund.

1.2 Previous Valuation

1.2.1 The last formal actuarial valuation of the Fund was carried out as at 31 March 2008 by us and the results of that valuation were set out in the formal valuation report dated February 2011.

1.2.2 The results of the previous valuation indicated that the assets of the Fund represented 98% of the accrued liabilities of the Fund. The Total Required Contribution Rate was certified as 15.7% of payroll which assumed that the past service funding level would be restored over a period of 20 years.

1.2.3 However, after allowing deterioration in financial conditions shortly after the valuation date, the certified rates were stepped up to closer to 18% of payroll (290% of employees' contributions) for 2011/12 for the major local authority employers.

1.3 Changes to the LGPS

1.3.1 The 2010 Emergency Budget announced that in future, the pension increase orders will be linked to the Consumer Price Index or CPI rather than RPI.

1.3.2 Also, it was announced that State Pension Age will be increased to age 66 for both men and women from 2020 which is likely to influence future retirement patterns.

1.3.3 A report has recently been issued by an independent pensions commission led by Lord Hutton to investigate pension reform across the public sector. His report contains a number of recommendations which are likely to lead to some changes to the LGPS in future although at this stage it is difficult to assess the detail of what they might be. The Chancellor has also indicated that the level of member contribution should be expected to increase at some point in future. We anticipate that these changes will be closer to being finalised by the date of the next valuation.

1.3.4 Full current details of the current benefits and contribution structure are set out in Appendix 6.

2 Valuation Data

2.1 Data Sources

2.1.1 We have used the following items of data as provided by The Highland Council:

- Membership extract as at 31 March 2011. The membership data has been checked for reasonableness and any missing or inconsistent data has been estimated where necessary. Whilst this should not be seen as a full audit of the data, we are happy that the data is sufficiently accurate for the purposes of the valuation.
- Fund accounts for the 3 years to 31 March 2011.

2.1.2 A summary of the data is set out in Appendix 4.

2.2 Assets

2.2.1 The asset allocation of the Fund as at 31 March 2011 was as follows:

Assets at This Valuation	31 March 2011	
	£(000)	%
UK Equities	198,254	20%
Overseas Equities	560,035	57%
Corporate Bonds	68,867	7%
Cash	16,591	2%
UK Gilts	54,557	6%
Overseas Bonds	-	-
Property	88,462	9%
Other assets	-	-
Alternative assets	-	-
Total	**986,767**	**100%**

We estimate that the annual return on the assets in market value terms for the 3 years to 31 March 2011 was approximately 5.1% per annum.

2.3 Benefits

2.3.1 Since the previous valuation changes to the benefits have been introduced with effect from 1 April 2009.

2.3.2 The benefits being valued including these changes are as set out in the Regulations governing the Local Government Pension Scheme ("the LGPS") and are summarised in Appendix 6.

3 Actuarial Methods and Assumptions

3.1 Valuation Method

3.1.1 For the purposes of this valuation we have, as in the past, adopted an approach which separately considers the benefits in respect of service completed before the valuation date ("past service") and benefits in respect of service expected to be completed after the valuation date ("future service"). This approach enables us to focus on:-

3.1.2 The past service funding level of the Fund. This is the ratio of accumulated assets to liabilities in respect of past service after making allowance for future increases to members' pay and pensions in payment. A funding level in excess of 100% indicates a surplus of assets over liabilities; a funding level of less than 100% indicates a deficit.

3.1.3 The future service funding rate i.e. the level of contributions required from the employing bodies to support the cost of benefits building up in future.

3.1.4 There are various "funding methods" that can be used to determine the cost of providing benefits. The method we have adopted for employers open to new staff at this valuation is known as the "Projected Unit Method". The key feature of this method is that in assessing the future service cost we calculate the contribution rate which meets the cost of one year of benefit accrual.

3.1.5 For employers that are closed to new staff we have used the Attained Age Method. The key feature of this method is that we assess the average contribution required to fund the benefits earned until retirement.

3.1.6 This is the same approach as adopted at the previous valuation.

3.2 Valuation Assumptions

3.2.1 The next step is to formulate assumptions about the factors affecting the Fund's future finances such as inflation, pay increases, investment returns, rates of mortality, early retirement and staff turnover etc.

3.2.2 Future levels of pay increases will determine the level of benefits to be paid in future in respect of active members as well as the contributions that will be received by the Fund. Once in payment, pension benefits in excess of Guaranteed Minimum Pensions ("GMPs") are linked to the Retail Prices Index through increases granted in line with the Pensions (Increase) Act 1971. Pension benefits will in future be linked to the CPI rather than RPI.

3.2.3 The cost of providing for benefits, however, depends not only upon the amount but also the incidence of benefits paid i.e. at what point in the future benefits begin to be paid and, for pension benefits, for how long they continue to be paid.

3.2.4 As money is being set aside now to provide for benefits payable in the future i.e. the benefits are being prefunded, then part of the cost of providing the benefits can be met from investment returns achieved by the Fund's assets. These assets build up from contributions paid by scheme members and participating employers to the Fund.

3.2.5 The assumptions adopted at the valuation can therefore be considered as:-

- The statistical assumptions which generally provide estimates of the likelihood of benefits and contributions being paid, and,
- The financial assumptions which determine the estimates of the amount of benefits and contributions payable as well as their current or present value.

3.2.6 We examine the assumptions in more detail in the next two sections of our report.

3.3 Funding Model

3.3.1 At this valuation we have used a market related funding model. The key features of the model are as follows:

3.3.2 Assumed future levels of retail price inflation are derived by considering the difference between index-linked gilt and fixed-interest gilt yields at the valuation date, as published by the Bank of England. At this valuation we have also included an adjustment known as an inflation premium. This inflation premium is deducted from the market implied inflation assumption to reflect the expectation that market implied inflation tends to overstate actual retail price inflation.

3.3.3 Pay increases are assumed to exceed future retail price inflation based on past experience and expectations of future experience.

3.3.4 Pension increases are assumed to be in line with CPI rather than RPI. It is assumed that CPI will be 0.5% per annum less than RPI, consistent with the historical average.

3.3.5 The expected future return from equities is based on dividend yields at the valuation date in addition to an allowance for real capital growth in asset values.

3.3.6 Rather than take "spot" yields and market values of assets at the valuation date we have used smoothed yields and asset values spanning the 6 month period around the valuation date.

3.3.7 The discount rate used to discount future payments to and from the Fund and so determine the value placed on the liabilities reflects the risk adjusted expected return that will be earned by the actual investment strategy adopted by the Fund.

3.3.8 Under TAS R a "funding model" is referred to as a "measure".

4 Financial Assumptions and Experience

4.1.1 The derivation of the key financial assumptions adopted at this valuation and how they compared as at the previous valuation are set out below. Further details are set out in Appendix 3.

4.2 Future Retail Price Inflation

4.2.1 The base assumption is the future level of retail price inflation. This is derived by considering the difference in yields from conventional and index linked gilts using the Bank of England Inflation Curve and then adjusting by an inflation premium.

4.2.2 As at the valuation date the spot inflation projection was 3.90% and the average or smoothed level over the 6 months spanning the valuation date was 3.75%. We have used the smoothed level but then reduced by a 0.25% inflation premium adjustment to end up with an RPI assumption of 3.5% per annum.

4.3 Future Pension Increases

4.3.1 Previously, pension increases were assumed to be in line with retail price increases. The 2010 Emergency Budget announced that in future, the pension increase orders will be linked to the CPI rather than RPI. We have therefore assumed that pension increases will be 0.5% less than the price inflation assumption. i.e. 3.0% per annum.

4.4 Future Pay Inflation

4.4.1 As benefits are currently linked to pay levels at retirement, an assumption has to be made about future levels of pay inflation. Historically there has been a close link between price and pay inflation with pay increases in excess of price inflation averaging out at between 1% and 3% per annum depending on economic conditions.

4.4.2 The assumption adopted at the previous valuation was that pay increases, over and above increases due to promotion and other increments (or “salary scales”), would exceed price inflation by 1.5%.

4.4.3 At this valuation we have adopted new salary scales and long term salary assumption. However, in anticipation of Government policy we have completed calculations assuming pay increases will only be half the long term average assumption for a period of 2 years.

4.5 Future Investment Returns/Discount Rate

4.5.1 To determine the value of accrued liabilities and future contribution requirements at any given point in time it is necessary to discount future payments to and from the Fund. There are a number of different approaches which can be adopted in deriving the discount rate to be used. FRS 17 for example requires that the discount rate is related only to yields from corporate bonds.

4.5.2 In our view the discount rate adopted should depend on the purpose of the valuation and the overall funding objectives. The regulations require the actuary to adopt methods and assumptions which produce stable levels of employer contributions. In our view therefore, to help achieve this objective, the discount rate should reflect the expected investment return to be achieved from the underlying investment strategy.

4.5.3 In determining the assumptions to be made in relation to future investment returns it is necessary to consider the investment strategy of the Fund and the resulting expected future return earned by the assets held. The investment strategy of the Fund is to invest the assets in a mix of equities, bonds and property geared towards the production of superior investment returns relative to the growth of liabilities, whilst striving to maintain to maintain a level of consistency within the rate of contribution for employers.

4.5.4 Redemption yields from gilts give an indication of the future rates of return from these asset classes. Redemption yields from corporate bonds are also readily available. There is however no comparable market indicator to derive the market expected future return from investing in equities, property or other alternative assets.

4.5.5 It is however possible to model future returns from equities by assuming that returns are a combination of dividends, inflation and real capital returns as follows.

Smoothed Equity Returns	March 2011 % p.a.	March 2008 % p.a.
Net equity yield	2.9%	3.6%
Inflation	3.5%	3.7%
plus assumed real capital return	0.5%	0.7%
Equity Return	6.9%	7.4%

4.5.6 It would also be possible to derive the expected future return from other asset classes such as property and alternative asset classes. Intuitively we might expect that returns from asset classes other than equities and gilts might be expected to return somewhere between gilts and equities – what we usually see from corporate bonds.

4.5.7 Accordingly we have assumed that the return from property will be the same as corporate bonds and that returns from other alternative asset classes is the same as the expected return from equities.

4.5.8 We then derive the discount rate as firstly, the weighted average of future expected returns from the various asset classes based on the actual asset allocation as at the valuation date.

4.5.9 We then include a risk adjustment to the discount rate to reflect the amount of equity risk being taken relative to gilts. For a Fund with 75% or less exposure to equity type investments the risk adjustment is nil. For a Fund with more than 75% in equity type investments the reduction in

discount rate is 50% of the extra return expected from the actual strategy compared to one invested 75% in equity type investments.

4.5.10 Finally to accommodate any extreme market conditions at the valuation date the resulting real discount rate is constrained to 4% per annum.

4.5.11 In summary therefore we have adopted the following assumptions.

Financial Assumptions	March 2011		March 2008	
	% p.a.	Real % p.a.	% p.a.	Real % p.a.
Investment Return				
Equities/absolute return funds	6.9%	3.4%	7.4%	3.7%
Gilts	4.3%	0.8%	4.6%	0.9%
Bonds & Property	5.5%	2.0%	6.1%	2.4%
Discount Rate	6.4%	2.9%	6.9%	3.1%
Pay Increases	5.0%	1.5%	5.2%	1.5%
Price Inflation	3.5%	-	3.7%	
Pension Increases	3.0%	(0.5%)	3.7%	

4.6 Intervaluation Experience - Financial

4.6.1 The following table sets out the financial experience of the Fund during the intervaluation period compared to the assumptions adopted at the previous valuation.

Financial Experience	Actual	Assumed	Difference
	% p.a.	% p.a.	% p.a.
Investment Return	5.1%	6.9%	(1.8%)
Estimated Pay Increases	5.2%	5.2%	(0.0%)
Price Inflation/Pension Increases	2.7%	3.7%	(1.1%)

4.6.2 The principal conclusions are:

- Investment returns were less than expected.
- Pay increases were as expected.
- Pension increases were less than expected.

4.6.3 Overall the financial experience of the Fund during the intervaluation period compared to the assumptions adopted at the previous valuation was a negative factor.

5 Demographic Experience and Assumptions

5.1 Statistical Experience – Active Members

5.1.1 The following table sets out the actual number of membership movements amongst active members during the intervaluation period compared to the assumptions adopted at the previous valuation.

Active Membership Movements	Actual	Assumed	Difference %
Early Leavers	3,706	2,326	59%
Deaths in Service	46	80	(42%)
Retirements			
Ill health	122	471	(74%)
Age	534	534	
Voluntary	3		
Redundancy	180		
Efficiency	7		
Total	**846**	**1,005**	(16%)

5.1.2 There were more early leavers than expected and fewer ill-health retirements than expected..

5.1.3 Overall the demographic experience of the Fund during the intervaluation period compared to the assumptions adopted at the previous valuation was a positive factor during the intervaluation period.

5.1.4 We have adjusted our pre retirement assumptions to better reflect recent actual experience.

5.2 Pensioner Mortality

5.2.1 Mortality investigations over the last few years have concluded that the population across the UK is living longer and that this improvement will continue at a faster rate than seen in the past. Our analysis of LGPS pensioner longevity over the course of the last 20 years or so confirms that pensioners are living longer although experience does vary across the country and from Fund to Fund.

5.2.2 The following table sets out the actual and expected mortality of pensioners during the intervaluation period.

Pensioner Deaths By Number	Pensioners	Dependants	Total
Actual	454	151	**605**
Assumed	296	96	**394**
% Difference	**53%**	**58%**	**54%**
By Amount of Pension	**£(000)**	**£(000)**	**£(000)**
Actual	1,594	287	**1,882**
Assumed	1,361	207	**1,500**
% Difference	**17%**	**39%**	**25%**

5.2.3 The number of pensioners dying during the intervaluation period was higher than expected. More importantly the amount of pension ceasing was more than expected..

5.2.4 Overall the mortality experience over the intervaluation period had a positive impact on the financial position of the Fund in that the amount of pension ceasing was more than expected.

5.2.5 National surveys indicate that the pace of improvement in longevity continues. However, we believe there is a case to amend the assumptions adopted at this valuation to better reflect current mortality in the short term but allow for more improvement in future.

5.2.6 We have therefore completed calculations assuming all members will follow the mortality experience of a table which is based on the mortality assumptions underlying the 110% S1PA tables allowing for CMI projections, with a long term rate of 1%.

5.3 Retirement Ages – Active Members

5.3.1 At the previous valuation it was assumed that active members will retire as soon as they are able to on unreduced benefits without requiring employer consent – typically satisfying the Rule of 85 but no earlier than age 60 nor later than age 65.

5.3.2 Experience suggests that whilst the Rule of 85 is an influencing factor on when active members choose to retire, State Pension Age is also a major factor, as for many active members, they need the additional income payable from the State before they can afford to retire.

5.3.3 There are existing plans in place to increase State Pension Age albeit very slowly. The new Government have however indicated that State Pension Age will be 66 from 2020.

5.3.4 It is difficult to assess what the impact will be but we have completed calculations assuming that active members will retire 1 year later than the date they would be entitled to retire and receive unreduced benefits.

6 Valuation Results

6.1 Past Service Funding Position and Contribution Rates

6.1.1 The following table sets out the valuation results for the Fund. We show

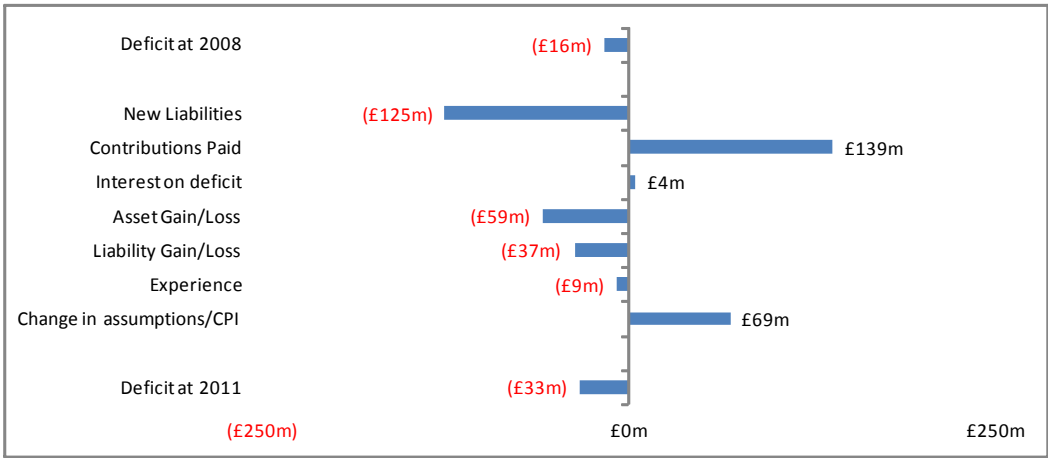
- The past service funding position
- The required average ongoing employer contribution rate for future service benefits
- The required total employer contribution rate to restore the funding position to 100% over the agreed 20 year period following the valuation date.

Past Service Funding Position		£(000)
Smoothed Asset Value		991,121
Past Service Liabilities		
Active Members	490,516	
Deferred Pensioners	125,612	
Pensioners	408,191	
Value of Scheme Liabilities		1,024,319
Surplus (Deficit)		(33,198)
Funding Level		97%
Employer Contribution Rates		
Future Service Contribution Rate		16.3%
Deficit recovery (20 years)		1.0%
Total Contribution Rate		**17.3%**

6.1.2 As we see, the funding level is 97% and the average required employer contribution to restore the funding position to 100% over the next 20 years is 17.3% of pensionable pay or equivalently 280% of employee contributions.

6.2 Reconciliation of Past Service Position

6.2.1 A reconciliation of the intervaluation experience on the past service position in the 3 years to the valuation date is set out in the following chart.



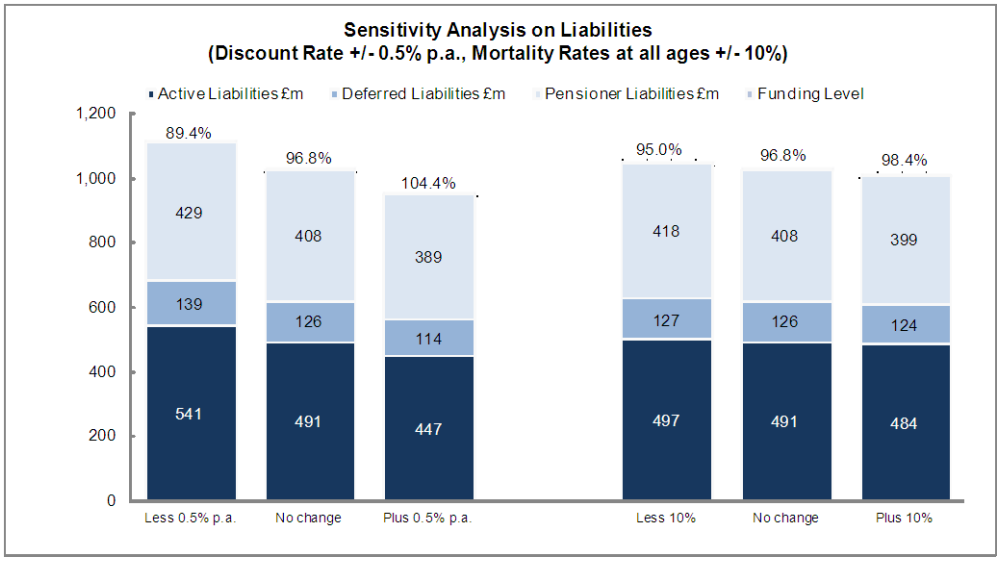
6.2.2 As we can see, overall the deficit has increased during the intervaluation period.

6.3 Sensitivity Analysis

6.3.1 It is important that it is understood that the valuation results for the Fund are based on the assumptions used to determine the liabilities. Changes to the adopted assumptions will affect the funding position of the Fund.

6.3.2 In order to illustrate this, a number of calculations have been carried out to highlight the sensitivity of the funding position to the assumptions adopted, focusing on the assumptions to which the funding position is most sensitive.

6.3.3 To highlight the sensitivity of the funding position to changes in the discount rate, we have considered the impact of changing this assumption by 0.5% p.a. in either direction. We have also considered the impact of mortality rates at all ages being either 10% higher or lower than assumed. The results of this analysis is shown in the chart below:



7 Comments and Conclusions

7.1 Financial Position

7.1.1 The funding level has shown a slight decline since the 2008 valuation.

7.1.2 This is due to a number of factors but primarily due to lower than assumed investment returns.

7.1.3 However, the position improves once we allow for:

- Future pension increases being linked to CPI
- Later retirement age plans
- Short term pay adjustment

7.2 Employer Contribution Rates

7.2.1 The contribution rates that we have certified have been set to fund each employer's share of the deficiency in the Fund over the next 20 years.

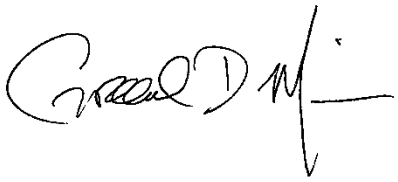
7.2.2 The certified contribution rates for each employer are set out in our Rates and Adjustments Certificate in Appendix 5.

7.3 New Employers joining the Fund

7.3.1 We would recommend that any new small employers or admitted bodies joining the Fund with no previous interest in the Fund should be referred to us for individual calculation as to the required level of contribution.

7.3.2 Any employer who ceases to participate in the Fund should be referred to us in accordance with Regulation 34.

7.3.3 We would be pleased to answer any questions arising from this report.



Graeme D Muir FFA **Alison Hamilton FFA**

Appendix 1. Valuation Method

Valuation of Liabilities

Using our assumptions we estimate the payments which will be made from the Fund throughout the future lifetime of existing active members, deferred benefit members, pensioners and their dependants. We then calculate the amount of money which, if invested now would be sufficient together with the income and growth in the accumulating assets to make these payments in future, using our assumption about investment returns.

This amount is called "the present value" (or, more simply, "the value") of members benefits. Separate calculations are made in respect of benefits arising in relation to service before the valuation date ("past service") and for service after the valuation date ("future service").

Past Service Funding Level

A comparison is made of the value of the existing assets with the value of benefits in relation to past service (allowing for future pay and pension increases). If there is an excess of assets over past service liabilities then there is a past service surplus. If the converse applies there is a past service deficiency.

Future Service Funding Rate

The first stage is to calculate the value of benefits accruing to existing active members in the future, by reference to projected pay as at the date of retirement or earlier exit.

For employers that are still open to new staff we have used the Projected Unit Method which considers the benefits accruing in the year following the valuation date. The value of benefits accruing in the year following the valuation date is then expressed as a percentage of payroll over the same period having first deducted the equivalent contribution paid by the active members.

The method described above results in a stable, long term contribution rate over time, if the assumptions adopted are borne out in practice and there is a steady flow of new entrants to the Fund. If the admission of new entrants is such that the average age of the membership profile increases then the contribution rate calculated at future valuations would be expected to increase.

For employers that are closed to new staff we have used the Attained Age Method. The key feature of this method is that we assess the average contribution required to fund the benefits earned until retirement.

Valuation of Assets

Assets have been valued at a 6 month smoothed market value straddling the valuation date.

Appendix 2. Valuation Data

A summary of the membership records submitted for the valuation is as follows.

Active Members	Number		Actual Pensionable Pay £ (000)		Average £	
Full Time	**2011**	**2008**	**2011**	**2008**	**2011**	**2008**
Males	2,802	2,692	72,901	62,683	26,017	23,285
Females	2,732	2,611	66,159	55,534	24,216	21,269
Part Time						
Males	425	489	4,010	3,456	9,434	7,068
Females	5,648	5,934	50,619	42,214	8,962	7,114
Total	**11,607**	**11,726**	**193,688**	**163,887**	**16,687**	**13,976**

Pensioners	Number		Annual Pensions £ (000)		Average £	
	2011	**2008**	**2011**	**2008**	**2011**	**2008**
Males	2,594	2,227	17,538	13,423	6,761	6,028
Females	3,019	2,403	8,685	5,982	2,877	2,490
Dependants	1,138	1,030	2,373	1,995	2,085	1,937
Total	**6,751**	**5,660**	**28,595**	**21,401**	**4,236**	**3,781**

Deferred Pensioners (incl "undecideds")	Number		Annual Pensions £ (000)		Average £	
	2011	**2008**	**2011**	**2008**	**2011**	**2008**
Males	2,500	2,164	4,179	3,152	1,672	1,456
Females	7,254	5,520	5,670	3,522	782	638
Total	**9,754**	**7,684**	**9,849**	**6,674**	**1,010**	**869**

Notes

- The numbers relate to the number of records and so will include members in receipt of or potentially in receipt of more than one benefit.
- Annual pensions are funded items only and include pension increases up to and including the 2011 PI Order.
- Pensionable pay is actual earnings.

A summary of the assets held by the Fund at the valuation date is as shown below.

Assets at This Valuation	31 March 2011	
	£(000)	%
UK Equities	198,254	20%
Overseas Equities	560,035	57%
Corporate Bonds	68,867	7%
Cash	16,591	2%
UK Gilts	54,557	6%
Overseas Bonds	-	-
Property	88,462	9%
Other assets	-	-
Alternative assets	-	-
Total	**986,767**	**100%**

	Year to	March 2011	March 2010	March 2009	TOTAL
Revenue Accounts		£ (000)	£ (000)	£ (000)	£ (000)
EXPENDITURE	Retirement Pensions	25,502	24,057	22,062	71,621
	Retirement Lump Sum	8,331	7,557	6,291	22,179
	Death Benefits	1,201	1,055	734	2,990
	Leavers benefits	2,089	2,284	1,632	6,005
	Admin/Investment Ex	747	702	694	2,143
	Other Expenditure	-	-	-	-
TOTAL		37,870	35,655	31,413	104,938
INCOME	Employees Ctbns	12,514	12,376	10,753	35,643
	Employers Ctbns	37,290	34,546	31,715	103,551
	Transfer Values	3,479	4,486	4,603	12,568
	Investment Income	18,544	16,871	19,194	54,609
	Other Income	-	-	-	-
TOTAL		71,827	68,279	66,265	206,371
Fund Value		£ (000)	£ (000)	£ (000)	£ (000)
Assets at Start of Year		886,946	627,772	801,708	801,708
Cashflow		33,957	32,624	34,852	101,433
Change in value		65,864	226,550	(208,788)	83,626
Assets at End of Year		986,767	886,946	627,772	986,767
Annual Returns					
Approx Rate of Return		9.4%	38.3%	-23.4%	5.1%

Appendix 3. Actuarial Assumptions

The valuation process is essentially a projection of future cashflows into and out of the Fund. The amount of future cashflows out of the Fund i.e. benefits provided, will depend on rates of future pay increases and price inflation. The timing or incidence of the cashflows will depend upon future rates of retirement, mortality etc.

As money is being set aside now to provide for benefits payable in the future then part of the cost of providing the benefits can be met from investment returns achieved by the Fund's assets which then build up. The higher the rate of return achieved by the assets the lower the contribution requirement that has to be paid in future to meet the cost of the benefits.

Financial Assumptions

The principal financial assumptions adopted in the valuation are therefore as follows:-

Price Inflation

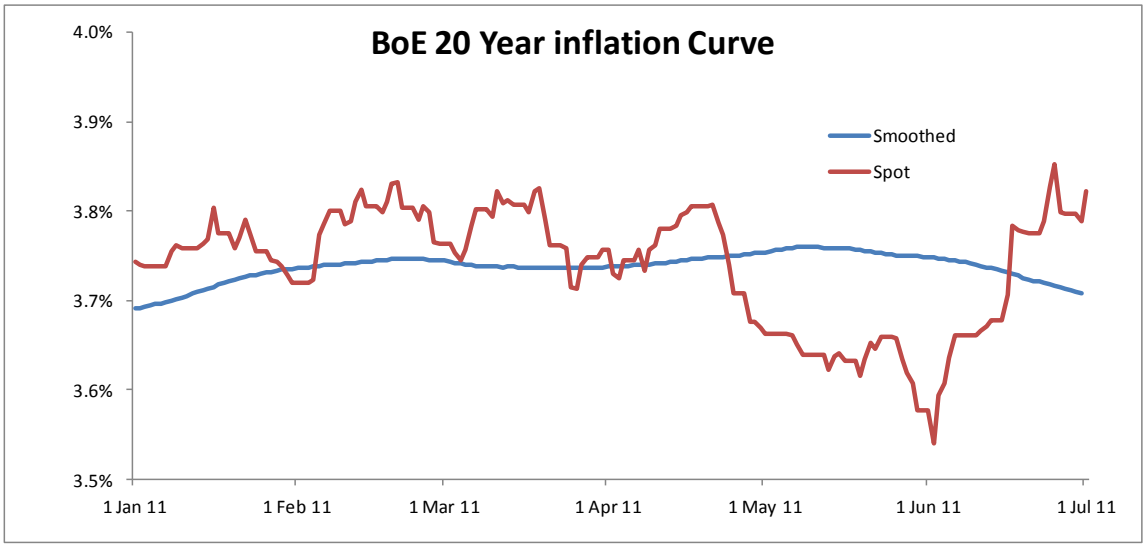
There are number of ways to try to estimate what future levels of inflation might be.

One approach would be to look at the long term trend in the past although much depends on the measurement period.

In these days of "marked to market" valuations, the usual approach is to look at the difference between yields from fixed-interest and index-linked gilts.

At this valuation we have looked at 20 year Bank of England Inflation curve which is the level of future RPI over the next 20 years as implied by the gilt market.

The following chart shows this on a daily basis during the 6 month period straddling the valuation date. We have also shown the smoothed or rolling average observation over that period.

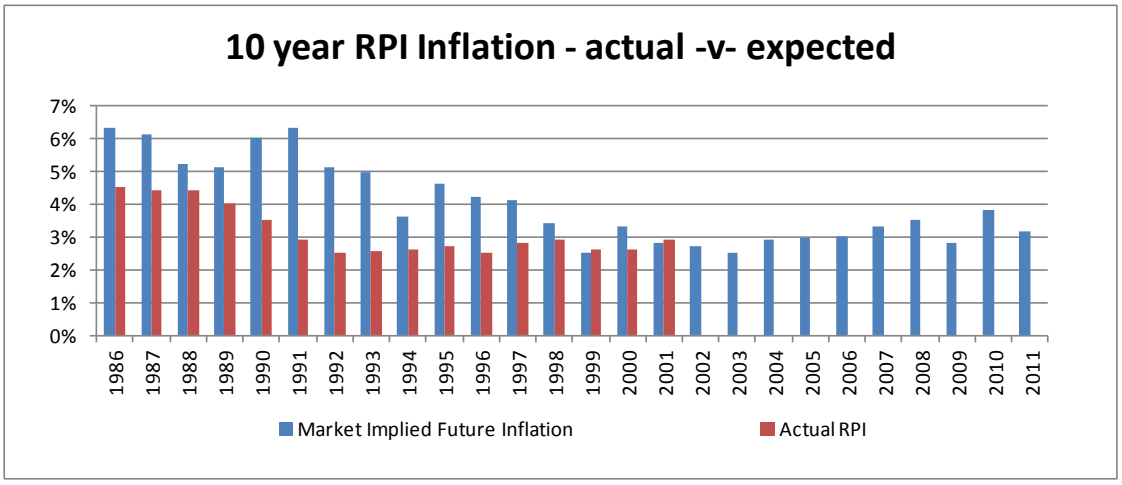


However, one of the issues in adopting such an approach is the arguably imperfect nature of the gilt market. The supplier of gilts (the Government) is a reluctant supplier, especially for long-dated gilts (which are the ones which are most useful for estimating future inflation for pension schemes).

On the demand side, there are certain institutions (insurance companies for example) who are essentially "forced holders" of gilts to meet various solvency requirements. Accordingly, the pricing of gilts is not perfect.

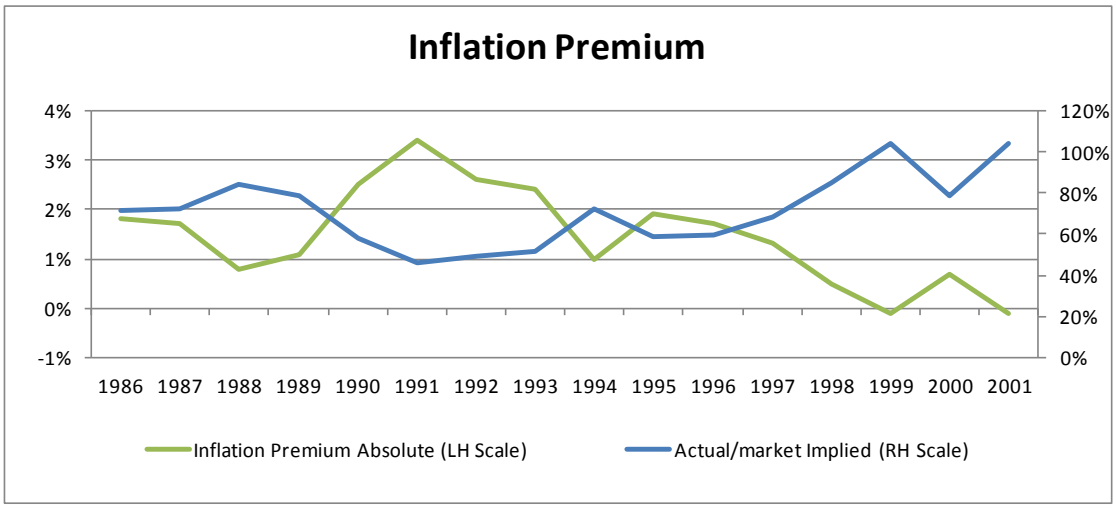
There is also the issue of what is known as the "inflation premium". The argument is that investors will pay a premium for inflation protection and so arguably index-linked gilts are "more expensive" than fixed-interest gilts or equivalently index-linked gilt yields are lower than they might otherwise be.

The following chart shows how the gilt market implied 10 year inflation level at the beginning of each year has compared with the resulting 10 year actual level of inflation.



As we see the market implied level of inflation has consistently over-estimated the actual level of inflation.

The following chart shows the inflation premium both at an absolute level – the difference between actual and expected inflation and in relative terms (actual/expected).



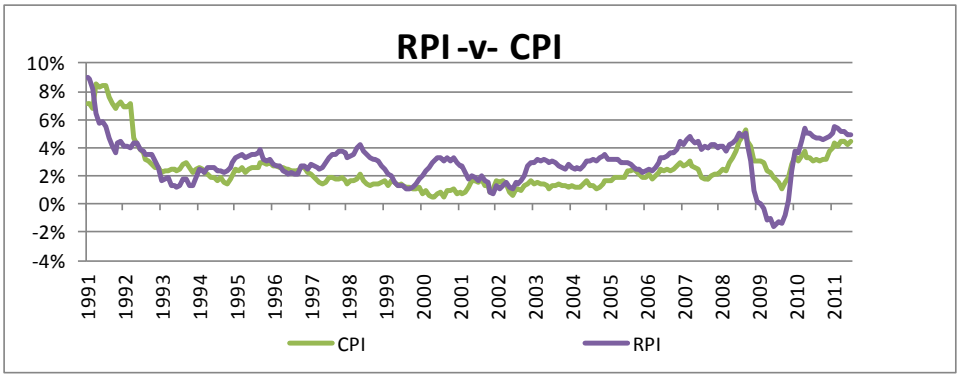
Pension Increases

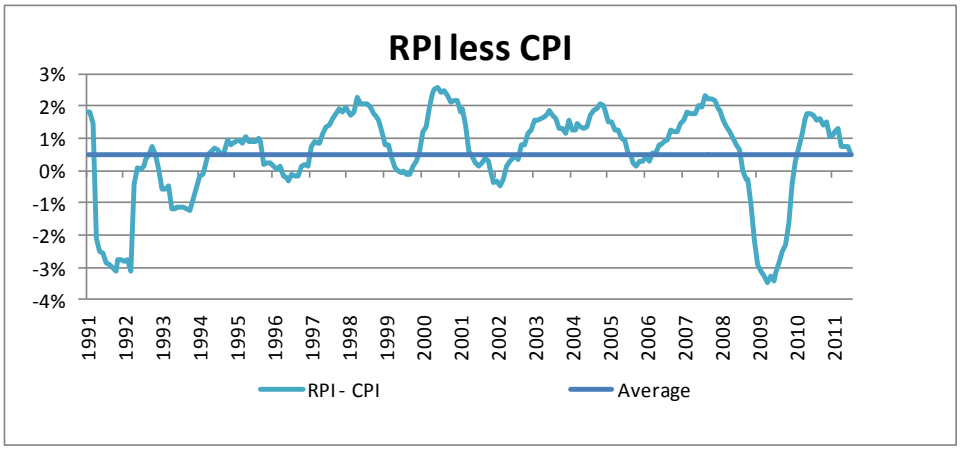
The Retail Price Index has long been the established measure of inflation in the UK. It measures the change in prices of a number of things including housing costs such as mortgage interest payments.

However, in the 1990's the Government introduced the Consumer Price Index which is based on the prices of a range of consumer goods – similar to the RPI but it specifically excludes housing costs. The CPI is now the favoured measure the Government uses for measuring inflation in the economy.

The 2010 Emergency Budget delivered by George Osborne announced that in future, the pension increase orders will be linked to the CPI rather than RPI. This was expected to save some pennies implying that the Government expects CPI to be below RPI.

The following chart show how the 2 have compared since 1990.





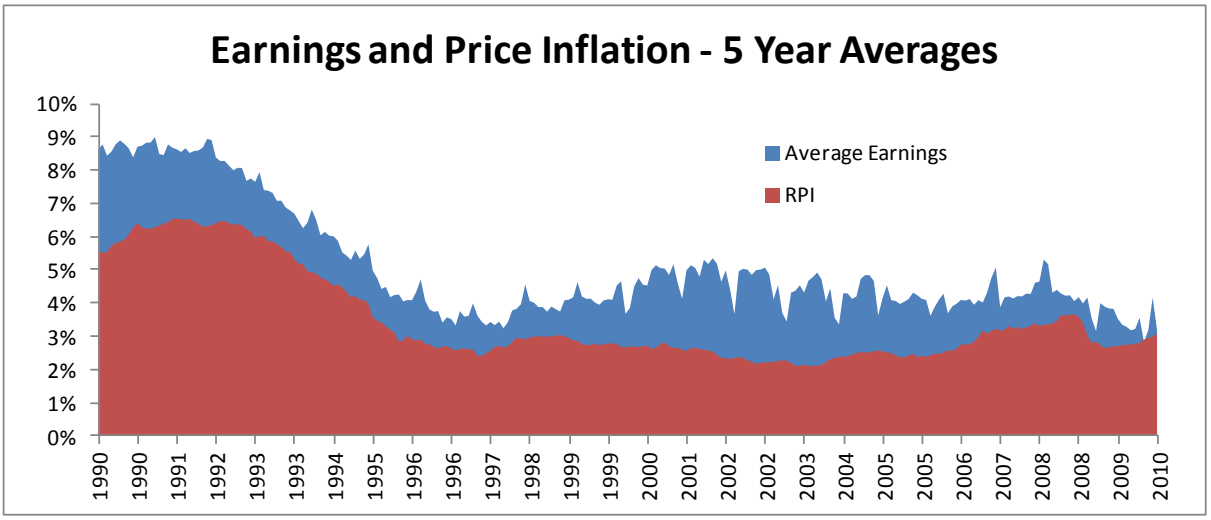
As we see RPI has indeed generally been higher the CPI and the average "gap" over the last 20 years has been around 0.5% per annum.

Thus, if this past trend continues then we would expect future pension increases to be 0.5% less than previously projected.

Pay Increases

Having determined our assumption about future levels of price inflation, the next stage is to assess future levels of pay increases relative to price inflation.

Historically there is, not surprisingly, a strong correlation between pay and price inflation as we see below.



The long term trend has been that real pay increases have been around 1% to 3% per annum although as overall levels of inflation have reduced, so too has the level of real pay growth. The long term average is around 1.5% more than RPI although there is evidence of a declining trend as the economy has slowed.

At this valuation we have assumed that long term future salary growth will be 1.5% more than RPI.

Investment Returns

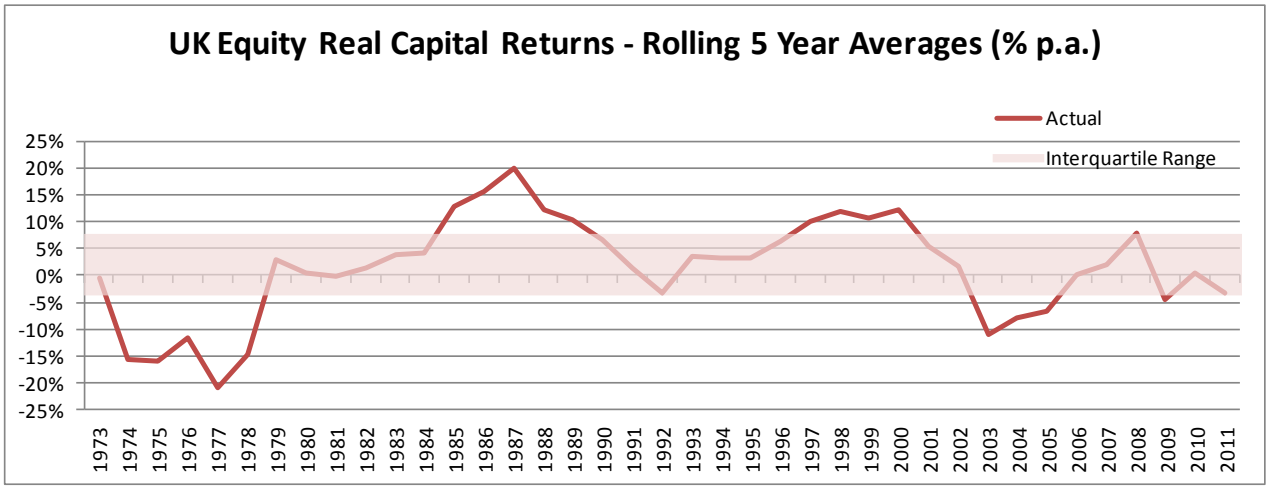
In a market-related valuation it is necessary to assess future average levels of return in current market conditions.

Redemption yields from gilts give an indication of the market's expectations of long term interest rates and so some indication about future risk free rates of return. There is however no comparable market indicator to derive the market's expected future return from investing in equities at any particular point in time.

We have assumed that the real return to be earned in future from equities from current market levels will be the current net dividend yield plus future real growth in share values.

The next chart shows the long term capital return from UK equities in real terms over the last 35 years or so together with the "inter quartile range" – the range of observations that account for 50% of all observations around the median.

As we see the actual returns have averaged out at around 1% to 2% per annum although there have been prolonged periods when the real capital returns have been significantly different to this average.



For the purposes of the valuation therefore we have assumed that real capital returns will be 0.5% per annum.

The derivation of the equity return is therefore as follows:-

Smoothed Equity Returns	March 2011 % p.a.
Net equity yield	2.9%
Inflation	3.5%
plus assumed real capital return	0.5%
Equity Return	6.9%

It would also be possible to derive the expected future return from other asset classes such as property and alternative asset classes. Intuitively we might expect that returns from asset classes other than equities and gilts might be expected to return somewhere between gilts and equities – what we usually see from corporate bonds.

Accordingly we have assumed that the return from other alternative asset classes is the same as the expected return from equities.

We then derive the discount rate as the weighted average of future expected returns from the various asset classes based on the actual investment strategy.

We then include a risk adjustment to the discount rate to reflect the amount of equity risk being taken relative to gilts. For a Fund with 75% or less exposure to equity type investments the risk adjustment is nil. For a Fund with 100% in equity type investments the reduction in discount rate is 50% of the extra return expected from a Fund invested 100% in equity type investments compared to one invested 75% in equity type investments.

Finally to accommodate any extreme market conditions at the valuation date the resulting real discount rate is constrained to 4%.

In summary therefore we have adopted the following assumptions.

Financial Assumptions	March 2011		March 2008	
	% p.a.	Real % p.a.	% p.a.	Real % p.a.
Investment Return				
Equities/absolute return funds	6.9%	3.4%	7.4%	3.7%
Gilts	4.3%	0.8%	4.6%	0.9%
Bonds & Property	5.5%	2.0%	6.1%	2.4%
Discount Rate	6.4%	2.9%	6.9%	3.1%
Pay Increases	5.0%	1.5%	5.2%	1.5%
Price Inflation	3.5%	-	3.7%	
Pension Increases	3.0%	(0.5%)	3.7%	

Statistical Assumptions

The statistical assumptions we have adopted are based on our analysis of the incidence of retirement and withdrawal of our Local Authority client funds.

Sample rates are shown in the following tables: -

	Incidence per 1000 active members per annum								Salary Scales			
	Males				Females							
	Death	Ill Health		Wdls	Death	Ill Health		Wdls	Males	Femal	Males	Femal
Age		FT	PT			FT	PT		FT	FT	PT	PT
20	0.5	0.0	0.0	400.0	0.2	0.1	0.1	400.0	100.0	100.0	100.0	100.0
25	0.4	0.1	0.1	360.0	0.2	0.1	0.1	360.0	122.8	100.0	114.2	100.0
30	0.3	0.1	0.1	264.0	0.3	0.3	0.3	264.0	145.5	100.0	125.8	100.0
35	0.5	0.3	0.3	184.0	0.5	0.5	0.5	184.0	166.3	100.0	133.6	100.0
40	0.9	0.5	0.5	108.0	0.6	0.8	0.8	108.0	183.1	100.0	136.6	100.0
45	1.3	0.9	0.9	48.0	0.8	1.2	1.2	48.0	194.4	100.0	136.6	100.0
50	2.5	1.6	1.6	-	1.4	2.2	2.2	-	198.8	100.0	136.6	100.0
55	4.3	3.5	3.5	-	2.2	4.2	4.2	-	198.8	100.0	136.6	100.0
60	6.9	7.4	7.4	-	3.1	8.5	8.5	-	198.8	100.0	136.6	100.0
64	11.1	13.2	13.2	-	4.0	11.5	11.5	-	198.8	100.0	136.6	100.0

Other assumptions		
Age Retirements	It is assumed that active members will retire at age 60 or when they would first satisfy the rule of 85 if later, no later than 65. We have also considered active mebers retiring a year later.	
Mortality	All members	110% S1PA tables allowing for CMI projections, with a long term rate of 1%
	Ill Health Retirement	As above plus 4 years
Probability of partners pension coming into payment (including a loading for dependants benefits)	90%	
Partner Age Difference	Males are assumed to be 3 years older than their partners	
Commutation	It is assumed that members at retirement will commute pension to provide a lump sum of 50% * (3/80ths lump sum + HMRC maximum lump sum) at a rate of £12 of lump sum for £1 of pension.	
Ill health tiers	It is assumed that 50% of ill health retirements will be eligible for benefits based on full prospective service and 50% will qualify for a service enhancement of 25% of prospective service.	

Appendix 4. Individual Employer Data as at 31 March 2011

Employer	Code	Active Members			Pensioners			Deferred Pensioners		
		Number	Actual Pay	Average	Number	Annual Pensions	Average	Number	Annual Pensions	Average
			£ (000)	£		£ (000)	£		£ (000)	£
Highland Regional Council	1	-	-	-	1,468	5,043	3,435	484	602	1,244
Comhairle Nan Eilean Siar	2	1,842	31,491	17,096	926	3,939	4,253	1,162	1,660	1,429
Caithness District Council	3	-	-	-	84	356	4,236	14	18	1,320
Sutherland District Council	4	-	-	-	49	270	5,507	14	23	1,624
Ross & Cromarty District Cncl	5	-	-	-	142	709	4,990	40	61	1,530
Skye & Lochalsh District Cncl	6	-	-	-	18	54	3,009	6	7	1,240
Inverness District Council	7	-	-	-	183	755	4,126	79	106	1,345
Nairn District Council	8	-	-	-	29	141	4,867	16	34	2,133
Badenoch & Strathspey Dst Cncl	9	-	-	-	24	113	4,717	5	7	1,382
Lochaber District Council	10	-	-	-	48	166	3,466	29	52	1,807
Stornoway Port Authority	11	17	436	25,657	23	205	8,930	4	2	433
Averon Centre	12	-	-	-	2	10	5,146	-	-	-
Cromarty Firth Port Authority	13	19	698	36,741	23	279	12,122	11	53	4,837
Inverness Harbour Trust	14	7	197	28,131	6	30	4,923	1	2	1,839
Highland Society for the Blind	15	-	-	-	-	-	-	-	-	-
Northern Joint Police Board	17	316	5,936	18,784	237	901	3,801	280	468	1,672
(Highland and Western Isles) Valuation Joint Board (Assessors)	18	52	1,296	24,919	39	463	11,875	40	50	1,259
Highlands & Islands Fire Board	19	91	2,126	23,362	38	270	7,104	36	52	1,439
Highland River Purification Bd	20	-	-	-	10	44	4,395	4	2	433
Highland Area Tourist Office	21	-	-	-	11	32	2,952	10	12	1,172
Highland Craftpoint	22	-	-	-	9	29	3,191	2	4	2,139
Highland Opportunities	24	21	562	26,762	2	3	1,450	14	21	1,468
Raddery School	25	-	-	-	1	4	3,526	1	3	2,670
Merkinch Community Centre	26	-	-	-	2	3	1,374	1	0	380
Governors of Eden Court Theatre	27	18	422	23,463	19	31	1,621	47	68	1,438
Inverness College	34	154	2,780	18,055	86	180	2,093	156	225	1,442
North Highland College	35	110	2,124	19,310	38	159	4,187	105	99	942
Lews Castle College	36	55	1,159	21,072	12	24	2,010	41	56	1,354
Dornoch Academy	37	-	-	-	-	-	-	1	1	556
Business Information Source Ltd	38	-	-	-	-	-	-	1	1	1,483
The Highland Council	40	8,377	132,023	15,760	3,070	13,526	4,406	6,723	5,342	795

Employer	Code	Active Members			Pensioners			Deferred Pensioners		
		Number	Actual Pay	Average	Number	Annual Pensions	Average	Number	Annual Pensions	Average
			£ (000)	£		£ (000)	£		£ (000)	£
UHI	41	153	4,503	29,434	18	119	6,590	78	224	2,875
Highlands of Scotland Tourist Board (HOST)	42	20	456	22,822	20	112	5,616	39	85	2,180
Highland Sports Development Association	43	-	-	-	-	-	-	1	2	2,188
JET 2000 Ltd	44	-	-	-	16	40	2,521	16	53	3,290
Inverness Leisure	45	52	719	13,826	3	8	2,683	111	64	580
Western Isles Tourist Board	47	2	43	21,562	3	25	8,313	5	11	2,277
Golf Highland Ltd	48	-	-	-	-	-	-	3	8	2,672
Richard Irvin & Sons	50	-	-	-	3	29	9,642	1	5	4,850
NHS - No longer applicable	51	-	-	-	3	13	4,294	-	-	-
HIE (Careers Scotland)	55	-	-	-	-	-	-	1	0	68
Torvean Golf Club	56	1	15	15,000	-	-	-	2	8	4,247
Mitie PFI Limited	57	-	-	-	-	-	-	1	0	351
Stoneyhill Waste Management Limited	58	-	-	-	1	2	2,046	1	1	1,368
Bord Na Gaidhlig	59	15	479	31,904	1	17	16,865	8	7	894
Sight Action (formerly VISH)	60	10	220	22,002	10	45	4,476	10	22	2,212
Highland Blindcraft	61	17	244	14,378	18	49	2,704	12	15	1,215
H&I Scotland Structural Funds Partnership Ltd	62	15	424	28,275	1	2	2,453	3	6	2,098
High Trans Initative (HITRANS)	63	5	209	41,774	-	-	-	-	-	-
Hebridean Housing Partnership	64	42	987	23,496	4	81	20,321	12	23	1,922
Vacman Limited	65	28	200	7,160	1	0	141	4	3	765
Morrisons FM	66	52	632	12,156	4	10	2,486	13	6	459
SPSA (Scottish Police Service Authority)	67	21	707	33,675	3	33	11,069	2	10	5,248
HIE (former LECS)	68	25	874	34,975	17	77	4,522	50	110	2,207
SDS (former Careers Scot)	69	42	1,062	25,279	26	196	7,531	54	151	2,805
William Munro (took over from SITA/Stoneyhill Oct10)	70	1	23	23,014	-	-	-	-	-	-
Fujitsu	71	24	555	23,124	-	-	-	-	-	-
An Comunn Gaidhealach	72	3	85	28,203	-	-	-	-	-	-
Total		**11,607**	**193,688**	**16,687**	**6,751**	**28,595**	**4,236**	**9,754**	**9,849**	**1,010**

Appendix 5. Rates and Adjustments Certificate

Director of Finance
The Highland Council
Glenurquhart Road
Inverness
IV3 5NX

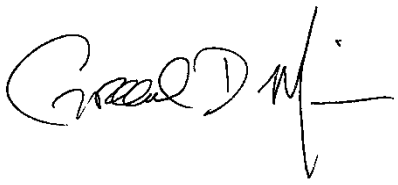
Dear Sirs

On your instruction, we have made an actuarial valuation of The Highland Council Pension Fund ("the Fund") as at 31 March 2011.

In accordance with Regulation 32 of The Local Government Pension Scheme (Administration) (Scotland) Regulations 2008 we have made an assessment of the contributions which should be paid to the Fund by the employing authorities as from 1 April 2012 in order to maintain the solvency of the Fund.

The required contribution rates are set out in the following Contribution Schedule.

Yours faithfully



Graeme D Muir FFA **Alison Hamilton FFA**

Contribution Schedule

The Common Rate of Contribution payable by each employing authority under Regulation 32 for the period 1 April 2012 to 31 March 2015 is 17.3% of pensionable payroll or equivalently 280% of employee contributions.

Individual Adjustments payable by each employing authority under Regulation 32 for the period 1 April 2012 to 31 March 2015 resulting in Minimum Total Contribution Rates are as set out below: -

		Certified Total Rates % employee contributions		
Code	Employer	2012/13	2013/14	2014/15
The Highland Council Funding Pool				
40	The Highland Council	290%	290%	290%
2	Comhairle Nan Eilean Siar	290%	290%	290%
11	Stornoway Port Authority	290%	290%	290%
13	Cromarty Firth Port Authority	290%	290%	290%
14	Inverness Harbour Trust	290%	290%	290%
17	Northern Joint Police Board	290%	290%	290%
18	(Highland and Western Isles) Valuation Joint Board (Assessors)	290%	290%	290%
19	Highlands & Islands Fire Board	290%	290%	290%
24	Highland Opportunities	290%	290%	290%
27	Governors of Eden Court Theatre	275%	285%	290%
45	Inverness Leisure	290%	290%	290%
47	Western Isles Tourist Board	290%	290%	290%
59	Bord Na Gaidhlig	290%	290%	290%
60	Sight Action (formerly VISH)	285%	290%	290%
61	Highland Blindcraft	285%	290%	290%
72	An Comunn Gaidhealach	270%	280%	290%
Colleges				
34	Inverness College	255%	255%	255%
35	North Highland College	260%	260%	260%
36	Lews Castle College	260%	260%	260%
41	UHI	220%	220%	220%
Other Employers				
67	SPSA (Scottish Police Service Authority)	255%	265%	275%
68	HIE (former LECS)	255%	265%	275%
Smaller Employers				
56	Torvean Golf Club	425%	425%	425%
62	H&I Scotland Structural Funds Partnership Ltd	235%	235%	235%
63	High Trans Initative (HITRANS)	215%	215%	215%
64	Hebridean Housing Partnership	270%	270%	270%

		Certified Total Rates % employee contributions		
Code	Employer	2012/13	2013/14	2014/15
65	Vacman Limited	365%	395%	425%
66	Morrisons FM	310%	350%	390%
69	SDS (former Careers Scot)	325%	335%	350%
70	William Munro (took over from SITA/Stoneyhill Oct10)	265%	355%	445%
71	Fujitsu	315%	315%	315%
Closed Employers				
42	Highlands of Scotland Tourist Board (HOST)	330%	330%	330%

Notes

1. Further sums should be paid to the Fund to meet the costs of any early retirements using methods and assumption issued by us from time to time.

2. 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 ourselves.

Appendix 6. LGPS Benefits

<table>
<tr><th></th><th>LGPS 1998</th><th>LGPS 2009</th></tr>
<tr><td colspan="3">General Features</td></tr>
<tr><td>Type of Scheme</td><td colspan="2">Final salary</td></tr>
<tr><td>Relationship with S2P</td><td colspan="2">Contracted-out</td></tr>
<tr><td>Member Contributions</td><td>6%

5% for manual workers in scheme prior to 01/04/1998</td><td>Tiered Banded Contributions based on full time pay as at 1st April 2011

<table><tr><th>Range</th><th>Cont Rate</th></tr><tr><td>£0 - £18,500</td><td>5.50%</td></tr><tr><td>£18,501 - £22,600</td><td>7.25%</td></tr><tr><td>£22,601 - £30,900</td><td>8.50%</td></tr><tr><td>£30,901 - £41,200</td><td>9.50%</td></tr><tr><td>More than £41,200</td><td>12.00%</td></tr></table>
Bands to be increased annually with Pension Increase Orders.

Transitional protection for members currently paying 5% until 2011/2012.</td></tr>
<tr><td>Final Pay</td><td colspan="2">In general, best of the last 3 years pensionable pay</td></tr>
<tr><td>Pensionable Pay</td><td colspan="2">Normal salary plus any shift allowance, bonuses, contractual overtime, Maternity Pay, Paternity Pay, Adoption Pay and any other taxable benefit specified as being pensionable.</td></tr>
<tr><td colspan="3">Retirement Benefits</td></tr>
<tr><td>Normal Retiring Age</td><td colspan="2">Age 65</td></tr>
<tr><td>Early Retirement</td><td colspan="2">Age 55+ (existing members remains at age 50+ for retirements up to 31 March 2010). Employer consent required if below age 60.

Minimum 3 months membership or transfer in

Benefits reduced unless Rule of 85 applies (member of the scheme as at 30th November 2006)

Rule of 85 does not apply for service from 1 April 2009, subject to transitional protections.

Employer's discretion to waive any actuarial reduction. No reductions applied for redundancy retirements.</td></tr>
<tr><td>Transitional Protections</td><td colspan="2">If born before 1 April1960 and an existing member of the Scheme as at 30 November 2006 then 85 year rule stays for service up to 1 April 2020.</td></tr>
<tr><td>Flexible Retirement</td><td colspan="2">Age 55+</td></tr>
</table>

<table>
<tr><th>General Features</th><th>LGPS 1998</th><th>LGPS 2009</th></tr>
<tr><td></td><td colspan="2">(existing members remains at age 50+ for retirements up to 31/03/2011)

Minimum 3 months membership or transfer in

Reduce hours or move to a lower graded post

Draw pension and salary

Employers discretion to waive any actuarial reduction</td></tr>
<tr><td>Late Retirement</td><td colspan="2">Continue to day before eve of 75th birthday

Benefits accrue to date of retirement</td></tr>
<tr><td>Ill Health Retirement</td><td>Permanently unable to undertake own job or any comparable job with employer. Benefits are enhanced as per the table below with a maximum enhancement of potential membership to age 65

<table><tr><th>Accrued Membership</th><th>Benefit Payable</th></tr><tr><td>Less than 3 months</td><td>Refund of contributions</td></tr><tr><td>3 months to 5 yrs</td><td>Accrued Membership</td></tr><tr><td>5 but less than 10 yrs</td><td>Membership Doubled</td></tr><tr><td>10 yrs to 13 yrs 122 days</td><td>Membership Enhanced to 20 yrs</td></tr><tr><td>13 yrs 123 days or more</td><td>Membership Enhanced by 6 2/3 yrs</td></tr></table></td><td>Permanently unable to undertake own job or any comparable job with employer. Benefits are graded based on how likely you are to be capable of gainful employment after you leave.

First Tier - No reasonable prospect of alternative employment ever again then service enhanced by 100% of prospective service to age 65.

Second Tier - No prospect of obtaining gainful employment within a reasonable period of leaving local government employment, but likely to be able to obtain gainful employment before 65 then service enhanced by 25% of prospective service.

Third Tier - Reduced likelihood of obtaining gainful employment within 3 years of leaving, or before age 65 if earlier then no service enhancement. Payment of these benefits will be stopped after 3 years, or earlier if the member is in gainful employment or becomes capable of such employment, provided they are not age 65 by then.</td></tr>
<tr><td>Benefit Accrual</td><td>Pension = 1/80th

Lump Sum = 3/80th plus increased lump sum by commutation 12:1 up to a maximum of 25% of lifetime allowance

Spouse’s Pension = 1/160th</td><td>Pension = 1/60th

Lump Sum = By commutation 12:1 up to a maximum of 25% of lifetime allowance

Spouse’s Pension = 1/160th</td></tr>
<tr><td>Death and Survivor Benefits</td><td></td><td></td></tr>
<tr><td>Lump Sum Death Benefit</td><td>Active = 2 x Pensionable Pay

Deferred = Current value of deferred lump sum

Pensioner = 5 year guarantee less pension paid</td><td>Active = 3 x Pensionable Pay

Deferred = 5 x Current value of deferred annual pension

Pensioner = 10 year guarantee less pension paid (for death before age 75)</td></tr>
</table>

General Features	LGPS 1998	LGPS 2009
Dependants' Provision	Widow(er)s Registered civil partners	Widow(er)s Registered civil partners Nominated cohabiting partners
Dependants' Pension (Death in Service)	If membership > 3 months 50% x notional ill health pension Otherwise 1/160th x accrued membership	1/160th x full prospective service to age 65
Spouse's Short Term Pension	Active = 3 months x salary (increased to 6 months if dependent children) Deferred = none Pensioner = 3 months x member's pension (increased to 6 months if dependent children)	None
Children's Pensions	**Surviving Parent** 1 child = 1/4 x notional pension 2+ children = 1/2 x notional pension divided by number of children **Orphans** 1 child = 1/3 x notional pension 2+ children = 2/3 x notional pension divided by number of children For death in service the notional pension is the ill health pension or a pension based on the lesser of 10 years and full service to age 65 where this is higher.	**Surviving Parent** 1 child = 1/2 x dependant's pension 2+ children = 1 x dependant's pension divided by number of children **Orphans** 1 child = 2/3 x dependant's pension 2+ children = 1 1/3 x dependant's pension divided by number of children
Increasing Benefits		
AVCs	Maximum contributions – 50% of taxable earnings Options available: Open market annuity LGPS Top Up Pension Tax Free Lump Sum (100% of fund up to max of 25% of Lifetime Allowance) LGPS Service Credit (if commenced AVCs prior to 13/11/2001)	
Added Years/Pension	Maximum purchase 6 2/3 years	Maximum purchase £5,000 extra pension (in

General Features	LGPS 1998	LGPS 2009
	Payable from next birthday to age 65 (contracts taken out before 01/10/2006 may have an earlier date than age 65)	multiples of £250).
Leaving the Scheme		
Benefits on Leaving	**Less than 2 years membership and no transfer in** Refund of contributions CETV Defer decision **More than 2 years membership or transfer in** CETV Defer Benefits until NRA	