Government
Actuary's
Department

Local Government Pension Scheme (Scotland)

Review of LGPS fund valuations as at 31 March 2023 under section 13

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Navigating risk | Cutting through complexity

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1. Executive Summary

1.1 The Government Actuary has been appointed by Scottish Ministers to report under section 13 of the Public Service Pensions Act 2013, in connection with the 2023 actuarial valuations of the Local Government Pension Scheme Scotland ("LGPS Scotland" or "the scheme"). The Scottish Public Pensions Agency ("SPPA") provides oversight to the scheme and also maintains guidance and regulations.

1.2 Section 13 requires the Government Actuary to report on whether the following aims are achieved:

- Compliance
- Consistency
- Solvency
- Long term cost efficiency

1.3 This is the third formal section 13 report. Section 13 was applied for the first time to the fund valuations as at 31 March 2017 and a second exercise was undertaken as at 31 March 2020.

1.4 This report is based on the actuarial valuations of the funds, other data provided by the funds and their actuaries, and engagement exercises with relevant funds. We are grateful to all stakeholders for their assistance in preparing this report. We are committed to preparing a section 13 report that makes practical recommendations to advance the aims listed above. We will continue to work with stakeholders to advance these aims and expect that our approach to section 13 will continue to evolve to reflect ever changing circumstances and feedback received.

Progress since 2020

1.5 We made two recommendations as part of our 2020 section 13 report. We recommended that:

1. SPPA should consider the content of standardised information and where it should be published, to enable stakeholders to access and compare funds accordingly.
2. SPPA should engage with funds and other stakeholders to consider the impact of inconsistency. It should continue to consider whether a consistent approach needs to be adopted when assessing the impact of emerging issues.

1.6 We are pleased to note good progress was made in relation to both these recommendations. We especially wish to recognise the enhanced "dashboard" disclosures that all funds provided as part of their valuation reporting, as agreed in response to recommendation 1.

1.7 We do however note that changes in the economic environment between the 2020 and 2023 valuations have led to greater divergence between the methods used by the different firms of fund actuaries. This has caused new challenges from a consistency perspective and is discussed in more detail below.

1.8 Our 2020 report also included a general risk comment. This highlighted that funding available to local authority employers might not keep pace with the growth of pension funds over time. This leads to a general risk that future funding volatility could have a more profound effect on scheme employers. We understand from discussions with stakeholders that funds are mindful of these risks, linked with a future deterioration in funding levels, and actively consider this as part of the resilience built into their funding strategies.

Funding position at 2023

1.9 Following the 2020 valuations we reported that LGPS Scotland appeared to be in a healthy funding position. Since that date, the aggregate funding position of the scheme has improved markedly. We are therefore happy to report that that the scheme now appears to be in a very strong financial position, specifically:

- Total assets have grown from £46bn in 2020 to £60bn in 2023 (taking the value used in the local fund valuations).

- Total liabilities disclosed in the 2023 local valuation reports amounted to £42.5bn. The local funding bases are required to incorporate prudence (i.e. there is intended to be a greater than 50:50 likelihood of actual future experience being better than the assumptions, in the opinion of the fund actuary). We note that this aggregate position reflects a variety of different methods used by each individual fund (please see the consistency section below for further details).

- The aggregate funding level on these prudent local bases has improved from 104% (at 2020) to 141% (at 2023). The very large increase reflects a combination of factors. The primary drivers are stronger than expected investment returns through the inter-valuation period, and changes to the financial assumptions used for the 2023 valuations (reflecting economic and market conditions at the valuation date). Funding level changes have varied between individual funds. This is discussed in more detail below.

- All twelve funds are now in surplus at 31 March 2023. This is an improvement from the 2020 valuations, when four funds were in deficit on the local funding basis. We note that overall, there is one less fund than at the previous review, as a result of the merger of the Aberdeen City Council Transport Fund and the North East Scotland Pension Fund.

- The aggregate funding level on the Government Actuary's Department's (GAD's) best estimate basis is 152% (at 2023). GAD's best estimate basis is the set of assumptions derived by GAD without allowance for prudence. There is intended to be a 50:50 likelihood of actual future experience being better or worse than the best estimate assumptions, in our opinion. More information on this basis is set out in Appendix F.

- At the date of writing, it is likely that funds will have seen some further improvements in their funding positions. However, this will depend on individual fund circumstances and the valuation methodology adopted.
- Investment conditions currently remain volatile, and so it is possible further changes will emerge ahead of the 2026 valuations.

1.10 We set out below our findings on each of the four aims and our recommendations.

Compliance

1.11 Our review indicated that fund valuations were compliant with relevant regulations.

Consistency

1.12 Section 13 requires each fund's valuation to be carried out in a way that is not inconsistent with other LGPS Scotland fund valuations. We interpret "not inconsistent" to mean that methodologies and assumptions used, in conjunction with adequate disclosure in valuation reports, should facilitate comparison by a reader of the reports. This is important to enable readers to draw comparisons between the results from two valuation reports and also has wider benefits.

1.13 Local circumstances may merit different assumptions. For example, financial assumptions are affected by the current and future planned investment strategy, and different financial circumstances might lead to different levels of prudence being adopted.

1.14 Further to our recommendation in the last section 13 report, we are pleased to note all funds have incorporated the valuation "dashboard" into their formal valuation report. Funds have also updated the dashboard to reflect the additional information suggested following that previous exercise. We consider this a useful resource to aid stakeholders' understanding, because information is then shown in a consistent way. We believe this change has helped improve **presentational consistency**.

1.15 The impact of stabilisation mechanisms is discussed in chapter 7 and references presentational consistency.

1.16 There does not appear to have been material improvements in **evidential consistency** between funds since the 2020 section 13 review. In fact, the economic climate at the time of the 2023 valuations has resulted in further divergence between the approaches adopted by different actuarial advisors.

1.17 Chapter 5 highlights that changes in the local funding levels disclosed by funds at the 2020 and 2023 valuations can vary significantly, even where funds have had relatively similar experience. This is due to the way that different actuarial advisors incorporate prudence and stability into their approaches. When interpreting the local funding level of any particular fund, it is therefore critical to understand the method and assumptions being adopted for that assessment. We note that whilst an actuarial firm will make recommendations on how to approach a fund's valuation, it is ultimately the funds themselves who are responsible for determining the funding strategy, having regard to their stakeholders' views.

1.18 The discount rate is the most significant assumption in terms of impact on the valuation results. It is differences in this rate which are primarily driving the outcomes noted above. In addition to variation in the rates used between each of the actuarial advisors, we also see variation between the rates used by different funds advised by the same actuarial advisor. The firm which advises multiple funds, Hymans Robertson, have provided us with explanations for this variation. The discount rates chosen by their funds vary because of three factors: the fund's investment strategy, their selected levels of prudence, and in two cases additional fund-specific factors.

Recommendation 1:

We recommend that the SPPA continue to engage with scheme stakeholders to assess how greater consistency could be achieved to allow easier comparison between funds and better understanding of risks.

1.19 We are grateful to the fund actuaries and SPPA for engaging on climate risk analysis since the previous review. We believe that the climate risk analysis principles document agreed ahead of the 2023 valuations (see Appendix B) helped to improve consistency across the scheme in this area. We recognise the significant progress made by funds and actuarial advisors in the presentation of climate risk analysis as part of the actuarial valuation process. We strongly promote the further development of climate risk analysis and its integration into decision-making by funds. This remains a rapidly evolving area and we recommend that the SPPA considers with other stakeholders what common principles should be adopted for the 2026 fund valuations to facilitate consistency in climate risk analysis across the scheme.

1.20 The landscape in which the scheme operates is continually changing such that the scheme will face different challenges over time. We support SPPA's efforts continuing to proactively engage with stakeholders on such issues and provide guidance where appropriate to ensure greater consistency across funds.

Recommendation 2:

We recommend that the SPPA continue to consider emerging issues and, where appropriate, whether guidance would be helpful to support greater consistency.

As part of greater consistency on climate risk, we recommend that work continues to refine the climate change principles document in advance of the 2026 fund valuations.

Solvency

Under solvency and long term cost efficiency we have designed a number of metrics and raised flags against these metrics, to highlight areas where risk may be present, or further investigation is required, using a red/amber/green rating approach. Where we do not expect specific action, we have maintained the white "for information" flag approach introduced in 2020.

1.21 As currently set out in the relevant Chartered Institute of Public Finance & Accountancy ("CIPFA")'s Funding Strategy Statement Guidance, the employer contribution rate is appropriate to ensure solvency if:

- the rate of employer contributions is set to target a funding level for the whole fund of 100% over an appropriate time period and using appropriate actuarial assumptions

and either:

- employers collectively have the financial capacity to increase employer contributions, should future circumstances require, in order to continue to target a funding level of 100%

or

- there is an appropriate plan in place should there be an expectation of a future reduction in the number of fund employers, or a material reduction in the capacity of fund employers to increase contributions as might be needed

1.22 Given the very strong funding position of the scheme, and its constituent funds, there are no immediate solvency concerns. However, risks clearly do remain and are important for funds to continue to consider. This is particularly notable in the context of competing pressures on employer budgets and noting the sensitivity of funding levels to future experience (especially investment market conditions).

Long term cost efficiency

1.23 As currently set out in CIPFA's Funding Strategy Statement Guidance, we consider that the rate of employer contributions has been set at an appropriate level to ensure long term cost efficiency, if it is sufficient to make provision for the cost of current benefit accrual, with an appropriate adjustment to that rate for any surplus or deficit in the fund.

1.24 Given the healthy funding position of the LGPS Scotland funds, we have not raised any flags in relation to our long term cost efficiency metrics. Whilst most individual employers are now also in surplus, deficit considerations remain relevant for some. It is also important to remain conscious of risks associated with potential future changes to the scheme's funding position.

1.25 Surplus usage is becoming an increasingly important aspect of the valuations. We acknowledge there are different approaches to the utilisation of surpluses and funds should consider relevant factors and the trade-off between competing priorities.

1.26 Funds appear to have made decisions having considered relevant factors. We have not flagged any funds in relation to surplus usage at this review. However, we note inconsistencies in outcomes will arise where funds place different weights on relevant factors. Chapter 7 highlights the notable variations that we have identified between individual funds' approaches to stability and prudence in their use of surplus.

1.27 A key difference in the funding strategies relates to the use of stability mechanisms, surplus buffers, and asset volatility reserves. Differences in approach can have a material impact on the outcome of the valuations.

1.28 We therefore believe further clarity on the choice of stability structures, their parameterisation, and the impact of that mechanism on contribution rates would be helpful. The underlying reasons for these choices were also not always very clear from valuation reports. We believe transparency and public documentation of funds' decision-making processes, and rationales, is important. This will enhance transparency and will allow stakeholders to more easily compare between funds. It will also aid future section 13 exercises.

1.29 Many funds reported a high probability that the assets held at the valuation date, allowing for expected future investment returns, would be sufficient to meet the accrued liabilities of the fund. It is important intergenerational equity is considered as part of funding decisions, in particular the balance between the interests of current and future taxpayers and employers.

1.30 Chapter 7 provides details of how we plan to analyse long term cost efficiency at future valuations. This explains that we will adopt a flagging approach in relation to surplus usage as part of those exercises.

1.31 This approach will be a mix of qualitative and quantitative analysis, to reflect the range of relevant considerations and approaches. We will expect administering authorities to have considered relevant factors and the trade-off between competing priorities.

1.32 From an intergenerational fairness perspective, we will highlight those funds which could be seen as retaining too large surpluses and not recognising their strong funding positions in their employers' contribution rates. Conversely, we will use our surplus retention metric to identify any funds where larger contribution reductions, in respect of surplus, could lead to too great a risk in the short- to medium-term.

1.33 We will also provide general commentary on the overall expected evolution of the aggregate scheme's funding position over time.

Recommendation 3:

We recommend that ahead of the 2026 valuations SPPA consider whether additional guidance is required to:

- support funds in balancing the different surplus considerations when setting contribution rates.
- assist funds in enhancing the transparency and documentation of decisions relating to surplus usage, in particular on the balance between solvency and intergenerational fairness.

2. Introduction

2.1 This introduction provides background information on the Local Government Pension Scheme in Scotland (“LGPS Scotland”, or “the scheme”) and the review we have undertaken, including:

- Valuations within LGPS Scotland.
- Section 13 and the statutory requirements.
- The approach that we adopt to carry out the required section 13 review.

Background information on LGPS Scotland

2.2 LGPS Scotland is a funded scheme governed by the Local Government Pension Scheme (Scotland) Regulations 2018 (the “Regulations”). The scheme is comprised of twelve different funds. This is one less fund than at our previous review, as a result of the merger of the Aberdeen City Council Transport Fund and the North East Scotland Pension Fund.

2.3 Individual funds are managed and administered locally by administering authorities established under Schedules 3 and 4 of the Regulations. The Scottish Public Pensions Agency (“SPPA”) oversees the scheme and has responsibility for maintaining and updating the scheme’s regulations and guidance.

2.4 The scheme provides pensions and other benefits to employees who have worked in local government in Scotland, or for other scheme employers, and to their dependants. Scheme employers include local authorities, government organisations, colleges, housing associations, and other associated bodies.

What are the LGPS Scotland valuations?

2.5 Each individual fund has its own liabilities and assets, and periodic assessments are needed to ensure the fund has sufficient assets to meet its liabilities.

2.6 The pension funds are each required to appoint their own fund actuary, who carries out the fund's valuation every three years. The fund actuary uses a number of assumptions to value the liabilities of the fund. Costs are split between those that relate to benefits already earned in the past (the past service cost) and those that relate to benefits being earned in the future (the future service cost). The results of the valuation may lead to changes in employer contribution rates for both future and past service costs.

2.7 In addition to the individual valuations carried out by each fund, the Government Actuary’s Department (“GAD”) carries out a valuation of the whole scheme, with the latest such valuation occurring as at 31 March 2020: Local Government Pension Scheme (Scotland). This valuation evaluates the cost of scheme benefits and assesses if any changes need to be considered to meet an agreed cost control mechanism under directions set by HM Treasury. The Government’s intention is that the cost control mechanism is only triggered by “extraordinary, unpredictable events”. As at 31 March 2020 the cost control mechanism was not breached. The next review, as at 2024, is underway and is expected to report during financial year 2026/27.

2.8 Scheme regulations set out member benefits to be paid and when valuations are to be carried out. We have based our assessment on current scheme regulations and benefits. The benefits paid to members are not dependent on the funding position of any particular fund.

What is section 13?

2.9 Section 13 is a requirement under the Public Service Pensions Act 2013 (“the Act”).

2.10 The Government Actuary has been appointed by the Scottish Ministers to report under section 13 of the Act in connection with the actuarial valuations of the twelve Scottish LGPS funds.

2.11 This is the third formal section 13 report and sets out the Government Actuary’s findings following the fund valuations as at 31 March 2023.

Statutory requirements

2.12 This report is addressed to Sottish Ministers as the responsible authority for the purposes of subsection (4) of section 13 of the Act. GAD has prepared this report setting out the results of our review of the 2023 funding valuations of LGPS Scotland. This report will be of relevance to administering authorities and other employers, actuaries performing valuations for LGPS funds, the LGPS Scotland Scheme Advisory Board (“SAB”), HM Treasury (“HMT”) and the Chartered Institute of Public Finance & Accountancy (“CIPFA”), as well as other LGPS Scotland stakeholders.

2.13 Subsection (4) of section 13 requires the Government Actuary, as the person appointed by Scottish Ministers, to report on whether the four main aims are achieved, namely:

- Compliance: whether the fund’s valuation is in accordance with the scheme regulations.
- Consistency: whether the fund’s valuation has been carried out in a way which is not inconsistent with the other fund valuations within LGPS Scotland.
- Solvency: whether the rate of employer contributions is set at an appropriate level to ensure the solvency of the pension fund.
- Long term cost efficiency: whether the rate of employer contributions is set at an appropriate level to ensure the long term cost efficiency of the pension fund.

2.14 Section 13, subsection (6) states that if any of the aims of subsection (4) are not achieved

a. the report may recommend remedial steps

b. the scheme manager must -

  i. take such remedial steps as the scheme manager considers appropriate, and

  ii. publish details of those steps and the reasons for taking them

c. the responsible authority may -

i. require the scheme manager to report on progress in taking remedial steps

ii. direct the scheme manager to take such remedial steps as the responsible authority considers appropriate.

GAD's approach

2.15 We have looked at a range of metrics to identify potential exceptions under the solvency and long term cost efficiency objectives. Each fund is given a colour-coded flag under each measure:

Colour	Interpretation
Red	A material issue that may result in the aims of section 13 not being met. In such circumstances remedial action to ensure solvency and/or long term cost efficiency may be considered.
Amber	A potential issue that we would expect funds to be aware of. In isolation this would not usually contribute to a recommendation for remedial action in order to ensure solvency and/or long term cost efficiency.
White	An advisory flag that highlights a general issue but one which does not require an action in isolation. It may have been an amber flag if we had broader concerns.
Green	There are no material issues that may contribute to a recommendation for remedial action in order to ensure solvency or long term cost efficiency.

2.16 The trigger points for these flags are based on a combination of absolute measures and measures relative to the funds in scope. Where appropriate, we have maintained consistency with the approach adopted in 2020.

2.17 While they should not represent targets, these measures and flags help us determine whether a more detailed review is required. For example, we would have a concern where multiple measures are triggered amber for a given fund.

2.18 These flags are intended to highlight areas where risk may be present or further investigation is required. For example, where an amber flag remains following engagement, we believe this relates to an area where some risk remains that administering authorities and pension boards should be aware of. There is no implication that the administering authority was previously unaware of the risk.

2.19 A green or white flag does not necessarily indicate that no risk is present and similarly the fact that we are not specifically suggesting remedial action does not mean that scheme managers should not consider actions.

2.20 Where appropriate we will have regard to the particular circumstances of funds. This may involve seeking engagement with the administering authority and the fund actuary. Actions taken, or proposed, can in principle affect the flags we adopt. However, as all flags at this review were initially marked green, no changes were made as part of this exercise.

2.21 The metrics shown in the tables in this report are based on publicly available information and/or information provided to GAD.

2.22 Further detail of the metrics and fund engagement is provided in the solvency and long term cost efficiency chapters and appendices. In addition, we have considered the overall funding position of the funds within the LGPS Scotland in our funding analysis report published alongside this document.

2.23 Within an LGPS Scotland fund, contribution rates may vary between employers. Our analysis and metrics focus on the aggregate fund position except where stated. When reading this report, it is important to note that individual employers' contribution rates and funding situations might differ from the aggregate fund position.

2.24 Local valuation outputs depend on both the administering authorities' Funding Strategy Statements and the actuary's work on the valuation. We have reported where valuation outcomes raised concerns in relation to the aims of section 13. It is not our role to express an opinion as to whether that conclusion was driven by the actions of authorities or their actuaries, or other stakeholders.

The following key has been used to identify the actuarial advisers for each fund:

Adviser	**Colour**
Barnett Waddingham	Purple
Hymans Robertson	Grey
Mercer	Blue

2.25 The Scottish Homes Pension Fund is different from other LGPS Scotland funds. The benefits payable and costs of the fund are met by Grant-in-Aid funding by the Scottish Government, thus guaranteeing the security of these benefits. Details of this can be found in the Scottish Homes Pension Fund Valuation. The fund has generally been excluded from the analyses that follow.

Standardised bases used in our approach

2.26 There are some areas of inconsistency highlighted in chapter 5 which make meaningful comparison of local valuation results difficult. To address this, we have referred to results restated on two bases:

- The SAB standard basis was established by the SAB in England and Wales and agreed by stakeholders in Scotland as appropriate for this exercise. This is used by fund actuaries to calculate liabilities on a consistent basis allowing comparison of funds.

- Where we consider the potential impact of future funding levels on solvency and long term cost efficiency we need to compare the value of a fund's assets and liabilities. Therefore, we require a market consistent basis. As the SAB standard basis is not a market related basis GAD calculates liabilities on a consistent best estimate basis, which is based on market conditions as at 31 March 2023.

- Additional information on both these bases can be found in Appendix F.

2.27 These bases facilitate comparison but are not suitable for funding purposes, as we would expect a funding basis to reflect the local characteristics of a fund. We note that:

- The SAB standard basis is not consistent with current market conditions and is not generally suitable for considering possible impacts on solvency and long term cost efficiency. We note that there were significant changes in market conditions between the 2020 and 2023 valuation dates. Those conditions, and the changes, did not directly impact the SAB basis at either date.

- The GAD best estimate basis is based on our views of likely future returns on each broad asset class across the Scheme. Regulations and CIPFA guidance call for prudence to be adopted when setting a funding basis. Our best estimate basis does not include prudence and is based on the aggregate investment strategy for the overall scheme, so will not be pertinent to any given fund's particular investment strategy. Further, future asset returns are uncertain and there are other reasonable best estimate bases which may give materially different results.

Other important information

2.28 The previous section 13 report was published on 24 March 2023 following the valuations as at 31 March 2020, details of which can be found in the Local Government Pension Scheme: review of the actuarial valuations of funds as at 31 March 2020.

2.29 Appendices, dated 5 September 2025, are contained in a separate document.

2.30 GAD have also published a funding analysis report, dated 5 September 2025. This is a factual document summarising the results of the funds' valuations.

2.31 Throughout this report we refer to CIPFA's Funding Strategy Statement Guidance, which was the relevant guidance in effect at the date of the 2023 valuations. An updated set of guidance has recently been agreed which incorporates refinements following on from the 2022 valuations of the LGPS England & Wales scheme. Differences between the two sets of guidance would not change the conclusions reached in this report.

2.32 In performing this analysis, we are grateful for helpful discussions with and cooperation from:

- Actuarial advisors.
- Fund administrators.
- The Scottish Public Pensions Agency.
- The LGPS Scotland Scheme Advisory Board.

2.33 This report is GAD's alone, and the stakeholders above are not responsible for the content.

2.34 GAD would like to acknowledge the commitment shown by the funds and their advisors, which is illustrated through their engagement with this process and the improvement in the funding position of funds since the previous valuation.

2.35 GAD has no liability to any person or third party other than SPPA for any act or omission taken, either in whole or in part, on the basis of this report. No decisions should be taken on the basis of this report alone without having received proper advice. GAD is not responsible for any such decisions taken.

2.36 We understand and assume that there is no regulatory authority assumed by or conferred on the Government Actuary in preparing this or any future section 13 report. The appointment to report under section 13 does not give the Government Actuary any statutory power to enforce actions on scheme managers (or others).

2.37 This work has been carried out in accordance with the applicable Technical Actuarial Standard: TAS 100 issued by the Financial Reporting Council (FRC). The FRC sets technical standards for actuarial work in the UK.

Future review

2.38 We are grateful to stakeholders for their assistance in preparing this report. We are committed to preparing a section 13 report that makes practical recommendations to advance the aims in the legislation. We will continue to work with stakeholders to advance these aims ahead of the 2026 actuarial valuations and expect that our approach to section 13 will continue to evolve to reflect ever changing circumstances and feedback received.

Limitations

2.39 We recognise that the use of data and models has limitations. For instance, the data that we have from valuation submissions and publicly available financial information is likely to be less detailed than that available to funds. Some of our solvency measures are stress tests but they are not intended to indicate a worst-case scenario.

2.40 Our risk assessment framework enables us to broadly assess scheme risks and decide on our engagement with funds on an indicative basis. We recognise that scheme experience can diverge from assumptions made about the future in any model. It is the responsibility of administering authorities and their advisors to consider and manage their risks.

2.41 Because of the nature of this exercise, we have not generally allowed for experience since the fund valuations.

3. Progress

3.1 We made two recommendations and a general risk comment in the 2020 section 13 report. We have reported on the progress made against each of these recommendations in the table below:

2020 Recommendation	Progress
1: SPPA should consider the content of standardised information and where it should be published, to enable stakeholders to access and compare funds accordingly.	Our 2020 section 13 report recommended that funds incorporate the standardised 'dashboard' information into their published valuation reports, rather than disclosing it separately. All funds and their advisors agreed to adopt this approach for their 2023 valuations, and this is reflected in the reports prepared. Our 2020 report also recommended that certain additional information be published as part of the 'dashboard' disclosures. These changes included additional information on discount rates, contribution rates, and the emerging issues. Full details of the recommendations can be found in Table B1 of the Appendix to our 2020 report. Again, funds and their advisors agreed to this proposal, and all funds have reflected these enhanced disclosure recommendations in their 2023 valuation reports. Since the 2023 valuations, there has been a further review of the guidance provided to support the development of Funding Strategy Statements. One of the objectives of this review was to enhance the consistency of fund valuations.

2020 Recommendation	Progress
2. SPPA should engage with funds and other stakeholders to consider the impact of inconsistency. It should continue to consider whether a consistent approach needs to be adopted when assessing the impact of emerging issues.	SPPA and other scheme stakeholders have engaged with the areas that the 2020 report focused on. In relation to the McCloud legal judgment, ahead of the 2020 valuations SPPA issued guidance on how to calculate an allowance in the scheme liabilities. At the 2023 valuations all funds quantified the estimated impact of McCloud on their liabilities as part of the dashboard, which was helpful in communicating the remedy's effect. Since the 2020 valuations, SPPA have issued further guidance and regulations which have given additional clarity on how to equalise benefits for members affected by the McCloud remedy. We therefore make no further recommendations in this area. All funds have included references to climate risk analysis in their 2023 valuation reports. Ten funds have followed the broad climate risk principles paper that was agreed between fund actuaries, GAD, and other scheme stakeholders ahead of the 2023 valuations. The 2023 valuation occurred during a period of high inflation, which affected the annual pension increases provided by the scheme. The approaches funds adopted to recognise this, when setting assumptions about future pension increases, appear to have been generally similar. More broadly, the potential for inconsistency remains particularly where new issues emerge. We are supportive of SPPA and other scheme stakeholders maintaining a watching brief for emerging issues which could lead to inconsistency in fund valuations.

General risk comment	Progress
Funds in LGPS Scotland, like those in LGPS England and Wales, are expected to grow over time. The amount of funding available to local authorities may not keep pace. The growth of funds relative to the size of local authority employers creates a general risk, where future volatility of the relatively larger funds could have a more profound effect on the local authority employers. This could be a risk if, for example, there was to be a severe and prolonged shock to return seeking asset classes. We would expect that administering authorities are aware of this risk in relation to solvency. We do not anticipate a specific action now but recommend administering authorities continue to monitor this risk over time. Administering authorities may wish to discuss the potential volatility of future contributions with employers in relation to overall affordability.	We understand from discussions with fund advisors that administering authorities are generally mindful of the risks of a future deterioration in funding levels requiring increased pension contributions, with this causing a strain on local authority budgets. In many cases, this has been an important consideration when setting contribution rates for funds in surplus. Specifically, we note funds' consideration of stability when setting their contribution rates, which may help them manage future increases in contributions. In light of the widely reported pressures on council funding impacting local authorities and other employers within LGPS Scotland, it is important that the consequences of volatility and the risk of any future significant requirement to increase employer contributions continue to be monitored.

4. Compliance

Key Compliance findings

- All reports checked contained a statement of compliance.
- The reports checked contained confirmation of all material requirements of regulation 60 of the Local Government Pension Scheme (Scotland) Regulations 2018 (as amended).
- We concluded the aims of section 13 were achieved under the heading of Compliance, in terms of valuation reporting.

Statutory requirement and chapter content

4.1 Under section 13(4)(a) of the Act, the Government Actuary must report on whether the actuarial valuations of the funds have been completed in accordance with the scheme regulations.

4.2 In this chapter we set out our approach to reviewing compliance and our conclusions from that review.

Review of compliance outcomes

4.3 We found that the valuation reports reviewed complied with the required regulations.

4.4 There is a great deal of consistency in the actuarial methodologies and the presentation of the actuarial valuation reports for funds that are advised by the same firm of actuarial advisors (see chapter 5 on Consistency). Accordingly, GAD has selected one fund as a representative example from each of the firms of actuarial advisors and has assessed whether these reports have been completed in accordance with Regulation 60 of the Local Government Pension Scheme (Scotland) Regulations 2018 (the statutory instrument governing actuarial valuations of the LGPS in Scotland). Hymans Robertson, which acts as actuary to multiple funds, confirmed that the selected fund valuation report was representative.

4.5 We found that the actuarial valuation reports have been completed in accordance with Regulation 60 and have therefore concluded that the compliance requirement of section 13 has been achieved. This is not a legal opinion. Further details of the checks completed can be found in Appendix A.

4.6 We were pleased to note improvements in the clarity of references to the assumptions on which the Rates and Adjustment Certificate (the certificate setting out employer contributions) was based, following our comment in the previous section 13 report.

4.7 In line with the required actuarial standards, we noted that the three valuation reports reviewed contained confirmation that the required Technical Actuarial Standards had been met.

4.8 Our review of compliance is focused on the actuarial valuation reports produced under Regulation 60. We have not, for example, systematically reviewed Funding Strategy Statements prepared under Regulation 56.

4.9 The comments we make in subsequent chapters on consistency, solvency and long term cost efficiency do not imply that we believe that the valuations are not compliant with the regulations. These comments relate to whether the valuations appear to achieve the aims of section 13.

5. Consistency

Key Consistency findings

- Presentational consistency was evident in the 2023 valuations and the continued use of the dashboard greatly aids stakeholders' understanding. The additional information provided following the 2020 section 13 review has helped to improve presentational consistency.
- There is no indication of material improvement in evidential consistency since the 2020 section 13 review. In fact, the economic climate at the time of the 2023 valuations has resulted in a divergence in the discount rates adopted by different actuarial advisors. This has also had an impact on presentational consistency, as described in chapter 7.
- Local variations may merit different assumptions, and the approaches and assumptions adopted appear compliant with the relevant requirements. However, these differences will lead to different outcomes, for example in ongoing contribution rates.
- We recognise the significant progress made by funds and actuarial advisers in the presentation of climate risk analysis as part of the 2023 fund valuations. Most funds have followed the broad climate risk principles paper agreed between fund actuaries, GAD and other scheme stakeholders. We recommend that SPPA continue to engage with stakeholders to develop these principles ahead of the 2026 valuations, given the continued evolution across the industry.

Statutory requirement and chapter content

5.1 Under section 13(4)(b) of the Act, the Government Actuary must report on whether each actuarial valuation has been carried out in a way which is not inconsistent with other valuations. This requires both presentational and evidential consistency.

5.2 In this chapter, we:

- Provide background on the legislative requirement and importance of consistency.
- Consider recent changes to the dashboard and improved presentational consistency.
- Consider the remaining differences in evidential consistency and the likely consequences of such differences.
- Note the significant improvements in climate risk analysis by funds and propose actions to support further improvements.

Types of Consistency

5.3 **Presentational Consistency** - Information may be presented in different ways in different reports, and sometimes information is contained in some reports but not others, so readers may have some difficulties in locating the information they wish to compare. We call this presentational inconsistency.

5.4 **Evidential Consistency** - When the reader has located the relevant information (e.g. funding levels), differences in the underlying methodology and assumptions mean that it is not possible to make a like for like comparison. We call this evidential inconsistency. We believe that local circumstances may merit different assumptions (e.g. financial assumptions are affected by the current and future planned investment strategy or different levels of prudence) but that wherever possible, information should be presented in a way that facilitates comparisons.

Importance of Consistency

5.5 LGPS Scotland is a pension scheme providing a common benefit structure which is locally administered by separate administering authorities. Section 13 requires valuations to be carried out in a way that is not inconsistent with other LGPS Scotland fund valuations. This is important to enable readers to draw comparisons between the results from two valuation reports, and also has wider benefits.

5.6 Where members build up identical benefits, it can be hard to justify large variations in the apparent cost of these benefits. This is particularly pronounced where one employer participates in different LGPS Scotland funds and can be required to contribute differing amounts. In this situation, it is important to understand what is driving the difference and ensure that this is clear to employers. The greater the difference in cost between different funds, the more significant this issue.

5.7 Furthermore, it is not unusual for members to transfer between funds. The greater the variation in funding bases, the greater the potential strain on a fund under such a transfer. Discussions on appropriate bulk transfer basis are also not helped by differences in funding bases.

5.8 We also note that there is a common basis used for various member option calculations in the scheme. For example, to determine costs of additional benefits if members elect to purchase these. Where this basis diverges from funding bases this can be a source of additional strain, which needs to be managed.

Reasons for local variation

5.9 Differences in approaches and assumptions across funds are to be expected under the valuation requirements and reflect:

- Differences in circumstances (for example, different investment strategies, types of employers, attitudes to risk or demographic experience).
- Differences in views of unknown future experience (for example, of future investment returns or longevity improvements).
- Different methodologies, where a single approach is not prescribed.

5.10 Whilst differences in assumptions are justifiable, they should be evidence-based (where appropriate), clearly explained and the impact understood, to support evidential consistency.

Presentational Consistency

5.11 We have taken, at random, a report produced by each actuarial advisor to assess whether the information disclosed is consistent across all three advisors.

5.12 Hymans Robertson is the actuarial advisor for nine open funds, with Barnett Waddingham and Mercer advising one open fund each. We noted a high degree of similarity between reports produced by Hymans Robertson, however for completeness we additionally considered the consistency between two of their reports.

5.13 We do not have any specific concerns about the selected funds and have confirmed with Hymans Robertson that the chosen funds are representative of the other valuation reports that they produce. None of these funds raise any amber or red flags. Reporting for the closed Scottish Homes fund is slightly different, reflecting the unique circumstances of that fund.

5.14 The selected funds are:

Tayside Pension Fund	The Highland Council Pension Fund
Fife Pension Fund	North East Scotland Pension Fund

Information provided within valuation reports

5.15 We note that valuation reports contain detailed information on the financial position of a fund and what future contributions are required to meet their statutory obligations. We have reviewed the information contained in the sample funds' valuation reports to consider how consistently key information has been presented and hence the extent to which a reader can easily make comparisons.

Contribution rates

5.16 Contribution rates include the following components:

- Primary contribution rate (employer)
- Secondary contribution rate (employer)
- Member contribution rate

5.17 Regulations require contribution rates to be split into primary and secondary contribution rates for employers, and all valuation reports do note this. The primary and member contribution rates are easily found in valuation reports.

5.18 There are differences between the valuation reports on what information is provided regarding secondary contributions and how they have changed over time. This inconsistency in information is addressed, in part, by the revised dashboard which does provide a clear comparison (as discussed further below in the subsection on dashboards).

Change in position since the last actuarial valuation

5.19 Each valuation report contains a section that summarises the changes to the funding position since the previous valuation. These are presented in very similar ways, making for easy comparison.

5.20 Table 5.1 summarises the information provided in the sample valuation reports on the change in primary contribution rates since the previous valuation. Only the Tayside fund presented changes in the primary rate in the same format as the change in the funding position. We would consider additional detail for other funds, and consistency in approach here to be helpful.

Table 5.1 Comparison of primary rates with prior valuation

Fund	Comparison provided
Tayside Pension Fund	Analysis of the change in primary contribution rates.
Fife Pension Fund	Comparison of primary rate (as % of pay) and secondary rate (as fixed monetary amounts).
The Highland Council Pension Fund	Comparison of primary rate (as % of pay) and secondary rate (as fixed monetary amounts).
North East Scotland Pension Fund	Breakdown of the primary contribution rate compared with the previous valuation.

5.21 Table 5.2 sets out the information provided in the sample valuation reports on deficit and surplus strategies. Whilst we appreciate the information is complex, we did not find it easy to understand and compare funds' strategies for utilising any surplus or spreading deficit over the longer term. In all cases we note that additional information will be included in the fund's Funding Strategy Statement but that requires reference to a separate document.

Table 5.2: Information provided on spreading surplus/deficit

Fund	Information provided on spreading surplus / deficits
Tayside Pension Fund	Statement & dashboard setting out spreading of surplus and deficit (maximum of 12 years).
Fife Pension Fund	Provide funding time horizon over which all future and past benefits are sought to be fully funded.
The Highland Council Pension Fund	Provide funding time horizon over which all future and past benefits are sought to be fully funded.
North East Scotland Pension Fund	Statement setting out spreading of surplus. Surplus spread over average of 13 years.

5.22 The current economic climate highlights that a fund's particular funding level is only one factor influencing employer contribution rates. Stability mechanisms, surplus buffers, and volatility reserves will also have an impact on the ultimate rates set. How these elements affect contribution rates therefore becomes an important part of presentational consistency. This is discussed in more detail in chapter 7 below.

Dashboards

5.23 All funds have published information in the format of a standard dashboard in their valuation report, following a 2020 section 13 recommendation. The inclusion of the dashboard in valuation reports will benefit readers and aid comparison, and we are grateful for SPPA and fund actuaries' cooperation.

5.24 Our proposal for the format of the revised 2023 valuation dashboard was agreed by the SPPA and actuarial advisors, and is shown in table B1 of Appendix B. This includes the key information that one might expect to find in an actuarial valuation report and is helpful to readers in comparing funding valuations.

5.25 We are aware that different actuarial advisors use different methodologies. While we would not wish a desire for consistency to stifle innovation, this can make comparisons difficult. We are grateful that Hymans Robertson have, for the 2023 valuations, provided information in the dashboard on how their future service discount rate is derived, although because their methodology does not base contributions on a single discount rate, comparisons with other funds remain difficult.

5.26 The 2023 valuation dashboard includes further information on primary and secondary employer contributions in a standard format at both the current and previous valuation. We found that the additional information provided, especially in relation to secondary contributions, is helpful as this clearly sets out how contributions have changed over time on an easily comparable basis.

5.27 We suggest that a review of the valuation dashboards is undertaken prior to the 2026 valuations, to consider if further information could be provided. In particular, to clarify the different approaches which funds adopt and to address inconsistencies in the description of the treatment of surpluses and deficits.

Evidential Consistency

5.28 We have considered whether the local fund valuations have been carried out in a way which is not inconsistent with each other, as required under regulations. We have found that inconsistencies in the methodologies and assumptions adopted remain. In fact, whilst methods of deriving assumptions have remained similar since the 2020 valuations, we note that economic conditions have resulted in some assumptions diverging to a greater extent than we saw in our previous 2020 review.

5.29 This section describes these inconsistencies and the consequences of them, whilst also recognising there are valid reasons for local variations, as noted above.

5.30 Primary contribution rates range between 18% and 26% of pay in 2023. This range is a function of differences in age profile as well as different assumptions adopted. It is a slightly wider range than that at the 2020 valuations. The range of secondary contributions reflects different levels of deficit and surplus across funds as well as differences in strategies to allow for deficit and surplus.

5.31 The value assigned to liabilities in each actuarial valuation report has been calculated using assumptions set locally. Differing levels of prudence are to be expected and may be reflective of local variations in risk appetite, but care needs be taken when comparing results.

Reported liabilities

5.32 Chart 5.1 shows a comparison of the SAB funding level against the fund's local basis funding level at the 2023 valuations. Whilst there are reasons for local variations between bases, as described above, this does illustrate the difficulty in drawing conclusions based solely on liability values due to variation in assumptions (including factors such as the levels of prudence adopted).

5.33 If there was no difference in funding on the SAB standard basis and that on the local funding basis all funds would sit on the dotted line. As we would not expect the SAB basis to be used for funding purposes, we would not expect this to be the case. However, if differences in bases were consistent across funds, all funds would sit along a different straight line.

5.34 Whilst there is variation between each of the funds, it is notable that all of the funds that are below the dotted line are advised by Hymans Robertson. This indicates the past service liabilities calculated using Hymans' local funding approach are lower than those calculated on the SAB basis.

5.35 Conversely, we also note that the two funds above the dotted line are advised by the other actuaries. This indicates that past service liabilities calculated using their local funding approaches are higher than those calculated on the SAB basis.

5.36 Chart 5.2 shows the equivalent chart at the 2020 valuations. At that date the local funding approaches of the three firms produced more consistent liabilities, as indicated by the closer clustering of their results. The reasons for the divergence between 2020 and 2023 are discussed further later in this section of the report.

5.37 For the avoidance of doubt, the fact there has been significant movement in many funds' positions on the charts is not a concern, since it reflects major market changes during 2020-23 and the fact the SAB basis is not market related. Rather, we wish to highlight that not all funds have moved consistently.

5.38 As we noted in paragraph 2.27, the SAB standard basis is not useful for assessing liabilities for funding purposes but is helpful as a standard comparative measure. This analysis illustrates the potential range of differences in liability values due to different bases.

Chart 5.1 Standardising Local Valuation results as at 31 March 2023

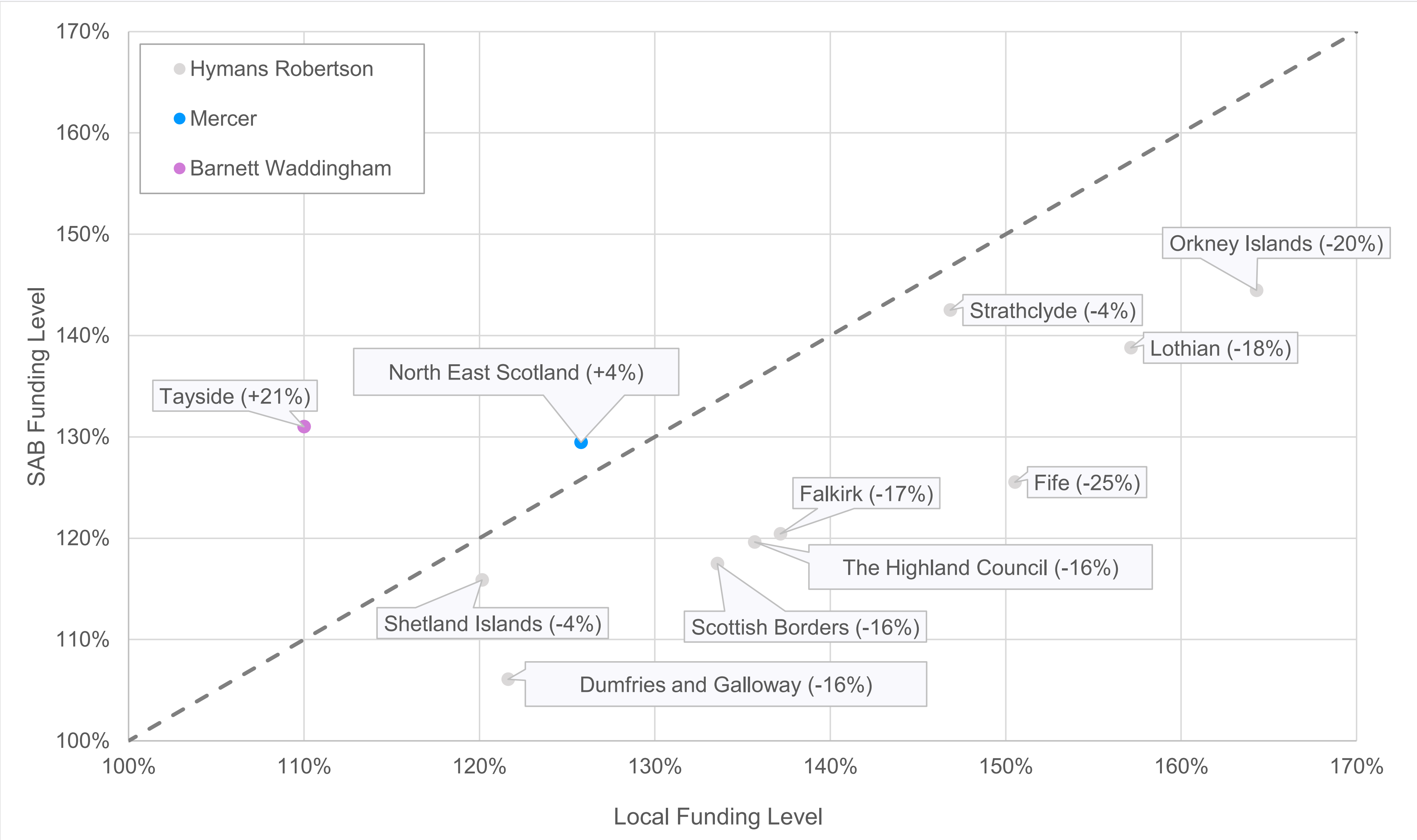
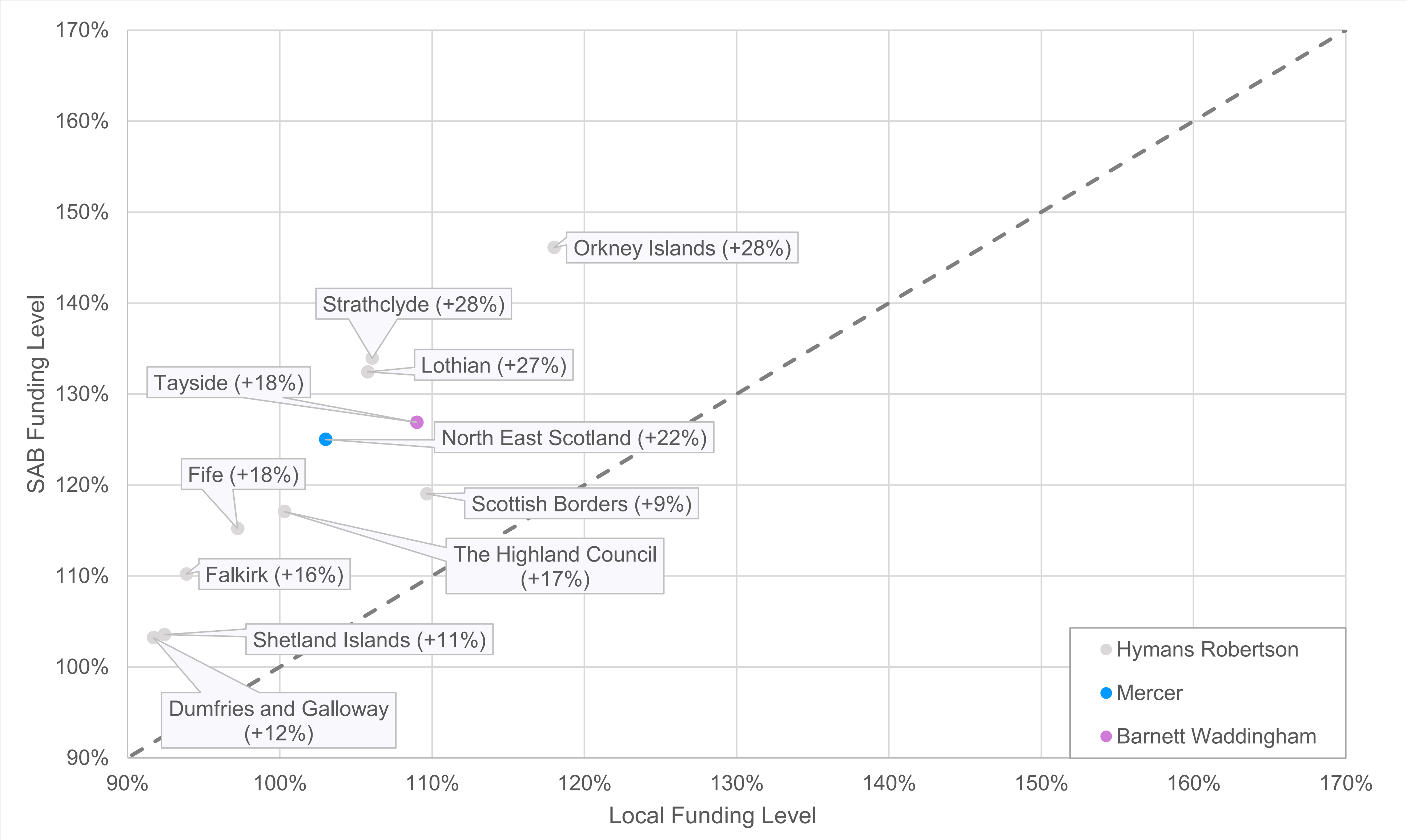


Chart 5.2 Standardising Local Valuation results as at 31 March 2020



5.39 To illustrate the challenges of interpreting the funding levels disclosed in the valuation reports, we compare three example funds, one from each of the advisors, in Table 5.3 below:

Table 5.3: Funding levels of three example funds

Fund	Tayside Pension Fund	North East Scotland Pension Fund	Fife Pension Fund
2020 local funding level	109%	103%	97%
2023 local funding level	110% (i.e. +1%)	126% (i.e. +23%)	151% (i.e. +54%)
2020 SAB funding level	127%	125%	115%
2023 SAB funding level	131% (i.e. +4%)	129% (i.e. +4%)	126% (i.e. +11%)
2020 average 3-year total employer contribution rate	17.0%	19.1%	24.6%
2023 average 3-year total employer contribution rate	15.8%	14.0%	21.3%

Note: whilst the North East Scotland fund merged with the Aberdeen Council Transport Fund during the period, we don't believe this will have significantly affected the comparisons shown throughout this report.

Percentage changes shown as additive impact amounts.

5.40 When the three funds are compared using their local valuation bases, the evolution of their funding positions between 2020 and 2023 appears quite different:

- Tayside's local funding level has remained relatively unchanged.
- North East Scotland's local funding level has increased, by approaching 25%.
- Fife's local funding level has drastically increased, by over 50%.

5.41 However, when the three funds are compared using the consistent SAB basis, they appear quite similar. All the funds have seen a small increase to their funding levels over the period and are now within 5% of each other on the SAB basis.

5.42 This outcome is due to the different assumptions and methods used for local fund valuations by each advisor. For example, each firm is required to include a prudence allowance in their local basis. Different approaches to achieving this are used by each advisor, which results in differences in the resulting funding levels.

5.43 Similarly, the scheme regulations require that actuaries target stability of contributions over time as part of their local valuation process. The way that this is being achieved can influence the funding levels disclosed.

5.44 The economic climate at the 2023 valuations has exacerbated the differences we are seeing between each actuarial firm's disclosed funding levels. When interpreting the local funding levels of any particular fund, it is critical to understand the method and assumptions being adopted for that assessment.

Employer Contribution Rates

5.45 We note that whilst local funding levels in the example above differed markedly, all three valuations ultimately resulted in contribution rate reductions. This highlights that different methods can potentially lead to similar conclusions, despite apparent differences in the intermediate calculations.

5.46 This also reflects that employer contribution rates are not just affected by funding levels. The long term cost efficiency section of our report, below, provides further commentary on the consistency of surplus usage when setting contribution rates.

5.47 That section highlights the importance of prudence, stability mechanisms, and surplus buffers in setting funds' ultimate employer contribution rates (and the local variations seen between them). We believe further clarity in reports on the extent to which these tools have changed outcomes would aid transparency and allow easier comparisons between funds.

Assumptions

5.48 To better understand the key drivers of the differences in funding levels we saw above, we have analysed the assumptions used in funds' local funding bases.

5.49 Our analysis considers whether variations in those assumptions could be explained in terms of local conditions, or whether they reflect wider differences in approach.

Discount Rate

5.50 The discount rate is the most significant assumption in terms of impact on the valuation results. We have therefore focused on the derivation of this assumption in this section. It is expected that different advisors will have different views on expected future investment returns, from which discount rates are derived.

5.51 We first consider the discount rate used to value past service liabilities. The pre-retirement discount rate is derived from the expected return on assets with a deduction for prudence. The chosen discount rate may be affected by a range of factors, such as different views on best-estimate returns. However, comparing discount rates between funds should give some indication of the level of prudence included within each discount rate. The range of real discount rates (net of assumed increases in the Consumer Price Index "CPI") used by actuarial advisor is set out in Chart 5.3 below.

Chart 5.3 Discount rate range (net of CPI) as at 31 March 2023

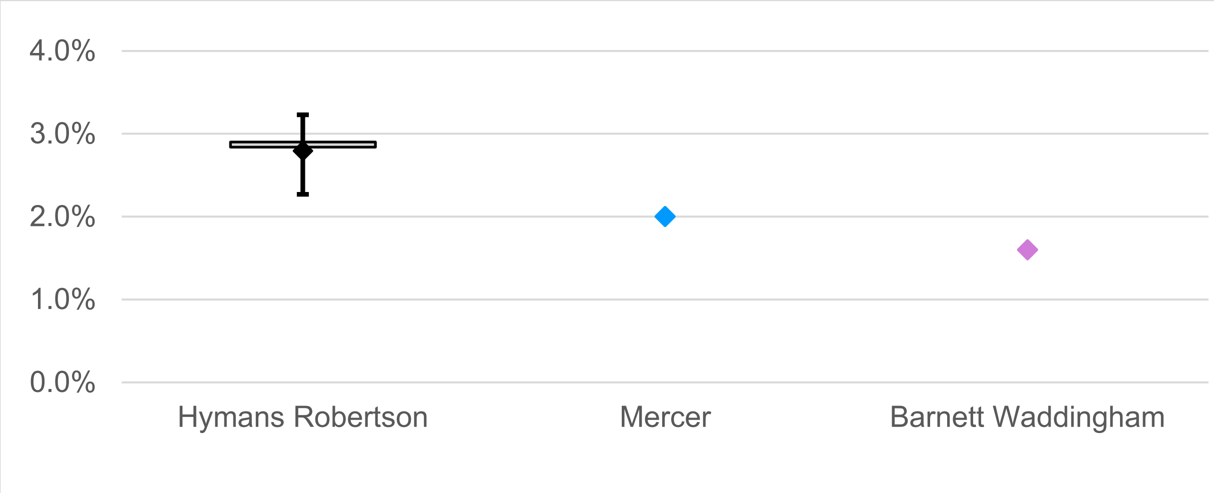


Chart 5.4 Discount rate range (net of CPI) as at 31 March 2020

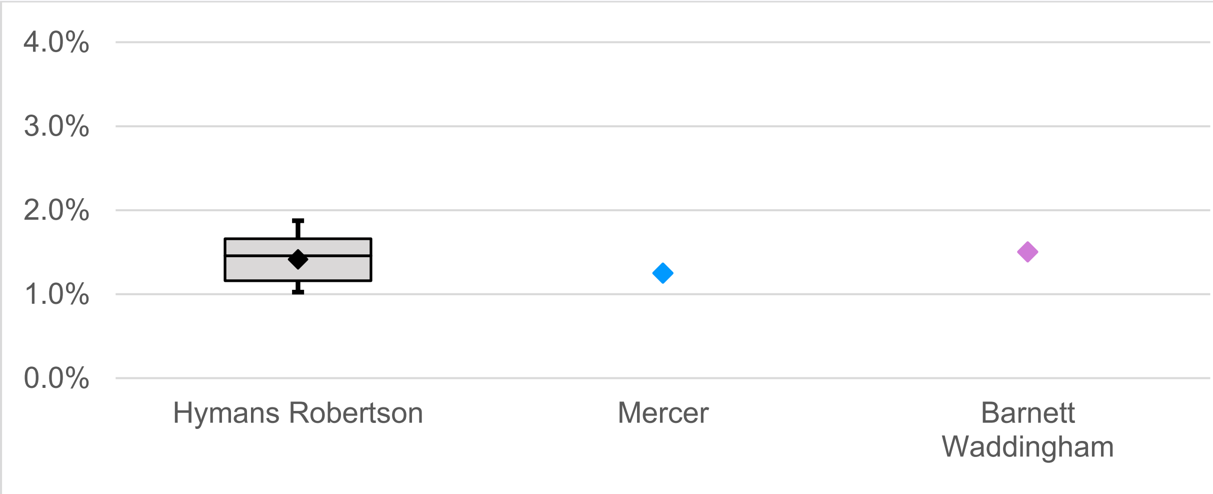


Chart 5.3 illustrates the range of discount rates used by the three actuarial advisors at the 2023 valuations (with the closed fund, Scottish Homes Pension Fund, excluded).

In 2023, funds advised by Hymans Robertson have the highest discount rate used for assessing past service liability values, while the two funds advised by Barnett Waddingham and Mercer are lower.

Chart 5.4 shows that the spread of discount rates at the 2020 valuations was narrower. The discount rates used by the three actuarial firms at that date were therefore more consistent than in 2023.

5.52 Charts 5.3 and 5.4 show the variance by actuarial advisor to the discount rate for past service liabilities, where:

- Hymans Robertson - the box in the middle represents the range of real discount rates used for the middle 50% of the advisor's funds i.e. the lower and upper lines for the shaded box represent the spread for the lower and upper 25% of funds. This shows a very tight distribution of these central funds at the 2023 valuation. The end points represent the minimum and maximum discount values. The diamonds represent the average real discount rate.

- Barnett Waddingham and Mercer - the diamond reflects the fund which they advise.

5.53 The differences between charts 5.3 and 5.4 show the variation in assumptions has widened between valuations. In 2020 there was close alignment of firms, whereas the discount rates used have now diverged. The relative order of the rates used by actuarial firms has also changed.

5.54 This divergence of the discount rates used for the local valuations has been driven by changes in the investment markets that occurred during the second half of 2022. During this period the yield on long-dated gilts increased significantly. The different approaches used by the firms in deriving discount rates, and particularly if and how these methods are affected by changes in the gilt markets, have resulted in a greater divergence of discount rate outcomes between advisors.

5.55 The remainder of this section considers the discount rate methodology in further detail, where table 5.4 sets out how discount rates are set by the actuarial advisors of the four funds chosen at random.

Table 5.4: Discount Rate Methodology

Fund	Comparison provided
Tayside Pension Fund	Weighted average prudent estimated return on long term asset classes.
Fife Pension Fund	Stochastic modelling in line with the fund's investment strategy.
The Highland Council Pension Fund	Stochastic modelling in line with the fund's investment strategy.
Noth East Scotland Pension Fund	CPI plus allowance for real asset return and prudence.

5.56 Barnett Waddingham adopt the same assumption for setting past and future contribution rates, whereas Mercer adopts a different approach and Hymans Robertson use the same underlying model as part of a risk-based analysis.

5.57 Hymans Robertson use an asset liability model to set contribution rates by analysing a probability of success ("meeting the funding target by the funding time horizon") over a projection period (such as, for example, twenty years). We appreciate that Hymans Robertson have provided commentary on their methodology in the dashboard, although comparisons with other funds remain difficult given their approach does not rely upon or use a single discount rate for setting future contributions.

5.58 Mercer's approach allows for contributions made after the valuation date receiving a future investment return that is not directly linked to market conditions at the valuation date. We understand this is used to take account of a desire for overall contribution stability and the reflects uncertainty of future investment returns and inflation. This resulted in a lower discount rate assumption for setting future contribution rates than used to value past service liabilities in the 2023 valuation. This is different than at the 2020 valuation when the future contribution rate discount used by Mercer was higher than that used for past service liabilities.

5.59 Where discount rates reflect market conditions, all funds adopted a consistent approach in basing valuation outcomes on market conditions at the valuation date rather than reflecting subsequent market movements. However, we note Barnett Waddingham's approach uses smoothed financial data that takes as an average of the values from a six-month period centred around the valuation date.

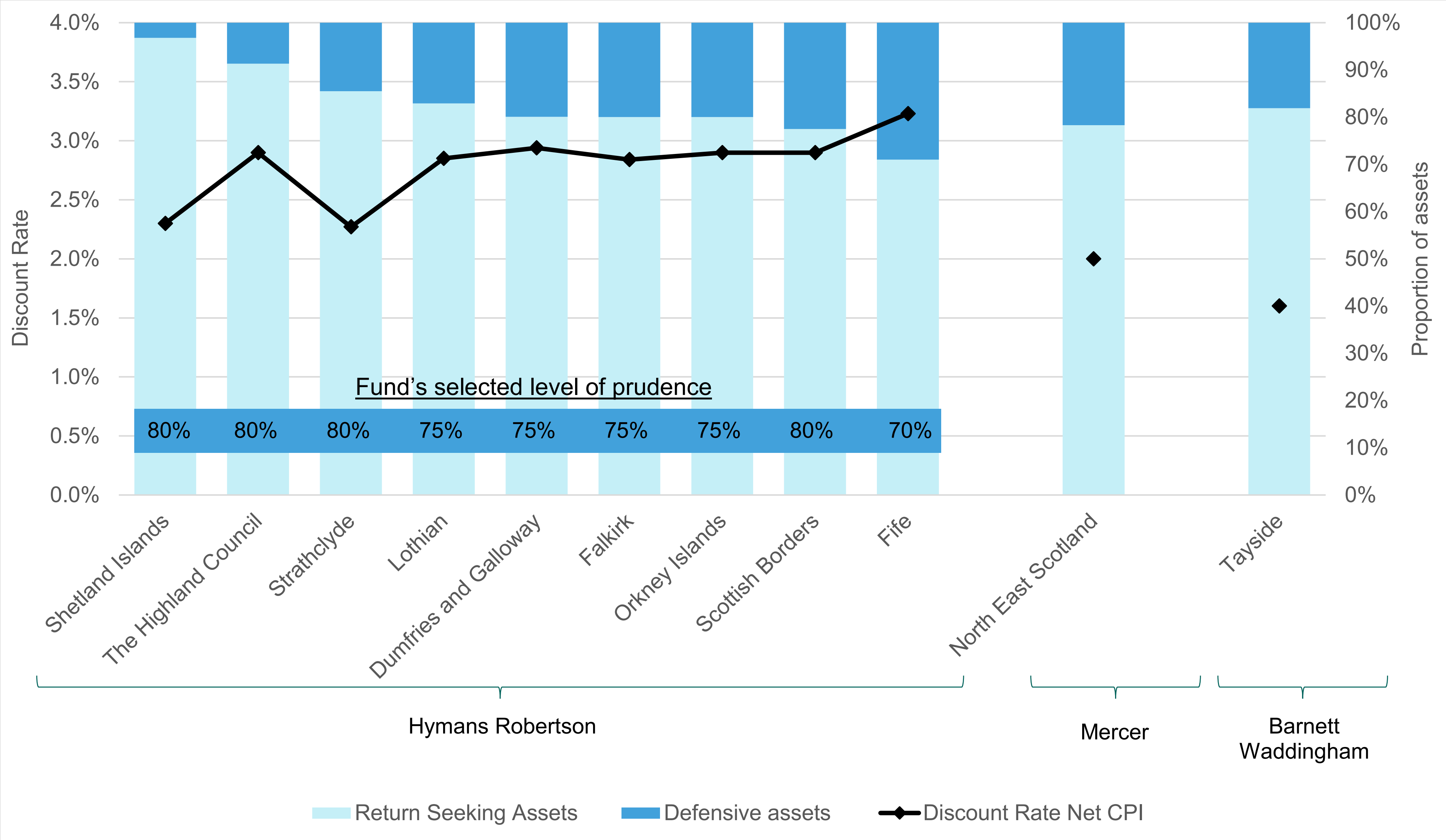
5.60 In addition to considering the differences in discount rates between actuarial advisors, we have also considered differences between individual funds. As you would expect, the discount rates prepared by the same advisor show more consistency than between advisors. Charts 5.3 and 5.4 highlight that the discount rates adopted by Hymans Robertsons' funds were more closely aligned at the 2023 valuations than they were in 2020.

5.61 Hymans Robertson have advised us that the discount rate adopted by each of the funds they advise may be understood as a function of three factors:

- The fund's asset allocation and the expected returns on those assets.
- The fund's chosen level of prudence.
- Fund-specific points for a couple of funds.

5.62 Chart 5.5 below indicates the impact of fund's asset allocations on the discount rate adopted. For funds advised by Hymans Robertson the level of prudence parameter selected by each fund is also shown.

Chart 5.5: Link between the asset allocation of funds and the discount rate



5.63 The chart indicates the differences in the discount rates adopted by funds advised by each of the actuarial advisors. Tayside (advised by Barnett Waddingham) adopt the lowest discount rate, followed by North East Scotland (advised by Mercers), with the funds advised by Hymans Robertson adopting the highest rates.

5.64 Funds with higher proportions of return-seeking assets would generally expect higher investment returns on those assets and so would typically adopt higher discount rates. Funds wanting to adopt a more prudent approach may factor this into their valuation through a lower discount rate. Comparing the different funds advised by Hymans Robertson in the chart above shows that it is the combination of these two factors which has generally driven the discount rates adopted by funds (noting the fund-specific points described below). We observe that funds with higher levels of risk-seeking assets have generally decided to adopt more prudent approaches.

5.65 Fund-specific factors: Hymans Robertson have explained that the Shetland fund's discount rate reflects specific features of their asset allocation strategy and interaction with the prudence level adopted. Similarly, we understand that the Strathclyde fund has decided to adopt a higher inflation assumption for the valuation than other funds. So, whilst it expects generally similar nominal investment returns to the other funds, expected returns net of inflation (and the discount rate net of inflation shown in the chart above) are lower than for other funds.

5.66 We acknowledge that different views of future investment returns, different asset strategies and different risk appetites (among other factors) would suggest different discount rates. Hence, we do not consider the fact that funds adopt different discount rates to be a particular cause for concern. Future asset returns are highly uncertain, and hence there is a wide range of reasonable assumptions that may be adopted. However, it is important to recognise that differences in discount rates make comparisons between funds more complex, and stakeholders will need to ensure they understand the assumptions adopted when considering a particular fund's valuation. Additional information on the derivation of the discount rate, and public documentation of the rationale for any fund decisions which affect it, would be beneficial to the reader of reports to understand and compare.

Other assumptions

5.67 We have compared the following assumptions used by funds:

- Future mortality improvements (life expectancy).
- Commutation assumptions.

5.68 We expect assumptions to vary between funds. To aid transparency, this variation should be justified in relation to local circumstances. Appendix B contains further information on the assumptions adopted.

Overall

5.69 Differences in approaches and assumptions across funds are to be expected under the valuation requirements. However, there continue to be benefits of greater consistency across the scheme and one of the aims in the Public Services Pensions Act 2013 is that fund valuations should be "carried out in a way which is not inconsistent with other valuations".

5.70 Since the 2023 valuations, there has been a review of the guidance provided to support the development of Funding Strategy Statements. One objective of the review was to find a balance between giving scope for innovation and driving enhanced consistency of the valuations. Whilst we recognise this positive development, we note that there is increasing scrutiny and commentator interest in LGPS valuations and surpluses. This, or further economic change, will influence views on the desirability for greater levels of consistency in the valuations over time. The divergence observed among fund discount rates since the 2020 valuations plus difficulties in understanding the causes of differences in secondary contributions (see chapter 7 for further details) highlight a continuing need to focus on consistency.

Recommendation 1:

We recommend that the SPPA continue to engage with scheme stakeholders to assess how greater consistency could be achieved to allow easier comparison between funds and better understanding of risks.

Emerging Issues

Climate risk

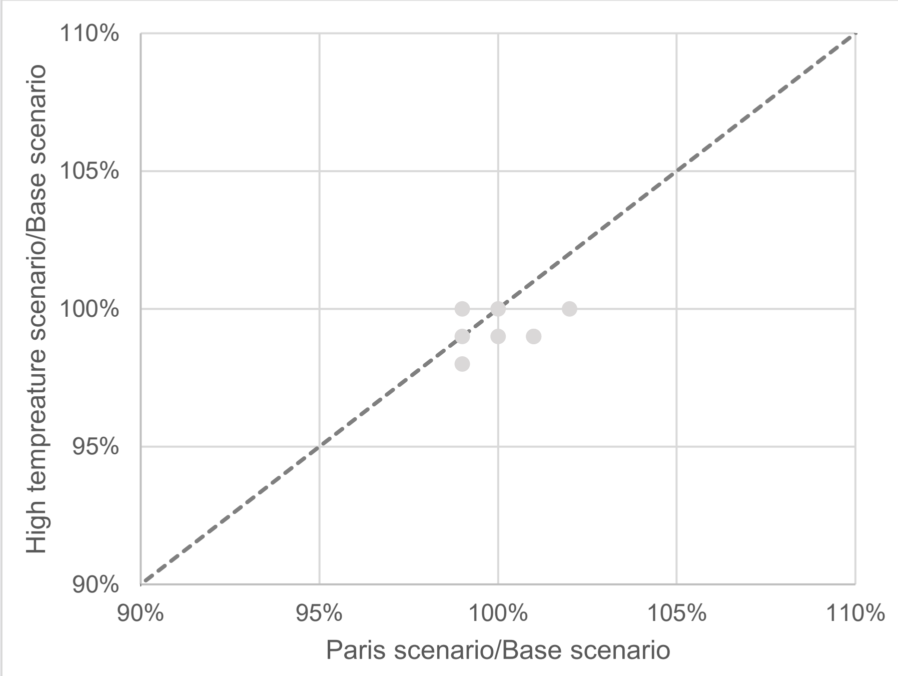
5.71 The 2020 section 13 report highlighted climate risk as an emerging issue and noted a desire to encourage dialogue to aid consistency of approach across funds on the presentation of climate risk analysis. GAD subsequently engaged with the fund actuaries and SPPA to agree broad principles on such analysis ahead of the 2023 valuations. These principles are included in Appendix B.

5.72 10 of the 12 funds carried out climate risk analysis in line with these broad principles with the results of the analyses included in the 2023 valuation reports. We are grateful to the fund actuaries and SPPA for engaging on this issue to improve consistency across the scheme. We recognise the significant progress made by funds and actuarial advisors in the presentation of climate risk analysis as part of the actuarial valuation process.

5.73 Funds which carried out climate change analysis in line with the principles document considered between three and five climate change scenarios. We have summarised the results for Hymans Robertson's funds in Charts 5.6. This shows a relatively high level of consistency between funds but has been provided as a high-level summary only. It should not be used to comment on differences in impacts across funds. This is because, under the broad principles agreed, different funds can reasonably adopt a range of assumptions within scenarios and therefore differences can arise due to assumptions as well as modelled impacts. Further, the summary presented is a snapshot at one point in time and therefore might misrepresent a more considered comparison of projected trajectories over time.

5.74 The success probabilities in Chart 5.6 are the probability that a fund will meet, or exceed, its target of being fully funding over a chosen time horizon. Hymans Robertson calculate this using their risk-based approach, running large numbers of simulations reflecting a variety of conditions drawn from their Economic Scenario Generator (ESG). The base scenario aligns with the core valuation results. We understand the scenarios produced by the ESG for the baseline will still include some that may be associated with certain forms of climate change. Climate sensitivities (described here as high temperature / Paris) adopt different ESGs which put more weight on the particular investment outcomes associated with the given scenario. This affects the distribution of assumed returns, potentially affecting success probabilities.

Chart 5.6: Ratio of success probabilities under climate change scenarios to base scenario, as at March 2042 (for funds reporting success probabilities: Hymans)



5.75 The y-axis in the chart above shows the ratio of success probabilities between the high-temperature scenario and the base scenario. As the high-temperature scenario is generally associated with worse investment outcomes, the ratios shown are less than or equal to 100%. This indicates that under this climate scenario, funds are less likely to meet their target of achieving full funding (albeit the changes are relatively small).

5.76 The x-axis shows similar ratios for ‘Paris aligned’ scenarios. These results are more variable, with some funds seeing increases in success probabilities, and others seeing decreases. This reflects that the impact of this scenario is more dependent on fund-specific factors, in particular fund’s asset allocation choices.

5.77 We note that there is a narrower range of outcomes in Chart 5.6 than seen in the equivalent chart seen in our review of the 2022 valuations of the LGPS in England & Wales. Hymans Robertson have explained to us that this reflects the healthier funding position of the Scottish funds at the 2023 valuations.

5.78 We understand that where baseline success probabilities are already high, it is only the more extreme outcomes in which full funding is not achieved. Whilst we note that, for example, the high temperature scenario will make more extreme adverse outcomes more likely, this may not always be sufficient to change the rounded success probabilities.

5.79 To understand the impact of the high-temperature scenario for these funds, it is therefore also instructive to look at the ‘downside risk’ provided in the reports. This measure looks at the change to funding levels, relative to the baseline scenario, for the worst 5% of outcomes generated by each of the ESGs (regardless of whether the target of full funding is achieved). Table 5.5 shows that the high-temperature scenario generally leads to around a 5% worsening in funding levels, across all funds, in these situations.

Table 5.5: Results of high-temperature climate scenario analysis for Hymans Robertson funds

Fund	Ratio of high-temperature / baseline	‘Downside risk’
Strathclyde	<1%	5%
Scottish Borders	1%	4%
Falkirk	<1%	4%
Lothian	<1%	5%
Dumfries	1%	5%
Orkney	1%	6%
Highland council	2%	6%
Fife	1%	5%

5.80 The funds advised by Barnett Waddingham and Mercer considered the impact on funding levels rather than success probabilities and downside risk. The Paris/Base, and high temperature/Base, ratios for the North East pension fund were 85% and 69%, respectively, and for Tayside Pension Fund they were 100% and 93% respectively.

5.81 The two funds which did not use the climate principles guidance provided their reasons for adopting a different approach below. Ahead of the 2026 valuations GAD would encourage these funds to engage with their stakeholders and consider again whether this type of climate risk analysis could add value to decision-making related to the fund.

Table 5.6: Commentary on climate change approach adopted (provided by each fund)

Fund	Climate change approach commentary provided by the fund
Shetland Island Council Pension Fund	*The approach taken by the Fund to evaluate the possible effects of climate change risk on the funding strategy was set in a proportionate manner commensurate with the Fund's overall approach to risk management. Specifically, the analysis carried out highlighted the effect of a positive/delayed/neutral reaction to the climate challenge and whilst certain scenarios were shown to lead to a worsening of the funding position, the expected impact was deemed to be not material enough to affect the funding strategy set at the 2023 valuation. The Fund's approach to evaluating the effect of climate change on the funding strategy will next be reviewed at the 2026 valuation.*
Scottish Homes Pension Fund	*City of Edinburgh Council (as the Administering Authority to the Scottish Homes Pension Fund) recognises that climate change, specifically the transition and physical risks this poses, could have an impact on the ability of pension schemes to pay benefits in future. The Administering Authority has not quantified the risk exposure at the 2023 valuation since the Funding Agreement with the Scottish Government as Guarantor means the Fund's exposure to climate risk is reduced. If a funding shortfall emerges in future, then the Scottish Government will make payments to the Fund as the guarantor under the terms of the guarantee dated July 2005.*

5.82 The fund's actuaries, GAD, SPPA and other scheme stakeholders agreed that the climate principles document would form a basis for 2023 valuation reporting. We note that climate risk analysis is evolving rapidly and we anticipate a maturing in analysis for the 2026 valuations. The importance of climate risk analysis, and in particular the appropriate communication of risks relative to scenarios presented, was highlighted in the June 2024 Institute and Faculty of Actuaries (IFoA) risk alert on climate change scenario analysis.

5.83 We strongly promote the further development of climate risk analysis and its integration in decision-making by funds. We recommend that the SPPA continue to work with stakeholders to refine the climate risk analysis principles document prior to the 2026 valuations.

Other risks

5.84 There are a number of risks and issues which have the potential to affect the LGPS Scotland pension funds in future. We encourage continued dialogue as these issues emerge, with a view to recognising the benefits of consistency across the scheme in the 2026 valuation and beyond.

5.85 We would encourage consistency of approach to be a consideration for the SPPA when discussing emerging issues, where appropriate and among other factors.

Recommendation 2:

We recommend that the SPPA continue to consider emerging issues and, where appropriate, whether guidance would be helpful to support greater consistency.

As part of greater consistency on climate risk, we recommend that work continues to refine the climate change principles document in advance of the 2026 fund valuations.

6. Solvency

Key Solvency findings

- Funding levels have improved significantly on local bases since the 2020 valuations. This is primarily due to changes in investment conditions, and the resulting discount rates adopted to calculate fund liabilities. In aggregate, the funds of the LGPS Scotland are 141% funded on their local funding bases. This reduces current solvency concerns. However, we note future solvency risk remains an important consideration.

- The improved solvency position of the scheme means that no solvency flags have been raised at this review. However, risks clearly remain, particularly in the context of competing pressures on employer budgets and noting the sensitivity of funding levels to future experience (especially investment market conditions). We encourage funds to continue to review their risks and to respond to emerging issues.

Statutory requirement and chapter content

6.1 Under section 13(4)(c) of the Act, the Government Actuary must report on whether the rate of employer contributions to the pension fund is set at an appropriate level to ensure the solvency of the pension fund.

6.2 In this chapter we outline the results of our solvency analysis and consider more broadly how funds manage solvency risk.

Definition of Solvency

6.3 In line with the definition in CIPFA's Funding Strategy Statement Guidance (see section 2.31) we consider that the rate of employer contributions has been set at an appropriate level, to ensure the solvency of the pension fund, if:

- the rate of employer contributions is set to target a funding level for the whole fund of 100% over an appropriate time period and using appropriate actuarial assumptions.

  and either:

- employers collectively have the financial capacity to increase employer contributions, should future circumstances require, in order to continue to target a funding level of 100%.

  or

- there is an appropriate plan in place should there be an expectation of a future reduction in the number of fund employers, or a material reduction in the capacity of fund employers to increase contributions as might be needed.

Funding position at March 2023

6.4 Over the period from 31 March 2020 to 31 March 2023, the aggregate funding position of LGPS Scotland funds has improved markedly, from 104% to 141% on the prudent local bases. This has been due to investment returns exceeding expectations and because changes in investment conditions have resulted in increased discount rates, which have in turn reduced funds' calculated liabilities. Further details of the changes to funds' discount rate assumptions are in the Consistency section of this report.

6.5 At the date of writing, we are aware that many funds are likely to have seen further subsequent improvements in their funding position, although this will depend on individual fund circumstances. These improvements in funding reduce the immediate concerns around current solvency risks relative to previous section 13 reviews. However, the sensitivity of funding levels to future experience and competing pressures on employers' budgets mean that solvency risks still exist.

6.6 GAD's best estimate basis is the set of assumptions derived by GAD without allowance for prudence, hence with an intended 50:50 likelihood of actual future experience being higher or lower than the assumption adopted, in our opinion, across LGPS Scotland. Where the funding level on such a basis is greater than 100%, we expect there is a greater than 50% likelihood that existing assets would be sufficient to cover benefits in respect of accrued service when they fall due. This basis is applied consistently across LGPS Scotland and so does not reflect fund specific circumstances or experience.

6.7 As we described in the Consistency section above, the funding levels on the local bases are calculated using different methodologies. To provide additional context, we have therefore also considered the position of the scheme on GAD's best estimate basis. The position following the 2023 valuations is that the funds were very well funded, with an aggregate funding level of 152%. This compares to a lower aggregate funding level of 129% estimated at the 2020 valuation.

6.8 Table 6.1 below sets out the results of the solvency measures we have used for each of the individual open funds. More details on the metrics are also provided in Appendix C.

Table 6.1: Solvency measures results

Pension Fund	Open fund	Relative SAB Funding Level	Non-statutory members	Asset shock	
				Deficit or surplus post asset shock	Impact on contribution rate
Dumfries and Galloway Council Pension Fund	Yes	-29%	0%	Surplus	5.6%
Falkirk Council Pension Fund	Yes	-14%	9%	Surplus	6.1%
Fife Pension Fund	Yes	-9%	2%	Surplus	5.5%
Lothian Pension Fund	Yes	4%	10%	Surplus	7.6%
North East Scotland Pension Fund	Yes	-5%	8%	Surplus	6.6%
Orkney Islands Council Pension Fund	Yes	10%	0%	Surplus	6.5%
Scottish Borders Pension Fund	Yes	-17%	6%	Surplus	6.0%
Shetland Islands Council Pension Fund	Yes	-19%	12%	Surplus	7.1%
Strathclyde Pension Fund	Yes	8%	6%	Surplus	7.4%
Tayside Pension Fund	Yes	-4%	6%	Surplus	7.0%
The Highland Council Pension Fund	Yes	-15%	8%	Surplus	7.2%

SAB Funding Level Metric

6.9 The SAB basis is a useful measure to compare the relative funding position of each fund. However, it is important to note that it is not a market related basis and is not directly appropriate for funding purposes.

6.10 The relative funding positions quoted are relative to the aggregate funding level (of open funds) of 135% on the SAB basis. We note that this aggregate position of the scheme is heavily weighted towards the funding level of the Strathclyde Pension Fund. That reflects that the Strathclyde fund is significantly larger than other funds.

6.11 The Dumfries and Galloway Council Pension Fund is the fund with the lowest funding level on the SAB basis. Whilst this was also the case at our 2020 review, the gap in funding levels has grown relative to the other funds.

6.12 The SAB basis is primarily used for comparison purposes, therefore where a fund's SAB funding level is below the average the fund may still be fully funded or in surplus on a prudent local basis. That is the case for the Dumfries and Galloway Pension Fund. It is for this reason we have chosen not to award a 'white flag' to the fund at this review.

Non-statutory Members Metric

6.13 Different employers have different covenants. We consider taxpayer-backed employers to have a stronger covenant value than other employers and note that the majority of LGPS Scotland employers fall into this category.

6.14 We have been provided with the proportion of members within the fund who are/were employed by an employer without tax raising powers or statutory backing. Whilst there is variation, the open funds in LGPS Scotland have 12% or less non-statutory backed members. That is less than the amber flag threshold of 25%. For that reason, all funds have received a green flag at the 2023 valuation.

Asset Shock Metric

6.15 This is a stress test. It considers the funding position and the impact on contributions if there is a sustained reduction in the value of return-seeking assets. For example, a market correction in which asset values do not immediately recover and losses are not absorbed by changes in assumptions.

6.16 We model the additional contributions that would be required to meet any emerging deficit. This is different to considering the total contributions required following the shock – i.e. we are looking at where there is a risk of large changes to the contribution rate, rather than a risk of the total contribution rate exceeding some threshold.

6.17 Funds with a high level of return-seeking assets are more exposed to asset shocks and more likely to trigger this flag. Similarly, funds with a smaller pensionable payroll, relative to their liabilities, will be more likely to trigger a flag as they will have less capacity to absorb changes in liabilities into future contributions.

6.18 Where funds remain in surplus after the asset shock we do not raise any flags. We have shown in the table above the equivalent level of contributions as a percentage of payroll that would equate to removing such a shock for information only.

6.19 At the 2023 valuations all open funds raised a green flag. In 2020 a similar analysis raised one white flag for the Dumfries and Galloway Council Pension Fund.

6.20 We note that if a shock were to occur, that shock would be more significant if funds' liabilities have grown relative to the size of local authorities. Sections 6.24 to 6.29 give further details of this risk which should be considered in the context of competing pressures on local authorities' and other employers' budgets.

6.21 The potential for future variations in contribution rates is discussed further in the Asset Liability Modelling (ALM) section of our 2022 section 13 report for LGPS England and Wales.

Closed Funds

6.22 The Scottish Homes Pension Fund has no remaining active members. The liabilities are guaranteed by the Scottish Government. We therefore consider it is not subject to the same solvency risk as the other funds.

6.23 As noted in section 2.2, the Aberdeen City Council Transport Fund merged with the North East Scotland Pension Fund before the 2023 valuations. We believe that this has mitigated the risks associated with the closed maturing fund and was a positive development.

Management of Risks

Funding

6.24 Scottish Local Government Finance Statistics for the three-year period to March 2023 suggest the income raised by Scottish local authorities increased by around 16%. Aggregate scheme liabilities, as measured using the fund's local valuation bases, have decreased by around 3% over the same period.

6.25 This could suggest funds' liabilities have become more financially manageable for local authorities over the last few years. However, we note that this change is being driven by differences in local basis valuation assumptions between the 2020 and 2023 valuations. Liabilities on the more stable SAB basis have increased by 25% over the same period, giving a different perspective on the relative growth of the funds and local authorities.

6.26 So, whilst the improved funding of the scheme has reduced overall solvency risk, the general risk comment made in our 2020 section 13 report remains relevant. Local authorities and other employers have finite resources. If the size of pension funds increases more than employer budgets, then this will lead to additional risk for the fund. This is especially notable given increased focus on competing pressures on employer budgets. Given the sensitivity of pension funding levels to changes in market conditions and other experience, it is possible that a period of increased pension contributions will be required in the future despite current strong funding positions.

6.27 If additional pension contributions are required, this may lead to a further strain on local authority and other employers' budgets at a future date.

6.28 We expect that administering authorities are aware of this risk in relation to solvency and factor this into funding decisions. Administering authorities should discuss the potential volatility of future contributions with employers in relation to overall affordability.

6.29 In our section 13 report on the 2022 valuations of the LGPS England & Wales we considered the risk of contribution rate increases and how stability mechanisms and surplus buffers might influence contribution rates over time. This is discussed further in the Asset Liability Modelling (ALM) section of that report.

Governance and other risks

6.30 Whilst the current positive funding position of funds in LGPS Scotland reduces immediate solvency concerns, there are evolving challenges which could impact future solvency which are discussed further in this section.

6.31 In some circumstances, an employer can elect to leave the fund, at which point any debt (or surplus) in respect of some fund members may be crystallised. After such an agreement is reached, there is no further recall on the exiting employer for additional funds if the future funding position changes. Recent improvements in funding positions could affect employers' preferences. It is important that funds understand and manage the implications of any employer exits on the ongoing solvency of the fund.

6.32 Pension funding is long term in nature. We support the approach adopted by the actuarial advisors in relation to the 2023 valuation reports, which note the expected improved funding position between the valuation date and date of signature of the report but did not look to review the valuation results given the long term nature of pension funding. Improvements in funding positions could lead to requests from some employers for mid-cycle reviews of employer contributions based on particular market conditions. Mid-cycle reviews of employer contributions are only appropriate in limited circumstances and both statutory and any other guidance should be carefully considered prior to carrying out such a review.

6.33 GAD does not comment on the investment strategy that LGPS funds should adopt or the types of investments which LGPS funds should invest in. Nevertheless, when choosing an investment strategy, we would expect funds to consider the ongoing cost of the benefits and their capacity to increase contributions if required, alongside the appropriateness of the investment for the fund.

7. Long term cost efficiency

Key long term cost efficiency findings

- The 2023 valuations show healthy funding positions for all funds. Our deficit analysis reflects this, with green flags on all metrics. Whilst most individual employers are now also in surplus, deficit considerations remain relevant for some. It is also important to remain conscious of risks associated with potential future changes to the scheme's funding position.
- We acknowledge there are different approaches to the utilisation of surpluses and funds should consider relevant factors and the trade-off between competing priorities. We have not flagged any funds in relation to surplus usage at this review. However, we note a wide variety of approaches appear to have been adopted and these can result in quite different contribution rate outcomes. The rationale for these differences is not always very clear from the valuation reports. We believe transparency and public documentation of fund's decision making is important.
- Many funds report high probabilities of being fully funded in future. It is important intergenerational equity is considered as part of funding decisions, in particular the extent to which current taxpayers should expect to benefit from surpluses.
- We set out the approach we intend to use to assess how funds have utilised surpluses at future valuations.

Statutory requirement and chapter content

7.1 Under section 13(4)(c) of the Act, the Government Actuary must report on whether the rate of employer contributions to the pension fund is set at an appropriate level to ensure the long term cost efficiency of the scheme.

7.2 This chapter sets out:

- A definition of long term cost efficiency.
- The results of our analysis on long term cost efficiency.
- Future considerations in respect of fund surpluses.

Definition of long term cost efficiency

7.3 In line with the definition in CIPFA's Funding Strategy Statement Guidance (see section 2.31) we consider that the rate of employer contributions has been set at an appropriate level to ensure long term cost efficiency if the rate of employer contributions is sufficient to make provision for the cost of current benefit accrual, with an appropriate adjustment to that rate for any surplus or deficit in the fund.

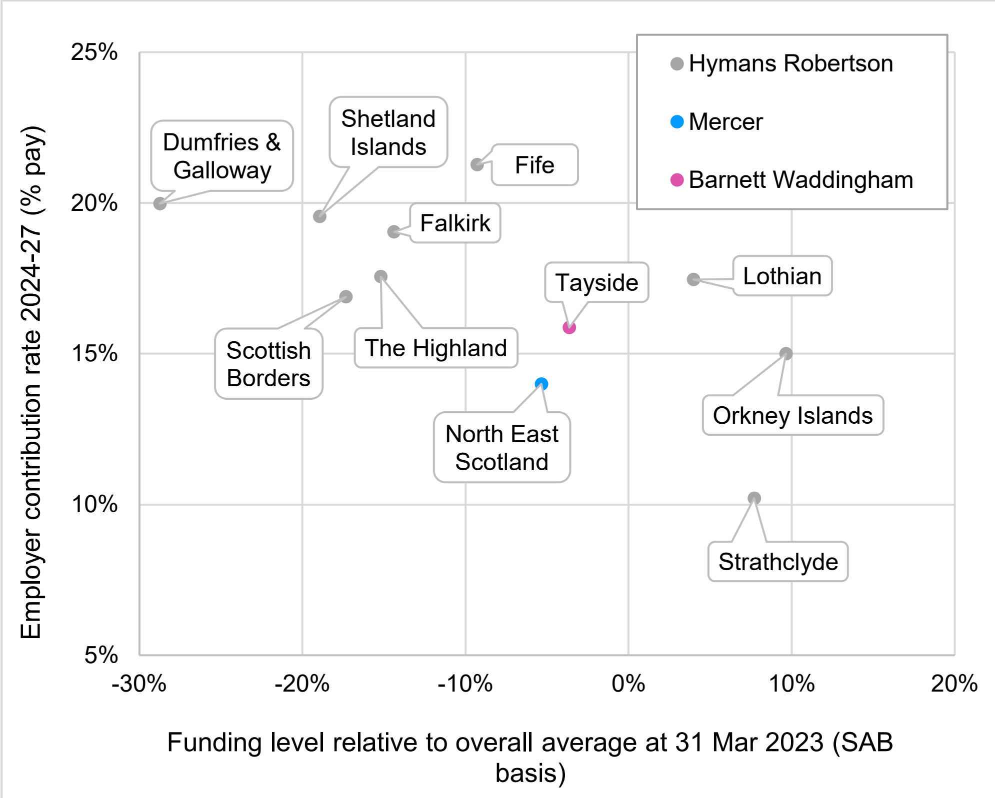
Long term cost efficiency outcomes

7.4 Long term cost efficiency ("LTCE") relates to making sufficient provision to meet the cost of benefit accruals with an appropriate adjustment to reflect the funding position of the fund.

7.5 The LTCE part of the 2020 section 13 review focused on intergenerational fairness, where deficits are not being deferred too far into the future (affect future generations of taxpayers disproportionately) and whether the current generation of taxpayers is benefiting from any surplus appropriately relative to future taxpayers. This reflected the aggregate funding position of the scheme at that time. These remain the key consideration, but as funds' surpluses have increased in aggregate at the 2023 valuations, the use of surpluses has been given greater consideration at this review.

7.6 We have also considered graphically the positioning of funds on a consistent basis. Chart 7.1 plots the funding level relative to the scheme average (normalised to the SAB basis) against total employer contributions (expressed as a percentage of pensionable earnings). Any funds located on the bottom left of the chart would be those receiving lower total employer contributions compared to other funds and which are relatively weakly funded on a standardised basis. For the 2023 Scotland section 13, we did not identify any funds as being in the bottom left quadrant. This was also the case for 2020.

Chart 7.1: SAB relative funding level vs Employer contribution rate



7.7 We have not flagged any funds on the utilisation of surplus at this review. However, we comment on the range of approaches adopted by funds in surplus and set out our proposed approach to this issue for our future section 13 reviews. Table 7.1 sets out the results for the measures we use to assess LTCE for open funds. Further details are in Appendix D.

Table 7.1: Results of LTCE measures

Pension fund	Deficit period	Required return	Repayment shortfall	Surplus retention	Return scope	Deficit recovery plan
Dumfries and Galloway Council Pension Fund	Surplus	3.5%	Surplus	5.9%	1.9%	Green
Falkirk Council Pension Fund	Surplus	3.0%	Surplus	5.6%	2.4%	Green
Fife Pension Fund	Surplus	2.5%	Surplus	7.6%	2.8%	Green
Lothian Pension Fund	Surplus	2.3%	Surplus	4.2%	3.1%	Green
North East Scotland Pension Fund	Surplus	3.1%	Surplus	2.2%	2.5%	Green
Orkney Islands Council Pension Fund	Surplus	2.8%	Surplus	0.7%	2.5%	Green
Scottish Borders Pension Fund	Surplus	3.5%	Surplus	2.9%	2.0%	Green
Shetland Islands Council Pension Fund	Surplus	3.3%	Surplus	6.0%	2.5%	Green
Strathclyde Pension Fund	Surplus	3.2%	Surplus	-2.8%*	2.5%	Green
Tayside Pension Fund	Surplus	3.0%	Surplus	2.4%	3.2%	Green
The Highland Council Pension Fund	Surplus	3.4%	Surplus	3.0%	2.3%	Green

* This figure is negative for the Strathclyde fund which indicates that the average contribution rate set by the valuation is lower than the standard contribution rate on GAD's best estimate basis. We have therefore calculated an implied spreading period in accordance with section D39 of the Appendices to this report. As that period was greater than 10 years the fund received a green flag for this metric.

Deficit Reconciliation

7.8 Whilst in aggregate all funds were in surplus on their local funding basis at the 2023 valuation, individual employers may remain in deficit. For that reason, deficit reconciliation principles remain relevant.

7.9 Where a fund is in deficit administering authorities should avoid continually extending the deficit recovery period end point at subsequent actuarial valuations as this will not meet the LTCE requirements. Over time and given stable, or better than expected market conditions, administering authorities should aim to:

- Maintain the levels of contributions and/or
- Reduce deficit recovery periods by maintaining the end point of the recovery period.

7.10 We believe it is appropriate for funds to consider their plans for the duration of the deficit recovery period, so that future contributions are recognised and these form part of employers' budgeting process.

7.11 We would not normally expect to see employer contribution rates decreasing (reducing the burden on current taxpayers) at the same time as the deficit recovery end point is being extended further (increasing burdens on future taxpayers).

7.12 This expectation balances intergenerational fairness between current and future generations of taxpayers, as required for LTCE.

7.13 We appreciate there may be circumstances where new deficit emerges between valuations, as a result of the fund's experience, where it may then be appropriate to extend the recovery period. For example, if a fund within the last three years of its deficit recovery period experienced a material reduction in its funding level, it would not be appropriate in the context of intergenerational fairness to repay that new deficit within three years also.

7.14 We consider that reconciliation of the deficit recovery plan is an essential component for all funds to demonstrate they meet LTCE requirements. As all funds are in surplus, therefore we have not raised any flags on this metric.

7.15 The 2020 section 13 review recommended the inclusion of additional information on total contributions, discount rates and reconciliation of the deficit recovery plans in the dashboard. We are grateful that funds have disclosed this additional information, which has aided our analysis on deficit reconciliation.

Surplus considerations

General

7.16 At the 2023 valuations, all of the funds were in surplus on a local basis, an increase of four since the 2020 valuations. As noted above, local funding levels and implied surpluses have also increased significantly at the 2023 valuation. This increases the importance of how surpluses are utilised across the scheme.

7.17 There is a range of reasonable uses of fund surpluses, with strategies varying by fund to manage their specific risks and circumstances. Examples of surplus uses include (where the list below is not exhaustive):

- Reductions in contributions, which may be managed via a surplus buffer (i.e. only surplus above an agreed funding level is utilised) or stability mechanism (with restrictions on the extent to which contribution rates can change over an agreed time period).
- Review of investment strategy.
- Reviewing the level of prudence within funding strategies, which changes the chance that future experience is better/worse than assumed.

7.18 GAD does not comment on the investment strategy that LGPS funds should adopt, and it is proper that funds make decisions appropriate to their specific risks and circumstances. The statutory requirements for this review do require GAD to consider whether contributions have been set to ensure long term cost efficiency. Therefore, our focus is on contribution rate outcomes and intergenerational fairness, i.e. whether the current generation of taxpayers is benefiting from any surplus appropriately relative to future taxpayers.

7.19 Overall, there needs to be a balance between funds:

- Utilising surplus too quickly; and
- Retaining large surpluses.

7.20 On this basis, we have reviewed the different approaches adopted by funds in surplus at the 2023 valuations. We are grateful to the actuarial advisors for providing general insights into the range of considerations taken into account by administering authorities.

7.21 We are aware of recent commentary around competing pressures on local authority (and other employers') budgets, and whether current fund surpluses could help alleviate some of those pressures. Our approach to long term cost efficiency considers such points, in terms of whether the current generation of taxpayers is benefiting from surplus appropriately relative to future taxpayers.

7.22 We consider it important that funds and employers take account of all relevant factors when making decisions on funding, considering risks and implications over an appropriate time horizon.

7.23 Outcomes from the 2023 valuations depend on the priorities given by funds to different uses of surpluses.

7.24 In our view, the uses outlined above are consistent with current guidance on scheme contributions. However, inconsistencies in outcomes across funds can arise where funds place different weights on the options for use of surplus.

Fund analysis

7.25 Chart 7.1 illustrated the relatively weak correlation that was seen at the 2023 valuations between funding levels and total employer contribution rates.

7.26 Table 7.2 summarises the outcomes of the 2020 and 2023 valuations in more detail, helping to illustrate the various approaches funds have taken to utilising the surplus that has emerged at this valuation.

Table 7.2: Funding levels and setting employer secondary* contributions

Pension fund	2023 local funding level	2020 local funding level	Secondary rate 24/25 (2023 val)	Secondary rate 25/26 (2023 val)	Secondary rate 26/27 (2023 val)	Stabilisation used in 2023	Secondary rate 23/24 (2020 val)	Probability of success**
Dumfries and Galloway Council Pension Fund	122%	92%	+0.3%	-0.7%	-1.6%	Stability mechanism	+1.2%	92%
Falkirk Council Pension Fund	137%	94%	-1.9%	-1.9%	-1.9%	Stability mechanism	+0.9%	94%
Fife Pension Fund	151%	97%	-0.8%	-0.8%	-0.8%	Stability mechanism	-0.9%	94%
Lothian Pension Fund	157%	106%	-7.5%	-7.5%	-7.5%	Stability mechanism	-1.3%	95%
North East Scotland Pension Fund	126%	103%	-6.2%	-6.2%	-6.2%	115% surplus buffer	-2.6%	N/A
Orkney Islands Council Pension Fund	164%	118%	-7.1%	-7.1%	-7.1%	Stability mechanism	-7.0%	95%
Scottish Borders Pension Fund	134%	110%	-5.0%	-5.0%	-5.0%	Stability mechanism	-3.5%	95%
Shetland Islands Council Pension Fund	120%	92%	-6.9%	-6.9%	-6.9%	None	+0.3%	88%
Strathclyde Pension Fund	147%	106%	-15.0%	-15.1%	-4.7%	None	-7.1%	94%
Tayside Pension Fund	110%	109%	-6.7%	-6.6%	-6.6%	10% volatility asset reserve	-5.9%	N/A
The Highland Council Pension Fund	136%	100%	-0.3%	-0.3%	-0.3%	Stability mechanism	-1.9%	93%

* An equivalent table, showing a comparison of total employer contribution rates, is provided in Appendix D.
** see section 7.36 for further details.

7.27 Table 7.2 shows funds' funding levels, and the resulting secondary contribution rates, at the 2020 and 2023 valuations. Appendix D shows a similar table for total employer contribution rates.

7.28 There does not appear to be a direct correlation between funding levels and contribution rates. This suggests that local factors, and decisions, have had a material impact on contribution rates set by the valuations.

7.29 Local differences, such as risk appetite and prudence, are reasonable to consider in funding. This can lead to local variations in surplus usage, and ultimately contribution rates. Differential rates are therefore not inconsistent with the principles set out above. However, it is important that decision making is robust and evidenced and appropriately takes account of the views of all stakeholders.

Stability and prudence

7.30 Most funds have chosen to stabilise contribution rates emerging from the valuations. This is not unreasonable and reflects the wider statutory framework of the scheme.

7.31 Many funds advised by Hymans Robertson use a form of stability mechanism. This limits the extent of contribution rate changes over a period. We note that there are differences in the mechanisms being used, both in terms of the size of limits applied, and the mechanics of how the rates are stabilised.

7.32 For example, the Highland Council's funding strategy statement notes that if applicable its stability mechanism "keeps contribution variations within a pre-determined range of 0.5% of pay each year." Other funds adopt a different limit, with Orkney's funding strategy statement indicating the maximum contribution increase / decrease per year is 1.0% of pay.

7.33 Similarly, the Dumfries and Galloway fund has phased contribution rate reductions year to year, within the three-year period set by the 2023 valuation (for its Dumfries and Galloway Council Pool). Whilst others, such as the Falkirk fund, have applied the full reduction in the first year of the period, and kept the contribution stable for the following two years.

7.34 Lothian's funding strategy statement indicates that "a contribution stability mechanism operated between 2013 and 31 March 2023. From 1 April 2024, the contribution stability mechanism will be suspended for a period of three years and is expected to be reintroduced following the 2026 actuarial valuation."

7.35 For these stability mechanisms it is the employer's total contribution rate that is stabilised, rather than the secondary rate, as shown in Table 7.2. It is also key to recognise the overall fund contribution rate will be a mix of rates for both stabilised and any non-stabilised employers.

7.36 As part of their assessment, the Hymans Robertson valuation approach provides the investment return that would be required, to meet the liabilities that have been built up by members' service to the valuation date. The method then also indicates the probability of achieving this, considering the fund's investment strategy and a statistical model of potential future investment returns. We note that this does not allow for contributions or future benefit accrual that will occur after the valuation date.

7.37 Table 7.2 shows these probabilities for each of the funds. These probabilities enable stakeholders to make judgements on the relative strength of funding position, at the valuation date. Such transparency is welcome as providing better insights to decision-makers than more general terms such as “prudent”.

7.38 We note that some of the probabilities shown in the table are relatively high, indicating high levels of likelihood that the fund currently holds enough assets to meet its future benefit payments (relating to accrual up to the valuation date). Whilst this is welcome in terms of security, from a long term cost efficiency perspective, this also suggests a high likelihood of current assets being more than sufficient to meet these liabilities. We believe it is important intergenerational equity is considered as part of funding decisions, in particular the extent to which current taxpayers should expect to benefit from any surpluses. We recognise the usefulness of including these probabilities in valuation reports and acknowledge that it will likely have been part of funds’ considerations during the 2023 valuation process.

7.39 Whilst we are aware that funds will have received advice on the operation of these stability mechanisms, and the level of prudence adopted, there is limited information publicly available in the valuation and strategy reports on the basis for contribution rate differences. It is therefore unclear why particular funds have decided / not decided to adopt particular mechanisms, and their choice of parameters used. We believe that the publication of further information, particularly on the rationale underlying decisions, would assist GAD and other stakeholders in taking a view on fund’s usage of these arrangements and understanding of contribution rate differences.

7.40 Barnett Waddingham and Mercer (beginning at the 2023 valuation) have used surplus buffering / asset volatility reserve mechanisms. These stabilise contribution rates by limiting the amount of surplus available to be used to reduce secondary contributions. Again, we understand that these mechanisms have been reviewed as part of the valuation process, but fund’s decision-making processes and rationale are not available in valuation reports or funding strategy statements. In particular, there is no link given between a certain funding level or buffer level and the resulting reduction in probability of a future deficit, which might help decision-making in balancing security versus intergenerational fairness.

7.41 We note that it is important to take a holistic approach when considering these mechanisms. For example, any resulting prudence introduced should be considered in the wider context of prudence applied throughout the valuation process (such as any prudence included in setting discount rates).

7.42 Further details of the operation of stabilisation mechanisms and surplus buffers can be found in the Asset Liability Modelling section of our 2022 section 13 report for the LGPS England & Wales.

7.43 From a technical perspective, where our analysis has required us to project contribution rates over a longer period, we have used the average rates over the three-year valuation period as the basis for that projection. If funds are able to provide additional information about their longer term expectations for contribution rates then this could assist our analysis at future reviews.

Strathclyde fund contribution rate structure

7.44 The Strathclyde fund has decided not to operate a stability mechanism. It has opted to set negative secondary contributions of around 15% for two years, easing to around 5% in the final year. We understand this approach attempts to strike a balance between providing contribution reductions, whilst setting what the fund has described as "a sustainable long term rate in the final year". Providing this clear rationale is useful for GAD's (and other stakeholders') understanding of the approach.

7.45 Long Term Cost Efficiency recognises the importance of the longer term. GAD therefore welcomes Strathclyde's clear consideration of rates beyond the end of the current three-year valuation period. However, we note that the chosen approach does lead to a large change in contribution rates in the last year of the period.

7.46 We understand that this approach may assist with local authority budgeting in some circumstances and has been subject to careful consideration and scrutiny. However, we would caution that introducing a large change in rates within a valuation period can lead to implementation challenges and is not stable in the year of that change.

7.47 Economic conditions can also change, and this may challenge the implementation of a backloaded contribution rate structure. For example, we note the Royal Borough of Kensington & Chelsea pension fund in England used a similar contribution rate structure at its 2022 valuation. That fund has decided to change rates in the final year of its valuation period, to remove the planned step-up in the contribution rates, and instead reduce them so that no contributions are payable over that year.

Summary

7.48 GAD's overall view is that whilst local decision-making and context can lead to different outcomes, we expect consistency in funds' surplus considerations. We would expect the existence of surplus, the stability of contributions, and prudence, to be explored and understood in the context of long-term cost efficiency. We view transparency and public documentation as key to the process - to allow all parties the opportunity to contribute their thoughts, ensuring informed local decision making.

7.49 We believe it is appropriate for SPPA to consider surpluses more broadly ahead of the 2026 valuations and consider whether additional guidance is required.

Recommendation 3:

We recommend that ahead of the 2026 valuations SPPA consider whether additional guidance is required to:

- support funds in balancing the different surplus considerations when setting contribution rates.
- assist funds in enhancing the transparency and documentation of decisions relating to surplus usage, in particular on the balance between solvency and intergenerational fairness.

GAD's proposed approach for future reviews

7.50 GAD has not flagged any funds on the utilisation of surplus at this review, instead opting to provide general commentary on the use of surpluses seen across the funds.

7.51 To assist transparency, we set out the general approach we intend to adopt to this issue at future valuations. This approach is intended to support our general principles on surpluses set out in the previous section of the report.

Funds utilising surpluses too quickly

7.52 We previously introduced a surplus retention metric to consider how quickly a surplus is being utilised on GAD's best estimate basis. The results of this are shown in the fifth column of Table 7.1, on page 46 above. The metric checks whether the total employer contribution rate being paid is less than the best estimate contribution rate. The aim is to highlight any funds where contribution reductions in respect of surplus could lead to too great a funding risk in the short- to medium-term, measured on GAD's best estimate basis.

7.53 The rationale for this metric is to ensure intergenerational fairness. If surpluses are being realised too quickly, current taxpayers might be benefiting inappropriately relative to the risk being passed to future taxpayers. As shown in Table 7.1, the 11 open funds raised a green flag for this metric at this review.

Funds retaining "large" surpluses

7.54 The counter risk to funds utilising surpluses too quickly is funds retaining too great a surplus and not recognising the strong funding position in the fund's contribution rates. In such a scenario the fund may be seen as being unfair to current taxpayers, with future taxpayers expecting to benefit disproportionately.

7.55 For future reviews, GAD will adopt a three-step approach:

1. Identify the highest funded funds, considering both the local bases and on a standard basis.

2. Identify those funds which are relatively well funded, on the local and standard basis, and are also paying relatively high contributions. The identified funds will be subject to GAD's section 13 flagging system.

3. For those funds identified in steps one to two, we would undertake qualitative analysis, for example considering how contribution rates have evolved since the previous valuation and any stated rationale behind the approach adopted. Where funds have publicly documented decision making, and rationale, this will assist with our review. The outcome of this analysis will determine the colour of the flag ultimately adopted.

7.56 Steps one to three aim to identify funds which are exceptionally well funded, or those which are relatively well funded and paying relatively high contributions. We propose considering results on two bases, initially using the SAB funding level to provide a consistent basis. However, as this is not a funding basis we will also consider the position on the local funding basis. The funds identified in steps one to three will not raise an immediate flag as we also wish to consider any other relevant circumstances and the decision-making process.

7.57 We would then engage with any funds identified from this process to discuss any concerns before deciding which funds to flag. If funds are able to pre-empt this engagement, by publicly documenting decision making and rationales this will aid our analysis.

7.58 In order to aid comparison on the approaches to surpluses and to facilitate this process, we will discuss with the fund actuaries if further information could be provided in their dashboard.

Additional analysis of surplus strategies

7.59 In addition to the above metrics, future reviews will also look more broadly at the usage of surplus across the scheme.

7.60 We will identify any funds with surplus calculations that are non-standard, or those where particular groups of employers may have concerns about their surplus calculations.

7.61 We will particularly consider any funds where it is unclear how stability of contribution rates is being achieved through the valuation.

7.62 We will consider the possible development of the scheme’s overall funding position at an aggregate level. This will enable us to understand the rate at which the scheme will draw down or continue to build surpluses over the medium term.

7.63 We will also illustrate the potential variability of funding outcomes, over the medium term. This will illustrate the risks associated with the scheme as a whole returning to deficit, or reaching a position at which it holds an extreme level of surplus.

7.64 We have previously illustrated the potential for future variations in employer contributions and funding through an Asset Liability Modelling exercise. This can be found in the relevant section of the LGPS England and Wales 2022 section 13 report. This analysis also illustrated the impact of mechanisms used to achieve stability of contribution rates.

7.65 We will also look at the relative difference between local and GAD best-estimate funding levels over time. This will help understand the impact of prudence at each valuation.

7.66 Finally, we will illustrate any potential correlations between changes in contribution rates at future valuations and the levels of local authority employer financial resilience seen in a fund.

7.67 Whilst we appreciate that detailed information is included in Funding Strategy Statement and the decisions and discussions can be complex in nature, we think additional information in the dashboard would be of benefit to the different stakeholders in LGPS Scotland. GAD will engage with SPPA and the fund actuaries to understand how the dashboard can be revised for additional surplus information.