# LANCASHIRE COUNTY PENSION FUND

## ACTUARIAL VALUATION SUMMARY AS AT 31 MARCH 2016

## 1 - INTRODUCTION

We have carried out our initial calculations on the actuarial valuation of the Fund as at 31 March 2016 and reported the results to the Administering Authority. The results are summarised in this note.

Subject to the Committee's approval and any discussions with individual employers, we will produce our formal report on the valuation in due course.

## 2 - VALUATION APPROACH AND ASSUMPTIONS

In order to place a value on the benefits that the Fund must pay, we make assumptions about future experience. These assumptions determine the value of the Fund's liabilities and the contributions rates payable by employers. It is important to bear in mind that the assumptions do not affect the ultimate cost of the benefits. Rather they are there to ***estimate*** that cost, and determine the pace of funding and timing of the contributions.

The main assumptions are as follows:

| | 2013 | 2016 |
|---|---|---|
| **A) Inflation** | 2.6% pa. | 2.2% pa. |
| **B) Discount rate** | 4.8% pa. | 4.4% pa. |
| **C) Pay (short term)** | 1% pa. for 3 yrs | 1% pa. for 4 yrs |
| **D) Pay (long term)** | 4.1% pa. | 3.7% pa. |

| | | |
|---|---|---|
| **E) Life expectancy from age 65*** | 25.2 yrs (male 45 now)<br>23.0 yrs(male 65 now)<br>27.9 yrs (female 45 now)<br>25.6 yrs (female 65 now) | 24.8 yrs (male 45 now)<br>22.6 yrs (male 65 now)<br>27.8 yrs (female 45 now)<br>25.1 yrs (female 65 now) |

**For active memebrs aged 45 now and pensioner members aged 65 now*

## INFLATION

All Fund benefits are (directly or indirectly) CPI inflation linked, so higher assumed inflation means higher liabilities and contributions (and vice versa).

The CPI inflation assumption is derived as follows:

Estimate market implied RPI from fixed and indexed gilt yields
(3.2% pa. at 31 March 2016)

↓

Adjust for supply / demand distortions in index-linked gilt market
and "risk-pricing" of inflation protection

↓

Adjust for estimated difference between RPI and CPI
Resultant CPI assumption 2.2% p.a.

## DISCOUNT RATE / INVESTMENT RETURN

Higher expected returns mean less money is needed now to pay future benefits (and vice versa).

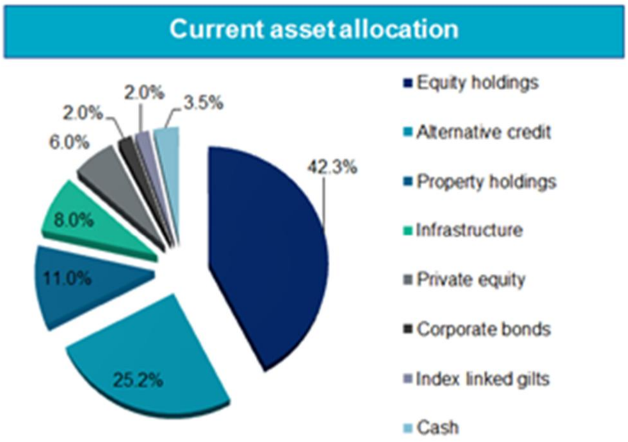
The net discount rate (i.e. the discount rate in excess of inflation) is the most important assumption made as part of the valuation, in that it will have the biggest impact on the funding position and contributions.

At this valuation, we have set the discount rate by considering the expected return on the Fund's assets above CPI, taking into account the Fund's long-term investment strategy. This is a slightly different approach from the previous valuation, where the discount rate was set with reference to fixed gilt yields plus a margin to allow for the anticipated outperformance from other asset categories.

To do this we considered the expected real return on each of the Fund's asset categories (shown below), and combined this to give a total "best estimate" expected return, as well as expected variations around this "best estimate" (illustrated in the second chart below). In line with the

Regulations we have used a discount rate that includes a suitable margin of prudence so as to set a rate which the Fund can reasonably expect to achieve over the long term.

This has resulted in a real discount rate of 2.2% pa. above CPI, in line with the assumption at 2013.




| Chance of achieving return on current strategy | Expected Real Return |
|---|---|
| 50% | CPI + 3.55% p.a. |
| 60% | CPI + 2.78% p.a. |
| 65% | CPI + 2.36% p.a. |
| 75% | CPI + 1.58% p.a. |

More prudent

## PAY GROWTH

Although new benefits earned since 2014 are now based on career average pay, a significant proportion of active members' benefits are still linked to their final pay at retirement.

We set a short term pay growth assumption based on the Government's stated plans for public sector pay, resulting in assumed pay increases of 1% pa. for four years.

We also set a long term assumption, designed to cover annual pay awards, incremental increases and promotions.  This is set to be 1.5% pa. above CPI.

## LIFE EXPECTANCY AND OTHER DEMOGRAPHIC ASSUMPTIONS

We have reviewed the actual membership experience since the previous valuation (both for the Fund and the wider LGPS population) in the following areas, and updated the assumptions as appropriate:

- Life expectancy
- Rates of ill-health retirement
- Proportions of members that are married
- Withdrawal from service
- Commutation
- 50/50 take up

## FUTURE SERVICE

When calculating the future service contribution rate (the ongoing percentage of pay contribution needed to Fund members' future benefits as they are earned), we allow for a higher discount rate. This is designed to be a smoothed rate, to reflect the fact that contributions paid for benefits currently being earned will be invested over a longer timeframe and under conditions that are not linked directly to current market conditions.

The discount rate previously applied was 3% pa. above CPI (so 5.6% pa. at 2013). As part of this valuation we have reviewed and reduced this to 2.75% pa. above CPI (so 4.95% pa.), reflecting a lower outlook for long-term investment returns in 2016 when compared with 2013.

## IMPACT

The impact of the assumption changes since the 2013 valuation are as follows:

| Analysis | Effect on Deficit (Whole Fund) | Effect on Future Service Rate (Whole Fund) | Comment in relation to Fund |
|---|---|---|---|
| Real Discount rate |  |  | No change to deficit. Increase in future service rate |
| Short-term Pay Growth |  |  | Reduction in deficit. No change to future service rate |
| Life Expectancy |  |  | Analysis indicates saving from last time |
| Ill-Health Retirement |  |  | Marginal decrease for future service rate but minimal impact for deficit |
| Withdrawal |  |  | Marginal decrease in deficit<br>No real impact on FSR |
| 50/50 |  |  | No impact on deficit, c0.6% p.a. increase to FSR |

# 3 - VALUATION RESULTS

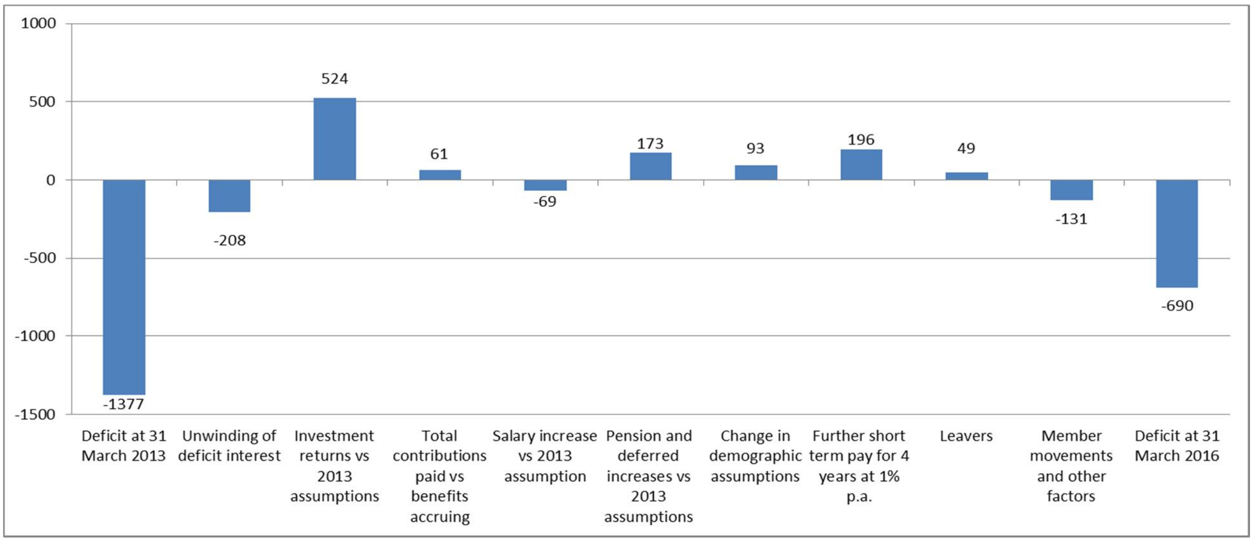
The results of the valuation are shown below, alongside the results from 2013:

| | ***31 March 2013*** | **31 March 2016** |
|---|---|---|
| | | |
| | **Funding position** | |
| Assets | *£5,011m* | £6,036m |
| Liabilities | *£6,388m* | £6,726m |
| Deficit | *£1,377m* | £690m |
| Funding level | *78%* | 90% |
| | | |
| | **Contributions** | |
| Future service rate | *13.1% of pay* | 14.8% of pay |
| Deficit recovery | *£65m pa.* | £44m pa. |

## FUNDING POSITION

The deficit has reduced by almost £700m over the inter-valuation period, effectively halving the shortfall. This corresponds to a funding level improvement of 12% to 90% at 31 March 2016 (meaning the Fund has calculated that it has assets to cover 90% of the liabilities at that date).

This chart shows the principle causes of the reduction in funding level over the period, and we have included some commentary on the key points:



***Investment returns:*** Over the three years in question the Fund returned around 24% after expenses, well in excess of the 15% assumed at the 2013 valuation. This additional 9% equated to a gain / profit of £524m;

***Pension increases:*** At 2013 we assumed CPI would be 2.6% pa.long-term. But over the period it was only 3.9% in total, or 1.3% pa. This means lower than expected increases in pensions, and so a gain of £173m;

***Short term pay:*** Assuming pay will increase at 1% pa. for the next four years (in line with government plans), rather than the long term assumption of 1.5% pa. above CPI, has reduced the liabilities at the 2016 actuarial valuation by £196m;

## CONTRIBUTIONS

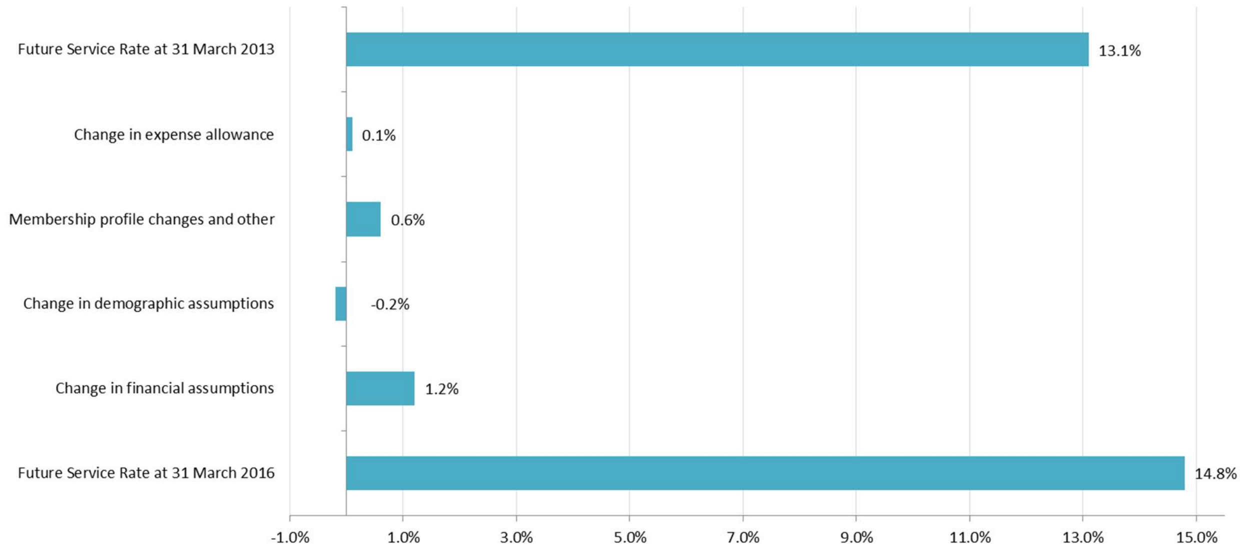
Employer contributions are calculated in two steps:

A) Future service contributions (% of pay). These are to cover the benefits currently being earned by active Fund members, and

B) Deficit contributions (£ amounts). These are the amounts to recover the deficit of £690m at 2016.

### *A – Future service contributions*

Future service contributions for the Fund as a whole have increased at this valuation, from 13.1% to 14.8% of pay. The reasons for this are as follows:




The main cause of this increase is the reduction in the discount rate /expected investment return, as discussed in Section 2.

### *B – Deficit contributions*

Deficit contributions are dictated mainly by the size of the deficit and the period over which it is recovered.

At 2013 the deficit was £1,377m. However, between 31 March and 31 August 2013 the funding position improved substantially, leading to a reduced deficit of around £1,088m, and it was this figure that was used when calculating the deficit contributions of £65m pa. shown above. (Note, this amount was to increase at 4.1% pa. in line with assumed long term pay increases.)

The 2016 deficit of £690m corresponds to a deficit contribution of £44m (increasing at 3.7% pa.).


The recovery period at 2013 was 19 years. At 2016 we have applied a consistent approach, meaning a recovery period of 16 years (i.e. the 19 years from 2013, less the three years that have passed).

## INDIVIDUAL EMPLOYERS

As part of the valuation each employer's own funding position and contribution requirements are calculated, based on their own membership and experience. As such the experience for individual employers can vary widely from that of the Fund as a whole. Some key points here are:

- In 2013 some employers (Councils, government backed employers, universities and colleges) had an allowance in their future service % rate for some members to join the 50/50 scheme – which lead to a reduction of around 0.6% of pay on average. As take up of the 50/50 option was very low, this option has been removed in 2016, so those employers will face a bigger increase in their % rate.

- Also in 2013, some of the Councils and government backed employers (i.e. those employers with the strongest covenant) were permitted to include an allowance for expected future improvements in their deficit positions, giving rise to lower deficit contributions. So these employers will see less of a reduction (or possibly even an increase) in their £ deficit contributions at 2016.

- Although the base recovery period is 16 years as shown above, the period may vary for some employers, depending on individual employer circumstances.

- Where an employer has a deficit, they will be expected to maintain their current (total) contribution levels. Where they would otherwise see a reduction, the recovery period will be reduced to achieve this.

## Mercer Limited

## November 2016

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