HYMANS ROBERTSON

Wiltshire Pension Fund

2019 Actuarial Valuation

Initial Results

February 2020

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For and on behalf of Hymans Robertson LLP

Contents

1 Introduction

We have been commissioned by Wiltshire Council ("the Administering Authority") to carry out a full actuarial valuation of the Wiltshire Pension Fund. ("the Fund") as at 31 March 2019 as required under Regulation 62 of the Local Government Pension Scheme Regulations 2013 ("the Regulations").

This report is addressed to the Administering Authority. The purpose of this document is to;

- present the current funding position of the Fund using a range of actuarial assumptions; and
- explain why the funding position has changed since the previous actuarial valuation was carried out in 2016; and
- show the sensitivity of the funding position.

This information can be used by the Administering Authority to support the development of the funding strategy and to identify and understand areas of potential risk for which it may wish to explore possible avenues of risk mitigation during the valuation process.

This report should not be shared with any third parties without our prior written consent. Where consent is given, the report should be supplied in full including any related reliances and limitations.

Please note that Hymans Robertson LLP accept no liability to any third parties. The reliances and limitations in this report apply equally to all users of this report.

The following Technical Actuarial Standards[1] are applicable in relation to this report and have been complied with where material:

- TAS 100 – Principles for technical actuarial work;
- TAS 300 – Pensions.

However, it should be noted that this report does not comply with paragraph 12 b) or c) of TAS 300.The figures in this report provide a notification of the whole fund funding position. This report does not include individual employer contributions. Therefore, we do not believe the exclusion of the information required under these paragraphs is material.

[1] Technical Actuarial Standards (TASs) are issued by the Financial Reporting Council (FRC) and set standards for certain items of actuarial work.

2 Data

We have relied on the following items of data provided by the Administering Authority when carrying out our calculations:

- Membership data uploaded to the Data Portal on 30 August 2019
- Cashflow data uploaded to the Data Portal on 20 April 2019
- Investment data provided by the Administering Authority over the course of the intervaluation period (summarised in Section 4).

The accuracy of our results is limited by the quality of the data provided. We have carried out validations on the data provided to ensure it is fit for the purpose of the valuation. Further details can be found in our paper entitled "Data report for 2019 valuation", issued 28 February 2020. We believe the membership data is fit for the purposes of this valuation.

The figures in this report are based on our understanding of the benefit structure of the LGPS in England and Wales as at 31 March 2019. Details can be found at http://www.lgpsregs.org/. The Administering Authority should note that the LGPS benefit structure is currently under review following the Government's loss of the right to appeal the McCloud court case. At the time of writing we have not been provided with details for any subsequent benefit improvements and as such have not allowed for any in our calculations. This is approach is in line with the advice issued by the Scheme Advisory Board in May 2019.

3 Assumptions

The key assumptions required to carry out the formal valuation, and our approach to setting the assumptions, are discussed in guides 7 (*Longevity and other demographic assumptions*), 8 (*Financial Assumptions*) and 9 (*Measuring a funding level*) of our 2019 valuation toolkit.

To set appropriate assumptions for the valuation of the Wiltshire Pension Fund, the Administering Authority commissioned the following actuarial advice to assist its assumption setting:

- Paper entitled "2019 Valuation: setting the discount rate" dated March 2019
- Paper entitled "2019 Valuation: Salary growth assumption" dated March 2019
- Paper entitled "Demographic Assumptions for 2019 valuations – Analysis of Wiltshire Pension Fund" dated March 2019

The valuation assumptions were provisionally agreed by Officers following these papers and discussed at the March 2019 Pensions Committee meeting.

Demographic assumptions

Longevity

The proposed 2019 valuation longevity assumptions are set out below, along with the assumptions adopted for the 2016 valuation:

Longevity Assumptions	31 March 2016	31 March 2019
Baseline Longevity	Club Vita	Club Vita
Future improvements	CMI2013, Peaked, 1.25% p.a. long term	CMI2018, Smoothed, 1.25% p.a. long term

The proposed longevity assumptions result in the following typical future life expectancies from age 65 (figures for 2016 shown for comparison):

Assumed Life Expectancy	31 March 2016	31 March 2019
Male		
Pensioners	22.5 years	21.7 years
Non-pensioners	24.1 years	22.5 years
Female		
Pensioners	24.9 years	24.0 years
Non-pensioners	26.7 years	25.5 years

Non-pensioners are assumed to be aged 45 at the valuation date

Other demographic assumptions

The other proposed 2019 valuation demographic assumptions are set out below:

Demographic Assumptions	
Retirements in normal health	We have adopted the retirement age pattern assumption as used for the purpose of the 2016 LGPS cost cap valuation. Further details are available on request.
Death in Service	See sample rates below
Retirements in ill health	See sample rates below
Withdrawals	See sample rates below
Promotional salary increases	See sample increases below
Family details	A varying proportion of members are assumed to have a dependant at retirement or on earlier death. For example, at age 60 this is assumed to be 90% for males and 85% for females. The dependant of a male member is assumed to be 3 years younger than him and the dependant of a female member is assumed to be 3 years older than her.
Commutation	50% of future retirements elect to exchange pension for additional tax free cash up to HMRC limits for service to 1 April 2008 (equivalent 75% service from 1 April 2008).
50:50 option	1.0% of members (uniformly distributed across the age, service and salary range) will choose the 50:50 option.

Sample rates for demographic assumptions

Males

Age	Salary Scale	Incidence per 1000 active members per annum						
		Death Before Retirement	Withdrawals		Ill Health Tier 1		Ill Health Tier 2	
		FT & PT	FT	PT	FT	PT	FT	PT
20	105	0.21	353.77	439.47	0.00	0.00	0.00	0.00
25	117	0.21	233.68	290.28	0.00	0.00	0.00	0.00
30	131	0.26	165.80	205.93	0.00	0.00	0.00	0.00
35	144	0.30	129.54	160.88	0.10	0.07	0.02	0.01
40	150	0.51	104.30	129.48	0.16	0.12	0.03	0.02
45	157	0.85	97.97	121.60	0.35	0.27	0.07	0.05
50	162	1.36	80.76	100.12	0.90	0.68	0.23	0.17
55	162	2.13	63.59	78.88	3.54	2.65	0.51	0.38
60	162	3.83	56.68	70.28	6.23	4.67	0.44	0.33
65	162	6.38	0.00	0.00	11.83	8.87	0.00	0.00

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Age	Salary Scale	Incidence per 1000 active members per annum						
		Death Before Retirement	Withdrawals		Ill Health Tier 1		Ill Health Tier 2	
		FT & PT	FT	PT	FT	PT	FT	PT
20	105	0.12	318.32	378.95	0.00	0.00	0.00	0.00
25	117	0.12	214.19	254.95	0.12	0.07	0.02	0.01
30	131	0.18	179.54	213.68	0.15	0.10	0.03	0.02
35	144	0.30	154.96	184.36	0.31	0.19	0.05	0.04
40	150	0.48	128.97	153.39	0.46	0.29	0.08	0.06
45	157	0.77	120.36	143.12	0.62	0.39	0.10	0.08
50	162	1.13	101.47	120.53	1.16	0.73	0.24	0.18
55	162	1.49	75.71	90.03	4.31	2.69	0.52	0.39
60	162	1.90	61.02	72.46	6.85	4.28	0.54	0.40
65	162	2.44	0.00	0.00	12.31	7.69	0.00	0.00

Financial assumptions

The key financial assumptions used to assess the funding position as at 31 March 2019 are set out below.

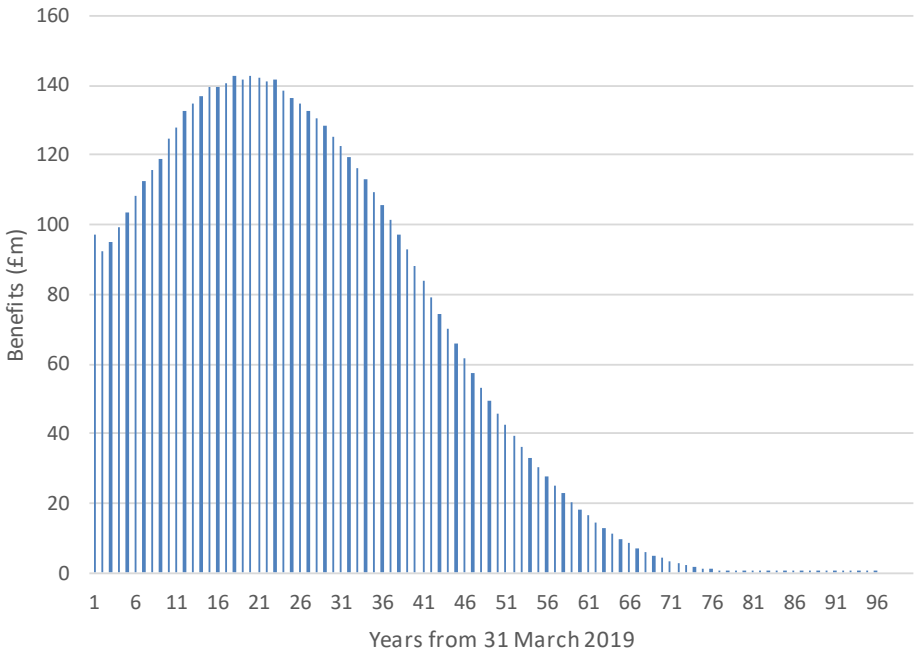
Salary and Benefit Increases

The table below details the salary increase, CARE revaluation rate and benefit increase assumptions at 31 March 2019. The equivalent assumptions used in the 2016 valuation are shown for comparison.

Financial Assumptions	31 March 2016	31 March 2019
Benefit increases and CARE revaluation (CPI) (% p.a.)	2.1%	2.3%
Salary increases (% p.a.)	2.4%*	2.7%**

*CPI plus 0.3%
**CPI plus 0.4%

Combining the membership data and the demographic and financial assumptions described above allows us to project the future benefit payments from the Fund for all benefits accrued up to 31 March 2019. The chart below shows this projection.

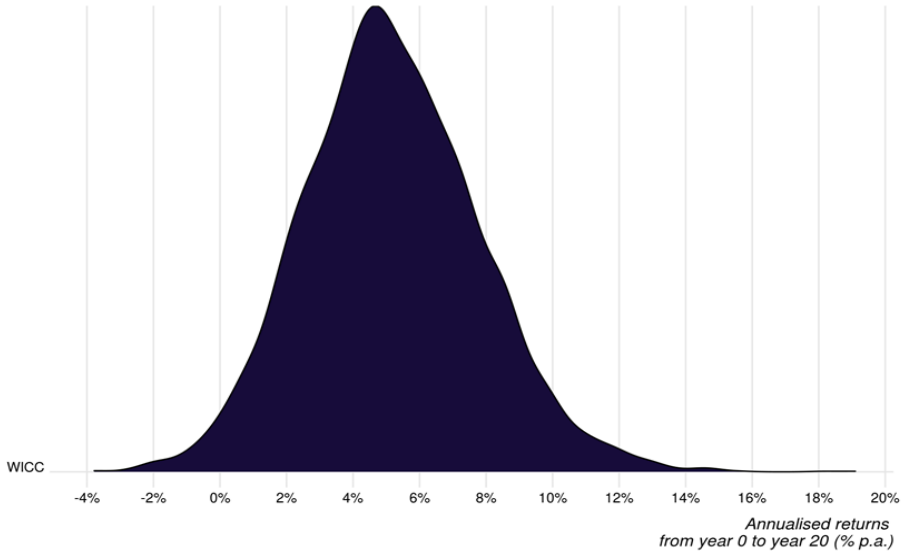


Investment Return

For the purpose of measuring the funding position, we need to be able to compare the value of the Fund's assets against the value of all these future benefit payments (the liabilities). To be able to place a value on these payments in today's money we need to make an assumption about the future investment returns that will be generated from the Fund's assets after the valuation date. The higher the assumed return, the lower the liability value and therefore the higher the funding level.

The value placed on the liabilities, and hence the funding level, is extremely sensitive to the investment return assumption. Whilst there is a requirement for this assumption to be prudent, there is a range of assumptions that the Fund could consider meets this prudence criteria. We believe the valuation outputs are more meaningful when stakeholders can understand the likelihood, and hence the level of prudence, attached to them.

Using the Fund's current investment strategy and running 5,000 simulations of our proprietary economic model, the Economic Scenario Service (ESS), we have generated a distribution of possible future annual investment returns over the 20 years from the valuation date:



Details of the investment strategy and assumptions underlying the ESS model can be found in the Appendix.

From the above chart, we can derive that:

- There is a 55% likelihood of the Fund's investments achieving at least an annual return of 5.1% p.a. over the next 20 years;
- There is a 75% likelihood of the Fund's investments achieving at least an annual return of 3.8% p.a. over the next 20 years; and
- There is a 80% likelihood of the Fund's investments achieving at least an annual return of 3.4% p.a. over the next 20 years.

5.3% p.a. would not be an appropriate investment return assumption for the purpose of the valuation as this represents our 'best estimate' of future investment returns and therefore does not include a margin for prudence.

For the purpose of reporting a funding level and funding surplus/deficit for the 2019 valuation, we have selected the investment return assumption which has an associated 75% likelihood, namely 3.8% p.a..

The assumption used in the valuation as at 31 March 2016 was 4.0% p.a. (note that this was derived using a different method from that described above).

Financial Assumptions	31 March 2016	31 March 2019
Investment return (% p.a.)	4.0%	3.8%

Employer Contributions

The ESS model is also used in our approach to setting employer contribution rates (set out in guides 5 and 6 of our 2019 valuation toolkit). This approach does not rely on a single set of assumptions but involves the projection of the employer's future benefit payments, contributions and investment returns under 5,000 future economic scenarios. In this modelling, inflation (and therefore benefit payments) and investment returns for each asset class (and therefore investment return) are variables and take different values in each projection.

Further details on the assumptions required to set employer contribution rates are set out in guide 8 (Financial Assumptions) of the 2019 valuation toolkit. The assumptions which comprise each employer's Funding Target will be set out in the Funding Strategy Statement.

Comment on the proposed assumptions for the 2019 valuation

As required for Local Government Pension Scheme valuations, our approach to this valuation must include a degree of prudence. For the purpose of measuring the funding position, this has been achieved by explicitly allowing for a margin of prudence in the future investment return assumption.

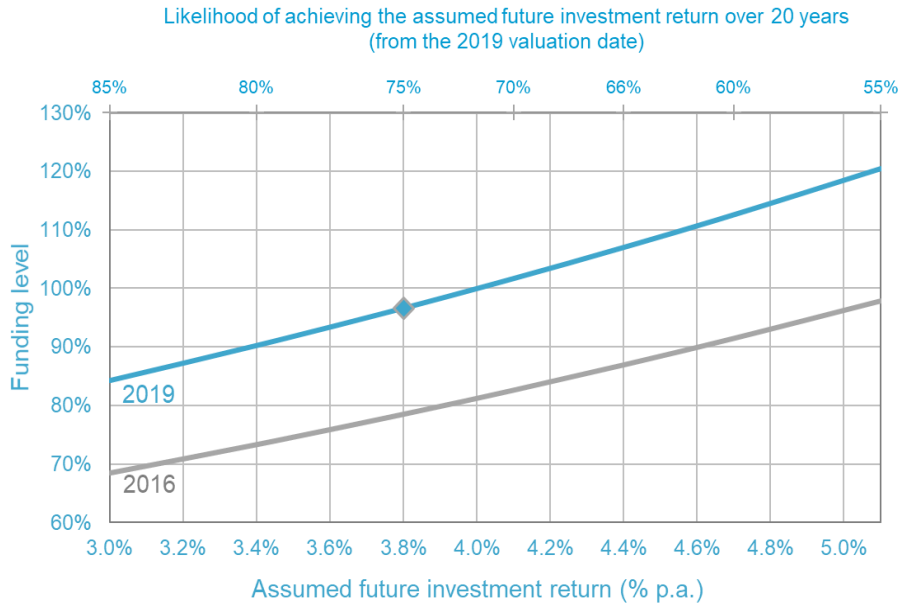
We believe that all other proposed assumptions represent the "best estimate" of future experience. This effectively means that there is a 50% chance that future experience will be better or worse than the chosen assumption.

Taken as a whole, we believe that our proposed assumptions are more prudent than the best estimate.

4 Funding position as at 31 March 2019

Understanding the likelihood associated with certain levels of assumed future investment returns (based on the information discussed in Section 3) means we can better understand the Fund's funding position.

The following chart shows how the funding level varies with the future investment return assumption. For comparison, the funding level associated with the same choice of investment return assumption at the 2016 valuation is also shown.



From this chart, we can see that:

- The funding position would be 100% if future investment returns were around 4.0% p.a.. The likelihood of the Fund's assets yielding at least this return is between 70% and 75%.
- Conversely, if future investment returns are on average 3.0% p.a. over the long term then the Fund currently holds sufficient assets to meet 84% of the accrued liabilities. The likelihood of achieving at least this level of future investment return is 85%.

It can be seen from the above chart that for any given expected future investment return, the funding position of the Fund has improved since the previous actuarial valuation in 2016. This is mainly a result of the strong investment performance of the Fund over the period from 31 March 2016 to 31 March 2019.

Whilst this chart gives the Fund a better understanding of the funding position than a single funding level, the Fund is still required to report a single funding balance sheet. Using the assumptions outlined in Section 3, including the selected investment return assumption of 3.8% p.a., the reported funding position of the Fund at the valuation date is summarised below. The asset figures are the market value of the Fund's assets as at 31 March 2019. The results at the 2016 formal valuation are shown for comparison.

Valuation Date	31 March 2016	31 March 2019
Past Service Liabilities	**(£m)**	**(£m)**
Employees	690	777
Deferred Pensioners	543	688
Pensioners	1,013	1,215
Total Liabilities	**2,246**	**2,680**
Assets	**1,831**	**2,589**
Surplus / (Deficit)	**(415)**	**(92)**
Funding Level	**82%**	**97%**

There has been an improvement in the reported funding level of the Fund from 82% to 97% and a reduction in the funding deficit from £415m to £92m.

It is critical to note that the reported funding level does not directly drive the contributions that will be set. A robust funding plan will be set for each employer which considers how the assets and liabilities will evolve over time in different economic scenarios.

The funding level and surplus/deficit figures provide a high-level snapshot of the funding position of the Fund as at 31 March 2019, however the limitations of these figures should be noted.

The funding position is calculated using a single set of assumptions about the future and is very sensitive to the choice of assumptions (see Section 5). The funding level is also volatile and will change as the market value of the assets held by the Fund changes.

Although the funding level is limited in nature, tracking it can help the Fund gain an understanding of the factors that cause their pensions costs to change over time. As part of the valuation exercise, we analyse the experience of the Fund and its membership since the previous formal valuation and quantify the impact of this experience on the funding surplus or deficit. The analysis helps to identify where changes may be needed in some assumptions or the Fund may wish to review existing risk management policies.

Since the previous valuation, various events have taken place which affect the funding position of the Fund.

Financial Markets experience

Investment returns

Investment returns	Expected	Actual	Difference	Impact on funding position
Over 3 year period	12.6%	38.4%	25.9%	Positive
Annual	4.0%	11.4%	7.4%	Positive

The Fund has experienced better than anticipated investment returns. The investment return in excess of the 2016 valuation assumption serves to 'pay back' a greater portion of the deficit than expected. Therefore, all other things being equal, this improves the funding position.

Inflation

Future inflation expectations	2016	2019	Difference	Impact on funding position
Expected CPI inflation (p.a.)	2.1%	2.3%	0.2%	Negative

Future inflation expectations	2016	2019	Difference	Impact on funding position
Expected CPI inflation (p.a.)	2.1%	2.3%	0.2%	Negative

Long term expectations for Consumer Prices Inflation (CPI) have increased slightly since 2016. Taken in isolation, this slightly worsens the funding position.

Fund expenses

The Fund's expenses (in relation to non-investment activities) over the last 3 years have totalled £8.1m. This figure is equivalent to 0.8% when expressed as a percentage of pensionable pay which is slightly higher than the last valuation (0.5%). Unless otherwise instructed, we propose to make allowance for the Fund's expenses by adding an allowance of 0.8% of pay to employer contribution rates payable from 1 April 2020.

Membership experience

The areas of membership experience that have had the greatest impact on the surplus/deficit position of the Fund are set out below:

	Expected	Actual	Difference	Impact on funding position
Pre-retirement experience				
Early leavers (no.of lives)	4,880	8,958	4,078	Positive
Ill-health retirements (no.of lives)	176	140	(36)	Positive
Salary increases (p.a.)	3.1%	3.4%	0.4%	Negative
Post-retirement experience				
Benefit increases (p.a.)	2.1%	2.1%	(0.0%)	Neutral
Pensions ceasing (£m)	5,431	5,677	246	Positive

Regulatory experience

Indexation and equalisation of Guaranteed Minimum Pensions (GMP)

In their January 2018 consultation response, HMT stated that their preferred long term indexation solution of converting GMP to scheme pension will also meet the requirements of equalisation.

For the 2019 valuation we have assumed that all increases on GMPs for members reaching State Pension Age after 6 April 2016 will be paid for by LGPS employers. This has served to increase the value placed on the liabilities.

LGPS cost sharing mechanism and the McCloud court case

Following the results of the first LGPS cost sharing valuation (communicated in Autumn 2018), it was expected that benefit improvements would be granted in respect of future benefit accrual from 1 April 2019. It was estimated that the improvement would cost 0.9% of payroll for a typical LGPS employer. This change in the LGPS benefit structure has been put on hold whilst the recent age discrimination cases in public sector pension schemes (colloquially known as "McCloud") are resolved. The benefits earned by some members since 1 April 2014 could be materially improved as a result of the McCloud case, increasing the value of the Fund's liabilities.

Based on advice issued by the Scheme Advisory Board in May 2019 we have based our 2019 valuation calculations on the benefits as currently set out in the Regulations. That is, we have not made an allowance for the impact on (past and future service) liabilities of either the first LGPS cost sharing valuation or McCloud court case.

Comments on employers

Every employer is valued separately based on their own membership data as part of the valuation and their change in funding position will therefore vary compared to that of the whole fund based on their individual experience. This information will be available later in the valuation process.

Reconciling the change in the funding position

Quantifying and combining the impact of financial markets, membership and regulatory experience on the Fund's assets and liabilities provides an overall insight into how the funding position has changed between valuations. This is detailed in the following table:

Change in the surplus/deficit position	Assets (£m)	Liabilities (£m)	Surplus / (Deficit) (£m)
Last valuation at 31 March 2016	**1,831**	**2,246**	**(415)**
Cashflows			
Employer contributions paid in	239		239
Employee contributions paid in	60		60
Benefits paid out	(253)	(253)	0
Net transfers into / out of the Fund*	26		26
Other cashflows (e.g. Fund expenses)	(8)		(8)
Expected changes in membership			
Interest on benefits already accrued		283	(283)
Accrual of new benefits		266	(266)
Membership experience vs expectations			
Salary increases greater than expected		5	(5)
Benefit increases less than expected		(0)	0
Early retirement strain (and contributions)	5	8	(3)
Ill health retirement strain		(6)	6
Early leavers greater than expected		(4)	4
Pensions ceasing greater than expected		(1)	1
Commutation less than expected		5	(5)
Other membership experience		31	(31)
Changes in market conditions			
Investment returns on the Fund's assets	688		688
Changes in future inflation expectations		72	(72)
Changes in actuarial assumptions			
Change in demographic assumptions (excl. longevity)		(5)	5
Change in longevity assumptions		(66)	66
Change in salary increase assumption		2	(2)
Change in discount rate		98	(98)
This valuation at 31 March 2019	**2,589**	**2,680**	**(92)**

* We have insufficient data to value the impact on the liabilities as a result of all transfers in/out.

5 Sensitivity analysis of the funding position

The valuation funding position results depend critically on the actuarial assumptions that are made about the future of the Fund. If all of the assumptions made as at 31 March 2019 were exactly borne out in practice then the liability results presented in this document would represent the true cost of providing benefits from the Fund as it currently stands at 31 March 2019.

However, no one can predict the future with certainty and future experience will not exactly match all of our assumptions. The future therefore presents a variety of risks to the Fund which should be identified and, where possible, the financial significance should be quantified. Thereafter the Fund can assess how (or if) these risks can then be controlled or mitigated and put in place monitoring to assess whether any mitigation is actually working.

In this Section we quantify how sensitive the funding position as at 31 March 2019 is to the assumptions made about the future.

Financial assumptions

Sensitivity of the funding position to future investment returns

The amount of assets needed by the Fund to meet its accrued benefits (liabilities) is extremely sensitive to the assumption for future investment returns. This was considered in Section 4.

Sensitivity of the funding position to future inflation

Pensions (both in payment and in deferment) in the LGPS increase annually in line with CPI. Furthermore, benefits accrued in the CARE scheme are revalued annually in line with CPI. If future CPI inflation is higher than our assumption as at 31 March 2019 then the value of the benefits will be higher than we have set out in Section 4.

To help understand the impact of CPI being different from our assumption, we have shown the effects on the funding position of varying the benefit increases and CARE revaluation (CPI) assumption below.

CPI Assumption	Surplus / (Deficit)	Funding Level
% pa	(£m)	%
2.1%	(20)	99%
2.3%	(92)	97%
2.5%	(163)	94%

Employer contribution rates

The above analysis focuses on financial risk to the funding position as measured at 31 March 2019. Our approach to setting employer contribution rates recognises the uncertainty around future investment returns and inflation and therefore does not rely on a single set of financial assumptions.

Demographic assumptions

Sensitivity of the funding position to life expectancy

The main area of demographic risk is people living longer than expected. We have shown below the high level impact of people living longer than currently expected by using a more prudent assumption for future longevity improvements. The proposed valuation assumption assumes that in the longer term mortality rates will fall at a rate of 1.25% each year. The more prudent assumption shown for this sensitivity analysis assumes that mortality rates will fall at a rate of 1.5% each year in the longer term.

Long term rate of improvement	Surplus / (Deficit)	Funding Level
% pa	(£m)	(£m)
1.25%	(92)	97%
1.50%	(112)	96%

Other demographic risks to consider

There are other risk factors which would have an impact on the funding position. Examples of these include the level of ill health retirements, withdrawals from the scheme and take up of the 50:50 option. These are probably unlikely to change in such a way that would rank them as amongst the highest risks facing the Fund and therefore we have not sought to provide further quantification of their risk.

Other risks

Regulatory, Administration and Governance risks

As well as financial and demographic risks, the Fund also faces: Regulatory risks – central government legislation could significantly change the cost of the scheme in the future; and: Administration and governance risk – failures in administration processes could lead to incorrect data and inaccuracies in the actuarial calculations. The risks should be considered and monitored by the Fund as part of its ongoing risk management framework.

Resource and environment risks

The Fund is exposed to risks relating to future resource constraints and environmental changes. These risks may prove to be material.

We have not sought to quantify the potential impact of these risks for the purpose of the results shown in this report, given the complexity and uncertainty involved. Further analysis is available to the Fund to illustrate the future impact of adverse climate outcomes.

Given their potential impact, the Administering Authority may wish to seek direct advice on resource and environment risks.

6 Next steps

The next step in the process is as follows.

- Once a set of final contribution rates have been agreed for all employers, we will provide you with a ***final valuation report*** which will clearly set out the final valuation results and will meet all the relevant regulatory requirements. Included in this report will be the Certificate of Rates and Adjustments, which will certify the minimum contribution rates to be paid by each employer for the three-year period beginning on 1 April 2020. This final valuation report must be provided to you no later than 31 March 2020.

Appendix

Appendix 1 – Projecting the Fund's Assets

The following investment strategy has been used to set the future investment return assumption as at 31 March 2019:

% allocation	Current strategy
Global equities	43.0%
Diversified Growth	10.3%
Infrastructure (equity)	1.8%
Total growth assets	55.0%
Index-linked gilts	15.3%
Total protection assets	15.3%
Absolute return bonds	6.5%
Multi asset credit	4.5%
Emerging Market Debt	5.3%
Property	13.5%
Private lending	0.0%
Total income generating assets	29.8%
Grand total	**100.0%**

Appendix 2 – Economic Scenario Service

The following figures have been calculated using 5,000 simulations of the Hymans Robertson Economic Scenario Service, calibrated using market data as at 31 March 2019. All returns are shown net of fees. Percentiles refer to percentiles of the 5,000 simulations and are the annualised total returns over 5, 10 and 20 years, except for the yields which refer to the (simulated) yields in force at that time horizon.

		Annualised total returns									
		Cash	Index Linked Gilts (medium)	Fixed Interest Gilts (medium)	UK Equity	Overseas Equity	Property	A rated corporate bonds (medium)	RPI inflation expectation	17 year real govt bond yield	17 year govt bond yield
5 years	16th %'ile	-0.4%	-2.3%	-2.9%	-4.1%	-4.1%	-3.5%	-2.7%	1.9%	-2.5%	0.8%
	50th %'ile	0.7%	0.5%	0.3%	4.0%	4.1%	2.4%	0.8%	3.3%	-1.7%	2.1%
	84th %'ile	2.0%	3.3%	3.4%	12.7%	12.5%	8.8%	4.0%	4.9%	-0.8%	3.6%
10 years	16th %'ile	-0.2%	-1.8%	-1.3%	-1.5%	-1.4%	-1.5%	-0.9%	1.9%	-2.0%	1.2%
	50th %'ile	1.3%	0.0%	0.2%	4.6%	4.7%	3.1%	0.8%	3.3%	-0.8%	2.8%
	84th %'ile	2.9%	1.9%	1.7%	10.9%	10.8%	7.8%	2.5%	4.9%	0.4%	4.8%
20 years	16th %'ile	0.7%	-1.1%	0.1%	1.2%	1.3%	0.6%	0.7%	2.0%	-0.7%	2.2%
	50th %'ile	2.4%	0.3%	1.0%	5.7%	5.8%	4.3%	1.9%	3.2%	0.8%	4.0%
	84th %'ile	4.5%	2.0%	2.0%	10.3%	10.4%	8.1%	3.0%	4.7%	2.2%	6.3%
	Volatility (Disp) (1 yr)	1%	7%	10%	17%	17%	14%	11%	1%		

The current calibration of the model indicates that a period of outward government bond yield movement is expected. For example, over the next 20 years our model expects the 17 year maturity annualised real (nominal) yield to rise from -2.1% (1.5%) to 0.8% (4.0%).