

Report on the actuarial valuation

of the Rhondda Cynon Taf Pension Fund as at 31 March 2022

Prepared for: Rhondda Cynon Taf County Borough Council as Administering Authority of
the Rhondda Cynon Taf Pension Fund

Prepared by: Alison Murray FFA & Chris Emmerson FIA

Date: 31 March 2023

Introduction

This actuarial valuation report is required by Regulation 62 of the Local Government Pension Scheme Regulations 2013. It summarises the results of the funding valuation of the Fund as at 31 March 2022, including the Rates and Adjustments Certificate which sets out the contributions payable by employers from 1 April 2023 to 31 March 2026.

Purpose of the valuation

The overriding purpose of the valuation is to value the assets and liabilities of the Fund as required by the Regulations and to set out the contributions payable by each employer in the Fund.

The report concentrates on the Fund's financial position at the valuation date. As time moves on, the Fund's finances will fluctuate. If you are reading this report some time after it was produced, bear in mind that the Fund's financial position could have changed significantly.

Benefits valued

The benefits valued are set out in the Regulations. We have commented in the Further Information section on how we have allowed for legal and other uncertainty regarding the benefits. Assets and liabilities in respect of defined contribution additional voluntary contributions (AVCs) have been excluded.

Funding Strategy Statement

The principles which have been applied are set out in the Funding Strategy Statement (FSS) of the Fund. The FSS has been reviewed and amended as part of the 2022 valuation process.

Next steps

As required by Regulation 66 this report must be published and made available to the Secretary of State, and to current and prospective employers who contribute or may become liable to make payments to the Fund.

Glossary

Actuarial valuations come with a lot of associated terminology.

Throughout this document we use certain terms with specific meanings in the context of actuarial valuations.

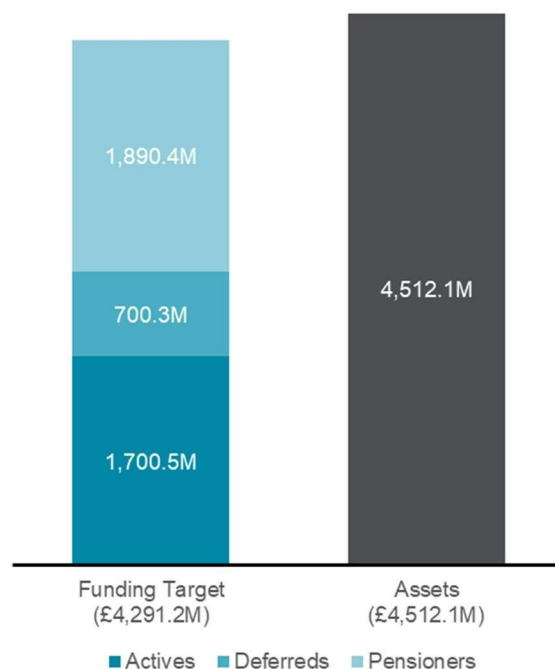
To help you understand them, we have provided a [glossary](#) at the end of this document.



At a glance ...

Overall Funding Position

There was a surplus of £220.9M relative to the liabilities. The funding level was 105.1%.



Primary contribution rate (% of Pay)

19.6%

No Change

Vs 31 March 2019

Comment

The **primary rate** is the employer share of the cost of benefits being earned in the future, expressed as a percentage of pensionable pay.

The figure quoted is a weighted average of all employers' primary rates.

Secondary contribution rate (% of Pay)

0.0%

▼1.4%

Vs 31 March 2019

Comment

The **secondary rate** is generally the adjustment to the primary rate needed to target 100% funded over an agreed period. However, at the 2022 valuation it has been agreed that no reduction will be made to employer contributions when the funding level is between 100% and 110%.

Total contribution rate (% of Pay)

19.6%

▼1.4%

Vs 31 March 2019

Comment

This is the sum of the primary and secondary rates quoted above.

Each employer's total contribution rate will differ depending on their circumstances, including membership profile, funding level and recovery period.

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Funding objectives

The Administering Authority's main funding objective is to hold assets at least equal in value to the funding target (past service liabilities).

To calculate the past service liabilities and the cost to the employers of future benefit accrual, the benefits paid out by the Fund are estimated for each year into the future. The estimated benefit payments are then 'discounted back' to the valuation date using an agreed rate of interest known as the discount rate.

Cashflows

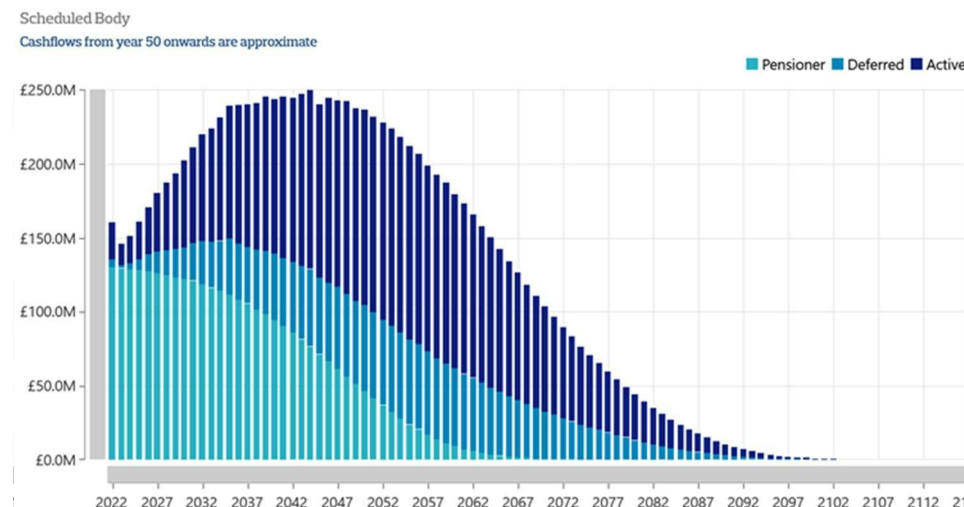
The chart shows the cashflow pattern for the Fund (based on past service benefits and the assumptions used for the valuation). Most cashflows are linked to future levels of salary growth and/or inflation.

Discount rate

The Funding Strategy Statement describes the approach used to set the funding target and hence the discount rates. The Administering Authority adopts different discount rates depending on employers' circumstances including the likelihood of exit and what would happen to the liabilities on exit. The use of different discount rates is summarised on the next page.

Prudence

Prudence in the valuation is achieved using discount rates which have a materially better than evens chance of being achieved by the Fund's assets. Information on the level of prudence (or risk) in the funding strategy is contained in the Fund's Funding Strategy Statement.



Discount rates for different employer types

The Administering Authority adopts different discount rates for different types of employer. The funding targets for the various types of employer, that each use different discount rates, are as follows:

- the Scheduled body / subsumption funding target, which assumes indefinite future investment in assets similar to the Fund's holdings at the valuation date (allowing for any known or planned changes to the long-term investment strategy as appropriate).
- the Ongoing orphan funding target: for admission bodies whose liabilities would be orphan on exit, the discount rate has regard to the possibility that participation may cease and that the exit valuation would assume a low risk investment portfolio made up of long dated UK Government bonds (of appropriate nature and term) at cessation.
- the Intermediate funding target: for admission bodies which are open to new entrants but do not have a subsumption commitment and the Administering Authority considers to be of sufficiently strong covenant that a discount rate above that on the ongoing orphan funding target can be adopted
- the low risk funding target: for “orphaned” liabilities that relate to employers which have already exited the fund.

An explanation of scheduled bodies, orphan bodies and subsumption bodies is given in the Glossary.



Method, data and assumptions

After consulting with the Administering Authority, we have agreed the method, data and assumptions to use for calculating the past service liabilities and employer contribution rates.

Method

The past service liabilities have been calculated using the projected unit method. This method, with a one year control period, has also been used to calculate the cost of future benefits building up for most employers. The attained age method has been used for some employers who do not admit new employees to the Fund.

The method used for each employer, including funding target and recovery period, has been advised separately.

Data

The actuarial valuation was based on a snapshot of member data as at the valuation date, extracted from the administration system after the valuation date. Due to ongoing processing of membership records, and some data estimation carried out for valuation purposes, the data may be different to data summarised in the Fund's report and accounts.

See the Further Information section for a summary of the membership data used.

Assumptions

We use assumptions to calculate the past service liabilities, cost of future benefit accrual and contributions for the recovery plan. All assumptions are best estimate with the exception of the discount rate as set out above. Most of the demographic assumptions have been set based on an analysis of the Fund's experience over a recent period.

See the Further Information section for a summary of the assumptions used.



Past service results

A comparison of the Fund's assets with the past service liabilities calculated using the agreed assumptions for each employer is set out below.

Funding position

	£M
Value of past service benefits for:	
Active members	1,700.5
Deferred members	700.3
Pensioner members	1,890.4
Total liabilities	4,291.2

	£M
Value of assets:	4,512.1

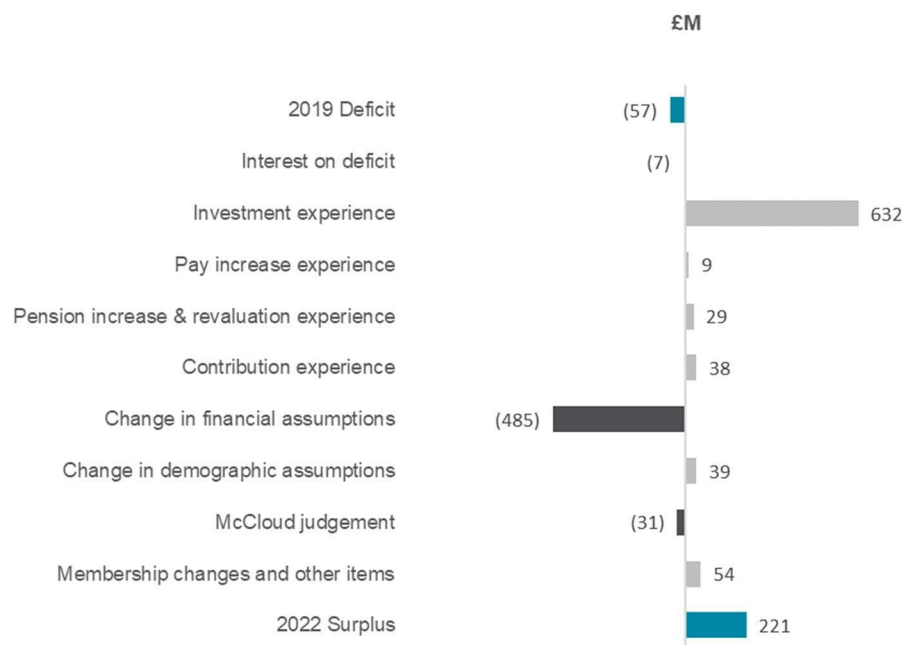
Surplus / (deficit)

£220.9M

Funding level

105.1%

The chart below shows the key reasons for the £M change in funding position



Bars to the right show sources of gain relative to the 2019 position and bars to the left show sources of loss.

Analysis of change since 2019

At the 2019 valuation the funding position was a deficit of £56.6M, corresponding to a funding ratio of 98.4%.

- The main factor which has improved the funding position is the investment returns achieved by the Fund above the discount rate adopted at the 2019 valuation. Average investment returns were 9.1% p.a. compared to an average discount rate of 4.0% p.a.
- The main factor which has worsened the position is the change in the financial assumptions (principally a fall in the average discount rate relative to inflation, and the allowance for short term high inflation).

Future service results

The aggregate primary rate (employer cost of future service benefits accruing to members), using the agreed assumptions, is set out below.

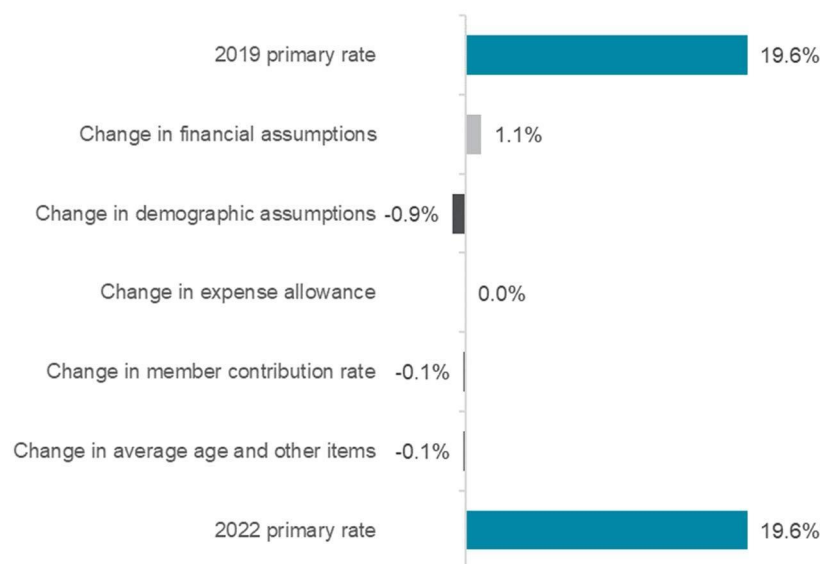
Employer cost

	% Pay
Value of benefits building up:	25.5%
Plus administration expenses	0.5%
less member contributions	(6.4%)
2022 cost to employers	19.6%

Primary rate

19.6% pay

The chart below shows the key reasons for the % change in Primary Rate



Bars to the right show sources of increase relative to the 2019 rate and bars to the left show sources of decrease.

Analysis of change since 2019

At the 2019 valuation the primary rate was 19.6% of Pay.

- The main factor which has increased the cost of future benefits is changes to financial assumptions (principally a fall in the average discount rate relative to inflation).
- The main factor which has reduced the cost of future benefits is the reduction in the allowance for longevity improvements and other demographic assumption changes.

Regulatory uncertainties (2019)

Since 2020, employer rates have included an additional 0.9% of pay relating to McCloud/cost management uncertainties. This will not be payable from 2023, but an allowance for the McCloud underpin is included within the past service liabilities.

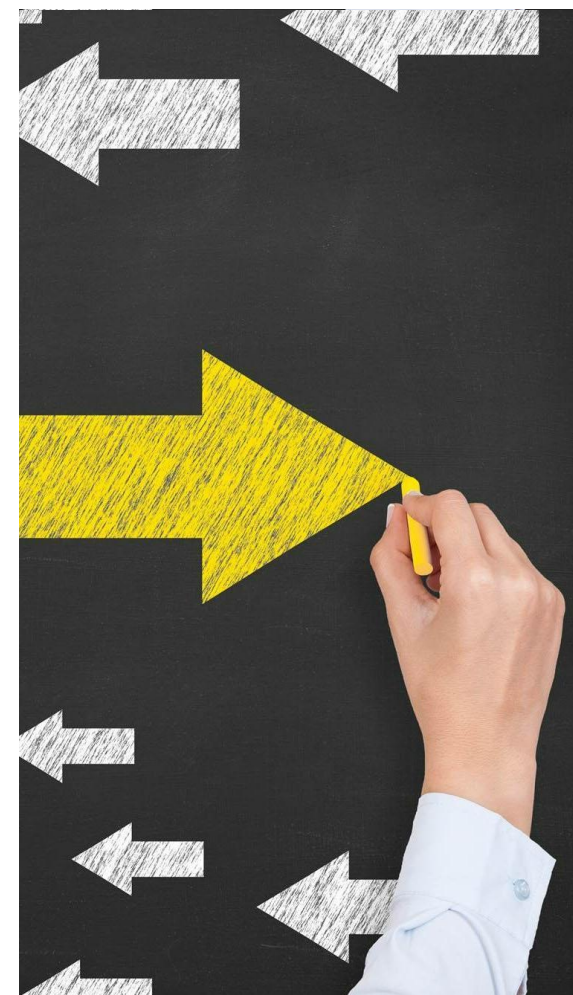
Employer contributions

Employers' contributions from 1 April 2023 will be based on their individually assessed primary rate unless they are part of a funding group/pool. An adjustment may also be made (known as the secondary rate) to achieve the target funding level over an appropriate period (known as the recovery period).

Key factors affecting employer contribution rates

Contributions are set for employers, or groups of employers, that take into account a number of factors including:

- Regulation 62 – which requires the Fund Actuary to have regard to
 - The existing and prospective liabilities
 - The desirability of maintaining as nearly constant a primary contribution rate as possible
 - The Administering Authority's Funding Strategy Statement, and
 - The requirement to secure the solvency of the Fund and the long-term cost efficiency of the Scheme, so far as relating to the Fund.
- The results of the valuation.
- Discussions between the Fund Actuary, the Administering Authority and employers, including the Administering Authority's view of the affordability of contributions, where relevant.
- The employer's (or group's) membership profile and funding level and, where relevant, assumptions and recovery periods specific to the employer's circumstances.



Addressing a shortfall (or surplus)

We have agreed with the Administering Authority the policies for certifying secondary contributions for employers in deficit (or surplus) at the valuation date.

Generally we have applied the following policies:

- Employers in deficit are required to pay secondary contributions to eliminate the deficit over a recovery period not exceeding 16 years.
 - For employers which are in surplus and have a funding level above a 110% threshold, the employer may use the surplus in excess of that threshold to support the payment of contributions to the Fund at a rate below the primary (future service) contribution rate. The maximum period for surplus recovery is 22 years.
 - Different rules on surplus recovery and recovery periods apply to individual employers or groups of employers depending on their circumstances.
 - Secondary contributions allow for interest on the employer's surplus or shortfall between 31 March 2022 and 1 April 2023 as well as the difference between expected contributions payable and the expected cost of benefit accrual over 2022/23.
 - For some employers, contribution increases/reductions may be phased in over a number of years (or 'steps') as permitted by the Funding Strategy Statement in order to deliver greater stability of contributions.
- Further information is set out in the Funding Strategy Statement.

Aggregate employer rates

Contributions payable by each employer are set out in the Rates and Adjustments Certificate. The aggregate Employer contributions for the 3 years from 1 April 2023 are as follows

Year from 1 April	% of pensionable pay	Plus total contribution amount (£M)
2023	19.1	0.906
2024	19.1	0.938
2025	19.1	0.971

Further information is set out in the notes to the Rates and Adjustment Certificate.

Information

Across the Fund as a whole, the secondary contributions required to remove the surplus (if any) in excess of a funding ratio of 110% over a recovery period of 22 years from 1 April 2023 are:

0% of Pensionable Pay

This assumes the membership remains broadly stable and pay increases and other assumptions are as assumed.

In practice, individual employer secondary rates will vary depending on their circumstances and the agreed strategy.

Notes

The % of Pensionable Pay contributions are an average (weighted by Pensionable Pay) of the amounts certified for individual employers.

At the end of the period, the annual contribution amounts for each employer or group are anticipated to increase by approximately 3.55% p.a. until the end of the relevant recovery period. Thereafter, aggregate contributions are anticipated to be in line with the future service contribution rate of that employer, subject to review at future valuations.

Final comments

Projections

We estimate that, by the 31 March 2025 valuation, the certified contributions would leave the Fund's overall funding level broadly unchanged, at around 105%, assuming the experience of the Fund between the two valuation dates is in line with the assumptions and the assumptions underlying the funding targets remain unchanged.

Developments since 31 March 2022

Market movements

Equity and bond markets have generally delivered lower than expected investment returns over the period since the valuation date, but liabilities have fallen due to increases in the discount rates used for employers on the various funding targets. Inflation has increased since the valuation date, serving to increase the benefits payable, but allowance was made for this risk in the calculation of the liabilities on the Scheduled / subsumption Body and Intermediate funding targets.

Bearing in mind the long-term nature of the Fund, and the objectives of the Administering Authority in setting its funding strategy, our opinion is that the certified contributions are appropriate.

Employers joining or exiting since the valuation date

Contributions for employers joining the Fund since 31 March 2022 will be advised separately, although where those calculations have already been carried out the employer may be included in the Rates and Adjustments Certificate where requested by the Administering Authority. A revised Rates and Adjustments Certificate will have been prepared for employers exiting the Fund since 31 March 2022 where requested by the Administering Authority. Where a revised Rates and Adjustments Certificate has not yet been produced for such employers, the employer has been included in the Rates and Adjustments Certificate appended to this report but with zero contributions in anticipation of the revised certificate being issued.



Monitoring the Fund

In the light of the volatility inherent in situations where investments do not match liabilities, the Administering Authority monitors the financial position on a regular basis. It will also consider monitoring the position of individual employers, particularly those subject to the Ongoing Orphan Funding Target and those which may exit the Fund before 1 April 2026. Where appropriate and permitted by the Regulations, contributions for those employers may be amended before the next valuation due as at 31 March 2025. In line with the Fund's Funding Strategy Statement and policies, contributions may similarly be amended before the next valuation for other individual employers.



Signature

Alison Murray

Chris Emmerson

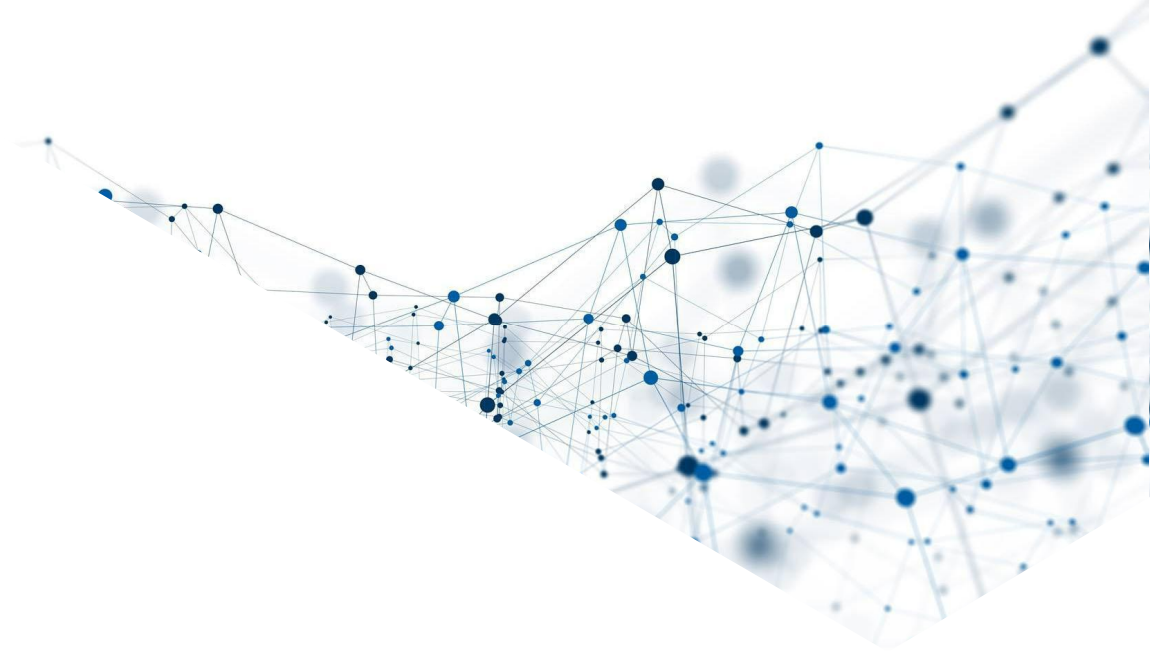
Name

Alison Murray FFA

Chris Emmerson FIA

Date

31 March 2023



Further information

Membership data



The results in this report are based on the membership data summarised below.

We have conducted high level checks on the membership data provided and we are satisfied with its adequacy for the purpose of this actuarial valuation.

Average ages are unweighted, and pensions include the April 2022 (April 2019 for 2019 data) revaluation/pension increase.

Active members

	Number	Average age	Total pensionable salaries (2014 Scheme definition) (£000)	Total pre 2014 pension (£000)	Total pre 2014 accrued lump sum (£000)	Total post 2014 pension (£000)
Total 2022	24,724	45.0	483,154	44,303	67,023	56,207
Total 2019 (for comparison)	23,047	44.7	414,954	50,022	77,565	35,050

Pensionable pay is over the year to the valuation date, and includes annualised pay for new entrants during the year. Actual part-time pay is included for part-timers.

Deferred members

	Number	Average age	Total pension (£000)	Total pre 2014 accrued lump sum (£000)
Total 2022	32,975	45.6	40,649	50,180
Total 2019 (for comparison)	30,369	44.2	35,138	55,577

Included in the above, there were 3,803 members who are yet to decide whether to take a refund of contributions or a transfer value (2019: 3,973)

Pensioner and Dependant members

	Number	Average age	Total pension (£000)
Total 2022	21,292	72.1	113,411
Total 2019 (for comparison)	19,872	71.6	103,968

In addition, there were 174 members in receipt of children's pensions (2019: Figures exclude members in receipt of a children's pension)

Allowing for benefit uncertainty

McCloud

The LGPS Regulations covering the McCloud remedy have not yet been laid, however a ministerial statement in May 2021 confirmed the key elements of the expected changes. The key features are that the remedy (a new 2008 scheme underpin) will apply to Fund members who were active on 1 April 2012, in relation to their service between 1 April 2014 and 31 March 2022 (the remedy period), so long as they did not have a disqualifying service break. Full membership data to value the proposed remedy was not available for this valuation, however a letter from DLUHC to administering authorities dated March 2022 set out an expectation that the proposed remedy is included within the 2022 valuation.

Cost management valuations

The 2016 LGPS (E&W) cost management valuations found the costs of the scheme to be within the relevant limits such that no changes to the scheme provisions were required.

The way in which the McCloud remedy was allowed for in the HMT cost management valuation was subject to Judicial Review following a legal challenge from unions, but this challenge was dismissed on all grounds on 10 March 2023. However, we understand that the unions are seeking permission to appeal the Judicial Review outcome. Therefore there remains a possibility that the 2016 cost management process will need to be revisited and ultimately, additional employer costs may arise.

The 2020 LGPS (E&W) cost management valuations are currently in progress.

Approach taken

We have calculated an expected cost of the proposed remedy using the valuation assumptions. This cost is included within the past service liabilities. Further details on our approach to the calculations have been advised to the Administering Authority separately.

Approach taken

We have made no allowance for the risk of additional costs falling on the Fund (and ultimately employers) as a result of the judicial review process in relation to the 2016 cost management valuations.

We have made no allowance for the potential outcome of the 2020 cost management valuations.



Guaranteed Minimum Pensions (GMPs): indexation and equalisation

Following legislative change in 2021, the LGPS is now required to pay full CPI increases on GMPs for members whose State Pension Age is after April 2016. Separate to this, the High Court ruled in two Lloyds Banking Group cases (2018 and 2020) that schemes are required to equalise male and female benefits for the effect of unequal GMPs, and these requirements extend to members who have died or transferred out.

In relation to public service schemes we understand Government believes that full indexation of GMPs as set out above will equalise payment terms for most members, but some uncertainty remains for a small minority of members. Government has not yet set out its policy intention for historic deaths and transfers.

Approach taken

We have valued pension increases in line with the indexation requirements. However, we have not estimated a potential cost of equalising payment terms for members whose benefits remain unequal after full indexation, nor for historic deaths or transfers.



Goodwin

An Employment Tribunal ruling relating to the Teachers' Pension Scheme concluded that provisions for survivor's benefits of a female member in an opposite sex marriage are less favourable than for a female in a same sex marriage or civil partnership, and that treatment amounts to direct discrimination on grounds of sexual orientation. A ministerial statement on 20 July 2020 announced that changes would be required to other public service pension schemes with similar arrangements. In the LGPS this will create an additional liability for post-2005 widowers where the original member had pre-1988 service.

Approach taken

Government is yet to reflect this ruling within LGPS Regulations, and we have not been provided with the data to enable calculation of the cost.

We have therefore made no allowance for the Goodwin ruling in the 2022 valuation results. The overall cost is expected to be very small relative to the Fund's liabilities.

State Pension Age

The Government commenced its second periodic review of the State Pension Age (SPA) in December 2021, which will be published by 7 May 2023. Any changes to the SPA will affect the date that the Scheme will pay benefits earned after 2014 without penalty for early reduction. This would impact the past service liabilities and may also affect the LGPS (E&W) 2020 cost management valuations.

Approach taken

No allowance has been made in the 2022 valuation for potential changes to the State Pension Age.

Data uncertainties

The Administering Authority supplied us with a Universal Data Extract file containing the membership data that is necessary to complete a valuation. We undertook a series of validation tests to check that the membership data was complete, within certain tolerances, and broadly consistent with the previous exercise. A report on these validation tests was shared with the Administering Authority.

Approach taken

Where any data was found to be incomplete or outside of tolerances and was left uncorrected, we agreed a series of data estimations with the Administering Authority.

Discretionary benefits

Discretionary benefits such as enhanced early retirement benefits on redundancy are paid for by employers as they occur through special contributions, and therefore generally no allowance should be needed in funding valuations.

Approach taken

We have made no allowance for discretionary benefits. This is consistent with the approach in the previous valuation.



Notable developments since the previous valuation

This section comments on notable developments since the 2019 valuation that have affected the 2022 valuation.

Key regulatory / benefit changes

GMP Indexation

In 2021 Government legislated for public service schemes to increase GMPs in line with full indexation for members whose State Pension Age is after 5 April 2021. Until that date, and as allowed for in the 2019 valuation, the LGPS was only required to pay limited pension increases on GMPs for those members.

McCloud / 2016 cost management process

At the 2019 valuation an explicit uplift to employer contribution rates was made to allow for potential additional costs arising from the McCloud remedy and the 2016 cost management process. Since then, there has been more detail on the expected McCloud remedy, and the 2016 cost management process has concluded with Government confirming that there are to be no changes to the provisions of the LGPS under that process.

Notable items of experience

	2019 assumption	2019-2022 experience	2022 assumption
Investment returns	3.9% p.a. ⁽¹⁾	9.1% p.a.	4.0% p.a. ⁽¹⁾
CPI pension increases	2.1% p.a.	1.8% p.a. ⁽²⁾	2.3% p.a.
Pay growth	3.35% p.a. ⁽³⁾	3.0% p.a.	3.55% p.a. ⁽³⁾

(1) The assumed investment return is the average discount rate, weighted by liability.

(2) Average figure, actual increases were 1.7% (2020), 0.5% (2021) and 3.1% (2022).

(3) Before allowance for promotional pay.



Impact

This has caused a small increase in the liabilities.

Impact

This has caused a reduction to primary contribution rates but a small increase in liabilities to allow for the McCloud remedy.

Further information

The table compares the key financial assumptions made at the previous valuation with what actually happened and the corresponding assumptions for the 2022 valuation.

Contributions paid

Employer contributions from 1 April 2020 were agreed as follows:

Year from 1 April	% of Pensionable Pay	Plus aggregate contribution amounts (£M)
2020	20.2%	3.4
2021	20.2%	3.8
2022	20.2%	4.2

- Employers in deficit were required to pay secondary contributions to eliminate the deficit over a recovery period not exceeding 19 years.
- Employers in surplus may have used the surplus to support the payment of contributions to the Fund at a rate below the primary (future service) contribution rate.
- Some employers may also have stepped in changes to contributions, in line with the limits set out in the Funding Strategy Statement.
- In addition, employers paid contributions to meet additional strains arising on early retirement or due to increases in benefits.
- Members also paid contributions as required by the Regulations.

Other changes

On 1 April 2018 the Newport Vision Products service transferred to Denbighshire County Council in the Clwyd Pension Fund from Rhondda Cynon Taf County Borough Council. Whilst the liabilities have already transferred, no payment has yet been made or agreed with the actuary to the Clwyd Pension Fund so we have made an allowance for this bulk transfer by reducing the asset value by the expected payment amount calculated as at 31 March 2022.



Risks and other uncertainties

Key risks which could affect the Fund's future cashflows and funding position, include the following. The Funding Strategy Statement sets out key actions to mitigate these risks.



Funding risk

The risk that the value placed on the past service liabilities is set too low and contributions paid into the Fund prove insufficient to meet the payments as they fall due



Investment risk

The risk that investment returns are lower than assumed in the valuation, and also that the assets are volatile and move out of line with the liabilities, so the funding position is volatile.



Regulatory risk

The risk that changes to legislation/regulations, taxation, or pension/employment law result in an increased cost of administration, investment or funding for benefits.



Longevity risk

The risk that Fund members live for longer than expected and pensions are therefore paid for longer, resulting in a higher cost for the Fund.



Inflation risk

The risk that inflation is higher than expected, resulting in higher pension increases (and payments to pensioners) than allowed for in the valuation.



Employer risk

The risk that an employer is no longer able to meet its liabilities in the Fund, e.g. due to insolvency.

Other risks

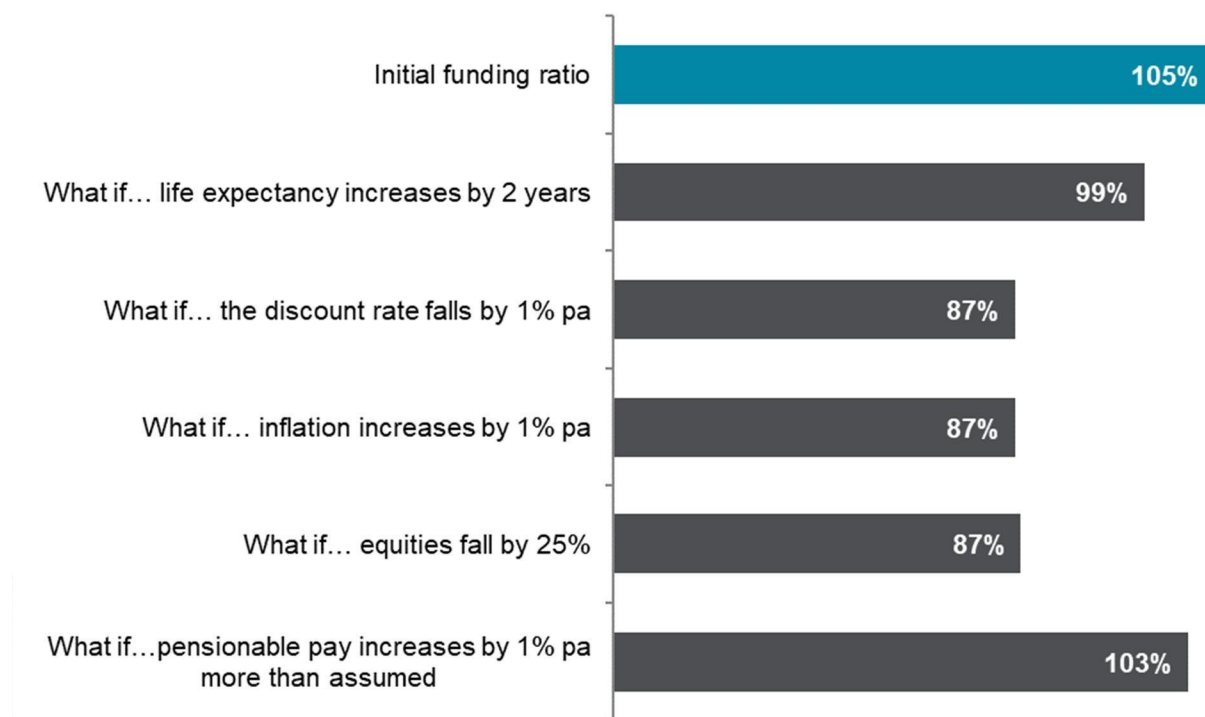
- **Member options risk:** The risk that members exercise options resulting in unanticipated extra costs. For example, members could exchange less of their pension for a cash lump sum than allowed for in the valuation.
- **Other risks:** For example, those relating to **climate change** and other environmental issues as well as long-term uncertainty around geopolitical, societal and technological shifts.



Sensitivity of the funding level

The chart shows the approximate impact of a number of one-off step changes on the Fund's funding level (all other elements of the valuation basis being unchanged).

These are not intended to be worst case scenarios and could occur in combination rather than in isolation. Conversely, in practice, some of these changes may be partially offset by other changes, for example a reduction in the expected investment return or inflation might lead to a compensating change in asset values, or a change in asset values might lead to a compensating change in expected investment returns.



Climate risk

Possible development of valuation result under different climate scenarios

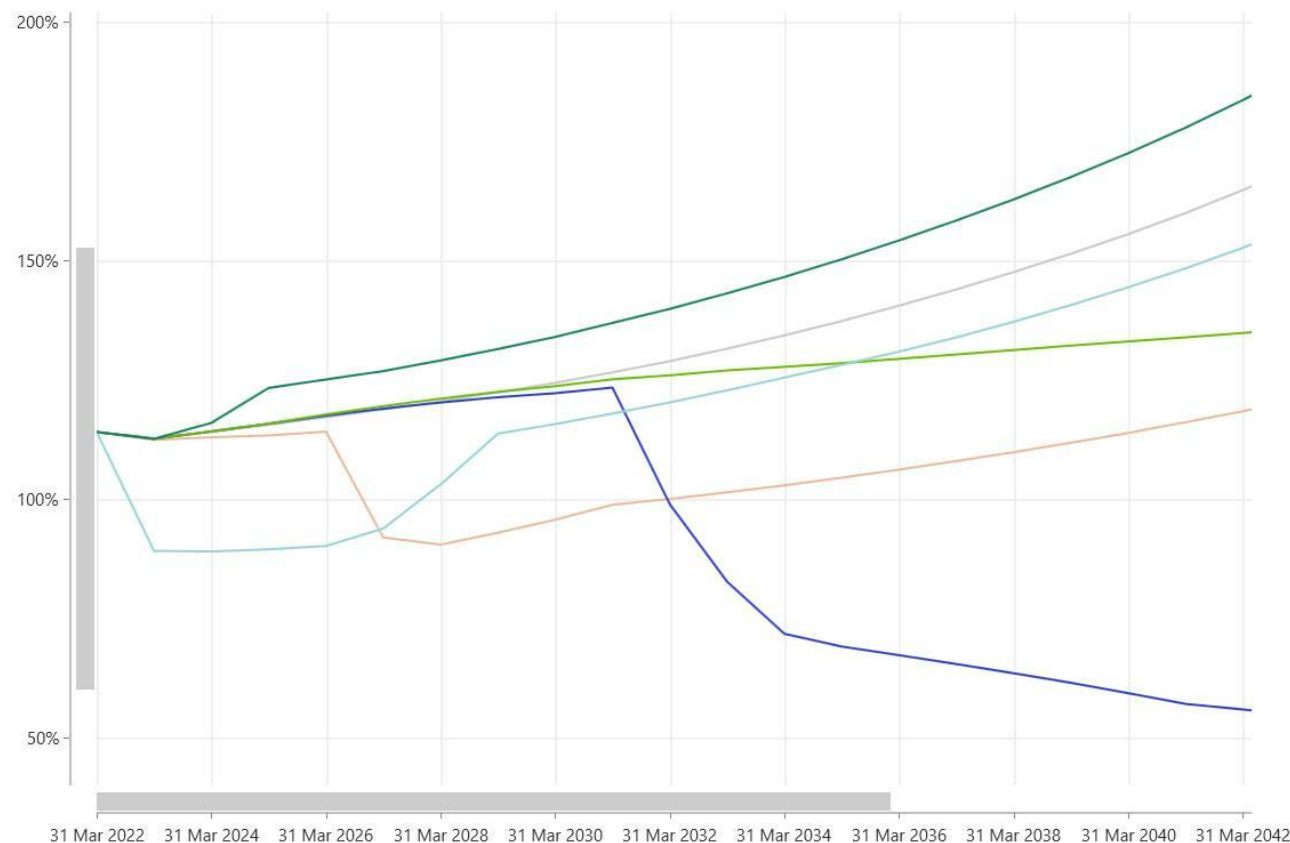
We have reviewed the resilience of the Fund to a number of climate change scenarios and assuming there were no contribution changes, as illustrated by the chart of funding level projections to the right.

Our projections include allowance for the potential impact on investment returns, financial assumptions used to value the liabilities, and longevity, for each of the scenarios illustrated. For modelling purposes the illustrated funding levels disregard the valuation allowance for short-term inflation.

The Fund's investment portfolio exhibits reasonable resilience under most of the scenarios modelled, due to the diversification of assets. However, there are risks regarding the volatility of funding level, for example in the short term under the orderly and abrupt transition scenarios. Over the 10 to 20 year time horizon, the disorderly transition scenario shows a significant fall in funding level.

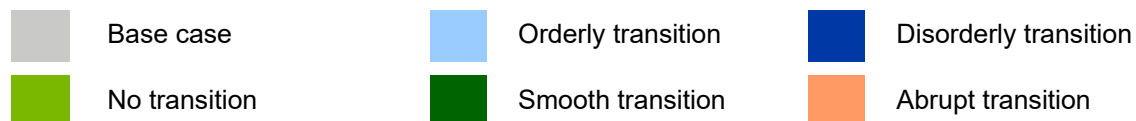
We have provided a separate report to the Administering Authority setting out more information on the results of our analysis and commentary on actions that could be taken to manage the associated risks.

The next page summarises the scenarios that have been modelled.



Run by Aon with an effective date of 31 March 2022, using a liability basis of RPI Curve + 2.0%

Key



Base case

Government approach to regulation and carbon pricing is fragmented, with Net Zero targets reached in 2050 in a slow but orderly fashion, expected temperature rise by 2100 1.5% - 2.4%. Carbon Prices in 2030/2050 estimated to be \$80 / \$140 respectively.

Orderly transition (Paris-aligned scenario)

Immediate and coordinated action to tackle climate change is taken using carbon taxes and environmental regulation, expected temperature rise by 2100 1.3°C - 2°C. Net Zero targets reached in 2050 and Carbon Prices in 2030/2050 estimated to be \$100 / \$215 respectively.

Disorderly transition

Limited action is taken and insufficient consideration is given to sustainable long-term policies to manage global warming effectively, expected temperature rise by 2100 up to 3°C. Introduction of environmental regulation is late and aggressive. Net Zero targets reached after 2050 and Carbon Prices in 2030/2050 estimated to be \$65 / \$340 respectively.

Smooth transition

A rapid advancement of green technology and highly coordinated government action on climate change drives a smooth transition to a low carbon economy, expected temperature rise by 2100 less than 1.5°C. Net Zero targets reached in 2045 and Carbon Prices in 2030/2050 estimated to be \$80 / \$165 respectively.

Abrupt transition

Action on climate change is delayed for 5 years, at which point governments are forced to aggressively address greenhouse gas emissions due to increasing extreme weather events, expected temperature rise by 2100 1.5°C - 2°C. Net Zero targets reached in 2050 and Carbon Prices in 2030/2050 estimated to be \$135 / \$280 respectively.

No transition

No further action is taken to reduce greenhouse gas emissions leading to significant global warming, No introduction of environmental regulation. Expected temperature rise by 2100 greater than 4°C. Carbon Prices in 2030/2050 estimated to be \$40 / \$50 respectively. Net Zero targets reached after 2050.

The following page contains more detail on the climate scenario modelling and its limitations.

Purpose of the modelling

The purpose of the climate scenario modelling is to consider the long-term exposure of the Fund to climate-related risks. In particular, the model considers different climate change scenarios to assess the resilience of the Fund to those scenarios. The results should not be used in isolation to make decisions on funding and investment strategy.

Modelling approach

The scenario modelling assumes a deterministic projection of assets and liabilities on the RPI Curve + 2.0% basis, using standard actuarial techniques to discount and project the Fund's expected future cashflows. The modelling parameters vary deterministically for each scenario. The liability projections are approximate, but they are appropriate for this analysis.

Limitations

The scenario modelling focusses on the possible impact of climate change on the Fund's assets and liabilities, including investment and mortality risk.

It does not consider the impact climate change could have on covenant risk in relation to any participating employers.

The scenarios assume contributions will be paid over the projection period in line with the agreed employer contributions calculated at this valuation. In practice, contributions will be reviewed and recalculated every three years.



Timing of analysis

The scenario modelling reflects market conditions at the valuation date and current market views. The model may produce different results for the same strategy under different market conditions. Our model may also evolve over time which means different results could be produced if modelling were to be carried out in the future.

Asset data and investment strategy

Information on the assets used in this valuation is summarised here.

The Administering Authority's investment strategy is set out in its Investment Strategy Statement. In summary the proposed strategy is to invest 58% of the Fund's assets in equities and 25% in alternatives, such as property, absolute return bonds and infrastructure, with 17% invested in bonds and cash. The Administering Authority is in the process of transitioning the assets to that strategy.

The audited accounts for the Fund for the year ended 31 March 2022 show the assets were £4,514.6M, excluding the value of any defined contribution AVC investments.

In addition we have allowed for the following:

- Bulk transfer of Vision Products Newport staff to the Clwyd Pension Fund from the Fund. We have estimated that the value of the transfer payment will be around £2.545M as at 31 March 2022.

The total assets taken into account in this valuation, allowing for the above, are £4,512.1M.

The table shows how the assets were broadly invested at the valuation date.

Asset class	Percentage invested at 31 March 2022
UK Equities	7.9%
Overseas Equities	59.5%
Fixed Gilts	11.6%
Corporate bonds	12.7%
Property	7.4%
Infrastructure	0.3%
Cash and Other	0.6%

Assumptions

The tables below summarise the key assumptions used for the valuation.

Financial assumptions

Assumption	2019 valuation	2022 valuation
Scheduled body/ subsumption funding target		
Discount rate (p.a.)	4.25%	4.30%
Long-term CPI inflation (pension increases / revaluation) (p.a.)	2.10%	2.30%
Post 88 GMP pension increases (p.a.) where full CPI does not apply	1.90%	2.00%
Low risk (exit) funding target		
Discount rate (p.a.)	1.30%	1.70%
CPI inflation (pension increases / revaluation) (p.a.)	2.10%	3.40%
Post 88 GMP pension increases (p.a.) where full CPI does not apply	1.90%	2.60%
Intermediate funding target		
In service discount rate (p.a.)	3.85%	3.90%
Left service discount rate (p.a.)	3.75%	3.80%
<i>CPI inflation / Post 88 GMP increases as for the secure scheduled bodies</i>		
Ongoing orphan funding target		
In service discount rate (p.a.)	3.85%	3.90%
Left service discount rate (p.a.)	1.60%	1.30%
<i>CPI inflation / Post 88 GMP increases as for the Scheduled body/ subsumption funding target</i>		
Pay increases (in addition to promotional increases)	CPI + 1.25%	CPI + 1.25%
Administration expenses (% of pay)	0.5%	0.5%

Allowance for short-term high inflation

In 2022, and as agreed with the Administering Authority, a 10% uplift has been applied to the past service liabilities on the scheduled/subsumption body and intermediate funding targets to make allowance for short-term inflation above the long-term assumption.



Mortality assumptions

	Members currently in this category	Future contingent dependants of members currently in this category
Pre retirement mortality		
Male:	40% of S3NMA_H	n/a
Female:	40% of S3NFA_H	n/a
Post retirement mortality		
Active males (normal health):	95% of S3NMA_H	120% of S3NFA_H
Active females (normal health):	100% of S3NFA_H	110% of S3NMA_H
Active males (ill health):	125% of S3IMA	120% of S3NFA_H
Active females (ill health):	130% of S3IFA	110% of S3NMA_H
Deferred males:	90% of S3NMA_H	120% of S3NFA_H
Deferred females:	95% of S3NFA_H	105% of S3NMA_H
Pensioner males (normal health):	90% of S3NMA_H	115% of S3NFA_H
Pensioner females (normal health):	95% of S3NFA_H	105% of S3NMA_H
Pensioner males (ill health):	120% of S3IMA	115% of S3NFA_H
Pensioner females (ill health):	125% of S3IFA	105% of S3NMA_H
Dependant males:	90% of S3NMA_H	n/a
Dependant females:	110% of S3NFA_H	n/a
Projection model	CMI 2021 with long-term improvement rate of 1.50% p.a. / sk of 7.0 / A parameter of 0.5% / w 2020 and w 2021 of 0	

Sample life expectancies (years from age 65)	2019 assumptions		2022 assumptions	
	Male	Female	Male	Female
Active member age 45 at 31 March 2022	22.9	25.7	22.8	25.6
Pensioner member age 65 at 31 March 2022	21.9	24.2	21.5	24.1

Retirement age assumptions

Group 1 and 2 members (fully and taper protected)	Valuation date
Group 3 members (Rule of 85 age = 60)	64
Group 3 members (Rule of 85 age > 60)	65
Group 4 members (Joiners pre 1 April 2014)	65
Group 4 members (Joiners post 31 March 2014)	State Pension Age

Information

Any part of a member's pension payable from a later age than the assumed retirement age will be reduced.

Other demographic assumptions

Ill health Tier 1/2/3 proportions	80% / 15% / 5%
Commutation	Each member is assumed to surrender pension on retirement, such that the total cash received is 85% of the permitted maximum
Family details (males)	85% of non-pensioners are assumed to have a partner at retirement or earlier death. 85% of pensioners are assumed to have a partner at age 65. Surviving widow assumed to be three years younger
Family details (females)	75% of non-pensioners are assumed to have a partner at retirement or earlier death. 75% of pensioners are assumed to have a partner at age 65. Surviving widower assumed to be one year older
Take up of 50:50 scheme	All members are assumed to remain in the scheme they are in at the date of the valuation
Discretionary benefits	No allowance

Sample rates of promotional pay, withdrawals from service and ill health retirement

Current age	Percentage promotional pay increase over year		Percentage leaving the Fund each year as a result of withdrawal from service		Percentage leaving the Fund each year as a result of ill-health retirement	
	Male	Female	Male	Female	Male	Female
20	2.4%	2.4%	7.5%	7.5%	0.00%	0.00%
25	2.0%	2.0%	6.8%	6.8%	0.01%	0.01%
30	1.6%	1.6%	5.9%	5.9%	0.03%	0.03%
35	1.2%	1.2%	4.9%	4.9%	0.05%	0.05%
40	0.8%	0.8%	4.0%	4.0%	0.07%	0.07%
45	0.4%	0.4%	3.3%	3.3%	0.12%	0.12%
50	0.0%	0.0%	2.8%	2.8%	0.18%	0.18%
55	0.0%	0.0%	2.4%	2.4%	0.42%	0.42%
60	0.0%	0.0%	1.5%	1.5%	0.66%	0.66%
65	0.0%	0.0%	0.0%	0.0%	0.00%	0.00%

Membership experience

The demographic assumptions have been informed by an analysis of membership experience of the Fund, as well as recent research and other relevant factors.

The table below shows a comparison of expected membership movements measured by pension amount based on the assumptions adopted for the 2022 valuation with observed membership movements for death after retirement (in normal and ill health), withdrawal rates and rates of ill health retirement.

Type of exit	Men (£000 of pension)	Women (£000 of pension)
Death after retirement in normal health		
Actual	3,255	2,775
Expected	3,397	2,783
Death after retirement in ill health		
Actual	1,788	1,113
Expected	1,724	1,020
Withdrawals (excluding refunds)		
Actual	4,008	6,813
Expected	3,973	6,858
Ill health retirements		
Actual	345	343
Expected	371	521



Experience analysis undertaken

For death after retirement, the experience analysis was undertaken for the period 1 April 2011 to 31 March 2021. For withdrawal rates and ill health retirement rates our analysis was undertaken for the period 31 March 2015 to 31 March 2021.

The figures in the table are based on our full experience analysis prorated to a 3 year period for ease of comparison.

Dashboard

Following recommendations by the Government Actuary's Department under Section 13 of the Public Service Pensions Act 2013, a standard "dashboard" is included in this report to aid comparison between valuation reports for different LGPS funds.



Past service funding position – local funding basis

Funding level (assets/liabilities)	105%
Funding level (change since last valuation)	7%
Asset value used at the valuation	£4,512.1m
Value of liabilities (including McCloud liability)	£4,291.2m
Surplus (deficit)	£220.9m
Discount rate – past service	1.30% - 4.30% pa
Discount rate – future service	1.30% - 4.30% pa
Assumed pension increases (CPI)	2.30% - 3.40% pa
Method of derivation of discount rate, plus any changes since previous valuation	

The Funding Strategy Statement describes the approach used to set the funding target and hence the discount rates. The Administering Authority adopts different discount rates depending on employers' circumstances including the likelihood of exit and what would happen to the liabilities on exit.

Assumed life expectancies at age 65 (for those retiring in normal health)

▪ Average life expectancy for current pensioners - men currently age 65	21.5 years
▪ Average life expectancy for current pensioners - women currently age 65	24.1 years

▪ Average life expectancy for future pensioners - men currently age 45	22.8 years
▪ Average life expectancy for future pensioners - women currently age 45	25.6 years

Past service funding position – SAB basis (for comparison purposes only, calculated using the assumptions prescribed by the SAB, and allowing for the 10.1% April 2023 pension increase)

Market value of assets	£4,512.1m
Value of liabilities	£3,676.8m
Funding level on SAB basis (assets/liabilities)	122%
Funding level on SAB basis (change since last valuation)	15%

Contribution rates payable	2019 valuation	2022 valuation
Primary contribution rate	19.6% of pay	19.6% of pay
Secondary contribution rate (cash amounts in each year in line with CIPFA guidance):		
▪ Secondary contribution rate - 1st year of rates and adjustment certificate	£6.237m	£-1.980m
▪ Secondary contribution rate - 2nd year of rates and adjustment certificate	£6.718m	£-2.050m
▪ Secondary contribution rate - 3rd year of rates and adjustment certificate	£7.224m	£-2.043m
Giving total expected contributions:		
▪ Total expected contributions - 1st year of rates and adjustment certificate (£ figure based on assumed payroll below)	£91.981m	£97.688m
▪ Total expected contributions - 2nd year of rates and adjustment certificate (£ figure based on assumed payroll below)	£95.334m	£101.156m
▪ Total expected contributions - 3rd year of rates and adjustment certificate (£ figure based on assumed payroll below)	£98.809m	£104.827m
Assumed payroll (cash amount each year):		



▪ Total assumed payroll - 1st year of rates and adjustment certificate (£m)	£437.8m	£507.5m
▪ Total assumed payroll – 2nd year of rates and adjustment certificate (£m)	£452.4m	£525.6m
▪ Total assumed payroll – 3rd year of rates and adjustment certificate (£m)	£467.6m	£544.2m
3 year average total employer contribution rate	21.1% of pay	19.3% of pay
Average employee contribution rate (% of pay)	6.4% of pay	6.4% of pay
Employee contribution rate (£ figure based on assumed payroll)	£28.1m in first year of rates and adjustment certificate	£32.8m in first year of rates and adjustment certificate

Deficit recovery plan

	2019 valuation	2022 valuation
Latest deficit recovery period end date for any employer in deficit in fund	19.0 years	16.0 years
Earliest surplus spreading period end date for any employer in surplus in fund	15.1 years (estimate, actual spreading period set to future working lifetime of the active membership)	0.4 years (estimate, actual spreading period set to future working lifetime of the active membership)
Where a deficit recovery period or surplus spreading period end date is not provided, the latest time horizon end point for valuation funding plan	n/a	n/a
Where a deficit recovery period or surplus spreading period end date is not provided, the earliest time horizon end point for valuation funding plan	n/a	n/a
Where a deficit recovery or surplus spreading period end date is not provided, please provide, the likelihood of success of valuation funding plan on the 2019 valuation time horizon	n/a	n/a

Additional information

Percentage of liabilities relating to employers with deficit recovery periods of longer than 20 years	0.0%
Percentage of total liabilities that are in respect of Tier 3 employers	14.6%



Included climate change analysis/comments in the 2022 valuation report	Yes
Value of McCloud liability in the 2022 valuation report (on local funding basis)	£30.7m



Rates and Adjustments Certificate

Actuarial certificate given for the purposes of Regulation 62 of the Local Government Pension Scheme Regulations 2013.

In accordance with Regulation 62 of the Local Government Pension Scheme Regulations 2013 ('the 2013 Regulations'), we certify that contributions should be paid by employers at the following rates for the period 1 April 2023 to 31 March 2026.

- Primary contribution rates for individual employers as shown below. The primary rate for the whole Fund, calculated as a weighted average of the employers' individual rates, is 19.6% p.a. of Pensionable Pay.
- Individual adjustments (i.e. secondary contribution rates) which, when added to or subtracted from the primary rate, produce the following minimum employer contribution rates.

Employer	Employer code(s)	Primary Contribution rate % Pensionable Pay	Secondary contributions (% Pensionable Pay and £s) Year commencing 1 April			Total contributions (% Pensionable Pay and £s) Year commencing 1 April		
			2023	2024	2025	2023	2024	2025
Schedule 2 Part 1 bodies / Schedule 2 Part 2 bodies (Scheduled bodies)								
Amgen Cymru	64	18.7%	0.0%	0.0%	0.0%	18.7%	18.7%	18.7%
Bedlinog Community Council	45	21.2%	(0.9%)	(1.3%)	(1.7%)	20.3%	19.9%	19.5%
Brackla Community Council	80	21.2%	(3.6%)	(3.5%)	(3.3%)	17.6%	17.7%	17.9%
Bridgend College	56	17.5%	(0.4%)	(0.4%)	(0.4%)	17.1%	17.1%	17.1%
Bridgend County Borough Council	2, 102, 502	19.4%	0.0%	0.0%	0.0%	19.4%	19.4%	19.4%
Central South Consortium	95	17.8%	(10.9%)	(10.3%)	(9.6%)	6.9%	7.5%	8.2%
Coity Higher Community Council	29	21.2%	(0.5%)	(1.0%)	(1.4%)	20.7%	20.2%	19.8%
Coleg Y Cymoedd	57, 100	19.2%	0.0%	0.0%	0.0%	19.2%	19.2%	19.2%
Coychurch Crematorium	14	21.2%	(4.7%)	(4.4%)	(4.0%)	16.5%	16.8%	17.2%
Garw Valley Community Council	89	21.2%	(1.7%)	(2.0%)	(2.2%)	19.5%	19.2%	19.0%
Gelligaer Community Council	50	21.2%	(10.2%)	(8.8%)	(7.3%)	11.0%	12.4%	13.9%
Hirwaun & Penderyn Community Council	90	21.2%	(1.1%)	(1.4%)	(1.8%)	20.1%	19.8%	19.4%
Lalestone Community Council	106	21.2%	(1.4%)	(1.7%)	(2.0%)	19.8%	19.5%	19.2%
Llangynwyd Middle Community Council	107	21.2%	(1.4%)	(1.7%)	(2.0%)	19.8%	19.5%	19.2%
Llanharan Community Council	28	21.2%	(0.9%)	(1.3%)	(1.7%)	20.3%	19.9%	19.5%

Employer	Employer code(s)	Primary Contribution rate % Pensionable Pay	Secondary contributions (% Pensionable Pay and £s) Year commencing 1 April			Total contributions (% Pensionable Pay and £s) Year commencing 1 April		
			2023	2024	2025	2023	2024	2025
Llantrisant Community Council	10	21.2%	(3.1%)	(3.0%)	(3.0%)	18.1%	18.2%	18.2%
Llantwit Fadre Community Council	11	21.2%	(4.3%)	(4.0%)	(3.7%)	16.9%	17.2%	17.5%
Llwydcoed Crematorium	13	21.2%	(7.0%)	(6.2%)	(5.3%)	14.2%	15.0%	15.9%
Maesteg Town Council	74	21.2%	(6.6%)	(5.9%)	(5.1%)	14.6%	15.3%	16.1%
Merthyr Tydfil College	58	18.0%	(1.3%)	(1.0%)	(0.7%)	16.7%	17.0%	17.3%
Merthyr Tydfil County Borough Council	5, 103, 501	18.7%	3.1%	3.1%	3.1%	21.8%	21.8%	21.8%
Police and Crime Commissioner for Wales	8, 97	17.6%	(1.4%)	(1.2%)	(0.9%)	16.2%	16.4%	16.7%
Pontyclun Community Council	49	21.2%	(3.1%)	(3.1%)	(3.0%)	18.1%	18.1%	18.2%
Pontypridd Town Council	12	21.2%	(3.6%)	(3.5%)	(3.3%)	17.6%	17.7%	17.9%
Rhondda Cynon Taf County Borough Council	3, 4, 7, 92, 101, 500	18.7%	0.0%	0.0%	0.0%	18.7%	18.7%	18.7%
Royal Welsh College of Music & Drama	83	18.0%	(1.3%)	(1.0%)	(0.7%)	16.7%	17.0%	17.3%
South Wales Fire Authority	104	18.7%	(3.1%)	(2.7%)	(2.3%)	15.6%	16.0%	16.4%
South Wales Valuation Tribunal	18	23.6%	(8.6%)	(7.9%)	(7.3%)	15.0%	15.7%	16.3%
St Brides Minor Community Council	93	21.2%	(0.2%)	(0.8%)	(1.3%)	21.0%	20.4%	19.9%
Tonyrefail Community Council	42	21.2%	(5.0%)	(4.6%)	(4.1%)	16.2%	16.6%	17.1%
University of South Wales	54, 99, 611	18.0%	(1.3%)	(1.0%)	(0.7%)	16.7%	17.0%	17.3%
Ynysawdre Community Council	38	21.2%	0.1%	(0.5%)	(1.1%)	21.3%	20.7%	20.1%
Schedule 2 Part 3 bodies (Admission bodies)								
Agored Cymru	68	36.0%	(4.3%)	(4.3%)	(4.3%)	31.7%	31.7%	31.7%
AWEN Cultural Trust	70	21.9%	(7.9%)	(8.6%)	(9.4%)	14.0%	13.3%	12.5%
Careers Wales (Mid Glamorgan)	66	36.7%	(3.1%)	(5.2%)	(7.4%)	33.6%	31.5%	29.3%
Careers Wales Association	81	36.2%	(36.2%)	(36.2%)	(36.2%)	0.0%	0.0%	0.0%
Compass Cleaning Services (Coleg y Cymoedd)	91	38.4%	(38.4%)	(38.4%)	(38.4%)	0.0%	0.0%	0.0%
Development Bank Wales FM Ltd	79	34.0%	(2.1%)	(2.1%)	(2.1%)	31.9%	31.9%	31.9%
Development Bank Wales Plc	84	36.3%	(4.1%)	(7.5%)	(10.9%)	32.2%	28.8%	25.4%
Drive	27	25.3%	(25.3%)	(25.3%)	(25.3%)	0.0%	0.0%	0.0%
Ecoserv Group Limited	109	38.7%	0.0%	0.0%	0.0%	38.7%	38.7%	38.7%
Halo Leisure Services Limited	94	22.3%	(22.3%)	(22.3%)	(22.3%)	0.0%	0.0%	0.0%

Employer	Employer code(s)	Primary Contribution rate % Pensionable Pay	Secondary contributions (% Pensionable Pay and £s) Year commencing 1 April			Total contributions (% Pensionable Pay and £s) Year commencing 1 April		
			2023	2024	2025	2023	2024	2025
Local Government Data Unit for Wales	20	15.0%	(9.3%)	(9.3%)	(9.3%)	5.7%	5.7%	5.7%
Merthyr Institute for the Blind	15	33.5%	(3.7%)	(3.7%)	(3.7%)	29.8%	29.8%	29.8%
Merthyr Tydfil Leisure Trust	98	19.1%	(2.9%)	(2.5%)	(2.1%)	16.2%	16.6%	17.0%
Merthyr Valley Homes	88	21.0%	(9.9%)	(9.9%)	(9.9%)	11.1%	11.1%	11.1%
Mrs Bucket Cleaning Services	108	43.4%	0.0%	0.0%	0.0%	43.4%	43.4%	43.4%
Social Care Wales	77	19.9%	6.6%	3.6%	0.5%	26.5%	23.5%	20.4%
Trivallis	85	20.4%	(4.2%)	(4.2%)	(4.2%)	16.2%	16.2%	16.2%
Valleys to Coast Housing	82	37.8%	(8.2%)	(15.1%)	(22.1%)	29.6%	22.7%	15.7%
Welsh Assembly Government	24	36.3%	£906,000	£938,000	£971,000	36.3% plus £906,000	36.3% plus £938,000	36.3% plus £971,000
Welsh Joint Education Committee	9	36.7%	(0.5%)	(0.5%)	(0.5%)	36.2%	36.2%	36.2%
WSP	87	37.0%	(37.0%)	(37.0%)	(37.0%)	0.0%	0.0%	0.0%

Notes

The contributions shown above represent the minimum contributions to be paid by each employer. Employers may choose to pay additional contributions from time to time subject to the Administering Authority's agreement.

Where payments due from an employer are expressed as monetary amounts, the amounts payable by that employer may be adjusted to take account of any amounts payable, in respect of a surplus or shortfall to which those monetary payments relate, by new employers created after the valuation date which have been credited with proportions of the assets and liabilities of the relevant employer.

Additional contributions may be required in respect of any additional liabilities that arise under the provisions of Regulations 30, 31, 35 and 38 of the 2013 Regulations and employers will be notified of such contributions separately by the Administering Authority.

Additional contributions may be payable by any employers which have ceased to participate in the Fund since 31 March 2022 and these will be certified separately. This includes the following employers:

- Capita Glamorgan Consultancy Limited

Contribution rates for Employers commencing participation in the Fund after 31 March 2022 will be advised separately other than in relation to Mrs Bucket which is included above at the request of the Administering Authority. It should be noted that the contribution rate for that employer is based on market conditions as at the date of admission to the Fund and the 2019 funding strategy.

Regulation 62(8) requires a statement to be made of the assumptions on which the certificate is given as regards the number of members, and the associated amount of liabilities arising, who will become entitled to payment of pensions under the LGPS regulations during the period covered by the certificate. These assumptions can be found in the Assumptions section of the Further Information

of our report on the 2022 valuation dated 31 March 2023. They include assumptions relating to the members who are expected to become entitled to payment of pensions via normal retirement and ill health retirement. In practice

members will also become entitled to payment of pensions via early retirement for reasons of redundancy or efficiency reasons as well as on voluntary early retirement, for which no assumption has been made.

Signature

Name

Date

Alison Murray

Alison Murray FFA

31 March 2023

Chris Emmerson

Chris Emmerson FIA

Glossary

This glossary explains some common terms used in this document.

Active member

A person who is employed by an employer participating in the Fund, and is paying (or is treated as paying) contributions to the Fund (includes certain members temporarily absent, e.g. due to family leave or sickness).

Admission Body

An employer admitted to the Fund under an admission agreement.

Assumptions

We need to make assumptions about the future to calculate how much money we need now to pay for the benefits that have been earned. The key *financial assumptions* include the discount rate and pension increases (inflation) assumptions. The key *demographic assumptions* include how long we expect members to live, which we calculate using mortality rates. We adopt the same demographic assumptions for all employers, which are set based on the experience of the Fund's membership and other factors.

Attained Age Method

This is one of the methods used by actuaries to calculate a future service contribution rate. This method usually applies to employers who employ active members of the Fund but who do not allow new employees to join (i.e. where the employer is closed to new entrants). The future service contribution rate for a closed employer will allow for the future ageing of the members. This usually results in a higher contribution rate than for a younger workforce because there is a shorter period to invest the contributions (and earn investment returns) before benefits need to be paid. See also projected unit method.

Consumer Prices Index (CPI)

This is the price inflation index that increases to pensions, deferred pensions and pension accounts are currently based on. It is published every month by the Office for National Statistics. Our assumption for future salary increases is also set by reference to future CPI inflation.

Cost management valuations

The process of checking the cost of public service pension schemes against a base cost, which can result in scheme changes being agreed and legislated for if the current assessed cost of the scheme is higher or lower than this base cost. The Government Actuary's Department has been appointed to carry out these valuations.

Deferred member

A former employee who has left active membership but has not yet received any benefits from the Fund and is entitled to receive a pension from his/her normal pension age.

Deficit (or shortfall)

If the assets are lower than the liabilities, then a deficit exists. Employers will need to pay additional contributions to remove the deficit over an appropriate **recovery period**. If the value of assets is greater than the liabilities, then the difference is called a surplus.

Dependant member

A dependant of a previous employee who was a member of the Fund but who has died, where benefits are payable to specified dependant(s) under the LGPS regulations.

Discount rate

This is the assumption for the future rate of return on the Fund's assets, based on an assumed investment strategy. It is used to place a present value (in today's terms) on a future payment. The discount rate for the Fund valuation is set prudently, meaning we expect there to be a better than even chance that the Fund will achieve a rate of return equal to the discount rate.

Fund Actuary

The actuary to the Fund, who provides actuarial advice to the Administering Authority including carrying out the actuarial valuation contained in this report.

Funding level (or funding ratio)

This is the ratio of the value of assets to the funding target. A funding level above 100% means the Fund is in surplus and a funding level below 100% means the Fund is in deficit.

Funding objective

To hold sufficient and appropriate assets to cover the funding target.

Funding strategy

The funding strategy refers to the overall framework for setting employer contributions covering (among other things) the choice of funding target, recovery period, and grouping/pooling arrangements. See Funding Strategy Statement.

Funding Strategy Statement

The LGPS Regulations require the Administering Authority to prepare (and from time to time review and, if necessary, revise) a written statement setting out its funding strategy. This is referred to as a funding strategy statement. The Fund Actuary must have regard to this statement in preparing this actuarial valuation.

Funding target

See **Past service liabilities**.

Future service (contribution) rate

See **primary contribution rate**.

Group (or Pool)

Employers may be grouped (or pooled) with other employers. All of the employers in a group/pool will share some (or all) of the group/pool's pension costs between them. It is common for employers to pay a common primary rate based on the membership of the group/pool. Rules will apply to the attribution of secondary contributions between employers, which will normally be set out in the **Funding Strategy Statement**.

Guaranteed Minimum Pensions (GMPs)

Most Funds that were contracted out of the State Earnings Related Pension Scheme (SERPS) before April 1997 (including the LGPS) have to provide a pension for service before that date at least equal to the Guaranteed Minimum Pension (GMP). This is approximately equal to the SERPS pension that the member would have earned had the Fund not been contracted out. GMPs ceased to accrue on 6 April 1997 when the legislation changed.

Intermediate Funding Target

For admission bodies which are open to new entrants but do not have a subsumption commitment and are deemed to be of sufficiently strong covenant, the discount rate is set above that for the ongoing orphan funding target but with an additional allowance for prudence compared to that of the Secure scheduled bodies.

Liabilities

See **past service liabilities**.

Long-term cost efficiency

It is a requirement of the Regulations that the actuarial valuation must have regard to the objective of long-term cost efficiency. This term is not defined in the Regulations but Cipfa guidance on preparing the Funding Strategy Statement says:

“The notes to the Public Service Pensions Act 2013 state:

Long-term cost-efficiency implies that the [contribution] rate must not be set at a level that gives rise to additional costs. For example, deferring costs to the future would be likely to result in those costs being greater overall than if they were provided for at the time.

The rate of employer contributions shall be deemed to have been set at an appropriate level to ensure long-term cost efficiency if the rate of employer contributions is sufficient to make provision for the cost of current benefit accrual, with an appropriate adjustment to that rate for any surplus or shortfall in the fund.”

Low risk funding target

Funding target used for already orphaned liabilities in the Fund. The discount rate is based on the yield on long-dated fixed interest gilts at a duration appropriate for the Fund's liabilities.

McCloud/Sergeant

Court cases involving the Judges' and Firefighters' Pension Schemes respectively which found that transitional protections granted to members within 10 years of pension age as part of the reforms to those schemes in 2015 constituted illegal age discrimination. Government subsequently agreed that a remedy to this discrimination would be required in these and the other major UK public service pension schemes such as the LGPS. The legislation to implement this remedy is not yet in place.

Ongoing orphan employer

This is an employer whose participation in the Fund may cease at some future point in time, after which it is expected that the liabilities will become Orphaned liabilities.

Ongoing orphan funding target

For active employers whose liabilities are expected to be orphaned on exit, the Administering Authority will have regard to the potential for participation to cease (or for the body to have no contributing members), the potential timing of such exit, and any likely change in notional or actual investment strategy as regards the assets held in respect of the body's liabilities at the date of exit (i.e. whether the liabilities will become 'orphaned' or a guarantor exists to subsume the notional assets and liabilities). This is known as the ongoing orphan funding target.

Orphan / orphaned liabilities

Liabilities in the fund for which no currently contributing employer has responsibility.

Past service liabilities

This is the present value of the benefits to which members are entitled based on benefits accrued to the valuation date, assessed using the assumptions agreed for each employer between a Fund's Administering Authority and the Fund Actuary. It generally allows for projected future increases to pay or revaluation as appropriate through to retirement or date of leaving service.

Pensioner member

An individual who has retired and is now receiving a pension from the Fund.

Present value

Actuarial valuations involve projections of pay, pensions and other benefits into the future. To express the value of the projected benefits in terms of a cash amount at the valuation date, the projected amounts are discounted back to the valuation date by a discount rate. This value is known as the present value. For example, if the discount rate was 4% a year and if we had to pay a cash sum of £1,040 in one year's time the present value would be £1,000.

Primary (contribution) rate

The Regulations require the Fund Actuary to certify a primary contribution rate for every employer.

The primary rate for each employer is that employer's future service contribution rate, which is the contribution rate required to meet the cost of the future accrual of benefits, expressed as a percentage of pensionable pay, ignoring any past service surplus or shortfall but allowing for any employer-specific circumstances, such as the membership profile of that employer, the funding strategy adopted for that employer (including any risk-sharing arrangements operated by the administering authority), the actuarial method chosen and/or the employer's covenant.

The primary rate for the whole fund is the weighted average (by payroll) of the individual employers' primary rates.

Projected unit method

One of the common methods used by actuaries to calculate a contribution rate. This method calculates the present value of the benefits expected to accrue to members over a control period (often one year) following the valuation date. The present value is usually expressed as a percentage of the members' pensionable pay. Provided that the distribution of members remains stable with new members joining to take the place of older leavers, the contribution rate calculated can be expected to remain stable, if all the other assumptions are borne out and there are no changes to the assumptions. If there are no new members however, the average age will increase and the contribution rate can be expected to rise.

Prudent

Prudent assumptions are such that the actual outcome is considered to be more likely to overstate than understate the amount of money actually required to meet the cost of the benefits.

Rates and Adjustments Certificate

A certificate required at each actuarial valuation by the Regulations, setting out the contributions payable by employers for the 3 years from the 1 April that falls in the calendar year following the valuation date.

Recovery period

The period over which any surplus or deficit is to be eliminated. Different recovery periods may apply to individual employers.

Recovery plan

Where a valuation shows a funding shortfall against the past service liabilities for any employer, a recovery plan sets out how the Administering Authority intends the employer to meet the funding objective.

Regulations

The statutory regulations setting out the contributions payable to, and the benefits payable from, the Local Government Pension Scheme and how the Funds are to be administered. They currently include the following sets of regulations:

- 1997 Regulations - Local Government Pension Scheme Regulations 1997
- Administration Regulations - Local Government Pension Scheme (Administration) Regulations 2008
- Benefits Regulations - Local Government Pension Scheme (Benefits, Membership, and Contributions) Regulations 2007
- Transitional Regulations - Local Government Pension Scheme (Transitional provisions) 1997

- 2013 Regulations - Local Government Pension Scheme Regulations 2013
- 2014 Transitional Regulations - Local Government Pension Scheme (Transitional Provisions, Savings and Amendment) Regulations 2014

Scheduled body

Employers which participate in the Fund under Schedule 2 Part 1 of the 2013 Regulations.

Scheduled body funding target

For scheduled Bodies whose participation in the Fund is considered by the Administering Authority to be indefinite and Admission Bodies with a subsumption commitment from such Scheduled Bodies, the funding target is set assuming indefinite investment in a broad range of assets of higher risk than risk free assets. This is known as the scheduled body funding target.

Secondary rate of the employers' contribution

The secondary rate is an adjustment to the primary rate to arrive at the rate each employer is required to pay. It may be expressed as a percentage adjustment to the primary rate, and/or a cash adjustment in each of the three years beginning with 1 April in the year following that in which the valuation date falls. The secondary rate is specified in the rates and adjustments certificate. For any employer, the rate they are actually required to pay is the sum of the primary and secondary rates.

The Fund Actuary is required to also disclose the secondary rates for the whole scheme in each of the three years beginning with 1 April in the year following that in which the valuation date falls.

Shortfall (or deficit)

See deficit.

Shortfall contributions

Additional contributions payable by employers to remove the shortfall by the end of the recovery period.

Solvency

It is a requirement of the Regulations that the actuarial valuation must have regard to the objective to secure the solvency of the Fund. This term is not defined in the Regulations but Cipfa guidance on preparing the Funding Strategy Statement says:

“The notes to the Public Service Pensions Act 2013 state that solvency means that the rate of employer contributions should be set at “such level as to ensure that the scheme’s liabilities can be met as they arise”. It is not regarded that this means that the pension fund should be 100% funded at all times. Rather, and for the purposes of Section 13 of the Public Service Pensions Act 2013, the rate of employer contributions shall be deemed to have been set at an appropriate level to ensure solvency if:

- the rate of employer contributions is set to target a funding level for the whole fund (assets divided by liabilities) of 100% over an appropriate time period and using appropriate actuarial assumptions; and either
- employers collectively have the financial capacity to increase employer contributions, and/or the fund is able to realise contingent assets should future circumstances require, in order to continue to target a funding level of 100%; or
- there is an appropriate plan in place should there be, or if there is expected in future to be, no or a limited number of fund employers, or a material reduction in the capacity of fund employers to increase contributions as might be needed.

If the conditions above are met, then it is expected that the fund will be able to pay scheme benefits as they fall due.”

State Pension Age (SPA)

Age at which State pensions are payable. Currently age 66, for current retirees.

Current legislation transitions State Pension Age for both men and women to age 67 by 2028 and to age 68 by 2046. The timetable for transitioning State Pension Age to age 68 is currently under review,

Strains

These represent the cost of additional benefits granted to members under a discretion of the employer or the Administering Authority. They include the cost of providing enhanced benefits on retirement or redundancy.

Subsumption (and subsumption body)

An employer which is not a secure long term Scheduled Body and where the Administering Authority has obtained an undertaking from a related employer that, if and when the employer exits the Fund, they will be a source of future funding should any funding shortfalls emerge on the original employer's liabilities after exit.

In this document the process of taking on the responsibility for future funding at the point of exit is known as ‘subsumption’ of an employer’s liabilities. The employer whose liabilities will be (or are being) subsumed is referred to as a subsumption body.

Surplus

If the assets are higher than the liabilities, then a surplus exists. Depending on its funding strategy, the Administering Authority may allow the employer to pay contributions below the future service rate to remove part or all of the surplus over an appropriate recovery period. If the value of assets is lower than the liabilities, then the difference is called a deficit.

Transfer value

Members generally have a legal right to transfer their benefits to another pension arrangement before they retire. In taking a transfer, members give up their benefits in a fund, and a sum of money (called the transfer value) is paid into another approved pension fund. This is used to provide pension benefits on the terms offered in that fund.

Undecided member

A previous employee of the employer who has yet to decide whether to take a transfer of benefits to another pension arrangement, or a refund of their contributions.



Legal framework

This report was commissioned by and is produced solely for the use of the Administering Authority.

It is produced in compliance with:

- Regulation 62 of the Local Government Pension Scheme Regulations 2013.
- The terms of the agreement between the Administering Authority and Aon Solutions UK Limited, on the understanding that it is solely for the benefit of the addressee.

This report, and the work relating to it, complies with Technical Actuarial Standard 100: Principles for Technical Actuarial Work ('TAS 100') and Technical Actuarial Standard 300: Pensions ('TAS 300').

Unless prior written consent has been given by Aon Solutions UK Limited, this report should not be disclosed to or discussed with anyone else unless they have a statutory right to see it.

We permit the Administering Authority to release copies of this report to the following parties only:

- Any employer which contributes to the Fund.
- The Department for Levelling Up, Housing and Communities.

We also permit the Department for Levelling Up, Housing and Communities to pass our report to the Government Actuary's Department in connection with their statutory duties. None of the above bodies has our permission to pass our report on to any other parties.

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