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Lancashire County Pension Fund

Actuarial Valuation as at 31 March 2010

This paper sets out the preliminary results of the 2010 valuation for the whole Fund. The next step will be to determine contribution rates for the individual employers and begin the employer consultation process, although some further discussions may be required in relation to individual employers' circumstances before all the rates can be finalised.

Funding Strategy

The results have been based on the following key funding principles, which we would be happy to discuss further:

- The allowance for asset out-performance above gilt yields when assessing the past service funding position has been retained at the same level as the 2007 valuation.
- In determining an appropriate inflation assumption, on which to base pension increases and salary growth, an allowance for an inflation risk premium of 0.3% p.a. has been introduced. In addition, an allowance of 0.5% has been made for the change to CPI linking of pension increases (as announced in the Government's emergency budget in June). Our assumption for future pension increases (CPI) is therefore 0.8% per annum below the market implied level of RPI inflation as at 31 March 2010.
- The real salary growth assumption has been reduced by 0.25% p.a., from 1.75% p.a. above RPI as at the 2007 actuarial valuation to 1.5% p.a. above RPI at the 2010 actuarial valuation. For presentational purposes we propose to show the assumption as being 2% p.a. over and above CPI.
- The assumptions for life expectancy (including allowance for future improvements in longevity), proportions married and ill-health retirement have been revised based on the conclusions emerging from a study which we carried out for the Lancashire Fund.
- The results in this paper are based on the deficit being recovered over the remainder of the 22 year recovery period adopted at the 2007 valuation i.e. 19 years. However, consideration has also been given to allowing employers to adopt a longer recovery period (no more than 25 years) in order to achieve some increased stability of contribution rates. The results of these calculations (at a whole Fund level) are detailed in the sensitivities section.

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Data

The membership data as at 31 March 2010 used for the valuation calculations, as supplied by the Fund, is summarised briefly as follows:

	Number	Annual Salaries/Pensions (£000s)
Pensionable employees	50,595	847,620
Preserved Pensioners	39,547	43,067
Current pensioners (including spouses and dependant pensioners)	36,269	146,373

Notes:

1. Annual salaries include actual amounts for part-time employees.
2. Preserved pensioners include frozen refunds and leaver options pending.

The Fund asset value used is the market value notified to us of £3,962 million.

Benefits and Contributions

The benefits valued are based on the LGPS (Benefits, Membership and Contributions) Regulations 2007 (as amended) which became effective from 1 April 2008. As mentioned, allowance has been made for the change to CPI linking of pension increases which will come into effect from 1 April 2011. No allowance has been made in the calculations for any potential changes to the LGPS which may arise from the report of the Hutton Commission, as the extent and timing of any such changes has not yet been determined.

Method and Assumptions

As in previous valuations, the actuarial method adopted is the projected unit method which implicitly allows for new entrants.

The actuarial assumptions used are summarised in Appendix A. We would draw attention to the following points:

- The assumed asset out-performance over and above gilts is unchanged from the 2007 actuarial valuation at 2.5% p.a. pre-retirement and 1.0% p.a. post-retirement.
- As mentioned above, the assumed rate of long-term earnings growth is 2.0% p.a. above CPI (compared with 1.75% p.a. above RPI at the 2007 actuarial valuation).

- An "inflation adjustment" of 0.8% per annum has been included to reflect the introduction of an inflation risk premium since 2007, and also a change to CPI linking of pension increases.

- Despite the falls in the index-linked gilt yield market of 0.7% per annum between 2007 and 2010, the effect of the "inflation adjustment" means that the overall strength of the financial basis for determining the value of the past service liabilities has decreased slightly (giving rise to slightly lower liabilities).

- The financial basis for future service has been maintained at the same real levels i.e. 3.75% above price inflation to reflect the long term approach (as opposed to full market yields approach) adopted for determining the future service assumption.

- The revised mortality assumption allows for greater life expectancy than in 2007 due to a greater allowance for future improvements in longevity. This has served therefore to increase the value of the liabilities (and also the future service contribution rate). However, the revised assumptions for proportions married and ill-health retirement have served to offset this increase and therefore overall, the revised demographic assumptions serve to reduce both the value of the past service liabilities and also the required future service contribution rate.

Results

The past service results are as follows:

	£m
Assets	3,962
Liabilities	
- Pensionable employees	2,220
- Preserved pensioners	614
- Current pensioners	2,121
Total	4,955
Surplus (Deficit)	(993)
Funding level	80%

The funding level of 80% is a small worsening from the 84% funding level as at the 2007 valuation. The largest impact has been due to the unfavourable changes in market conditions over the period (lower than expected investment returns and higher than expected liabilities), but this has been offset to some extent by the impact of the inflation adjustment, the revised demographic assumptions adopted, and other elements of favourable experience. An analysis of this can be seen in Appendix B.

The results for future service are as follows:

Contribution rate for:	% of Pensionable Pay
▪ Pension and death-in-service benefits	18.5
▪ Administrative expenses	0.4
Total contribution rate	18.9
Average employee contribution rate	6.4
Common Contribution Rate	12.5

The Common Contribution Rate identified at the previous valuation was 13.3% of Pensionable Pay. The decrease in the rate is largely due the favourable impact overall of the changes in demographic assumptions as a result of our analysis.

If the deficit of £993 million is spread over 19 years (the remainder of the 2007 recovery plan) then the addition required to the contribution rate would be 6.9% of Pensionable Pay. The average target employer contribution rate would therefore be 19.4% of Pensionable Pay. This compares to 17.8% at the 2007 valuation, an increase of 1.6% of Pensionable Pay.

The above contribution rates are average ones across the whole of the Fund, and the impact on individual employers will vary significantly, particularly for the smaller employers.

Sensitivity of Results

For information, we set out below the impact on the provisional whole Fund results of changing some of the key assumptions, as follows:

- Increasing the past service pre-retirement asset out-performance allowance (AOA) by 0.5% p.a.
- Using a deficit recovery period of 25 years instead of 19.
- Increasing the real salary inflation assumption (for past and future service) by 0.25% p.a.
- Adjusting the mortality assumption by assuming that life expectancy increases by approximately by 1 year.

The impact on the target average employer contribution rate for each item is shown below (all contribution rates are percentages of Pensionable Pay for ease of comparison). By way of background, the long-term target contribution rate emerging from the 2007 actuarial valuation was 17.8% of Pensionable Pay).

	Funding level	Common Contribution Rate	Past service additional rate*	Target average employer rate
		% p.a.	% p.a.	% p.a.
Base results	80%	12.5	6.9	19.4
Increase pre-retirement past service AOA by 0.5%	83%	12.5	5.7	18.2
Adopting a recovery period of 25 years	80%	12.5	5.4	17.9
Increase real salary inflation by 0.25%	79%	13.1	7.3	20.4
Increase in life expectancy of 1 year	78%	12.8	7.5	20.3

*to be expressed as increasing lump sum contributions

It can be seen from the above that some relatively small changes in actuarial assumptions and/or deficit recovery period can help to achieve some increased stability in contribution rates at a whole Fund level.

Increased Investment Return Allowance

At the 2007 actuarial valuation, when assessing the individual employer contributions payable under the recovery plan, the same assumptions as those used to calculate the funding target were adopted with the exception that, for certain employers, the required contributions were adjusted to allow for an increased investment return (IIR) assumption on existing assets and future contributions during the period of the recovery plan.

The effect of the IIR is to reduce the required total contribution input from employers over the deficit recovery period. Effectively, the higher level of returns being assumed is used to subsidise the contributions that would otherwise be certified (subject to the minimum contribution levels mentioned below).

Overall, an effective return as at the 2007 valuation date of 7.4% p.a. was allowed reflecting the underlying investment strategy of the scheme and, in particular, including the assets of the scheme that underlie the pensioner as well as the non-pensioner liabilities. This return represented an overall asset out-performance assumption (AoA) of 3.0% p.a. relative to gilt returns. Overall the average IIR contribution offset across the eligible fund employers at the 2007 valuation was of the order of 2.8% of payroll.

Key features of this IIR approach are:

- The overall effective return to be used (the IIR) needs to be reconsidered and determined as at the 2010 valuation date. This should reflect the long term investment strategy of the Fund, and be consistent with the funding target assumptions used for the valuation, and market conditions at the valuation date.

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

- The variation to assumptions in relation to the recovery plan can only be applied for those employers which the Administering Authority deems to be of sufficiently high covenant to support the anticipation of investment returns, based on the current investment strategy, over the entire duration of the recovery period.

- No such variation in the assumptions can apply in any case to any employer which does not have a funding deficit at the valuation (and therefore for which no recovery plan is applicable).

- The resultant total contribution rates implemented following the 2007 valuation were also subject to a minimum of both:

  - the contribution rates originally planned for 2008/09 onwards based on the 2004 actuarial valuation, and
  - the normal future service contribution rate for the employer concerned.

  The equivalent minimum contribution underpins would again be applied in allowing the IIR offset to contributions at the 2010 valuation.

It is proposed again to allow for those employers of sufficiently high covenant to adopt an AoA of up to 3.0% during the period of the recovery plan. This allowance is, however, still subject to confirmation pending finalisation of some details in connection with the investment strategy of the Fund and its expected return characteristics. For illustration purposes, adopting the same higher 3.0% AoA and IIR model as for the 2007 valuation would reduce the average contribution rate across all employers by about 3-4% of pensionable pay. This is before applying the underpins referred to in the previous paragraph.

A higher level of IIR (than the 3.0% AoA illustrated above) would increase the potential offset effect, and vice versa. However, as referred to above, any level of IIR to be adopted

must be justified by analysis of the long term investment return expectations that can be supported by the Fund's investment strategy going forward.

Conclusion and Next Steps

Whilst the results and assumptions outlined in this paper and appendices have been discussed with Fund Officers, we would be happy to discuss these with the Committee as required in order that the principles can be agreed. If the valuation principles as set out in this paper and Appendix A are acceptable, then we will proceed to determine contribution rates for each of the employers.

This paper is addressed to the Administering Authority only on the understanding that:

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This paper contains actuarial advice and forms a component report on the actuarial valuation as at 31 March 2010.

"Technical Actuarial Standard R: Reporting Actuarial Information" and "Technical Actuarial Standard D: Data" issued by the Board for Actuarial Standards also apply to this paper and it complies with their requirements where relevant.

APPENDIX A

Lancashire County Pension Fund

Summary of key assumptions used for calculating preliminary whole Fund valuation results as at 31 March 2010

Long-term gilt yields	
Fixed interest	4.5% p.a.
Index linked	0.7% p.a.
Market Implied RPI price inflation	3.8% p.a.
Inflation Adjustment	(0.8%) p.a.
Implied CPI price inflation	3.0% p.a.
Past service financial assumptions	
Pre-retirement investment return	7.0% p.a.
Post-retirement investment return	5.5% p.a.
Salary increases	5.0% p.a.
Pension increases	3.0% p.a.
Future service financial assumptions	
Investment return	6.75% p.a.
CPI price inflation	3.0% p.a.
Salary increases	5.0% p.a.
Pension increases	3.0% p.a.
Demographic assumptions	
Non-retired members' mortality	Based on SAPS P & D tables with CMI [1%] future improvements (+3 for ill health retirees)
Retired members' mortality	Based on SAPS P & D tables with CMI [1%] future improvements (+3 for ill health retirees)
Proportions Married	Based on analysis of LGPS experience
Ill-Health Retirement	Based on analysis of LGPS experience
Other demographics	As for 2007 valuation

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APPENDIX B

Lancashire County Pension Fund

Whole Fund Valuation Results as at 31 March 2010

Analysis of movement in past service funding position

Analysis	£m
Deficit as at 31 March 2007	(710)
Investment Gain/(Loss) versus valuation assumption	(671)
Change in market "real" yields	(422)
CPI/IRP/earnings increase assumption	529
Revision of demographic assumptions	131
Effect of deficit contributions and other miscellaneous member movements	150
Deficit as at 31 March 2010	(993)