



Pensions Committee

2.00pm, Wednesday, 17 March 2021

Actuarial Valuation for Lothian Pension Fund 2020

Item number 6.6

1. Recommendations

The Pensions Committee (Committee) is recommended to:

- 1.1 note the results of the 2020 Actuarial Valuation report for the Lothian Pension Fund.

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Actuarial Valuation for Lothian Pension Fund 2020

2. Executive Summary

- 2.1 LPF is required by law to undertake an actuarial valuation once every three years. The Actuary assesses the financial health of the pension fund and sets the employer contribution rates required for the next three years. The last actuarial valuation was undertaken as at 31 March 2017.
- 2.2 The actuarial valuation of LPF, based on data as at 31 March 2020, has been undertaken and the report from the Actuary is shown in full at Appendix 1.

3. Background

- 3.1 The Local Government Pension Scheme (Scotland) Regulations 2018, require each administering authority to obtain:
- 3.1.1 an actuarial valuation of the assets and liabilities of each of its pension funds as at 31 March 2020 and on 31 March in every third year afterwards;
 - 3.2.1 a report by an actuary in respect of the valuation; and
 - 3.3.1 a rates and adjustments certificate prepared by an actuary.
- 3.2 Accordingly, the actuarial valuation of the Lothian Pension Fund, based on data as at 31 March 2020, must be completed by 31 March 2021.
- 3.3 The actuarial valuation of the pension fund has three main purposes:
- to assess whether the funding strategy and assumptions are appropriate;
 - to assess the financial health of the pension fund; and
 - to set the future rates of contributions payable by the employers.
- 3.4 On 11 December 2019, Pensions Committee approved the extension of the Contribution Stability Mechanism (CSM) following detailed modelling carried out by the Actuary.
- 3.5 On 24 June 2020, Pensions Committee approved a draft revised Funding Strategy Statement which outlined several key changes introduced for the 2020 valuation. These included:
- a change to a risk-based approach in setting employer contribution rates, taking into consideration assessment of the employer covenant; and
 - removal of the small employer pool due to the reduction in eligible employers.

- 3.6 A separate report on the revised Funding Strategy Statement is provided on this agenda.

4. Main Report

- 4.1 The 2020 Actuarial Valuation report for Lothian Pension Fund, as submitted by the Actuary, is attached as Appendix 1.

Funding Level – Summary

- 4.2 The table below summarises the financial position of the Fund at 31 March 2020 in respect of benefits earned by members up to this date.

Past Service Position	2017	2020
Past Service Liabilities £m	6,743	7,071
Market Value of Assets £m	6,598	7,479
Surplus / (Deficit) £m	(145)	408
Funding Level %	98%	106%

- 4.3 The results show that the funding level has increased from 98% at the previous valuation at 31 March 2017 to 106% at this valuation. The deficit of £145 million at 31 March 2017 is now a surplus of £408 million at 31 March 2020. It is important to note the Actuary's comment that *the funding position is a summary statistic often quoted to give an indication of the health of the fund. It is limited as it provides only a snapshot in time and is based on a single set of assumptions about the future.*
- 4.4 The table on page 9 of the Appendix illustrates the various factors that have led to the change in the solvency position between the 2017 and 2020 valuations, with detailed commentary provided by the Actuary on page 10.
- 4.5 The results as at 31 March 2020 take into account the following changes which have taken place since the previous valuation:
- The merger with the Lothian Buses Pension Fund, which was approved by Committee in March 2018 and took place on 31 January 2019; and
 - The transfer of the assets and liabilities of Homeless Action Scotland to the Scottish Homes Pension Fund, following its exit from the Lothian Pension Fund on 12 July 2018.

Employer Contribution Rates

Whole Fund

- 4.6 The table below compares the whole Fund Primary and Secondary Contribution Rates at this triennial valuation to those set at the previous valuation at 31 March 2017:

	Last Valuation 31 March 2017		This Valuation 31 March 2020	
Primary rate (% of pay)	31.8		23.3	
Secondary rate (£)	2018/2019	-76,139,000	2021/2022	-13,492,000
	2019/2020	-76,244,000	2022/2023	-13,492,000
	2020/2021	-75,384,000	2023/2024	-14,020,000

Common Contribution rate

- 4.7 The Actuary is required to include in the report a whole fund common contribution rate. The Primary rate is the payroll weighted average of the underlying individual employer Primary rates, and the Secondary rate is the total of the underlying individual employer Secondary rates, calculated in accordance with the Scheme Regulations and CIPFA guidance.
- 4.8 The Fund operates a Contribution Stability Mechanism which applies to some of the employers. This was reviewed prior to the 2020 valuation with the Actuary carrying out further modelling to ascertain if the CSM was still appropriate and if so, how this would operate going forward. This review concluded that the CSM was still appropriate and that for the majority of eligible employers, contribution rates would be frozen for 4 years. These rates have been certified by the Actuary and have been included in the calculation of the whole fund common contribution rate.
- 4.9 As the common contribution rates are based on the weighted payroll average, the Primary contribution rate is impacted by the fact that the largest employers have seen a freeze in contribution rates. Further there is an overall reduction in the number of employers since the 2017 valuation, and some of the employers with the highest Primary rates have left the Fund.
- 4.10 While these rates illustrate the position of the overall Fund, it should be noted that contribution rates are set for each employer level depending on their individual funding position. The minimum contributions to be paid by each employer from 1

April 2021 to 31 March 2024 are shown in the Rates and Adjustments Certificate in Appendix 3 of the Actuary's Report, included at Appendix 1.

Contribution Stability Mechanism – review

- 4.11 Following the extension of the Contribution Stability Mechanism, as recommended by the Actuary, the operation of the CSM was reviewed following receipt of the initial employer results.
- 4.12 As noted in the draft revised FSS, the results of the employer covenant review have been used in the contribution-setting process. Fund Officers also discussed each employer's individual results with the Actuary and reviewed membership of the CSM in the context of these results and the annual covenant review.
- 4.13 Section 7.5 of the FSS states that:

Employers which are open to new entrants and have contribution rates calculated based on their individual circumstances will be offered contribution stability subject to:

- *satisfactory assessment of the employer covenant; and*
- *agreement by their guarantor to inclusion of the employer in the contribution stability mechanism.*

Children's Hospice Association Scotland (CHAS)

- 4.14 After discussion with the Actuary, in consideration of the 2020 employer covenant review, the decision was taken to remove CHAS from the CSM on the basis CHAS presently did not offer a sufficiently strong long-term covenant. It does not have a guarantor, therefore, there is no other employer able to stand behind CHAS in the event that contributions and/or any deficit on leaving the scheme cannot be paid.
- 4.15 Following extensive discussions between CHAS and Fund officers, the employer requested dispensation to remain part of the CSM subject to the provision of a suitable guarantee by the Scottish Government. CHAS has received encouragement from the Scottish Government that this should be forthcoming. Both the Fund and Actuary have agreed to this proposal, and contribution rates will be certified on the (lower) CSM basis, with the proviso that such guarantee should be in place by 31 March 2022.

Children's Hearing Scotland (CHS)

- 4.16 Pensions Committee previously agreed to remove Children's Hearings Scotland (CHS) from the CSM due to the low funding level, unless the employer's guarantor (the Scottish Government) provided confirmation that it was content for CHS to remain part of the CSM. This confirmation was received from the Scottish Government on 20

January 2021 and the Actuary has now recalculated employer contribution rates on the basis of participation in the CSM.

Edinburgh Leisure

- 4.17 Revised employer contribution rates for Edinburgh Leisure reflect the decision made by the City of Edinburgh Council in February 2018 to act as guarantor for Edinburgh Leisure. This decision was made in the context of Edinburgh Leisure's original admission to the Fund in 1998, when the company was created. At this time, staff were transferred from the City of Edinburgh Council to Edinburgh Leisure under TUPE.
- 4.18 As a result of this decision, Edinburgh Leisure remains part of the primary investment strategy and contributions have been calculated accordingly, and this will be the case for the duration of its membership of the Fund. In addition, when Edinburgh Leisure eventually exits the Fund, again the exit valuation will be carried out on an ongoing basis.

Confirmation of affordability

- 4.19 The Funding Strategy Statement was amended following the 2017 valuation to include a requirement for employers to provide written confirmation that minimum contribution rates set by the Actuary are not unaffordable. Where such confirmation cannot be provided, the admission agreement will be terminated, with three months' notice being provided by the Fund.
- 4.20 At the time of writing, such confirmation has been provided by a total of 36 (of 72) employers. Fund Officers are continuing to engage with the remaining employers and a verbal update will be provided to Committee.

Low-risk investment strategy

- 4.21 Committee will recall the introduction of the low-risk investment strategy following the 2014 actuarial valuation. This strategy applies to employers closed to new entrants who are very close to exit, typically having fewer than five active members. The results for employers in this group show that this strategy has achieved the aim of protecting the respective funding positions.

Impact of regulatory changes

Guaranteed Minimum Pensions (GMPs)

- 4.22 For the purposes of the 2020 Valuation, the Actuary has assumed that all increases on GMPs for members reaching State Pension Age after 6 April 2016 will be paid for by LGPS employers.

McCloud judgement – age discrimination rectification

- 4.23 The Scottish Public Pensions Agency (SPPA) wrote to all Scottish Local Government Pension Scheme Funds in May 2020 setting out SPPA’s position on how members’ benefits should be valued in the context of rulings made by the Court of Appeal regarding the transitional protections introduced during the reform of public service pension schemes. This ruling, known as the ‘McCloud judgement’ centred around the judicial and firefighters’ pension schemes, however it was announced that as all public service pension schemes had put in place similar transitional arrangements, the ruling would apply to the SLGPGS.
- 4.24 This will require amendments to the scheme regulations. Although consultation on a proposed remedy has taken place, these amendments have yet to be introduced. The Fund Actuary has confirmed that they have valued benefits in line with the SPPA’s instructions.

SLGPS Cost Control Mechanism

- 4.25 In addition to the McCloud judgement, another important factor which will influence the benefit structure of the scheme is the ‘Cost Cap’ mechanism. This was introduced following the last widescale reform of public sector pension schemes and is intended to protect employers from significant increases in pension costs. To do so, further valuations are carried out after the triennial fund valuations to ascertain whether any changes are required to the benefit structure.
- 4.26 The 2017 cost cap valuation would have seen any changes introduced from 1 April 2020, however following the McCloud judgement, the cost cap valuation was paused. No allowance has been made for the 2017 cost cap valuation in the 2020 valuation, however the Actuary has built in a level of prudence to reflect the uncertainty surrounding the cost cap.
- 4.27 In early February 2021, HMT issued an update on the 2016 and 2020 cost cap valuations (i.e. those which relate to LGPS Funds in England and Wales). This update stated that as consultation on a McCloud remedy has taken place, there is sufficient confidence to instruct GAD on how to allow for McCloud in the cost cap valuations. However, this will not be an instant process and the Actuary recommends that no changes are made to the contribution rates and funding plans previously calculated. The Actuary does however reserve the right to revisit contribution rates once the outcome of the 2017 cost cap valuation is known.

Goodwin case -rectification of discrimination

- 4.28 A further ruling made by an employment tribunal held that survivor benefits payable to a group of male survivors of female pensioners were discriminatory. Although this ruling (known as the ‘Goodwin’ case) related to the Teachers’ Scheme in England, it is anticipated that this will apply to all public sector pension schemes, including the

Local Government Pension Scheme and regulatory changes will be made to reflect this. The Actuary has noted that it is anticipated that the effect of such changes will be very minor in the context of the overall liabilities and therefore no allowance has been made to reflect this in the 2020 valuation.

5. Financial impact

- 5.1 The funding strategy should ensure that the Fund has sufficient assets in the long term to meet its liabilities.
- 5.2 The results of the actuarial valuation have significant financial impact on the Fund's employers. The actuarial valuation sets the minimum contribution rates payable by the employer over the next 3 years.
- 5.3 The Fund is required by law to undertake an actuarial valuation once every three years. Regular actuarial assessment of the Fund manages the risk of not meeting funding objectives

6. Stakeholder/Regulatory Impact

- 6.1 The Pension Board, comprising employer and member representatives, is integral to the governance of the fund and they are invited to comment on the relevant matters at Committee meetings.
- 6.2 A briefing session on the draft results of the actuarial valuation was held for members of the Committee and Pensions Board in November 2020. This included a presentation by the Fund's Actuary.
- 6.3 Consultation with the Fund's employers has been undertaken on the proposed changes to the Funding Strategy Statement.
- 6.4 Further meetings and discussions were held with employers in late 2020 and early 2021 to consider the valuation in greater detail.

7. Background reading/external references

- 7.1 None.

8. Appendices

Appendix 1: Lothian Pension Fund 2020 Valuation Final Valuation Report

Lothian Pension Fund

Actuarial valuation as at 31 March 2020

Final valuation report

3 March 2021

Richard Warden FFA

Natalie Alexander AFA

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Final valuation report

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1 Introduction

Background to the actuarial valuation

We have been commissioned by City of Edinburgh Council (“the Administering Authority”) to carry out an actuarial valuation of the Lothian Pension Fund (“the Fund”) as at 31 March 2020 as required under Regulation 60 of the Local Government Pension Scheme (Scotland) Regulations 2018 (“the Regulations”).

The actuarial valuation is a risk management exercise with the purpose of reviewing the current funding plans and setting contribution rates for the Fund’s participating employers for the period from 1 April 2021 to 31 March 2024. This report summarises the outcomes of the valuation and the underlying advice provided to the Administering Authority throughout the valuation process.

This summary report is the culmination of other communications in relation to the valuation, in particular:

- Our [2020 valuation toolkit](#) which sets out the methodology used when reviewing funding plans;
- Our papers to the Fund dated 15 June 2020 which discuss the valuation assumptions;
- Our Initial Results Report dated 24 November 2020 which outlines the whole fund results and inter-valuation experience;
- The Funding Strategy Statement which details the approach taken to adequately fund the current and future benefits due to members.

Reliances and limitations

This report has been prepared for the sole use of City of Edinburgh Council in its role as Administering Authority of the Fund to provide an actuarial valuation of the Fund as required under the Regulations. It has not been prepared for any other third party or for any other purpose. We make no representation or warranties to any third party as to the accuracy or completeness of this report, no reliance should be placed on this report by any third party and we accept no responsibility or liability to any third party in respect of it.

Hymans Robertson LLP is the owner of all intellectual property rights in this report. All such rights are reserved.

The totality of our advice complies with the Regulations as they relate to actuarial valuations.

The following Technical Actuarial Standards¹ are applicable in relation to this report and have been complied with where material:

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

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



Use of this report by other parties

This report is addressed to the Administering Authority of the Fund only. We appreciate that other parties may also seek information about the 2020 valuation process and methodology. We would encourage such parties to refer to the following publicly available documents for further information:

- The Fund's Funding Strategy Statement;
- The Fund's Statement of Investment Principles;
- Published meeting papers and minutes for the quarterly meetings of the Fund's Pensions Committee.

Considering these papers alongside this valuation report will provide a more complete view of the Fund's funding strategy and decision-making process surrounding this. These documents are available on the Fund's website or on request.

2 Valuation approach

Employer contribution rates

The purpose of the valuation is to review the current funding strategy and ensure the Fund has a contribution plan and investment strategy in place that will enable it to pay members' benefits as they fall due.

Valuations for open defined benefit multi-employer pension funds such as the Lothian Pension Fund are complex. Firstly, the time horizons are very long; benefits earned in the LGPS today will be paid out over a period of the next 80 years or more, and new members will continue to join in the future. Secondly, as they depend on unknowns such as future inflation and life expectancy, the actual value of future benefit payments is uncertain. Finally, to keep contributions affordable, the Fund invests in return-seeking assets which have higher levels of future volatility.

Given the above and that the future cannot be predicted with certainty, employer contribution rates can only ever be an estimate. However, the valuation approach adopted uses an understanding of the Fund, and the uncertainties and risks discussed above, to quantify the likelihood of the contribution plan and investment strategy for each employer being sufficient to fund future benefits.

This is achieved in practice by following the process outlined below.

- Step 1: The Fund sets a funding target (or funding basis) for each employer which defines the estimated amount of assets to be held to meet the future benefit payments.
- Step 2: The Fund sets the funding time horizon over which the funding target is to be achieved.
- Step 3: The Fund sets contributions that give a sufficiently high likelihood of meeting the funding target over the set time horizon.

These three steps are central to the "risk-based" approach to funding which is described in Guide 5 (*Employer risk based funding*) of our [2020 valuation toolkit](#).

The risk-based approach uses an Asset Liability Model, as described in Guide 6 (*Understanding ALMs*) of the [2020 valuation toolkit](#), to project each employer's future benefit payments, contributions and investment returns into the future under 5,000 possible economic scenarios. Future inflation (and therefore benefit payments) and investment returns for each asset class (and therefore asset values) are variables in the projections. Further details of these variables are provided in Appendix 2. The investment strategies underlying the projection of employer asset values is provided in Appendix 1.

By projecting the evolution of an employer's assets and benefit payments 5,000 times, a contribution rate can be set that results in a sufficient number of the future projections being successful i.e. meeting the funding target by the funding time horizon.

The risk-based approach to setting employer contributions allows the Fund and its employers to understand and quantify the level of risk inherent in funding plans, something that is not possible using a single set of assumptions alone.

The risk-based approach is used to set contributions for employers who are actively participating in the Fund and not targeting leaving the Fund over a short to medium-term time horizon. Employers who are expected to exit the Fund in the short to medium-term, with no guarantor in place, have been calculated using a deterministic methodology as they are targeting exit on a gilts basis and are already partially or fully invested in low-risk assets. Further detail on the approach to calculating contributions for individual employers, including the parameters used in the three steps for each type of employer, is set out in the Funding Strategy Statement dated March 2021.

Funding position as at 31 March 2020

The valuation also offers an opportunity to measure the Fund's funding position as at 31 March 2020. Whilst this measurement has limited insight into understanding the long-term ability to be able to pay members' benefits, it is a useful summary statistic.

For the purposes of this valuation we have adopted a "mark to market" approach, meaning that the Fund's assets have been taken into account at their market value and the liabilities have been valued by reference to a single set of assumptions based on market indicators at the valuation date. These assumptions are detailed in Appendix 2. As we have taken a market-related approach to the valuation of both the assets and the liabilities, we believe that they have been valued on a consistent basis.

Significant events

McCloud judgement

The figures in this report are based on our understanding of the benefit structure of the LGPS in Scotland as at 31 March 2020 (details can be found at <http://www.scotlgpsregs.org>) with one exception. The LGPS benefit structure is currently under review following the Government's loss of the right to appeal two Court of Appeal judgements in December 2018, collectively referred to as the 'McCloud judgement'. The exact details of the solution to the McCloud judgement have yet to be confirmed. A consultation on this closed on 23 October 2020 and is currently under consideration by the Scottish Public Pensions Agency (SPPA).

In May 2020, the SPPA set out their expectations for how funds should allow for this uncertainty in the benefit structure at the 2020 valuation. We have valued the Fund's liabilities in line with SPPA's instructions. Further details are set out in Guide 11 (*Allowing for McCloud and the Cost Cap mechanism*) of our [2020 valuation toolkit](#).

Cost cap mechanism

Alongside the McCloud judgement, there is another ongoing national process which is resulting in current uncertainty around the benefit structure of the LGPS – the "Cost Cap" mechanism. As part of the public sector pension scheme reforms in the first half of the 2010s, a mechanism was put in place to protect employers from significant increases in future pension costs. The mechanism is symmetrical in its design – following a Cost Cap valuation, if the scheme is determined to have either a lower than intended cost or a higher than intended cost to employers, then action will be taken: either a change in the benefit structure for future benefit accrual or a change in employee contribution rates. The first Cost Cap mechanism for LGPS Scotland was as at 31 March 2017, however this has been put on hold until the McCloud judgement is resolved.

At the time of writing, there is no information available about the results of the 2017 Cost Cap valuation and whether a change in the benefit structure from 1 April 2020 may occur. The Fund has decided to make no direct allowance to contribution rates at the 2020 valuation. However, the Fund has built in an additional level of prudence in measuring the liabilities at 31 March 2020 to recognise the uncertainty regarding Cost Cap (as well as other risks such as Climate Change). Once the outcome of the Cost Cap valuation is known, the Fund may revisit contribution rates set to ensure they remain appropriate.

Indexation and equalisation of Guaranteed Minimum Pensions (GMP)

As a result of the Government's introduction of a single-tier state pension (STP) there is currently uncertainty around who funds certain elements of increases on GMPs for members reaching State Pension Age after 6 April 2016.

As part of the introduction of STP, the Government confirmed that public service pension schemes, including the LGPS, will be responsible for funding all increases on GMP as an 'interim solution'. In their [January 2018 consultation response](#), HM Treasury confirmed that the 'interim solution' will continue to remain in place up to 5 April 2021. The Government recently

consulted upon an extension of this interim solution until at least April 2024, with further questions on whether the interim solution should be made permanent or GMP is converted to scheme pension.

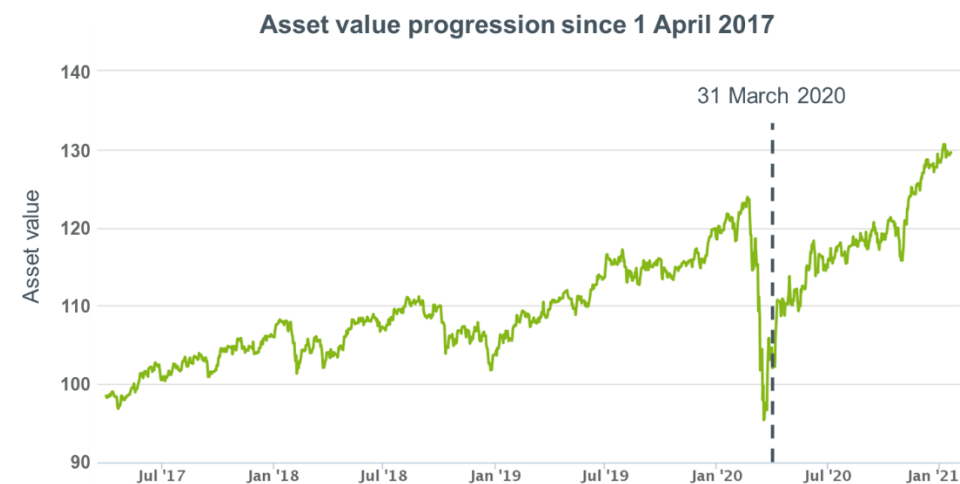
For the 2020 valuation, given the Government's 2020 consultation only considers full indexation or conversion of GMP to scheme pension as a possible long term approach, we have assumed that all increases on GMPs for members reaching State Pension Age after 6 April 2016 will be paid for by LGPS employers. This has served to increase the value placed on the liabilities.

The Government are also seeking to ensure that their preferred long term indexation solution will also meet the requirements of equalisation.

Coronavirus pandemic

Financial markets have been exceptionally volatile in 2020 as a result of the ongoing Covid-19 pandemic. For defined benefit pension schemes like the LGPS, the impact has been felt in the value of scheme assets.

The first quarter of 2020 saw significant falls in asset values as a result of the pandemic, reaching a low point in the middle of March. Whilst markets started to pick up in the second half of March, they had only partially recovered by the valuation date of 31 March 2020. The funding level reported at 31 March 2020 (see Section 3) is based on the asset value and market conditions as at this date and is therefore lower than would have been anticipated at the start of 2020. However, the funding level is only a snapshot of the Fund at one particular day. Indeed, as can be seen from the chart opposite, asset values have continued to improve since 31 March 2020.



Source: sample LGPS fund

As the LGPS is an open, long-term pension scheme, the reported funding level at the valuation date does not directly drive the employer contribution rates that have been set.

To avoid long-term funding strategies being unduly influenced by the extreme short-term market conditions that were in force at 31 March 2020, employer contribution rates are based on market conditions and expectations as at 30 June 2020.

3 Valuation results

Employer contribution rates

The key objective of the Fund is to set employer contributions that are likely to be sufficient to meet both the cost of new benefits accruing and to address any funding surplus or deficit relative to the funding target over the agreed time horizon. A secondary objective is to maintain relatively stable employer contribution rates.

In order to meet the above objectives, the methodology set out in Section 2 (and explained in more detail in the Funding Strategy Statement) has been used to set employer contributions from 1 April 2021.

Employer contributions are made up of two elements:

- a) the estimated cost of future benefits being built up each year, after deducting members' own contributions and including an allowance for the Fund's administration expenses. This is referred to as the "*Primary rate*", and is expressed as a percentage of members' pensionable pay; plus
- b) an adjustment for the difference between the Primary rate above, and the total contribution the employer needs to pay, referred to as the "*Secondary rate*". In broad terms, the Secondary rate is in respect of benefits already accrued at the valuation date. The Secondary rate may be expressed as a percentage of pay and/or a monetary amount in each year.

The Primary rate and Secondary rate for every contributing employer in the Fund is set out in the Rates and Adjustments Certificate in Appendix 3.

Each employer has been certified Primary and Secondary contributions that are appropriate for that employer's circumstances and which reflects that employer's experience.

The table below summarises the whole fund Primary and Secondary Contribution rates at this valuation. The Primary rate is the payroll weighted average of the underlying individual employer Primary rates and the Secondary rate is the total of the underlying individual employer Secondary rates, calculated in accordance with the Regulations and CIPFA guidance. The whole fund Primary and Secondary contributions calculated at the 2017 valuation of the Fund are shown for comparison.

	Last Valuation 31 March 2017		This Valuation 31 March 2020	
Primary Rate (% of pay)	31.8%		23.1%	
Secondary Rate (£)	2018/19	-76,139,000	2021/22	-11,262,000
	2019/20	-76,244,000	2022/23	-11,378,000
	2020/21	-75,384,000	2023/24	-11,530,000

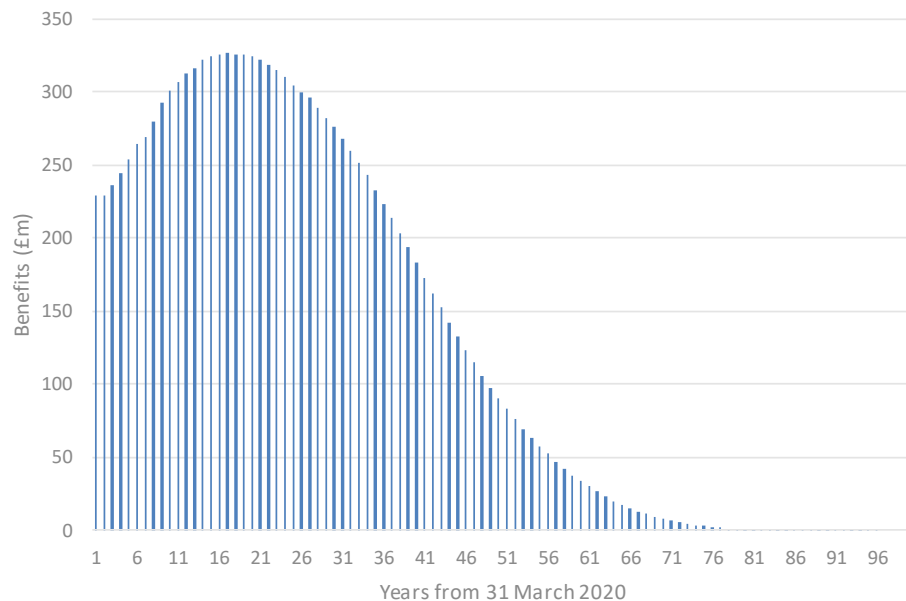
The Primary rate includes an allowance of 0.3% of pensionable pay for the Fund's expenses (0.3% at the 2017 valuation).

The average employee contribution rate is 6.3% of pensionable pay (6.2% of pay at the 2017 valuation).

Funding position as at 31 March 2020

The funding position is a summary statistic often quoted to give an indication of the health of the fund. It is limited as it provides only a snapshot in time and is based on a single set of assumptions about the future. To measure the funding position at 31 March 2020, we compare the value of the Fund's assets on that date against the expected cost (including an allowance for future investment returns) of all the future benefit payments accrued up to the valuation date (the liabilities).

The chart below details the projected future benefit payments based on the membership data summarised in Appendix 1 and the demographic, salary and benefit increases assumptions summarised in Appendix 2.



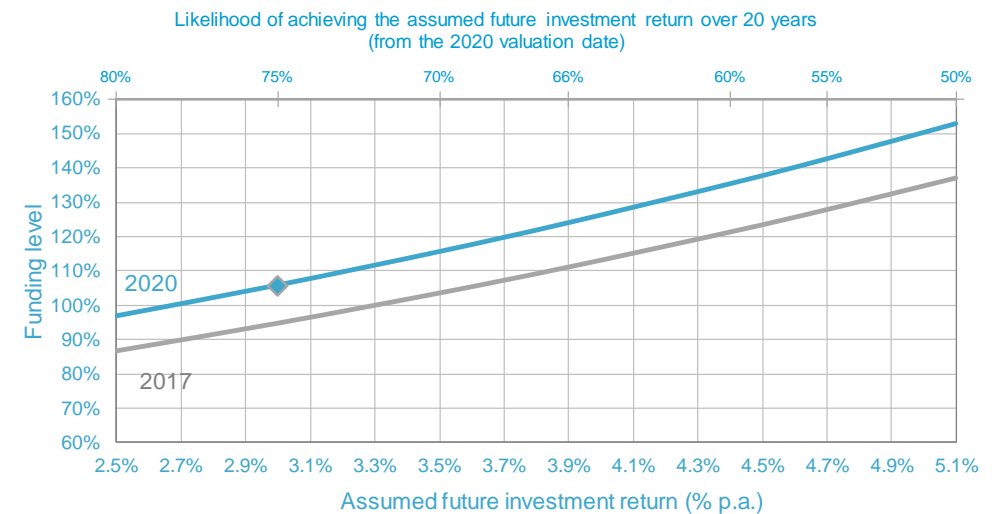
Using an assumption about the future investment return generated from the Fund’s assets then allows a value to be placed on these payments in today’s money; the liabilities. The higher the assumed investment return, the lower the liability value and therefore the higher the funding level.

The value placed on the liabilities is extremely sensitive to the investment return assumption. Based on the Fund’s current investment strategy (detailed in Appendix 1) and the same model used in the contribution rate calculations, it is estimated that:

- There is a 50% 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 3.0% p.a. over the next 20 years; and

- There is an 80% likelihood of the Fund’s investments achieving at least an annual return of 2.5% p.a. over the next 20 years.

The following chart shows how the funding level varies with the future investment return assumption (blue line). For comparison, the funding level associated with the same choice of investment return assumption at the 2017 valuation is also shown (grey line).



From this chart, we can see that:

- The funding position would be 100% if future investment returns are around 2.7% p.a. (at 2017, the investment return would have needed to be 3.3% p.a.). The likelihood of the Fund's assets yielding at least this return is around 78%.
- If future investment returns are 2.5% p.a., then the Fund currently holds sufficient assets to meet 97% of the accrued liabilities. The likelihood of achieving at least this level of future investment return is 80%.
- If future investment returns were 5.1% p.a. then the Fund currently holds sufficient assets to meet 153% of the accrued liabilities. The likelihood of the Fund's assets yielding at least this return is 50%. 153% can therefore be considered the "best estimate" funding position.

It can be seen from the above chart that regardless of the investment return assumption used, the funding position of the Fund has improved since the previous actuarial valuation in 2017.

Reported funding position

The valuation outputs are more meaningful when stakeholders can understand the likelihood, and hence the level of prudence, attached to them. The above chart does this for the measurement of the funding position.

However, there is still a requirement to report a single funding position at 31 March 2020. This reported position must include a margin of prudence.

For the purpose of reporting a funding level and an associated funding surplus/deficit for the 2020 valuation, an investment return of 3.0% p.a. has

been used. It is estimated that the Fund's assets have a 75% likelihood of achieving this return.

The resulting funding position is as follows:

Valuation Date	31 March 2017	31 March 2020
Past Service Liabilities	(£m)	(£m)
Employees	3,125	2,868
Deferred Pensioners	944	1,047
Pensioners	2,674	3,156
Total Liabilities	6,744	7,071
Assets	6,598	7,479
Surplus / (Deficit)	(145)	408
Funding Level	98%	106%

I understand that Homeless Action Scotland transferred out of the Fund to the Scottish Homes Pension Fund on 4 June 2020. As such, the total assets and liabilities as at 31 March 2020 do not include the asset and liabilities in respect of Homeless Action Scotland.

There has been an improvement in the reported funding level since 31 March 2017 from 98% to 106% and a change in the funding position from a deficit of £145m to a surplus of £408m.

A breakdown of the key factors that have influenced the reported funding position from 31 March 2017 to 31 March 2020 are detailed overleaf.

Change in the surplus/deficit position	Assets (£m)	Liabilities (£m)	Surplus / (Deficit) (£m)
Last valuation at 31 March 2017	6,598	6,743	(145)
Cashflows			
Employer contributions paid in	500		500
Employee contributions paid in	140		140
Benefits paid out	(669)	(669)	0
Net transfers into / out of the Fund*	465	404	60
Other cashflows (e.g. Fund expenses)	(7)		(7)
Expected changes in membership			
Interest on benefits already accrued		672	(672)
Accrual of new benefits		855	(855)
Membership experience vs expectations			
Salary increases less than expected		(53)	53
Benefit increases greater than expected		2	(2)
Early retirement strain (and contributions)	10	9	1
Ill health retirement gain		(25)	25
Early leavers greater than expected		(29)	29
Pensions ceasing greater than expected		(14)	14
Commutation greater than expected		(3)	3
Other membership experience		30	(30)
Changes in market conditions			
Investment returns on the Fund's assets	442		442
Changes in future inflation expectations		(635)	635
Changes in actuarial assumptions			
Change in demographic assumptions (excl. longevity)		(109)	109
Change in longevity assumptions		(279)	279
Change in benefit increases assumption (from 2.4% p.a. to 1.95% p.a.)		107	(107)
Change in salary increase assumption (from 4.1% p.a. to 2.5% p.a.)		(158)	158
Change in future investment return assumption (from 3.2% p.a. to 3.0% p.a.)		222	(222)
This valuation at 31 March 2020	7,479	7,071	408

*We have insufficient data to value the impact on the liabilities as a result of all transfers in/out. The increase in liabilities of £404m relates to the transfer in of Lothian Buses into the Fund.

Please note, the other membership experience item also includes the associated impact of GMP indexation and McCloud judgement. Further details of the individual breakdown of each item are available on request.

Since the previous valuation, various events have taken place which affect the value placed on the liabilities, including:

- There is an interest cost of £672m. This is broadly three years of compound interest at 3.2% p.a. applied to the previous valuation liability value of £6,743m. The benefits that have been accrued to the valuation date are three years closer to payment at 31 March 2020 than they were at 31 March 2017, meaning there is less opportunity for future investment returns to help meet this cost. This serves to increase the value placed on the liabilities;
- The areas of membership experience that have had the greatest impact on the surplus/deficit position of the Fund are set out below, together with their impact on the liabilities

	Expected	Actual	Difference	Impact on Liabilities
Pre-retirement experience				
Early leavers (no of lives)	3,960	10,509	6,549	Positive
Ill health retirements (no of lives)	499	379	(120)	Positive
Salary increases (p.a.)	4.7%	4.0%	(0.7%)	Positive
Post-retirement experience				
Benefit increases (p.a.)	2.4%	2.4%	0.0%	Broadly neutral
Pensions ceasing (£000)	12,103	13,301	1,198	Positive

- The changes to the longevity assumptions used for the valuation have resulted in a modest reduction in life expectancies. This has served to reduce the liabilities by £279m;
- The assumed rate of future CPI inflation has decreased from 2.4% p.a. at 31 March 2017 to 1.95% p.a. at 31 March 2020. This has decreased the value of the liabilities by £635m;
- The assumed rate of future investment returns has decreased from 3.2% p.a. to 3.0% p.a.. This has increased the value of the liabilities by £222m.

There has been an increase in the value of the Fund's assets since the previous valuation because:

- The investment return on the Fund's assets for the period 31 March 2017 to 31 March 2020 was 7.1%. This has increased the value of the assets by £442m;
- Net cashflows into the Fund (including the transfer in of Lothian Buses) for the period 31 March 2017 to 31 March 2020 were £429m, increasing the value of the assets.

Projection of the funding position

The progression of the funding position will depend on various factors including future asset performance, economic conditions and membership movements. If the financial and demographic assumptions made at this valuation are borne out in practice, and there are no changes to the valuation assumptions, we project that the funding level at the 2024 valuation date will be approximately 104%. This allows for contributions to be paid as described in Appendix 3.

4 Sensitivity analysis

The results set out in this report are based on assumptions about the future. The actual cost of providing the benefits will depend on the actual experience of the Fund, which could be significantly better or worse than assumed. This section discusses the sensitivity of the results to some of the key assumptions.

Sensitivity of contribution rates to changes in assumptions

The approach to setting employer contribution rates mitigates the limitation of relying on one particular set of assumptions about the future by recognising the uncertainty around future investment returns and inflation. Therefore, there is no need to carry out additional analysis of the sensitivity of contribution rates to changes in financial assumptions.

The contribution rates are sensitive to changes in demographic assumptions. The results in this section in relation to the funding position can be broadly applied to the contribution rates.

Sensitivity of the funding position to changes in assumptions

The reported valuation funding position is based on one set of actuarial assumptions about the future of the Fund. If all of the assumptions made were exactly borne out in practice then the liability value presented in this report would represent the actual cost of providing benefits from the Fund as it stands at 31 March 2020.

Sensitivity of the funding position to future investment returns

The chart in Section 3 details how the funding position varies with the future assumed investment return.

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 the assumed rate of 1.95% p.a. then the cost of the benefits at 31 March 2020 will be higher than we have set out in Section 3.

The table quantifies the impact on the funding position at 31 March 2020 of varying the benefit increases and CARE revaluation (CPI) assumption below.

CPI Assumption	Surplus/(Deficit)	Funding Level
% pa	(£m)	%
1.75%	595	109%
1.95%	408	106%
2.15%	214	103%

Sensitivity of the funding position to life expectancy

The main area of demographic risk is people living longer than expected. If long term mortality rates fall at a rate of 1.75% p.a. (compared to the assumed 1.5% p.a.) then members will live slightly longer than we have assumed in this valuation. The impact on the funding position is detailed below.

Long term rate of improvement	Surplus/(Deficit)	Funding Level
% pa	(£m)	%
1.50%	408	106%
1.75%	348	105%

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 there has been no further quantification of their risk.

Comment on sensitivity analysis

Note that the tables above show the effect of changes to each assumption in isolation. In reality, it is perfectly possible for the experience of the Fund to deviate from more than one of the assumptions simultaneously and so the precise effect on the funding position is therefore more complex. Furthermore, the range of assumptions shown here is by no means exhaustive and should not be considered as the limits of how extreme experience could actually be.

Other risks to consider

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.

These risks are considered and monitored by the Fund as part of its ongoing risk management framework.

Resource and environmental risks

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

Climate change is a complex issue for the Fund. Adverse future climate change outcomes will have an impact on future longevity, inflation, government and corporate bond yields and equity returns.

Whilst there has been no explicit increase in certified employer contributions related to climate change, these risks may be considered by the Administering Authority when assessing the output from contribution rate ('comPASS') modelling.

Risk management

Employers participating in the Fund are exposed to a number of risks. These include, but are not limited to:

- Investment risk;
- Market risks;
- Demographic risks;
- Regulatory risks;
- Administration and Governance risks;
- Resource and Environmental risks.

The Funding Strategy Statement has further details about these risks and what actions the Fund takes to monitor, mitigate and manage each one.

5 Post valuation events

Post valuation market conditions

At October 2020, we estimate that the whole fund investment return since 31 March 2020 would be in the region of 6%. All else being equal, the funding level at the time of writing will be higher than that reported as at 31 March 2020.

This experience may be of interest to employers in the Fund who are due to leave the Fund in the short-term and are required to ensure full funding at exit. Given that this positive investment performance would not directly feed through to employer contribution rates due to the long-term approach taken when setting rates, post valuation experience is not of material concern.

Goodwin ruling

In June 2020, an employment tribunal ruled that a subset of male survivors of female pensioners were discriminated against in the Teacher's Pension Scheme on ground of sexual orientation.

Whilst this ruling was only tested in the Teachers' Pension Scheme, it is expected to apply to other public sector pension schemes, including the LGPS, due to the similarity in benefits.

The remedy will involve increases in benefits to affected male survivors. However, as we expect the impact of this rectification to be very minor in terms of overall liabilities, no allowance has been made for the Goodwin ruling at the 2020 valuation.

6 Final comments

The Fund’s valuation operates within a broader framework, and this document should therefore be considered alongside the following:

- the Funding Strategy Statement, which in particular highlights how different types of employer in different circumstances have their contributions calculated;
- the Statement of Investment Principles, which sets out the investment strategy for the Fund;
- the general governance of the Fund, such as meetings of the Pensions Committee and Local Pension Board, decisions delegated to officers, the Fund’s business plan, etc;
- the Fund’s risk register; and
- the information the Fund holds about its participating employers.

Intervaluation employer events

New employers joining the Fund

Any new employers or admission bodies joining the Fund should be referred to the Fund Actuary to assess the required level of contribution. Depending on the number of transferring members the ceding employer’s rate may also need to be reviewed.

Cessations and bulk transfers

Any employer who ceases to participate in the Fund should be referred to us in accordance with Regulation 61 of the Regulations.

Any bulk movement of scheme members:

- involving 10 or more scheme members being transferred from or to another LGPS fund; or
- involving 2 or more scheme members being transferred from or to a non-LGPS pension arrangement;

should be referred to us to consider the impact on the Fund.

Valuation frequency

Under the provisions of the LGPS regulations, the next formal valuation of the Fund is due to be carried out as at 31 March 2023 where contribution rates payable from 1 April 2024 will be set.



Richard Warden



Natalie Alexander

Fellow

Associate

of the Institute and Faculty of Actuaries

For and on behalf of Hymans Robertson LLP

3 March 2021



Appendices

Appendix 1 – Data

Membership data as at 31 March 2020

A summary of the membership data provided by the Administering Authority for the purposes of the valuation at 31 March 2020 is shown below. The corresponding membership data from the previous valuation is also shown for reference.

Whole Fund Membership Data	Last Valuation 31 March 2017	This Valuation 31 March 2020
Employee members		
Number	32,010	34,857
Total Actual Pay (£000)	669,426	788,544
Total Accrued Pension (£000) (80ths)	60,701	47,635
Total Accrued Pension (£000) (60ths)	49,792	42,149
Total Accrued Pension (£000) (CARE)	24,911	62,747
Average Age (liability weighted)	51.6	51.8
Future Working Lifetime (years)	14.7	9.1
Deferred pensioners		
Number	18,383	22,028
Total Accrued Pension (£000)	41,772	51,867
Average Age (liability weighted)	50.2	50.5
Pensioners		
Number	26,309	30,953
Total pensions in payment (£000)	147,442	185,632
Average Age (liability weighted)	66.7	67.3
Average duration of liabilities	18.4	18.2

Benchmark investment strategy

The following investment strategies, as provided by the Fund, have been used to assess employer contribution rates and to set the future investment return assumption as at 31 March 2020:

% allocation	Main strategy	MEG strategy	Medium Risk strategy	Lothian Buses strategy
UK equities	4.3%	0.0%	2.1%	2.3%
Overseas equities	60.7%	0.0%	30.4%	32.7%
Infrastructure	10.8%	0.0%	5.4%	10.5%
Private equity	0.0%	0.0%	0.0%	0.0%
Total growth assets	75.8%	0.0%	37.9%	45.5%
Index-linked gilts	7.0%	89.0%	48.0%	27.5%
Fixed interest gilts	0.0%	0.0%	0.0%	0.0%
High yield bonds	8.0%	0.0%	4.0%	13.0%
Total protection assets	15.0%	89.0%	52.0%	40.5%
Multi asset credit	2.0%	0.0%	1.0%	7.0%
Property	7.2%	0.0%	3.6%	7.0%
Total income generating assets	9.2%	0.0%	4.6%	14.0%
Cash	0.0%	11.0%	5.5%	0.0%
Grand total	100%	100%	100%	100%

Other data used in this valuation

We have also relied upon asset and accounting data from the Fund's published 2017/18, 2018/19 and 2019/20 Annual Report and Accounts. Employer level cashflow data was provided by the Administering Authority and reconciled against the information shown in these documents.

Comment on data quality

The results of the valuation are dependent on the quality of the data provided to us by the Administering Authority for the specific purpose of this valuation. We have carried out validations on the membership data provided to ensure it is fit for the purpose of the valuation. Further details can be found in our report issued to the Administering Authority entitled "Data report for 2020 valuation", dated 12 February 2021. We believe the membership data is fit for the purposes of this valuation.

Appendix 2 – Assumptions

Financial assumptions used to set employer contribution rates

Projection of assets and benefit payments

The approach to setting employer contribution rates does not rely on a single set of assumptions but involves the projection of an 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 employer asset values) are variables and take different values in each projection.

The model underlying these projections is Hymans Robertson's proprietary economic model, the Economic Scenario Service (ESS). The ESS is a complex model to reflect the interactions and correlations between different asset classes and wider economic variables. The table below shows the calibration of the model as at 30 June 2020. All returns are shown net of fees and are the annualised total returns over 5, 10 and 20 years, except for the yields which refer to simulated yields at that time horizon.

	Annualised total returns								Inflation	17 year real yield	17 year yield
	Cash	Index Linked Gilts (medium)	Fixed Interest Gilts (medium)	UK Equity	Overseas Equity	Property	CorpMedi um A				
5 years	16th %ile	-0.8%	-3.2%	-3.2%	-4.9%	-4.7%	-3.9%	-3.0%	1.4%	-3.2%	0.0%
	50th %ile	0.0%	-0.3%	-0.5%	3.6%	3.7%	1.9%	0.1%	2.8%	-2.3%	1.1%
	84th %ile	0.8%	2.7%	2.3%	12.6%	12.2%	8.4%	3.2%	4.4%	-1.4%	2.3%
10 years	16th %ile	-0.6%	-2.8%	-2.3%	-2.0%	-1.9%	-2.0%	-1.9%	1.5%	-2.5%	0.4%
	50th %ile	0.4%	-0.7%	-0.7%	4.0%	4.1%	2.3%	0.0%	3.1%	-1.3%	1.8%
	84th %ile	1.6%	1.3%	0.8%	10.3%	10.0%	7.0%	1.7%	4.8%	-0.1%	3.7%
20 years	16th %ile	0.1%	-2.0%	-0.8%	0.6%	0.7%	0.1%	-0.2%	1.5%	-1.6%	1.2%
	50th %ile	1.5%	-0.3%	0.0%	5.1%	5.2%	3.4%	0.8%	3.1%	0.1%	3.1%
	84th %ile	3.2%	1.4%	0.7%	9.7%	9.7%	7.3%	1.8%	4.7%	1.8%	5.7%
Volatility (Disp) (1 yr)		0%	7%	8%	21%	20%	14%	9%	1%		

Funding target

At the end of an employer's funding time horizon, an assessment is made – for each of the 5,000 projections – of how the assets held compare to the value of assets required to meet the future benefit payments (the funding target). To value the cost of future benefits, assumptions are made about the following financial factors:

- Benefit increases and CARE revaluation;
- Salary growth;
- Investment returns (the “discount rate”).

Each of the 5,000 projections represents a different prevailing economic environment at the end of the funding time horizon and so a single, fixed value for each assumption is not appropriate for every projection. Therefore, instead of using a fixed value, each assumption is set with reference to an economic indicator. The economic indicators used are:

Assumption	Economic Indicator
Benefit increases	Future CPI inflation expectations
CARE revaluation	Future CPI inflation expectations
Salary increases	As above plus 0.5% p.a.
Future investment returns	Prevailing risk free rate of return plus margin

The Fund has three funding bases which will apply to different employers depending on their type. Each funding basis uses a different margin in the future investment return assumption.

Funding Basis	Margin above risk-free rate
Ongoing participation	1.8%
Contractor exit	Same as used to allocate assets on joining the Fund
Gilts exit	0%

Financial assumptions used to assess the funding position

Salary and Benefit Increases

Financial Assumptions (p.a.)	31 March 2017	31 March 2020
Benefit increases and CARE revaluation (CPI)	2.4%	1.95%
Salary increases	4.1%*	2.45%**

*CPI plus 1.7%

**CPI plus 0.5%

Investment Return

The reported funding position is based on an assumed future investment return of 3.0% p.a.. The derivation of this assumption is set out in Section 3 and based on the calibration of the ESS model on 31 March 2020 which is detailed below.

		Annualised total returns							Inflation	17 year real yield	17 year yield
		Cash	Index Linked Gilts (medium)	Fixed Interest Gilts (medium)	UK Equity	Overseas Equity	Property	A rated Corporate Bonds (medium)			
5 years	16th %ile	-0.6%	-3.0%	-2.9%	-5.3%	-5.2%	-3.7%	-2.1%	1.3%	-2.7%	0.2%
	50th %ile	0.2%	0.0%	-0.3%	3.7%	3.9%	2.1%	1.3%	2.8%	-1.8%	1.3%
	84th %ile	1.0%	3.0%	2.5%	13.6%	13.4%	8.7%	4.5%	4.3%	-0.9%	2.5%
10 years	16th %ile	-0.4%	-2.5%	-2.0%	-2.1%	-2.1%	-1.8%	-1.1%	1.4%	-2.2%	0.6%
	50th %ile	0.6%	-0.4%	-0.5%	4.3%	4.3%	2.5%	0.8%	2.9%	-0.9%	2.0%
	84th %ile	1.7%	1.8%	1.0%	10.7%	10.5%	7.2%	2.6%	4.6%	0.3%	3.8%
20 years	16th %ile	0.2%	-1.5%	-0.6%	0.6%	0.8%	0.2%	0.2%	1.4%	-1.6%	1.2%
	50th %ile	1.6%	0.2%	0.2%	5.2%	5.3%	3.6%	1.3%	2.9%	0.1%	3.1%
	84th %ile	3.3%	1.9%	1.0%	9.9%	10.0%	7.4%	2.4%	4.5%	1.9%	5.7%
Volatility (Disp) (1 yr)		0%	7%	8%	27%	28%	14%	10%	1%		

The equivalent assumption at the 2017 valuation was 3.2% p.a.. This was derived in a different way, please see the 2017 valuation report for further details.

Demographic assumptions

The same demographic assumptions are used in setting contribution rates and assessing the current funding position.

Longevity

As the fund is a member of Club Vita, the baseline longevity assumptions are a bespoke set of Vita Curves that are tailored to fit the membership profile of the Fund. These curves are based on the data the Fund has provided us with for the purposes of this valuation.

We have also allowed for future improvements in mortality based on the CMI 2019 model with an allowance for smoothing of recent mortality experience and a long term rate of improvement of 1.5% p.a. for both women and men.

Longevity Assumptions	31 March 2017	31 March 2020
Baseline Longevity	Club Vita	Club Vita
Future Improvements	CMI 2016, Peaked, 1.25% p.a. long term	CMI 2019, Smoothed, 1.5% p.a. long term

Full details are available on request.

The longevity assumptions result in the following typical future life expectancies from age 65 (figures for 2017 shown for comparison):

Assumed Life Expectancy	31 March 2017	31 March 2020	
Male	Pensioners	21.7 years	20.5 years
	Non-pensioners	24.7 years	22.0 years
Female	Pensioners	24.3 years	23.3 years
	Non-pensioners	27.5 years	25.2 years

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

Other demographic assumptions

We are in the unique position of having a very large local authority data set from which to derive our other demographic assumptions. We have analysed the trends and patterns that are present in the membership of local authority funds and tailored our demographic assumptions to reflect LGPS experience. The resulting demographic assumptions are as follows:

Demographic Assumptions	
Retirements in normal health	We have adopted the retirement age pattern assumption as specified by the Scheme Advisory Board in England & Wales for carrying out their 2016 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 2009 (equivalent 75% for service from 1 April 2009).
50:50 option	0.0% 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
20	105	0.21	227.80	401.99	0.00	0.00	0.00	0.00
25	117	0.21	150.47	265.53	0.10	0.02	0.13	0.02
30	131	0.26	106.73	188.35	0.18	0.03	0.23	0.03
35	144	0.30	83.37	147.13	0.35	0.14	0.46	0.15
40	150	0.51	67.09	118.39	0.53	0.26	0.69	0.24
45	157	0.86	54.90	96.87	0.84	0.51	1.09	0.49
50	162	1.37	42.52	75.04	1.58	1.31	2.59	1.45
55	162	2.15	40.85	72.08	4.95	4.52	4.67	3.11
60	162	3.86	36.38	63.54	8.42	6.97	3.87	2.65
65	162	6.44	0.00	0.00	16.09	13.49	0.00	0.00

Females

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
20	105	0.11	183.57	233.65	0.00	0.00	0.00	0.00
25	117	0.11	123.48	157.17	0.13	0.13	0.09	0.10
30	131	0.16	103.48	131.72	0.18	0.18	0.12	0.13
35	144	0.27	89.25	113.60	0.35	0.34	0.24	0.25
40	150	0.44	74.23	94.49	0.52	0.51	0.36	0.37
45	157	0.71	61.11	77.78	0.69	0.68	0.48	0.50
50	162	1.04	46.56	59.27	1.27	1.23	1.11	1.13
55	162	1.37	43.56	55.44	4.65	4.43	2.32	2.35
60	162	1.75	35.02	21.23	9.79	9.30	2.38	2.40
65	162	2.25	0.00	0.00	17.62	16.76	0.00	0.00

Prudence in assumptions

We are required to include a degree of prudence within the valuation. This has been achieved in both the setting of contributions and assessment of funding position.

Contribution rates

- Employer funding plans have been set such that the likelihood the employer's funding target is met by the end of the funding time horizon is more than 50%. The actual likelihood varies by employer. Further detail is in the Funding Strategy Statement.

Funding position

- The Fund's investments have a 75% likelihood of returning at least the assumed return.

All other assumptions represent our "best estimate" of future experience.

The assumptions used in this valuation have been agreed with the Administering Authority and are set out in the Fund's Funding Strategy Statement dated March 2021.

Appendix 3 – Rates and Adjustments certificate

In accordance with regulation 60(4) of the Regulations we have made an assessment of the contributions that should be paid into the Fund by participating employers for the period 1 April 2021 to 31 March 2024 in order to maintain the solvency of the Fund.

The method and assumptions used to calculate the contributions set out in the Rates and Adjustments certificate are detailed in the Funding Strategy Statement dated March 2021 and in Appendix 2 of our report on the actuarial valuation dated 3 March 2021. These assumptions underpin our estimate of the number of members who will become entitled to a payment of pensions under the provisions of the LGPS and the amount of liabilities arising in respect of such members.

The table below summarises the whole fund Primary and Secondary Contribution rates for the period 1 April 2021 to 31 March 2024. The Primary rate is the payroll weighted average of the underlying individual employer Primary rates and the Secondary rate is the total of the underlying individual employer Secondary rates, calculated in accordance with the Regulations and CIPFA guidance.

	Last Valuation 31 March 2017		This Valuation 31 March 2020	
Primary Rate (% of pay)	31.8%		23.1%	
Secondary Rate (£)	2018/19	-76,139,000	2021/22	-11,262,000
	2019/20	-76,244,000	2022/23	-11,378,000
	2020/21	-75,384,000	2023/24	-11,530,000

The required minimum contribution rates for each employer in the Fund are set out below.

Employer code	Employer/Pool name	Primary Rate % 1 April 2021 - 31 March 2024	Secondary Rate						Total Contribution Rate		
			2021/2022		2022/2023		2023/2024		2021/2022	2022/2023	2023/2024
			% of pay	£	% of pay	£	% of pay	£			
Scheduled/Contribution Stability Mechanism Bodies (Main Investment Strategy)											
	The City of Edinburgh Council	21.7%	1.0%	1.0%		1.0%		22.7%	22.7%	22.7%	
	Midlothian Council	21.8%	0.4%	0.4%		0.4%		22.2%	22.2%	22.2%	
	West Lothian Council	21.9%	-0.1%	-0.1%		-0.1%		21.8%	21.8%	21.8%	
	East Lothian Council	22.0%	0.6%	0.6%		0.6%		22.6%	22.6%	22.6%	
	Scottish Police Authority	21.3%	-1.5%	-1.5%		-1.5%		19.8%	19.8%	19.8%	
	Heriot-Watt University	26.0%	-1.3%	-1.3%		-1.3%		24.7%	24.7%	24.7%	
	Edinburgh College	25.4%	-6.3%	-6.3%		-6.3%		19.1%	19.1%	19.1%	
21	Audit Scotland	24.7%	-5.3%	-5.3%		-5.3%		19.4%	19.4%	19.4%	
30	Queen Margaret University	25.3%	-4.9%	-4.9%		-4.9%		20.4%	20.4%	20.4%	
51	Edinburgh Napier University	25.3%	-4.5%	-4.5%		-4.5%		20.8%	20.8%	20.8%	
105	West Lothian College	26.3%	-6.5%	-6.5%		-6.5%		19.8%	19.8%	19.8%	
133	Children's Hospice Association Scotland	25.6%	-9.4%	-9.4%		-9.4%		16.2%	16.2%	16.2%	
134	Lothian Valuation Joint Board	21.6%	0.2%	0.2%		0.2%		21.8%	21.8%	21.8%	
135	Scottish Water	21.0%	-0.3%	-0.3%		-0.3%		20.7%	20.7%	20.7%	
155	Visit Scotland	20.5%	-2.7%	-2.7%		-2.7%		17.8%	17.8%	17.8%	
157	West Lothian Leisure	21.9%	-6.7%	-6.2%		-5.7%		15.2%	15.7%	16.2%	
209	SESTRAN	28.5%	4.6%	4.6%		4.6%		33.1%	33.1%	33.1%	
210	Improvement Service	24.3%	-6.1%	-6.1%		-6.1%		18.2%	18.2%	18.2%	
218	Scottish Futures Trust	20.3%	-0.9%	-0.9%		-0.9%		19.4%	19.4%	19.4%	
219	Enjoy East Lothian	21.3%	-5.7%	-5.2%		-4.7%		15.6%	16.1%	16.6%	
223	Children's Hearings Scotland	24.9%	-0.9%	-0.4%		0.1%		24.0%	24.5%	25.0%	
899	Scottish Fire and Rescue Service	21.5%	-1.0%	-1.0%		-1.0%		20.5%	20.5%	20.5%	
Lothian Buses (Buses Investment Strategy)											
900	Lothian Buses	40.6%	-30.7%	-30.7%		-30.7%		9.9%	9.9%	9.9%	
Transferee Admission Bodies (Main Investment Strategy)											
139	CGI	42.5%		£7,000		£7,000		42.5% plus £7,000	42.5% plus £7,000	42.5%	
140	Dacoll	40.5%		£8,000		£8,000		40.5% plus £8,000	40.5% plus £8,000	40.5% plus £0	
178	Morrison Facilities Services	40.9%	-40.9%		-40.9%		-40.9%	0.0%	0.0%	0.0%	
192	ISS UK Ltd	41.2%	-41.2%		-41.2%		-41.2%	0.0%	0.0%	0.0%	
200	Forth & Oban Ltd	39.8%	-16.2%		-16.2%		-16.2%	23.6%	23.6%	23.6%	
207	LPFE Limited	21.5%	-3.4%		-3.4%		-3.4%	18.1%	18.1%	18.1%	
212	Skanska	41.1%		£3,000		£3,000		£3,000	41.1% plus £3,000	41.1% plus £3,000	
214	NSL Services Group	40.7%	-40.7%		-40.7%		-40.7%	0.0%	0.0%	0.0%	
220	Mitie PFI CEC PP2	39.6%	-39.6%		-39.6%		-39.6%	0.0%	0.0%	0.0%	
222	Compass-Chartwell	41.7%	-41.7%		-41.7%		-41.7%	0.0%	0.0%	0.0%	
224	BaxterStorey	40.9%	-40.9%		-40.9%		-40.9%	0.0%	0.0%	0.0%	
225	Bellrock	34.8%	-9.0%		-9.0%		-9.0%	25.8%	25.8%	25.8%	
227	Sodexo Ltd	43.4%		£17,000		£17,000		£0	43.4% plus £17,000	43.4% plus £17,000	
228	BEAR	36.3%	0.0%		0.0%		0.0%	36.3%	36.3%	36.3%	

Employer code	Employer/Pool name	Contributions currently in payment 2020/2021	Primary Rate % 1 April 2021 - 31 March 2024	Secondary Rate						Total Contribution Rate		
				2021/2022		2022/2023		2023/2024		2021/2022	2022/2023	2023/2024
				% of pay	£	% of pay	£	% of pay	£			
Open Community Admission Bodies (Main Investment Strategy)												
	Canongate Youth Project	23.2%	27.7%	-6.6%		-8.7%		-10.8%		21.1%	19.0%	16.9%
15	Newbattle College	18.9%	28.9%	-15.0%		-15.0%		-15.0%		13.9%	13.9%	13.9%
28	Convention of Scottish Local Authorities	27.9%	27.6%	1.5%		1.5%		1.5%		29.1%	29.1%	29.1%
46	Museums Galleries Scotland	23.2%	28.4%	-5.4%		-5.6%		-5.8%		23.0%	22.8%	22.6%
64	Citadel Youth Centre	23.2%	28.1%	-4.9%		-4.8%		-4.8%		23.2%	23.3%	23.3%
87	Family Advice & Information Resource	23.2%	28.6%	-5.0%		-4.6%		-4.2%		23.6%	24.0%	24.4%
90	Handicabs (Lothian) Limited	23.2%	31.9%	-9.1%		-9.5%		-9.9%		22.8%	22.4%	22.0%
113	Weslo Housing Management	23.2%	31.1%	-6.3%		-4.7%		-3.1%		24.8%	26.4%	28.0%
117	Scottish Schools Education Research	23.2%	28.6%	-4.4%		-3.3%		-2.3%		24.2%	25.3%	26.3%
121	Edinburgh Development Group	23.2%	29.1%	-5.7%		-5.5%		-5.2%		23.4%	23.6%	23.9%
123	Scottish Adoption Agency	23.2%	26.5%	-2.5%		-1.8%		-1.1%		24.0%	24.7%	25.4%
143	First Step	23.2%	28.5%	-5.7%		-6.1%		-6.5%		22.8%	22.4%	22.0%
147	Melville Housing Association	23.2%	28.6%	-5.3%		-5.1%		-4.9%		23.3%	23.5%	23.7%
154	St Andrew's Children's Society Limited	23.2%	26.6%	-4.6%		-5.9%		-7.2%		22.0%	20.7%	19.4%
172	Homes for Life Housing Partnership	23.2%	28.7%	-5.6%		-5.8%		-6.0%		23.1%	22.9%	22.7%
174	Capital City Partnership	23.2%	24.8%	-3.0%		-4.5%		-6.0%		21.8%	20.3%	18.8%
196	HWU Students Association	23.2%	27.9%	-5.3%		-6.0%		-6.7%		22.6%	21.9%	21.2%
Closed Community Admission Bodies (Main Investment Strategy)												
78	ELCAP	34.7%	42.4%	-13.9%		-13.9%		-13.9%		28.5%	28.5%	28.5%
118	Royal Edinburgh Military Tattoo	23.2%	25.2%	-2.0%		-2.1%		-2.2%		23.2%	23.1%	23.0%
159	Edinburgh Leisure	25.5%	42.8%	-32.3%		-32.3%		-32.3%		10.5%	10.5%	10.5%
188	Scotland's Learning Partnership	31.5%	42.3%		£21,000		£21,000		£21,000	42.3% plus £21,000	42.3% plus £21,000	42.3% plus £21,000
193	Health in Mind	13.7%	41.1%	-21.5%		-21.5%		-21.5%		19.6%	19.6%	19.6%
Closed Community Admission Bodies (Medium Risk Investment Strategy)												
9	University of Edinburgh (E.C.A.)	41.8% plus £597,000	41.6%		£656,000		£656,000		£656,000	41.6% plus £656,000	41.6% plus £656,000	41.6% plus £656,000
22	Hanover (Scotland) Housing Association	41.4% plus £188,000	41.5%		£273,000		£273,000		£273,000	41.5% plus £273,000	41.5% plus £273,000	41.5% plus £273,000
53	Cyrenians	37.3%	41.9%	-16.3%		-16.3%		-16.3%		25.6%	25.6%	25.6%
104	SRUC	42.9% plus £168,000	42.5%		£100,000		£200,000		£300,000	42.5% plus £100,000	42.5% plus £200,000	42.5% plus £300,000
158	Royal Society of Edinburgh	29.7%	43.1%	-9.5%		-5.5%		-1.6%		33.6%	37.6%	41.5%
Closed Community Admission Bodies (Low Risk Investment Strategy)												
44	Edinburgh International Festival Society	42.7% plus £90,000	52.8%		£242,000		£242,000		£242,000	52.8% plus £242,000	52.8% plus £242,000	52.8% plus £242,000
59	Penumbra	48.5% plus £157,000	47.6%		£24,000		£24,000		£24,000	47.6% plus £24,000	47.6% plus £24,000	47.6% plus £24,000
89	North Edinburgh Dementia Care	48.3% plus £5,000	50.6%	-1.6%		-1.6%		-1.6%		49.0%	49.0%	49.0%
116	Granton Information Centre	47.2% plus £14,000	47.3%		£6,000		£6,000		£6,000	47.3% plus £6,000	47.3% plus £6,000	47.3% plus £6,000
131	West Granton Community Centre	47.2% plus £2,000	50.7%		£3,000		£3,000		£3,000	50.7% plus £3,000	50.7% plus £3,000	50.7% plus £3,000
173	Pilton Equalities Project	51.9% plus £23,000	50.9%	-16.8%		-16.8%		-16.8%		34.1%	34.1%	34.1%
183	Young Scot Enterprise	50.5% plus £105,000	54.3%		£153,000		£153,000		£153,000	54.3% plus £153,000	54.3% plus £153,000	54.3% plus £153,000
187	Stepping Out Project	53.6% plus £400	51.9%	-47.5%		-47.5%		-47.5%		4.4%	4.4%	4.4%

Cost cap mechanism

As part of the public sector pension scheme reforms in the first half of the 2010s, a mechanism was put in place to protect employers from significant increases in future pension costs. The mechanism is symmetrical in its design – following a Cost Cap valuation, if the scheme is determined to have either a lower than intended cost or a higher than intended cost to employers, then action will be taken: either a change in the benefit structure for future benefit accrual or a change in employee contribution rates. The first Cost Cap mechanism for LGPS Scotland was as at 31 March 2017, however this has been put on hold until the McCloud judgement is resolved.

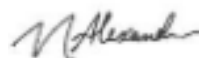
At the time of writing, there is no information available about the results of the 2017 Cost Cap valuation and whether a change in the benefit structure from 1 April 2020 may occur. The Fund has decided to make no direct allowance to contribution rates at the 2020 valuation. However, the Fund has built in an additional level of prudence in measuring the liabilities at 31 March 2020 to recognise the uncertainty regarding the Cost Cap (as well as other risks such as Climate Change). Once the outcome of the Cost Cap valuation is known, the Fund may revisit contribution rates set to ensure they remain appropriate.

Further comments

- Contributions expressed as a percentage of payroll should be paid into Lothian Pension Fund (“the Fund”) at a frequency in accordance with the requirements of the Regulations;
- Further sums should be paid to the Fund to meet the costs of any early retirements, augmentations or salary growth strains using methods and factors issued by us from time to time or as otherwise agreed.
- Payments may be required to be made to the Fund by employers to meet the capital costs of any ill-health retirements that exceed those allowed for within our assumptions. If an employer has ill health liability insurance in place with a suitable insurer and provides satisfactory evidence to the Administering Authority, then their certified contribution rate may be reduced by the value of their insurance premium, for the period the insurance is in place.
- The certified contribution rates represent the **minimum** level of contributions to be paid. Employing authorities may pay further amounts at any time and future periodic contributions may be adjusted on a basis approved by the Fund Actuary.
- The contribution rates certified for Children’s Hospice Association Scotland are subject to review for year ending 2023 and 2024. The Fund has agreed to allow the employer to participate within the Contribution Stabilisation Mechanism on the assumption that the employer will shortly secure a guarantee. If the guarantee is not secured by year ending 31 March 2022, the total contribution rate payable by Children’s Hospice Association Scotland will revert to 17.1% for year ending 31 March 2023 and 18.0% for year ending 31 March 2024.
- Children’s Hearings Scotland is part of the Fund’s Contribution Stability Mechanism. However, they have opted to pay contributions higher than those required under the CSM. The amounts shown in the Rates and Adjustments table above are the higher contributions they have opted to pay from 1 April 2021. In addition to this, they have made a lump sum contribution of £200k in the year ending 31 March 2021

- At the time of writing, a consolidation exercise is underway for VisitScotland involving a bulk transfer in of members from 10 other Scottish LGPS Funds. This exercise is expected to conclude during the first half of 2021 and has been treated as a post-valuation event. The contribution rates shown above for VisitScotland will not be reassessed post-transfer as:
 - VisitScotland participates within the Fund's Contribution Rate Stability Mechanism and, as such, its contribution rates are expressed fully as a percentage of pay. This ensures that the Fund will receive the required Primary and Secondary contributions in respect of the total payroll for VisitScotland (including the payroll that has transferred in); and
 - the transferring assets will be broadly sufficient to cover the transferring liabilities on a fully funded basis.

Signature:



Name:

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