Pensions Committee

2.00pm, Wednesday, 7 December 2022

Contribution Stability Mechanism Review 2022

1. Recommendations

The Pensions Committee is requested to:

1.1 Note the review carried out by the Fund Actuary to assess the continued suitability of the existing Contribution Stability Mechanism

1.2 Note that the review has indicated that the CSM remains appropriate for setting contributions for long-term, secure employers.

1.3 Retain the right to review or withdraw the CSM, from any or all employer(s), as protection against extreme adverse financial circumstances;

1.4 Note that the CSM, stipulating minimum contribution rates payable, will require to be certified by the Fund's actuary at each statutory actuarial valuation.

1.5 Note that should the proposed merger with Falkirk Council Pension Fund proceed, a new Funding Strategy Statement and operation of the CSM will be decisions for the new entity's governing body to take.

John Burns
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Erin Savage, Senior Pensions Employer and Member Manager

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Contribution Stability Mechanism Review 2022

2. Executive Summary

2.1 Since 2010, Lothian Pension Fund has operated a Contribution Stability Mechanism for certain employers.

2.2 In 2019, prior to the 2020 actuarial valuation, detailed financial modelling of asset and liability cashflows was undertaken with advice sought from the Fund's actuary. This allowed recommendations to be made to extend the use of the CSM.

2.3 To ensure that the mechanism remains appropriate for both the fund and relevant employers, it is recommended that the CSM is reviewed at regular intervals.

3. Background

3.1 The Funding Strategy Statement (at paragraph 7.5) states "The policy of the Fund is to operate a Contribution Stability Mechanism (CSM) on an ongoing basis, subject to regular reviews, in order to provide certainty of pension contributions to Fund employers for future years, together with ensuring appropriate assurance of funding level to the Fund. Contribution stability will not be offered to all employers – each employer's particular circumstances will be considered, in particular the strength of the covenant offered and the extent of membership commitment to the Fund. Employers are not obliged to participate in the CSM, but if they wish to opt out, they must make an election at the outset. ….. However, contribution stability will be subject to ongoing review by the Fund, which reserves the right to remove an employer from the CSM, should particular circumstances deem it prudent to do so, for example assessment of employer covenant, financial or demographic experience"

3.2 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 (where appropriate).

3.3 In practice, these parameters mean that participation in the CSM is only offered to a limited group, made up of the largest employers as these employers can demonstrate sufficient covenant strength. All of these employers are part of the Fund's primary investment strategy.

3.4 At its meeting on 11 December 2019, following presentation of a report of asset and liability modelling caried out by the Actuary, the Committee approved a revised

Contribution Stability Mechanism. This meant that employer contributions were stabilised for 4 years from 1 April 2021 and would thereafter increase or decrease by no more than 0.5% of payroll each year.

4. Main Report

4.1 Following the December 2019 Committee meeting and further discussions with the Actuary, it was agreed to carry out a review of the CSM in advance of the 2023 Actuarial Valuation. This review considered the investment performance over the period 31 March 2019 to 30 June 2022, as well as the changes in market conditions over this period.

4.2 Investment performance for this period was better than expected and although there has recently been a period of higher inflation, the previous modelling exercise included scenarios covering periods of higher inflation to 'stress test' stabilised rates and ensure they would be still be sufficient to achieve full funding.

4.3 The paper concludes that the CSM is still appropriate for setting contribution rates for long-term secure employers and that there is currently no need to carry out further modelling.

4.4 Since the review was completed, there has been a period of volatility in investment markets. However, as noted above stabilised employers are all long-term employers part of the primary strategy which invests in a range of assets from different markets. The modelling exercise previously carried out includes a range of different economic scenarios and the recent volatility is within the ranges tested.

4.5 Although the recent review indicates that the current CSM remains fit for purpose, the Actuary recommends that a full review of the CSM is carried out in advance of the 2026 valuation.

4.6 Currently the fund is exploring the possibility of a merger with Falkirk Council Pension Fund (FCPF). FCPF also operate a CSM and should a merger take place, a new funding strategy statement for the new merged entity will be put in place which will detail operation of the CSM for the merged fund. This will require approval by the relevant governing body.

4.7 The paper 'Review of the Lothian Pension Fund's Contribution Stability Mechanism, by Hymans Robertson LLP, dated September 2022, is provided in full at Appendix 1. Appendix A of this paper details the list of employers to which LPF currently offers participation in the CSM, together with provisional contribution rates for each for the period 1 April 2024 to 31 March 2027.

5. Financial impact

5.1 The principal objective of LPF is to ensure its long-term solvency. LPF therefore targets full funding on an ongoing basis over the long-term.

5.2 The CSM provides long-term secure LPF employers with future budgetary certainty, within defined parameters, together with appropriate assurance of funding level.

6. Stakeholder/Regulatory Impact

6.1 The Pension Board, comprising employer and member representatives, is integral to the governance of the pension funds and they are invited to comment on the relevant matters at Committee meetings.

6.2 There are no adverse health and safety, governance, compliance or regulatory implications as a result of this report. The forward planning of the Committees' agendas should facilitate improved risk management and governance for the pension funds.

6.3 There are no adverse sustainability impacts arising from this report.

7. Background reading/external references

None.

8. Appendices

Appendix 1 - "Review of the Lothian Pension Fund's Contribution Stability Mechanism" by Hymans Robertson LLP, dated September 2022

Appendix 1

2023 actuarial valuation

Review of the Fund’s Contribution Stability Mechanism

Addressee and purpose

This paper has been commissioned by and is addressed to the City of Edinburgh Council in its role as the Administering Authority to the Lothian Pension Fund (“the Fund”). It has been prepared in our role as Fund Actuary in preparation for the 2023 actuarial valuation.

This paper provides justification for the continued use of the existing Contribution Stability Mechanism (“CSM”) when setting contribution rates for secure long-term employers at the 2023 valuation. It also sets out provisional contribution rates payable for the period 1 April 2024 to 31 March 2027 for employers participating in the CSM.

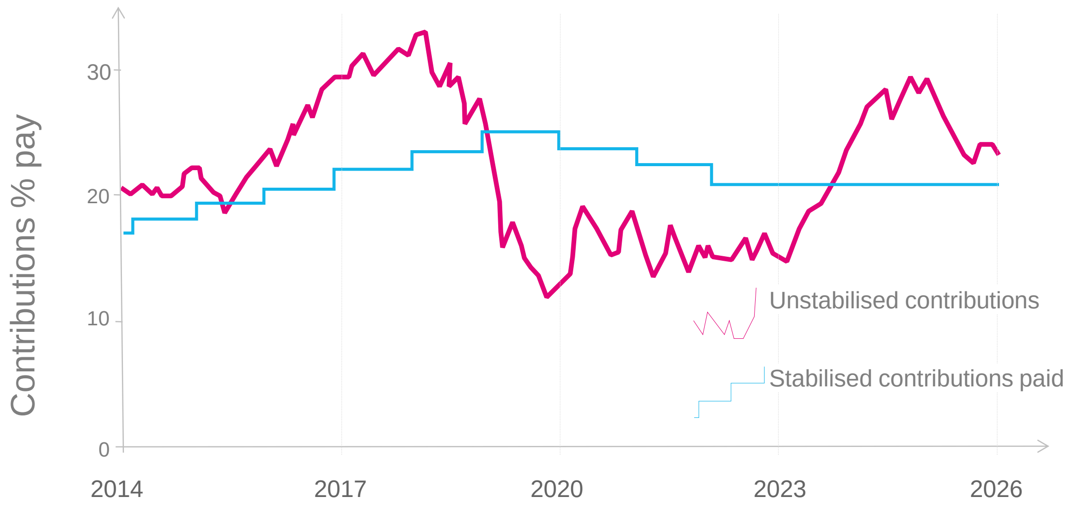
We understand that a merger with Falkirk Pension Fund has been proposed. The merger date is likely to be in 2023. If the merger is approved, a new fund will be created that will include employers that currently participate in the Lothian Fund’s CSM. In practice, therefore, it is possible that the 2023 valuation for the employers covered by this paper will be under the auspices of the new fund. If this occurs it will be up to the administering authority of that fund to decide if it wishes to place any reliance on the contents of this paper.

Purpose of the CSM

Variable market conditions and volatile employer funding positions mean that contribution rates payable to Defined Benefit pension schemes such as the Local Government Pension Scheme (“LGPS”) can vary materially from time to time. The CSM is an approach adopted by the Fund to setting contribution rates for secure, long-term employers which achieves stability of contributions whilst ensuring that the long-term funding position remains secure. Employers appreciate the budgeting certainty that the CSM delivers.

The illustrative chart below shows how the CSM works in practice. Despite volatile movements in the non-stabilised contribution rate, the CSM ensures that employers pay a relatively stable contribution rate over time.

Diagram 1



The intention is for the CSM to apply over the longer term. Frequent revisions to CSM parameters should not be required unless warranted by a change in market conditions or some significant shift in the demographic or risk profile of the participating employers.

Current CSM and resulting employer contribution rates for 1 April 2024 to 31 March 2027

An Asset Liability Modelling ("ALM") exercise was carried out prior to the 2020 valuation to establish the CSM approach and to set the parameters by which contribution rates can change each year. As a result of this modelling, the following CSM approaches were set and documented in the Fund's Funding Strategy Statement ("FSS"):

Diagram 2

Employers	For the period from 1 April 2021 to 31 March 2025	For the period from 1 April 2025
West Lothian Leisure (157), Enjoy East Lothian (219), Children's Hearings Scotland (223)	Annual increases in contribution rate of 0.5%	Change in rates limited to ±0.5% of pay each year
All other CSM employers	Freeze in contribution rates	Change in rates limited to ±0.5% of pay each year

As is required by the LGPS Regulations, the Rates and Adjustments certificate set out in our 2020 valuation report showed only the contribution rates payable for the 3 years from 1 April 2021 to 31 March 2024.

In preparing this paper we have calculated the contribution rates for 1 April 2024 to 31 March 2027 that would have been advised to CSM employers during the 2020 valuation process had we been asked to project this far into the future at that time. For the period from 1 April 2025 to 31 March 2027, the change in rates from year to year has been determined by comparing the rate in payment in the prior year against the 'risk based' contribution rate that would have been calculated at the 2020 actuarial valuation in the absence of the CSM. Further details on the 'risk based' valuation methodology is set out in the Fund's FSS dated 30 September 2021.

The resulting employer contribution rates for 1 April 2024 to 31 March 2027 are set out in Appendix A (table A1). The 'risk based' contribution rate for each employer is also shown for information. Since its inception in 2010, the Fund has retained the right to review the CSM at any time, therefore the contribution rates set out in Appendix A should be considered as provisional. The Fund may wish to review the CSM approaches set out in Diagram 2 above in light of market and other experience since the 2019 ALM exercise was carried out.

2019 Asset Liability Modelling exercise

Our paper 'Review of the Lothian Pension Fund's Contribution Stability Mechanism' dated 8 November 2019 sets out the results (and associated assumptions and limitations) of the latest ALM exercise. This modelling showed that application of the CSM approaches set out above led to:

- a sufficiently high likelihood of CSM employers achieving full funding at the end of a 20-year funding time horizon, and
- an acceptable level of downside funding risk.

Further detail on the decision-making criteria used to assess the CSM approaches is set out in our November 2019 paper.

As with all modelling, the results are dependent on the assumptions adopted for the exercise. The key assumptions underlying this type of modelling are:

- the projected investment returns over the 20 years from the modelling date, and

- the projected long-dated government bond yields and inflation at year 20. In particular, it is the *real* yield (government bond yield net of inflation) which affects the value of the liabilities.

A range of possible future investment returns and real yields were allowed for in the modelling, which was carried out with an effective date of 31 March 2019. These assumptions are summarised in Appendix B (Table B1).

In order to determine whether modelling carried out in 2022 would yield better or poorer results than the 2019 modelling, we have considered:

- the actual investment experience of the Fund's main investment strategy over the period from 31 March 2019 to a recent date (for this purpose we have used 30 June 2022), and

- the change in market conditions (and hence ALM assumptions) from 31 March 2019 to 30 June 2022.

Investment experience since the 2019 ALM modelling date

The following table sets out the actual investment returns achieved by CSM employers' assets from the date of the most recent ALM exercise (31 March 2019) to a recent date (30 June 2022). The assumed 2020 valuation future investment return (a.k.a discount rate) is shown for comparison.

Diagram 3

Period	Actual investment return (main investment strategy)	Expected investment return (2020 valuation discount rate)
31 March 2019 to 31 March 2020	-4.2%	3.0%
31 March 2020 to 31 March 2021	16.4%	3.0%
31 March 2021 to 31 March 2022	10.8%	3.0%
31 March 2022 to 30 June 2022	-1.7%	0.7%
Total return over 31 March 2019 to 30 June 2022	**21.5%**	**10.1%**

The investment returns over the period from 31 March 2019 to 30 June 2022 have been significantly better than expected. This means that CSM employers have more assets today (as at 30 June 2022) per £1 of future benefits payable compared to 2020 valuation expectations.

All else being equal, ALM modelling carried out in 2022 would likely render a higher likelihood of achieving full funding in 20 years, and lower downside funding risk, compared with the modelling carried out in 2019.

Expectations for the future – real yields

Projected real yields based on market conditions at 31 March 2019 and 30 June 2022 are set out in Appendix B (table B1).

When we carried out the 2019 ALM exercise, our central (50^{th} percentile) projection was that real yields on long-dated government bonds would rise to 0.8% p.a. over the next 20 years.

Our current (based on market conditions at 30 June 2022) central expectation is that real yields on long-dated government bonds will rise to 1.1% p.a. over the next 20 years.

All else being equal, a higher real yield on long-dated government bonds places a lower value on the liabilities in year 20. As such, ALM modelling carried out in 2022 would likely render a higher likelihood of achieving full funding in 20 years, and lower downside funding risk, compared with the modelling carried out in 2019 (all else being equal).

Expectations for the future – investment returns

The strategic benchmark asset allocation of the Fund's main investment strategy is set out in Appendix B (table B2). The projected investment returns over a 20-year period on each asset class in the strategic benchmark allocation is set out in Table B1. Again, the projections are shown based on the 31 March 2019 and 30 June 2022 calibrations of our model.

Across all asset classes relevant to the Fund's main investment strategy, the central (50th percentile) expectation for future investment returns over a 20 year period is higher based on market conditions as at 30 June 2022, when compared with 31 March 2021. As such, ALM modelling carried out in 2022 would likely render a higher likelihood of achieving full funding in 20 years, and lower downside funding risk, compared with the modelling carried out in 2019 (all else being equal).

Actuarial assumptions at the 2023 valuation

The comments in the previous section make no allowance for any changes to actuarial assumptions, which will be reviewed as part of the 2023 valuation next year.

The key financial assumptions that would have an impact on any ALM exercise are the long term funding target discount rate, inflation and salary growth assumptions. Our experience so far of the 2022 English and Welsh LGPS valuations for the funds we advise has seen the following changes to assumptions:

- The discount rate – funds have either retained the same long term funding target discount rate as applied in 2019, or increased this by up to 0.4%

- Inflation - virtually all LGPS benefits are linked to inflation in line with the Consumer Prices Index, CPI. Current CPI is historically high (around 10% at time of writing) and is expected to remain high over the short term, before moving back towards the Bank of England target over the medium to longer term – see diagram 4 below. Funds in the south have reacted to this by increasing CPI expectations over the long term (typically a 20 year period) by an average of 0.4% pa.

  Diagram 4

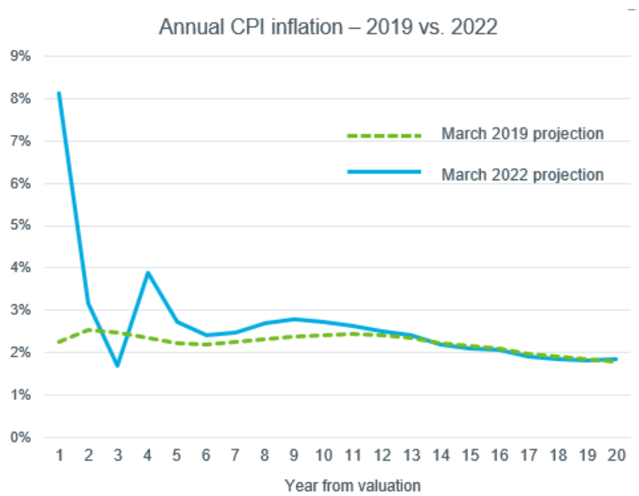


Chart shows median expected annual CPI inflation from the Fund actuary's ESS (Economic Scenario Service) model.

- Salary growth – most funds have increased this assumption slightly (by around 0.2% - 0.3% p.a.), to reflect the more gradual run-off of final salary liabilities (and hence reduced impact of short-term pay freezes) when compared to the previous valuation

Of the other assumptions, the most material one is longevity. The impact of deaths from the COVID19 pandemic during 2020 and 2021 has had little financial impact on funding positions although the long-term after-effects of the pandemic might have a more material impact on liabilities (in either direction). Overall changes to longevity assumptions for LGPS funds in England and Wales at 2022 have led to small increases of around 1% to liabilities.

In isolation, these changes lead to assumptions which will result in slightly higher funding targets and primary rates compared to the assumptions adopted by English and Welsh LGPS funds in 2019. Of course, when we review the actuarial assumptions for the Lothian Pension Fund as part of the 2023 valuation, we will take account of market experience up to 31 March 2023.

Is the CSM still appropriate?

We believe that the existing CSM remains appropriate for setting contribution rates for long-term secure employers at the 2023 valuation without the requirement for further modelling to justify this. The reasons for this are:

- The 2019 ALM results demonstrated that the CSM is likely to keep the Fund safe with a high degree of certainty. Changes to market conditions and investment returns since 31 March 2019 will have increased that certainty.
- The CSM employers' liabilities are valued using a prudent set of actuarial assumptions. At the time of writing, we do not anticipate any changes to actuarial assumptions in 2023 that would materially increase liability values.
- There is a lot of uncertainty currently around both the level of future short-term inflation and how long the current period of higher inflation will last. However, whilst higher inflation pushes up the value of the Fund's liabilities, the Fund's 'primary' investment strategy includes many asset classes that would be expected to provide a good level of protection against sustained periods of higher inflation, eg growth assets such as equities are generally expected to perform better in an inflationary environment to provide similar levels of 'real' returns. The ALM exercise in 2019 included scenarios covering longer periods of higher inflation in order to 'stress test' that contribution rates would be sufficient to achieve full funding with an acceptable level of confidence.

Contribution rates from 2027 onwards

We suggest that the Fund does not provide any firm promises at the 2023 valuation in relation to contribution rates beyond 31 March 2027. In principle, whilst we believe the CSM remains appropriate in relation to short term rates for the 3 years following the 2023 valuation, we think it would be safer for the Fund to keep any projections of rates beyond that period as indicative meantime. The actual rates can be confirmed at the 2026 valuation, following updated Asset Liability Modelling at that point which will act as a full 'health check' on the suitability of the existing CSM.

Reliances and Limitations

The advice in this paper is intended for City of Edinburgh Council to support discussions on the process of setting contribution rates at the 2023 actuarial valuation. This advice should not be passed on to any third party except as required by law or regulatory obligation without the prior written consent of Hymans Robertson LLP. If it is passed onto a third party, then it should be provided in full.

We accept no liability where the paper is used by or disclosed to a third party unless we have expressly accepted such liability in writing. Where disclosure is permitted, the paper may only be released or otherwise disclosed in a complete form which fully discloses our advice and the basis on which it is given.

The following Technical Actuarial Standards are applicable in relation to this paper:

- TAS 100, and
- TAS 300

The advice and information given in this paper and our Asset Liability Modelling report dated 8 November 2019 (which together with any covering emails comprise the aggregate paper for this advice for the purposes of TAS 100) comply with the above Standards.

Prepared by:-

Richard Warden

Fund Actuary

Laura McInroy

Fund Actuary

1 September 2022

For and on behalf of Hymans Robertson LLP

Appendix A: Contribution rates payable from 1 April 2024 to 31 March 2027

The following table sets out the provisional contribution rates for all CSM employers for the period 1 April 2024 to 31 March 2027. The 2020 valuation “risk based” contribution rate is also shown for information.

Table A1

Employer code	Employer / Pool name	Risk based contribution rate from 2020 valuation			Certified contribution rate	Provisional contribution rates		
		Primary rate	Secondary rate	Total rate	2023/2024	2024/2025	2025/2026	2026/2027
Scheduled/Contribution Stability Mechanism Bodies (Main Investment Strategy)								
	The City of Edinburgh Council	21.7%	-7.8%	13.9%	22.7%	22.7%	22.2%	21.7%
	Midlothian Council	21.8%	-6.9%	14.9%	22.2%	22.2%	21.7%	21.2%
	West Lothian Council	21.9%	-6.1%	15.8%	21.8%	21.8%	21.3%	20.8%
	East Lothian Council	22.0%	-4.8%	17.2%	22.6%	22.6%	22.1%	21.6%
	Scottish Police Authority	21.3%	-11.6%	9.7%	19.8%	19.8%	19.3%	18.8%
	Heriot-Watt University	26.0%	-6.4%	19.6%	24.7%	24.7%	24.2%	23.7%
	Edinburgh College	25.4%	-6.7%	18.7%	19.1%	19.1%	18.7%	18.7%
21	Audit Scotland	24.7%	-2.9%	21.8%	19.4%	19.4%	19.9%	20.4%
30	Queen Margaret University	25.3%	-7.0%	18.3%	20.4%	20.4%	19.9%	19.4%
51	Edinburgh Napier University	25.3%	-6.1%	19.2%	20.8%	20.8%	20.3%	19.8%
105	West Lothian College	26.3%	-1.9%	24.4%	19.8%	19.8%	20.3%	20.8%
133	Children's Hospice Association Scotland	25.6%	-1.3%	24.3%	16.2%	16.2%	16.7%	17.2%
134	Lothian Valuation Joint Board	21.6%	-17.4%	4.2%	21.8%	21.8%	21.3%	20.8%
135	Scottish Water	21.0%	-10.1%	10.9%	20.7%	20.7%	20.2%	19.7%
155	Visit Scotland	20.5%	-3.4%	17.1%	17.8%	17.8%	17.3%	17.1%
157	West Lothian Leisure	21.9%	-11.4%	10.5%	16.2%	16.7%	16.2%	15.7%
210	Improvement Service	24.3%	-2.7%	21.7%	18.2%	18.2%	18.7%	19.2%
218	Scottish Futures Trust	20.3%	-4.6%	15.7%	19.4%	19.4%	18.9%	18.4%
219	Enjoy East Lothian	21.3%	-6.5%	14.9%	16.6%	17.1%	16.6%	16.1%
223	Children's Hearings Scotland	24.9%	1.1%	26.0%	25.0%	25.5%	26.0%	26.0%
899	Scottish Fire and Rescue Service	21.5%	-12.8%	8.7%	20.5%	20.5%	20.0%	19.5%

“Risk based” contribution rates have been calculated in line with the approach detailed in the Fund’s current FSS dated 30 September 2021. The three parameters (funding target, funding time horizon, likelihood of achieving funding target by end of funding time horizon) used for each employer are set out in each employer’s 2020 valuation results schedule entitled “Notification of final employer results” dated June 2021.

Appendix B: ALM modelling assumptions at 31 March 2019 and 30 June 2022

The following figures have been calculated using 5,000 simulations of the Hymans Robertson Economic Scenario Service (ESS), calibrated using market data as at 31 March 2019 and 30 June 2022. All returns are shown net of fees. Percentiles of the 5,000 simulations are shown and are the annualised total returns over 20 years, except for the yields which refer to the (simulated) yields in force at that time horizon.

Table B1

		Annualised total returns									
		Index Linked Gilts (long)	UK Equity	Developed World ex UK Equity	Property	Listed Infrastructure Equity	Senior Loans (sub inv grade)	Corporate bonds (medium, A)	Inflation (RPI)	17 year real yield (RPI)	17 year yield
20 years (30 June 2022 calibration)	16th %'ile	-0.9%	2.2%	1.9%	1.9%	1.7%	3.7%	2.3%	1.2%	-0.6%	1.3%
	50th %'ile	0.8%	6.7%	6.6%	5.5%	6.1%	5.6%	3.4%	2.7%	1.1%	3.3%
	84th %'ile	2.6%	11.1%	11.4%	9.5%	10.7%	7.2%	4.5%	4.3%	2.9%	5.8%
20 years (31 March 2019 calibration)	16th %'ile	-2.1%	1.2%	1.3%	0.6%	1.1%	3.4%	0.7%	2.0%	-0.7%	2.2%
	50th %'ile	-0.6%	5.7%	5.8%	4.3%	6.0%	5.4%	1.9%	3.2%	0.8%	4.0%
	84th %'ile	1.0%	10.3%	10.4%	8.1%	11.1%	7.5%	3.0%	4.7%	2.2%	6.3%

Both the 31 March 2019 and 30 June 2022 calibrations of the model indicate that a period of outward yield movement is expected. For example,

- in the 31 March 2019 calibration, over the next 20 years our model expected the 17-year maturity annualised real (nominal) interest rate at the calibration date to rise from -2.1% (1.5%) to 0.8% (4.0%)
- in the 30 June 2022 calibration, over the next 20 years our model expected the 17-year maturity annualised real (nominal) interest rate at the calibration date to rise from -0.9% (2.7%) to 1.1% (3.3%)

The table above shows the investment classes that were modelled as part of the 2019 ALM exercise. The LPF (main strategy) investment strategy provided to us for the purposes of that exercise is set out below.

Table B2

Asset class	Benchmark allocation
UK equities	8%
Overseas equities	58%
Total growth assets	**65%**
Infrastructure (equity)	11%
Senior Loans (sub inv. Grade)	2%
Commercial property	7%
Total other growth	**20%**
Index linked gilts	7%
Corporate bonds	8%
Total bonds	**15%**
Grand total	**100%**