The Scheme Funding Report as at 31 July 2020

University of Reading Employees' Pension Fund
September 2021

welcome to brighter

Contents

The following document is also attached and forms part of this report:

- Actuary's certification of the calculation of ***technical provisions***

The following documents have been provided separately:

- Statement of funding principles
- Schedule of contributions
- Section 179 valuation certificate

Scheme Funding Report

Introduction and purpose of the report

This report is the ***scheme funding report*** of the University of Reading Employees' Pension Fund (the scheme) as at 31 July 2020 (the valuation date). We have prepared this report for the purpose of satisfying certain statutory requirements by summarising the results of the latest actuarial valuation. The ***scheme funding report*** was commissioned by and is addressed to the trustees of the scheme. Unless agreed otherwise in writing, we do not accept any liability or responsibility to any third party in respect of this report. This report has been produced after all the decisions in relation to the valuation have been made.

Appendix 1 sets out the statutory, regulatory and professional requirements covered by this report. The report contains the results of two funding assessments, the ***scheme funding valuation*** and the ***solvency valuation***. Terms in ***bold italics*** are described in the valuation glossary contained within the valuation quick start guides (sent at the start of the valuation process), which should be referred to in conjunction with this report.

Unless otherwise stated, in preparing the report we have relied on the information, instructions, and data you (or your advisors) have supplied to us as well as information from other third party sources including our administration department as to the basis on which the scheme is being administered and information sourced from previous valuations issued in respect of the scheme. These sources of information have not been independently verified. We will not be responsible for any inaccuracy in the report that is a result of any incorrect information provided to us. As such, Mercer makes no representations or warranties as to the accuracy of the information presented and takes no responsibility or liability (including for indirect, consequential or incidental damages), for any error, omission or inaccuracy in the data supplied by you or by any third party.

Should the trustees have any issue or concern with the appropriateness of the information sources referred to above please let us know.

Data

We have been provided with instructions as to the scheme benefits, membership and assets. Details of these are summarised in Appendices 4, 5 and 6. As with other instructions and information you have provided, these have not been verified and we will not be responsible for any losses (of any kind) arising from any incorrect instructions or information provided to us. I have not considered the money purchase AVC benefits.

Investment Strategy

The trustees' investment objective is set out in their statement of investment principles e.g. to achieve an overall rate of return that is sufficient to ensure assets are available to meet all liabilities as and when they fall due. The asset allocation as at the valuation date is shown in Appendix 6. This report does not contain regulated investment advice in respect of actions you should take. No investment decision should be made based on this information without obtaining prior specific, professional advice relating to your own circumstances.

Results

Present value of the past service liabilities for:	Scheme funding valuation £'ms	Solvency valuation £'ms
Active Members	45.4	66.4
Deferred Pensioners	56.7	89.1
Pensioners	104.1	111.0
GMP equalisation reserve *	0.3	0.4
Expenses	-	6.3
Total Liabilities	**206.5**	**273.2**
Total Assets	**211.8**	**211.8**
Surplus / (Deficit)	**5.3**	**(61.4)**
Funding Level	**103%**	**78%**

* An allowance of 0.15% of the liabilities has been made for GMP equalisation.

The valuation also looks at the cost of the benefits that will be built up over the year after the valuation date. The future service contribution rate calculated in accordance with the ***statement of funding principles*** is as shown below (figures as a % of Pensionable Salaries). Active members pay contributions to the Fund as a condition of membership, at the rate of 6.25% of Pensionable Salary. These are therefore deducted from the future service rate to calculate the University's future service contribution rate.

Total Future Service Rate	51.70%
Less members' contribution rate	(6.25%)
University's future service rate	45.45%

Based on the results of the ***scheme funding valuation*****,** the trustees have agreed new contribution rates with the employer. The contributions agreed at this valuation are set out in the trustees' ***schedule of contributions*****.**

The estimated funding level as at 31 July 2023 is approximately 102% for the ***scheme funding valuation*** and 79% for the ***solvency valuation***. This assumes investment returns are 1.35% p.a. above gilt yields, other economic and demographic experience is in line with the assumptions for the respective valuations and that the assumptions used for each valuation as at 31 July 2023 are the same as those used at this valuation.

Appendix 2 describes how the surplus has changed since the last valuation.

The liability figures in this report are calculated by projecting future benefit cash flows over the remaining lifetime of members and other beneficiaries of the scheme. The duration of these projected benefit cash flows is long and could extend for 60 or more years into the future. Each such potential cash flow is multiplied by an assumed probability of payment and then discounted to the valuation date to allow for potential investment returns between the valuation date and the time the payment is due.

Risks

The risks to the financial position of the scheme are described in the valuation guide. Key actions taken to mitigate them are:

- If the University becomes unable to pay contributions or to make good deficits in the future, the Fund's assets will be lower than expected and the funding level will be worse than expected. The Trustees regularly monitor the financial strength of the University.

- If future investment returns on assets are lower than assumed in the valuation, the Fund's assets will be lower and the funding level worse, than expected. The Trustees have a process in place to monitor investment performance quarterly, and they review the Fund's investment strategy alongside each actuarial valuation. In order to mitigate the risk, the investment strategy takes the make-up of the Fund's membership and the cashflow profile of the future benefit payments into account which reduces the effect of market movements on funding levels.

- If gilt yields change such that the liability values increase by more (or decrease by less) than the assets, the funding level against the technical provisions and on the wind-up basis (see section 5) will be worse than expected. In order to mitigate the risk a proportion of the Fund's assets is invested in gilts.

- If improvements in life expectancy are greater than assumed, the cost of benefits will increase because members are living longer than expected. This will mean the funding level will be worse than expected. The Trustees ensure that the assumptions they make about members' life expectancy take the make-up of the Fund's membership and the most recent information available about UK population life expectancies into account.

- If members make decisions about their options, which increase the Fund's liabilities, the funding level will be worse than expected. An example would be if less than 70% of members commute the maximum allowable pension for cash, as is being assumed. The Trustees review the underlying assumptions at each valuation to ensure that their treatment of member options remains appropriate.

One risk is that the experience of the scheme differs to that assumed and contributions paid in by the employer need to change. Valuation results are particularly sensitive to key assumptions. The following table illustrates the sensitivity of the results of the ***scheme funding valuation*** to variations in these key assumptions. In particular, the table shows the impact of the assumptions made not being borne out in practice, with future experience instead being as illustrated. Each row of the table considers one change in isolation.

Change in assumption	Approximate increase in past service liabilities £'ms	Approximate increase in cost of future benefit accrual (% of Pensionable Salaries)
Pre retirement discount rate reduced by 0.25% per annum	3.0	1.6%
Post retirement discount rate reduced by 0.25% per annum	7.6	2.2%
Pensionable salary increase assumption increased by 0.25% per annum	0.5	0.0%
Inflation assumption increased by 0.25% per annum (includes impact on pensionable salary increase assumption and future pension increases)	7.8	2.7%
Members one year younger	9.5	1.8%
Cash commutation assumption decreased by 10%	1.6	0.8%

Impact of scheme winding up at the valuation date

Using the results of the ***solvency valuation***, I estimate that there would have been sufficient assets to cover all ***PPF compensation benefits*** plus 1% of non ***PPF compensation benefits*** had the scheme wound up on the valuation date with no further funds being available from the employer.

Next steps

The trustees must make a copy of this report available to the employer within seven days of receiving the report.

A summary of the valuation results must be submitted through the Pensions Regulator's on line system ("Exchange"). I will submit this information to the Regulator on your behalf, unless you instruct me to the contrary. Please note that this does not give me any obligation to verify any other information on Exchange.

Unless an actuarial valuation is commissioned, the trustees must commission an ***actuarial report*** in each of the two years up to the next valuation.

Within a reasonable period of the date by which the actuarial valuation must be obtained, a ***summary funding statement*** must be issued to all members. The Pensions Regulator has indicated that a "reasonable period" for this purpose should not generally be more than three months.

The next actuarial valuation should be carried out as at 31 July 2023 or before.

John Hemsley

Fellow of the Institute and Faculty of Actuaries
Scheme Actuary

Appendix 1 - Statutory, Regulatory and Professional Requirements

This report has been prepared by reference to or in accordance with:

- Information referred to in Appendices 4, 5 and 6, including instructions and data supplied by the trustees of the scheme (or their advisors), information from our administration department as to the basis on which the scheme is being administered and previous valuation documents issued in respect of this scheme
- Part 3 of the Pensions Act 2004, The Occupational Pension Schemes (Scheme Funding) Regulations 2005 (SI 2005/3377)
- The Occupational and Personal Pension Schemes (Disclosure of Information) Regulations 2013 (SI 2013/2734)
- The Pensions Regulator's Code of Practice no 3 – "Funding defined benefits"
- This work is subject to and complies with the following Technical Actuarial Standards (TASs) issued by the Financial Reporting Council:
  - Principles for Technical Actuarial Work.
  - Technical Actuarial Standard 300: Pensions.

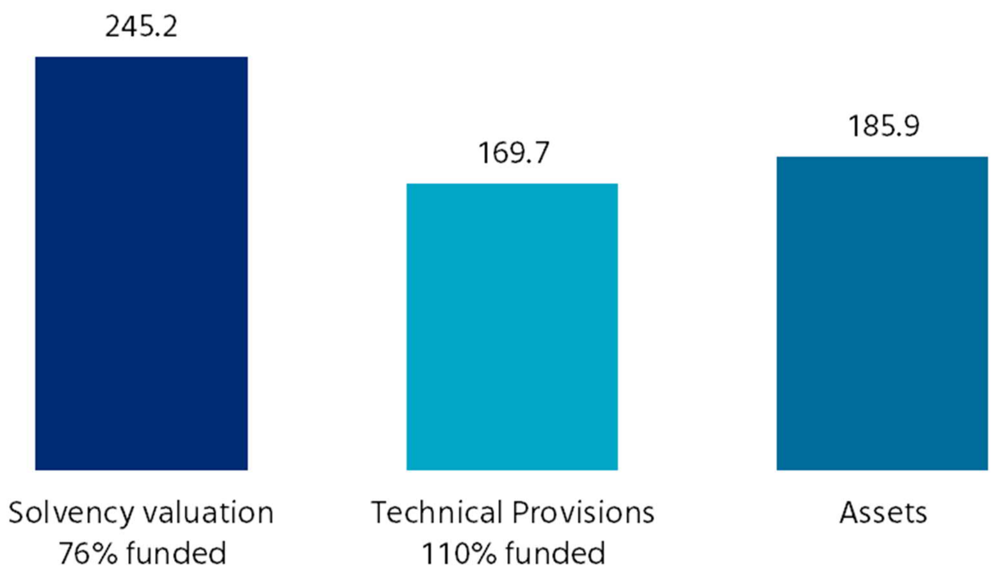
Mercer does not accept liability to any third party in respect of this report; nor do we accept liability to the trustees if the information provided in this report is used for any purpose other than that stated. The report may be disclosed to members and others who have a statutory right to see it. It may also be disclosed to any participating employer and, if the trustees and Mercer consent, it may be disclosed to other third parties.

Unless agreed otherwise, no additional work will be performed after the date of this report nor will it be updated to take account of any events or circumstances arising hereafter.

Appendix 2 - Review of the Inter-valuation Period

Past service results at the previous valuation

The previous actuarial valuation was carried out as at 31 July 2017 and the funding position was:



Figures shown in £'ms

Contributions

Employer contributions have been paid at a rate of 23.8% of Pensionable Salaries for members who do not participate in Pension+ and 30.05% of Pensionable Service for members who participate in Pension+. Additional contribution of £500,000 were paid each year from 1 October 2018.

The employer paid £600,000 each year in respect of the administrative and other expenses (including life assurance premiums), and also paid the PPF levies in full.

Member contributions of 6.25% of Pensionable Salaries have also been paid for members who do not participate in Pension+.

Benefits changes

According to instructions and information passed to us by you (or your advisors), there have been no benefit changes since the last valuation.

High court ruling on GMP inequalities

The English High Court ruling in Lloyds Banking Group Pension Trustees Limited v Lloyds Bank plc and others was published on 26 October 2018, and held that UK pension schemes with Guaranteed Minimum Pensions (GMPs) accrued from 17 May 1990 must equalise for the different effects of these GMPs between men and women. The case also gave some guidance on related matters, including the methods for equalisation and decided that method "C2" was lawful in principle and met the minimum requirements to achieve equality. Method C2 provides the better of male and female comparator pensions each year, subject to accumulated offsetting and an allowance for interest. The court decided that other methods are available, but would require employer agreement.

The trustees of the scheme will need to obtain legal advice covering the impact of the ruling on their scheme, before deciding with the employer on the method to adopt. The legal advice will need to consider (amongst other things) the options for GMP equalisation solutions, whether there should be a time limit on the obligation to make back-payments to members (the "look-back" period) and the treatment of former members (members who have died without a spouse and members who have transferred out for example).

The ***technical provisions*** and ***solvency valuation*** results within this report include an estimate of the impact if the method "C2" were to apply to past and future benefit payments (referred to below as the "GMP equalisation reserve"). I have assumed that there would be no limit on the "look-back" period for rectification and have only considered members who currently have GMP liabilities within the scheme (not members who have died without a spouse or members who have transferred out for example).

Change in membership

	Previous valuation	Current valuation
Number of		
Active members	311	220
Deferred members	945	877
Pensioners	1,101	1,181
Total number of members	**2,357**	**2,278**

Financial experience in inter-valuation period

Assumption	Assumed rate at last valuation (per annum)	Average rate during inter-valuation period (per annum)
Investment returns [1]	3.00%[1]	5.7%
Rate of increase in earnings	4.15%	2.2%[2]
Revaluation up to retirement		
in line with CPI up to 5% p.a.	2.35%	2.4%
in line with CPI up to 2.5% p.a.	2.35%	2.2%
CARE revaluation up to retirement		
in line with CPI up to 5% p.a.	2.30%	2.4%
Pension increases in payment		
in line with RPI up to 6% p.a.	3.25%	3.2%
in line with CPI up to 5% p.a.	2.45%	2.4%
in line with CPI up to 3% p.a.	2.00%	2.4%

[1] Assumed investment return is a weighted average of the pre and post retirement discount rates.

[2] Members present at both valuations.

Impact of inter-valuation experience on the scheme funding valuation

Comparing actual experience against that allowed for within the ***scheme funding valuation*** assumptions provides a useful insight into:

- How the funding of the scheme on the scheme funding valuation basis has developed since the last valuation
- Some of the risks faced by the scheme
- How the funding of the scheme might develop if events were to repeat themselves

In order to illustrate the impact of the inter-valuation experience on the ***scheme funding valuation***, I have reconciled the assets and liabilities as at the previous valuation to those at the valuation date. In doing so I have calculated the value of the liabilities as at the valuation date using the same method and assumptions as at the previous valuation and then examined the impact of changes to financial conditions and, separately, the changes to assumptions and method underlying the proposed ***statement of funding principles***.

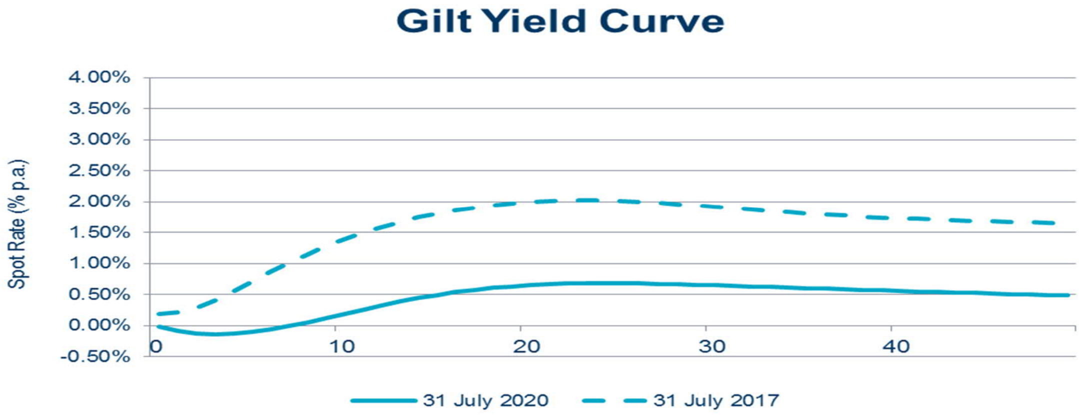
Reconciliation of liabilities	£'ms
Value of past service liabilities at previous valuation date	169.7
Interest on the liabilities	15.3
Value of benefits accrued	6.0
Benefits paid	(16.6)
Actual salary and inflation increases being higher than expected	0.1
Impact of changes in financial conditions since previous valuation	32.9
Impact of changes to statement of funding principles	3.0
Miscellaneous / member experience	(4.2)
GMP equalisation reserve of 0.15% of liabilities	0.3
Value of past service liabilities at current valuation date	206.5

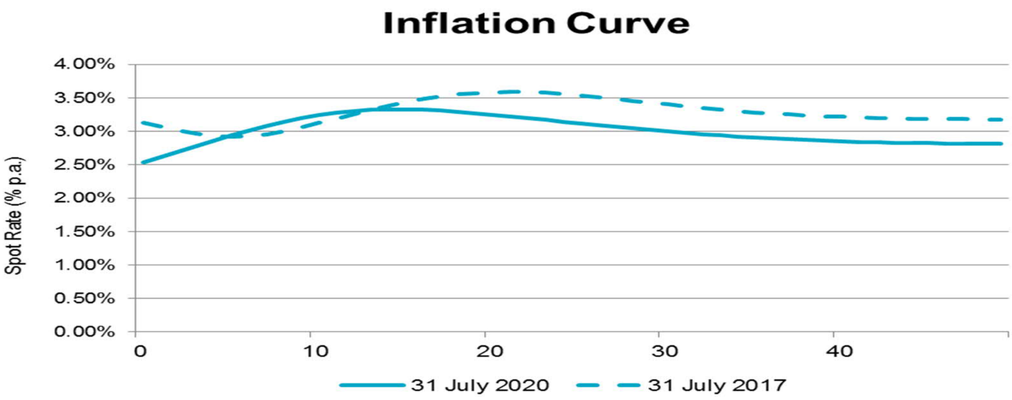
Reconciliation of assets	£'ms
Value of assets at previous valuation date	185.9
Expected return on assets	17.0
Contributions received (net of expenses)	9.0
Benefits paid	(16.6)
Investment outperformance	16.5
Value of assets at current valuation date	211.8

Appendix 3 - Valuation Assumptions

Scheme Funding and Solvency Valuations

The key financial data (spot rates) used to determine the financial assumptions are:





Source: Mercer

Financial data	Measure at previous valuation date	Measure at current valuation date
Corporate Bond Yields	2.54% p.a.	1.37% p.a.
Fixed interest Gilt Yield	1.75% p.a.	0.55% p.a.
Market-Implied RPI Price inflation	3.35% p.a.	3.10% p.a.

The above table shows single equivalent rates whereas the 31 July 2020 valuation reflects the full gilt and inflation curves shown at the top of the page. The inflation curve is in respect of RPI.

Scheme funding valuation

Financial assumptions

	Previous valuation (p.a.)	Current valuation (p.a.)
Pre retirement discount rate	**Past Service:** 3.75% **Future Service:** 4.75%	**Past Service:** Nominal Gilt Yield curve plus 2% p.a. at each term. **Future Service:** Nominal Gilt Yield curve plus 3% p.a. at each term.
Post retirement discount rate	2.25%	Nominal Gilt Yield curve plus 0.50% p.a. at each term.
Retail Prices Index (RPI) inflation	**Pre-retirement:** 3.15% **Post-retirement** 3.35%	Gilt Inflation Curve at each term.
Consumer Prices Index (CPI) inflation	**Pre-retirement:** 2.35% **Post-retirement:** 2.55%	RPI Inflation less 1% p.a. at each term until 2030 and RPI thereafter.
Rate of increase in earnings	4.15%	CPI Inflation at each term.
Revaluation up to retirement:		
In line with CPI up to 5% p.a. / 2.5% p.a.	2.35%	CPI Inflation at each term subject to a maximum of 5.0% p.a. / 2.5% p.a. respectively
In line with National Average Earnings	3.15%	RPI Inflation at each term
CARE revaluation up to retirement		
In line with CPI up to 5% p.a.	2.30%	Derived at each term using the Jarrow-Yildirim methodology
Pension increases in payment:		
In line with RPI up to 6% p.a.	3.25%	Derived at each term using the Jarrow-Yildirim methodology
In line with CPI up to 5% p.a.	2.45%	
In line with CPI up to 3% p.a.	2.00%	

Demographic assumptions

<table>
<tr><th></th><th>Previous valuation</th><th>Current valuation</th></tr>
<tr><td>Mortality before retirement</td><td colspan="2">As per post retirement mortality</td></tr>
<tr><td>Mortality after retirement – base mortality table</td><td>100% of S2PMA (males) and 100% of S2PFA (females) projected to the valuation date using the method shown below.</td><td>102% of S3PMA (males) and 100% of S3PFA_M (females) projected to the valuation date using the method shown below.</td></tr>
<tr><td>Mortality after retirement - mortality improvements</td><td>CMI_2017 [1.75%]</td><td>CMI_2019 [1.75%,S=7.5]</td></tr>
<tr><td>Allowance for commutation of pension for cash</td><td colspan="2">Members assumed to exchange 70% of maximum cash permitted (ignoring the effect of protection of cash) at retirement. The commutation factor is the factor in place for the Fund.</td></tr>
<tr><td>Withdrawal rates</td><td colspan="2">Active members will leave the scheme at the following sample rates:
<table>
<tr><th rowspan="2">Age</th><th colspan="2">% leaving per annum</th></tr>
<tr><th>Males</th><th>Females</th></tr>
<tr><td>25</td><td>5.30</td><td>17.10</td></tr>
<tr><td>35</td><td>3.40</td><td>10.10</td></tr>
<tr><td>45</td><td>1.40</td><td>3.40</td></tr>
</table></td></tr>
<tr><td>Ill Health Retirement</td><td colspan="2">Active members will leave the scheme due to ill health at the following sample rates:
<table>
<tr><th rowspan="2">Age</th><th colspan="2">% leaving per annum</th></tr>
<tr><th>Males</th><th>Females</th></tr>
<tr><td>40</td><td>0.08</td><td>0.20</td></tr>
<tr><td>50</td><td>0.37</td><td>0.92</td></tr>
<tr><td>60</td><td>1.28</td><td>3.80</td></tr>
</table></td></tr>
<tr><td>Age at retirement</td><td colspan="2">For members who were in service at 1 April 1988 (or female entrants between 1 April and 30 April 1988 who elected a pension age of 60), it is assumed that 50% of in-service male members, 100% of in-service female members and 100% of deferred pensioners retire at age 60 with an unreduced pension. Female deferred pensioners who left before 1 April 1988 are also assumed to retire at age 60. The remaining in-service members and deferred pensioners are assumed to retire at age 65.</td></tr>
<tr><td>Allowance for dependants' pensions:</td><td colspan="2"></td></tr>
<tr><td>% married at retirement</td><td colspan="2">In line with ONS 2011 Married and Co-habiting tables with weightings of 100% (males) and 120% (females)</td></tr>
<tr><td>Age difference</td><td colspan="2">Males 3 years older than females</td></tr>
</table>

	Cohort Life expectancy at age 65 Current valuation	Period Life expectancy at age 65 Current valuation
65 year old male	87.25	85.96
45 year old male	89.21	-
65 year old female	89.15	87.63
45 year old female	91.25	-

Expense assumptions

	Previous valuation	Current valuation
Allowance for the costs of levies to the Pension Protection Fund, insurance premiums for death in service benefits and management and administration expenses	No allowance (funded by separate contributions by the University)	
Allowance for wind up expenses	None	None
Allowance for GMP Equalisation	None	0.15% of the liabilities

Solvency valuation

Key financial assumptions	(p.a.)
Pre retirement discount rate	Nominal Gilt Yield curve less 0.30% p.a. at each term
Post retirement discount rate	Nominal Gilt Yield curve at each term
Inflation: RPI	Nominal Gilt Inflation Curve at each term
Inflation: CPI	RPI Inflation less 0.8% p.a. at each term until 2030 and RPI inflation thereafter
Revaluation up to retirement:	**(p.a.)**
In line with CPI up to 5% p.a.	In line with assumed CPI subject to a maximum of 5%
In line with CPI up to 2.5% p.a.	In line with assumed CPI subject to maximum of 2.5%
CARE revaluation up to retirement:	**(p.a.)**
In line with CPI up to 5% p.a.	Derived at each term using the Jarrow-Yildirim methodology
Pension increases in payment	
In line with RPI up to 6% p.a.	Derived at each term using the Jarrow-Yildirim methodology
In line with CPI up to 5% p.a.	
In line with CPI up to 3% p.a.	
Demographic assumptions	
Mortality after retirement	102% of S3PMA (males) and 100% of S3PFA_M (females) projected using CMI_2019 [1.75%, S=7.5] for both males and females
Allowance for commutation of pension for cash	None
Age at retirement	All members will be assumed to retire at the earliest age at which they can take all benefits unreduced.
Allowance for dependants' pensions	
% married at retirement	In line with ONS 2011 Married and Co-habiting tables with weightings of 100% (males) and 120% (females)
Age difference	Males 3 years older than females
Discretionary benefits	None

Expense assumptions	
Allowance for wind up expenses	3% of the first £50m of liabilities plus 2% of the next £50m of liabilities plus 1% of the remaining liability plus PPF member expenses plus £300,000.
Allowance for other expenses	None
Allowance for GMP Equalisation	0.15% of liabilities

Appendix 4 – Scheme Benefits

The benefits valued are as set out in the benefit summary provided to the trustees dated 31 July 2020. This broadly reflects the benefits communicated to members via membership booklets, announcements and correspondence outlining special terms where applicable. This should not be relied on as a definitive summary. Should the trustees have any issue or concern with the appropriateness of these information sources please let us know.

We are not lawyers. We are unable to give legal advice. If you think such advice is appropriate you are responsible for obtaining your own legal advice.

Appendix 5 - Membership Details

A summary of the membership data as at 31 July 2020 is given below. The data has been obtained from Barnett Waddingham, the administrator of the scheme. Checks on data for consistency have been made as far as practicable. The results are obviously dependent on the accuracy of the data.

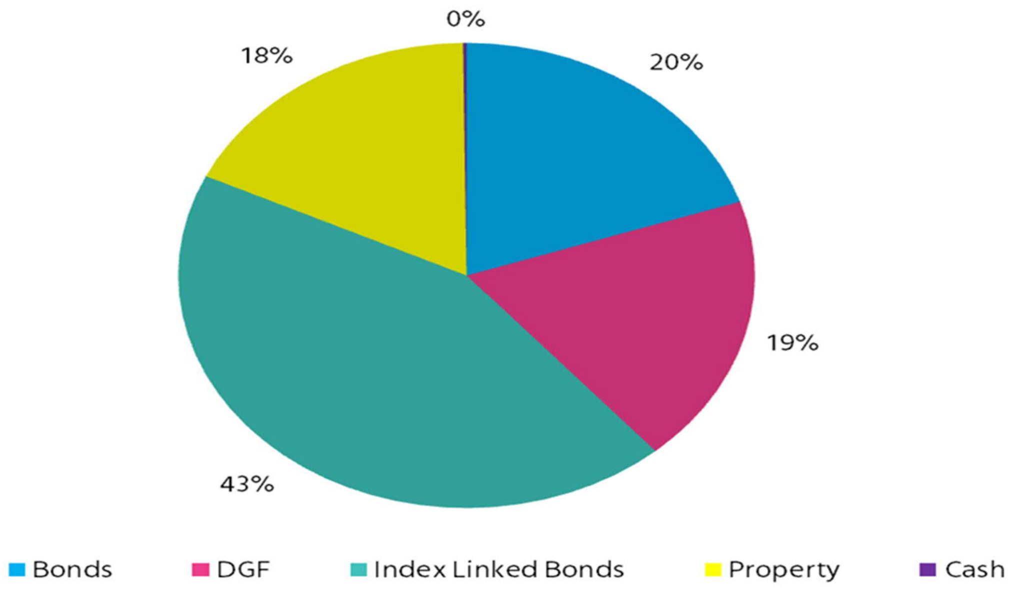
Active members	Number	220
	Total pensionable salary (£ p.a.) (Full-time Equivalent)	5,040,000
	Total pensionable salary (£ p.a.) (Allowing for the members who work part-time)	4,569,000
	Average age	54
Deferred members	Number	877
	Total deferred pensions revalued to valuation date (£ p.a.)	1,788,000
	Average age	51
Pensioners	Number	1,181
	Total pensions payable (£ p.a.)	4,838,000
	Average age	75

Appendix 6 - Summary of Assets

A summary of the assets of the scheme at the valuation date (taken at their market values) is set out below. It is based on the audited scheme accounts for the year ending 31 July 2020. It excludes assets held in respect of members' money purchase additional voluntary contributions. These assets and the corresponding liabilities have been excluded from this valuation.

	£'ms	%
Invesco - DGF	18.4	9
LGIM - DGF	20.9	10
LGIM – HLV property	37.9	18
BlackRock - Buy & Maintain Credit	41.8	20
BlackRock - IL Gilts	91.0	42
Schroders – Property	1.4	1
LGIM - Absolute Return	0.1	0
BlackRock - Cash	0.0	0
Net Current Assets	0.3	0
Total	**211.8**	**100%**

The split of the actual assets held at the valuation date is shown below.



Source: Audited Scheme Accounts

Mercer Limited
4 Brindleyplace,
Birmingham, B1 2JQ
www.mercer.com

Certificate of Technical Provisions

Name of the Scheme University of Reading Employees' Pension Fund

Calculation of technical provisions

I certify that, in my opinion, the calculation of the scheme's technical provisions as at 31 July 2020 is made in accordance with regulations under section 222 of the Pensions Act 2004. The calculation uses a method and assumptions determined by the trustees of the scheme and set out in the statement of funding principles dated (i.e. signed on behalf of the trustee on) 30 September 2021.

Signature	John Hemsley
Name	John Hemsley
Date of signing	30 September 2021
Name of employer	Mercer Limited
Address	4 Brindleyplace, Birmingham, B1 2JQ
Qualification	Fellow of the Institute and Faculty of Actuaries