Government
Actuary's
Department

Local Government Pension Scheme England and Wales

Review of LGPS fund valuations as at 31 March 2022 under Section 13

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1. Executive Summary

1.1 The Government Actuary has been appointed by the Ministry of Housing, Communities and Local Government (MHCLG) (formerly the Department for Levelling Up, Housing and Communities) to report under section 13 of the Public Service Pensions Act 2013, in connection with the 2022 actuarial valuations of the funds in the Local Government Pension Scheme England and Wales (LGPS or "the scheme").

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 2016 and a second exercise was undertaken as at 31 March 2019.

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 2019

1.5 We made four recommendations as part of the 2019 section 13 report. In summary, we recommended that:

1. Consideration should be given to the impact of inconsistency on the funds, particularly in relation to emerging risks including climate change.
2. Funds should ensure that their deficit recovery plans can be demonstrated to be a continuation of their previous plan.
3. Additional information about contributions, discount rates and reconciling deficit recovery plans should be added to the dashboard.
4. Governance around asset transfer arrangements from local authorities should be reviewed to ensure any such arrangements meet the fund's long term funding objectives.

1.6 We are pleased to note good progress has been made in relation to recommendations 1 and 3. However, further actions in relation to recommendations 1, 2 and 4 are suggested.

1.7 We set out our comments on this progress in more detail in Chapter 3.

Funding position at 2022

1.8 In aggregate, the funding position of the LGPS has improved since 31 March 2019 and the scheme appears to be in a strong financial position, specifically:

- Total assets have grown from £290bn in 2019 to £366bn in 2022 (taking the value used in the local fund valuations).
- Total liabilities disclosed in the 2022 local valuation reports amounted to £344bn. 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).
- The aggregate funding level on these prudent local bases has improved from 98% (at 2019) to 106% (at 2022). However individual funds have seen a range of funding level changes from a decrease of 2.6% to an increase of just under 30%.
- At the date of writing, we are aware that many funds are likely to have seen further subsequent improvements in their funding position. However, this will depend on individual fund circumstances.
- Whilst the aggregate funding position has improved, not all funds were in surplus at 31 March 2022, with 26 out of 87 being in deficit.
- The improved aggregate funding level is due in large part to strong asset returns over the 3 year period to March 2022. Investment returns averaged around 9% pa over the period. Funding also improved due to the continuation of substantial financial contributions from most LGPS employers.
- The aggregate funding level on the Government Actuary's Department's (GAD's) best estimate basis is 119% (at 2022). 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 G.
- The improved funding position has increased the focus on how funds treat surpluses, with relevant considerations including balancing intergenerational fairness with the priority given to stability of contributions.
- Material solvency risks continue to exist given the range of funding positions across the scheme, the sensitivity of funding levels to future experience (especially investment market conditions) and competing pressures on employers' budgets.

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

Compliance

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

Consistency

1.11 Section 13 requires each fund's valuation to be carried out in a way that is not inconsistent with other LGPS 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. 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.

1.12 Further to our recommendations from previous section 13 reports, we are pleased to note all funds have continued to adopt a consistent "dashboard" and that additional information requested following the 2019 section 13 report has been provided. We consider this a useful resource to aid stakeholders' understanding, because information is presented in a consistent way in the dashboards. We consider it important to continue to review the information contained within the dashboard to ensure it remains helpful to stakeholders. We will discuss with fund actuaries if further information could be provided to inform stakeholders on the different approaches to removing surpluses.

1.13 However, even given consistency in presentation in the dashboards, differences in the underlying methodology and assumptions (which we call evidential inconsistency) mean that it is not possible to make a like for like comparison between funds.

1.14 There is no indication of significant improvement in evidential consistency since the previous review. 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. The Scheme Advisory Board (SAB) are facilitating a review of the Funding Strategy Statement guidance. Therefore, as part of this review, we encourage stakeholders to consider potential benefits of greater presentational and evidential consistency among other relevant factors.

Recommendation 1:

We recommend that the Scheme Advisory Board consider whether greater consistency could and should be achieved to allow easier comparison between funds and better understanding of risks.

1.15 We are grateful to the fund actuaries and MHCLG for engaging on climate risk analysis since the previous review. We believe that the climate risk analysis principles document agreed ahead of the 2022 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 Scheme Advisory Board considers with other stakeholders what common principles should be adopted for the 2025 fund valuations to facilitate consistency in climate risk analysis across the scheme.

1.16 The landscape in which the scheme operates is continually changing such that the scheme will face different challenges over time. We support the SAB 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 Scheme Advisory Board 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 2025 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 2019.

1.17 As currently set out in 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

1.18 The improvement in the funding position of the scheme has reduced the immediate solvency concerns. We have raised no red or amber flags in relation to solvency. However, risks clearly do remain which are important for funds to consider, particularly in the context of competing pressures on employer budgets and noting the sensitivity of funding levels to future experience (especially investment market conditions).

1.19 Some councils have made a commitment to transfer some property assets to their pension funds at a future date. Whilst we are not aware of any new arrangements or any currently under consideration, we note these are complex and, in some cases, established with a long time horizon. For these reasons care needs to be taken to ensure they are suitable investments for a pension fund and that they are compliant with the wider local government capital framework. The governance around any such asset transfer arrangements requires careful consideration, and we recommend that these arrangements are considered as part of the Funding Strategy Statement guidance review as set out in recommendation 3.

Long term cost efficiency

1.20 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.

1.21 In 2022, we are flagging two funds as raising potential concern in relation to long term cost efficiency under the deficit period measure.

1.22 For a further fund, we are concerned that employer contribution rates are decreasing (reducing the burden on current taxpayers) at the same time as the deficit recovery is being extended further into the future (increasing the burden on future taxpayers).

1.23 Different approaches have been taken by different funds at the 2022 valuations to determine how surplus is utilised. GAD has not flagged any funds on the utilisation of surplus at this review. Funds appear to have made decisions having considered relevant factors. However, we also note inconsistencies in outcomes will arise where funds place different weights on these factors, and we recognise the importance of considering intergenerational fairness i.e. the balance between the interests of current and future taxpayers and employers.

1.24 We set out in the long term cost efficiency chapter of this report the approach that we intend to use for future section 13 reviews to assess how funds have utilised surpluses at future valuations. The approach is 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.

1.25 We have illustrated the potential implications of different approaches to surplus management in our Asset Liability Modelling (ALM), as well as the uncertainty of long term contributions and funding and therefore the link to solvency risks.

1.26 We support the SAB in facilitating the review of the guidance on Funding Strategy Statements mentioned above. We recommend that the treatment of surpluses and deficits, together with the governance on asset transfers, should be included as part of this review.

Recommendation 3:

We recommend that the Scheme Advisory Board consider the following:

- Where funds are in surplus, whether additional guidance can be provided to support funds in balancing different considerations.
- Where deficits exist, how can all funds ensure that the deficit recovery plan can be demonstrated to be a continuation of the previous plan.
- Whether additional guidance is required in relation to the treatment of asset transfers from local authorities.

2. Introduction

2.1 This introduction provides background information on the local government pension scheme and the review we have undertaken, including:

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

What are Local Government Pension Scheme valuations?

The Local Government Pension Scheme in England and Wales (LGPS, or "the scheme") is a funded scheme comprising 87 different funds. 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.

2.3 Each LGPS pension fund is 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.

2.4 In addition to the individual valuations carried out by each fund, GAD carries out the following valuations:

- A valuation of the whole scheme, with the latest such valuation occurring as at 31 March 2020: Local Government Pension Scheme (England and Wales). This valuation evaluates the cost of LGPS 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 will be as at 31 March 2024.
- SAB Cost Management Process (CMP) where the cost of the scheme is considered by the LGPS England and Wales Scheme Advisory Board (SAB) relative to a target cost for the scheme. The SAB CMP follows the valuation of the whole scheme described above.

2.5 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 (with an allowance for agreement to equalise benefits under "McCloud"). The benefits paid to members are not dependent on the funding position of any particular fund. See Appendix C for further information.

What is section 13?

2.6 Section 13 is a requirement under the Public Service Pensions Act 2013.

2.7 The Government Actuary has been appointed by the Ministry of Housing, Communities and Local Government (MHCLG) to report under section 13 of the Public Service Pensions Act 2013 in connection with the actuarial valuations of the 87 funds in the Local Government Pension Scheme in England and Wales.

2.8 This is the third formal section 13 report and sets out the Government Actuary's findings following the fund valuations as at 31 March 2022.

Statutory requirements

2.9 This report is addressed to MHCLG as the responsible authority for the purposes of subsection (4) of section 13 of the Public Service Pensions Act 2013 (the Act). GAD has prepared this report setting out the results of our review of the 2022 funding valuations of the LGPS. This report will be of relevance to administering authorities and other employers, actuaries performing valuations for the funds within the LGPS, the LGPS Scheme Advisory Board (SAB), HM Treasury (HMT) and the Chartered Institute of Public Finance & Accountancy (CIPFA), as well as other LGPS stakeholders.

2.10 Subsection (4) of section 13 requires the Government Actuary, as the person appointed by MHCLG, 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 the Local Government Pension Scheme England and Wales (LGPS)
- 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

2.11 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

2.12 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.

2.13 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 2019.

2.14 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.

2.15 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.

2.16 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.

2.17 We have had regard to the particular circumstances of some funds, following engagement with the administering authority and the fund actuary. In some cases, the action taken or proposed has been sufficient to remove flags. We have described these outcomes in the relevant sections below.

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

2.19 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 in our funding analysis report published alongside this document.

2.20 Within an LGPS 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.

2.21 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.

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

Adviser	Colour
Aon	Purple
Barnett Waddingham	Green
Hymans Robertson	Grey
Mercer	Blue

2.23 The Environment Agency Closed Pension Fund is different from other LGPS funds. The benefits payable and costs of the fund are met by Grant-in-Aid funding by the Department for Environment, Food and Rural Affairs, thus guaranteeing the security of these benefits. Details of this can be found in the Environment Agency Closed Pension Fund valuation published on the LGPS SAB website. In general, the fund has been excluded from the analyses that follow.

Standardised bases used in our approach

2.24 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 and 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 2022.

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

2.25 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 suitable for considering possible impacts on solvency and long term cost efficiency.
- 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.

2.26 The local valuations and our calculations underlying this report are based on specific assumptions about the future. Future experience will differ from these assumptions. Some of our solvency measures are stress tests but they are not intended to indicate a worst case scenario.

Other important information

2.27 The previous section 13 report was published on 16 December 2021 following the valuations as at 31 March 2019, details of which can be found in the Local Government Pension Scheme: review of the actuarial valuations of funds as at 31 March 2019.

2.28 The SAB have collated individual fund valuation reports, together with a summary on their website.

2.29 Appendices, dated 14 August 2024, are contained in a separate document.

2.30 GAD have also published a funding analysis report, dated 14 August 2024. This is a factual document summarising the results of the funds' valuations.

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

- Actuarial advisors
- CIPFA
- MHCLG
- Fund administrators

- HM Treasury
- LGPS SAB

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

2.33 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.

2.34 GAD has no liability to any person or third party other than MHCLG 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.

2.35 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).

2.36 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

2.37 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 2025 actuarial valuations and expect that our approach to section 13 will continue to evolve to reflect ever changing circumstances and feedback received.

Limitations

2.38 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. Our risk assessment framework enables us to broadly assess scheme risks and decide on our engagement with funds on an indicative basis. It is the responsibility of administering authorities and their advisors to consider and manage their risks.

2.39 Because of the nature of this exercise, we have not generally allowed for experience since the fund valuations, except for any specific actions described where we have engaged with funds.

3. Progress

3.1 We made four recommendations and a general risk comment in the 2019 section 13 report. We have reported on the progress made against each of these recommendations in the table below:

2019 Recommendation	Progress
1: The SAB should consider the impact of inconsistency on the funds, participating employers and other stakeholders. It should specifically consider whether a consistent approach needs to be adopted for conversions to academies, and for assessing the impact of emerging issues, including McCloud.	The SAB have actively engaged with both areas that the 2019 report focused on, namely academies and equalisation of benefits following the "McCloud" remedy. The SAB have prepared guidance on academy conversion. This is a positive improvement with regard to presentational consistency although little has changed in respect of evidential consistency, i.e. the underlying differences in approaches remain. In relation to McCloud liabilities all funds quantified the estimated impact as a percentage of liabilities on the dashboard, which was helpful in communicating the impact. Regulations to equalise for McCloud remedy have been introduced since the last review in 2019 and, therefore, we make no further recommendations in this area. More broadly, the potential for inconsistency remains particularly where new issues emerge. Therefore, we are supportive of the SAB maintaining a watching brief and engaging with stakeholders in relation to current issues such as the recent working group on surpluses and the proposal to host a climate change working group. We also encourage the SAB and other stakeholders to consider the benefits of improving consistency across funds as part of the review of Funding Strategy Statement (FSS) guidance, which they are co-ordinating.

2019 Recommendation	Progress
2: We recommend the SAB consider how all funds ensure that the deficit recovery plan can be demonstrated to be a continuation of the previous plan, after allowing for actual fund experience.	The principles underlying a deficit recovery plan will be set out in each fund's FSS. The SAB is engaging with stakeholders to update the guidance on FSS and will consider the recommendation in these discussions.
3: We recommend fund actuaries provide additional information about total contributions, discount rates and reconciling deficit recovery plans in the dashboard.	We are grateful to the fund actuaries for providing this additional information, which we believe is helpful to stakeholders wishing to compare different LGPS funds.
4: We recommend the SAB review asset transfer arrangements from local authorities to ensure that appropriate governance is in place around any such transfers to achieve long term cost efficiency.	With improvements in funding positions, we understand that no new asset transfer arrangements have been put in place. Fund advisors have not reported any recent asset transfer arrangements in their data submission to GAD. The SAB intend to consider this point during their review of the guidance on FSS.

General risk comment	Progress
Local authorities have finite resources and in recent years, the size of pension funds has increased considerably more than local authority budgets. Given that pension funding levels change, it is not unlikely that a period of increased pension contributions may be required at some point in the future. If additional spending is required for pension contributions, this may lead to a strain on local authority budgets. We would expect that administering authorities are aware of this risk in relation to solvency and would monitor it 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 the focus of employers on stability when setting their contribution rates, which may help funds manage future increases in contributions. In light of the widely reported pressures on council funding impacting local authorities and other employers within the LGPS, 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 62 of the Local Government Pension Scheme Regulations 2013.
- 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 Valuation reports 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 62 of the Local Government Pension Scheme Regulations 2013 (the statutory instrument governing actuarial valuations of the LGPS in England and Wales). Each actuarial firm 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 62 and have therefore concluded that the compliance criteria of section 13 have been achieved. This is not a legal opinion.

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 four 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 62. We have not, for example, systematically reviewed Funding Strategy Statements prepared under Regulation 58.

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 2022 valuations and the continued use of the dashboard greatly aids stakeholders' understanding. The additional information provided following the 2019 section 13 review has helped to improve presentational consistency.
- There is no indication of significant improvement in evidential consistency since the 2019 section 13 review. 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 2022 fund valuations. Most funds have followed the broad climate risk principles paper agreed between MHCLG, fund actuaries and GAD. We recommend that the Scheme Advisory Board engage with stakeholders to continue to develop these principles with the aim of improving the analysis and ensuring consistency across funds for 2025 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 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 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 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 A specific example of this has arisen in recent years regarding academy conversions. When a local authority school converts to an academy, the contribution rates payable by the academy reflect both the funding position and the approach used (for example how assets and liabilities are attributed to the academy and whether the academy is grouped together with other employers). Differences in approaches can lead to significantly different contribution requirements.

5.8 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. In relation to bulk transfers of members, discussions on the appropriate transfer basis are not helped by differences in funding bases.

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 noted a high degree of similarity between reports produced by each consultancy. Therefore, we have taken, at random, a report produced by each actuarial advisor to assess whether the information disclosed is consistent across all four advisors. We do not have any specific concerns about the selected funds and have confirmed with the actuaries that these funds are representative of a typical valuation report that they produce. None of these funds raise any amber or red flags. These funds are:

Powys County Council Pension Fund (Aon)	London Borough of Croydon Pension Fund (Hymans Robertson)
Buckinghamshire Pension Fund (Barnett Waddingham)	Clwyd Pension Fund (Mercer)

Information provided within valuation reports

5.12 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

5.13 Contribution rates include the following components:

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

5.14 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.

5.15 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

5.16 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.

5.17 Table 5.1 summarises the information provided in the sample valuation reports on the change in primary contribution rates since the previous valuation. Whilst two funds provide an analysis in a consistent manner to the analysis of the funding position, this is not the case

for all funds. We would consider additional detail and consistency in approach here to be helpful.

Table 5.1 Comparison of primary rates with prior valuation

Fund	Comparison provided
Powys County Council Pension Fund	Analysis of the change in primary contribution rates
Buckinghamshire Pension Fund	Analysis of the change in primary contribution rates
London Borough of Croydon Pension Fund	Comparison of primary rate (as % of pay) and secondary rate (as fixed monetary amounts)
Clwyd Pension Fund	Breakdown of the primary contribution rate compared with the previous valuation

5.18 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
Powys County Council Pension Fund	Statement setting out spreading of deficit under 100% over 13 years, across the fund, and any surplus over 105% over 16 years
Buckinghamshire Pension Fund	Statement setting out spreading of deficit (maximum of 11 years)
London Borough of Croydon Pension Fund	Provide funding time horizon over which all future and past benefits are sought to be fully funded
Clwyd Pension Fund	Statement setting out spreading of deficit and surplus. Deficit recovery over average of 12 years.

Dashboards

5.19 All funds have provided information in the format of a standard dashboard following a 2016 section 13 recommendation. The format of the revised 2022 valuation dashboard was agreed by the SAB 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.

5.20 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 2022 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.

5.21 The 2022 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.

5.22 We suggest that a review of the valuation dashboards is undertaken prior to the 2025 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

5.23 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, broadly in line with those observed at the 2019 section 13 review. This section describes these inconsistencies and the consequences of them, while also recognising there are valid reasons for local variations as noted above.

5.24 Primary contribution rates range between 15% and 24% of pay in 2022. This range is a function of differences in age profile as well as different assumptions adopted. It is a slightly wider range than that from the 2019 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.

5.25 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

5.26 Table 5.3 shows a comparison of the local basis liability values with liability values calculated using the SAB basis, for the four valuations chosen. 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). Charts B1 and B2 in Appendix B show the variation between the local basis

and SAB basis funding levels for individual funds in more detail for all funds.

Table 5.3: Liability Values

Fund	Local Basis (£m)	SAB Standard Basis (£m)	Difference between Local and SAB Basis
Powys County Council Pension Fund	823	759	8%
Buckinghamshire Pension Fund	3,717	3,552	5%
London Borough of Croydon Pension Fund	1,790	1,576	14%
Clwyd Pension Fund	2,366	2,139	11%

5.27 The liability value on the local basis is higher than that calculated on the SAB standard basis for the sample funds. Across the four funds examined, the difference between the liabilities calculated on the two bases ranges between 5% and 14%. More widely across all funds the range is between -5% and 33%. As noted in paragraph 2.25, 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.

5.28 The analysis above focuses on four funds chosen at random. It should not therefore be extrapolated to all funds advised by a particular advisor.

Assumptions

5.29 We compared the following key assumptions, used for the actuarial valuations, to consider whether variations in those assumptions are justified in terms of local conditions.

Discount Rate

5.30 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.

5.31 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. A way of measuring the level of prudence included is to consider the implied asset outperformance within the discount rate (see Appendix B for more details). The range of implied asset outperformance by actuarial advisor is set out in Chart 5.1 below.

Chart 5.1 Implied asset outperformance range

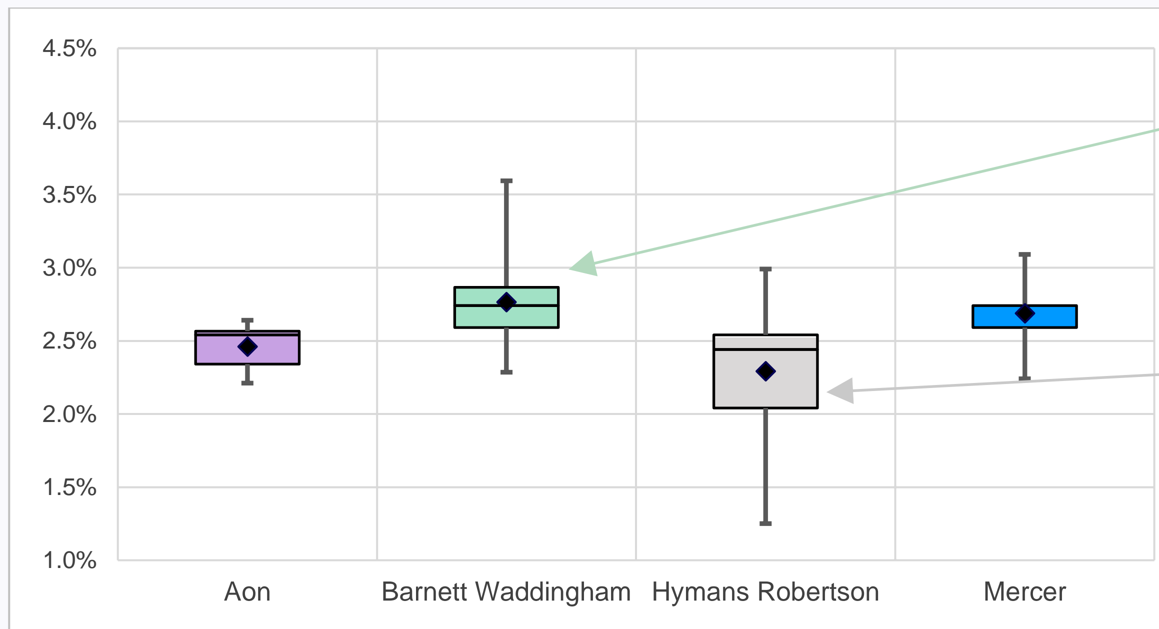

Chart 5.1 illustrates the range of implied asset outperformance by the four actuarial advisors (with the Environment Agency closed fund excluded).

In 2022, as at the 2019 review, some funds advised by Barnett Waddingham have the highest level of asset outperformance within the discount rate used for assessing past service liability values, while some funds advised by Hymans Robertson have the lowest level.

5.32 Chart 5.1 shows the variance in implied asset outperformance by actuarial advisor. We determine the implied asset outperformance as the discount rate less the implied market risk free rate (see Appendix B). The coloured box in the middle represents the range of asset outperformance in the discount rate for the middle 50% of advisors' funds i.e. the lower and upper lines for the shaded box represent the spread for the lower and upper 25% of funds. The end points represent the minimum and maximum discount values. The black diamonds represent the average asset outperformance.

5.33 The variation in assumptions is relatively narrow with a great deal of overlap, albeit the range from highest to lowest is over 2%. Chart B3 in Appendix B shows the breakdown for individual funds.

5.34 Whilst this might suggest consistency, we have investigated various factors that might be expected to influence the discount rates that funds choose to adopt. Our analysis showed that there was no clear influence due to the asset mix, prudence, funding level, type of employer or maturity in isolation on the discount rate adopted. For example, the impact of the asset allocation on the discount rate is illustrated in Chart B4 in Appendix B and shows little correlation. We conclude that there is variation both between fund advisors and within individual funds advised by each advisor, driven

by a combination of factors including risk appetite and past practice (which may well be related).

5.35 The implied asset outperformance in Chart 5.1 relates to the discount rate for past service liabilities only. Whilst Aon and Barnett Waddingham adopt the same assumption for setting future contribution rates, Mercer have a different approach and Hymans Robertson use the same underlying model as part of a risk-based analysis.

5.36 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 since they are unable to provide a suitable comparative discount rate for setting future contributions.

5.37 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. This resulted in a higher discount rate assumption for setting future contribution rates than used to value past service liabilities in the 2022 valuations.

5.38 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. Given changes in investment markets in the second half of 2022, particularly in relation to the gilt market, consideration of this aspect is especially relevant for this section 13 review.

5.39 Whilst we have been unable to identify any individual factor driving the differences, 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.

Other assumptions

5.40 We have compared the following assumptions used by funds:

- Future mortality improvements (life expectancy)
- Commutation assumptions

5.41 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

5.42 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". The SAB are facilitating a review of the Funding Strategy Statement guidance. Therefore, as part of this review, we encourage stakeholders to consider potential benefits of greater presentational and evidential consistency among other relevant factors.

Recommendation 1:

We recommend that the Scheme Advisory Board consider whether greater consistency could and should be achieved to allow easier comparison between funds and better understanding of risks.

Academies

5.43 At the 2019 section 13 review, we engaged with the fund actuaries to understand if there had been a move to greater consistency for academy conversions over time and whether a move to greater consistency was likely to occur. Whilst fund actuaries noted there was generally consistency between funds advised by the same advisor the consensus view was there was unlikely to be any convergence in approach between advisors unless mandated by regulations.

5.44 A recommendation was made in the 2019 section 13 report that the SAB should consider the impact of inconsistency on the funds, participating employers and other stakeholders, and specifically whether a consistent approach needs to be adopted for conversions to academies.

5.45 The SAB subsequently convened a working group which included MHCLG, fund actuaries, the Department for Education, academy school representatives and GAD, which prepared SAB guidance on academy conversions. This sets out common nomenclature which should encourage presentational consistency and a common understanding amongst stakeholders. It also explained how differing methodologies work and their impacts.

5.46 The underlying differences in conversion methodologies have not been addressed and therefore the contribution rates paid by academies continue to be inconsistent.

Emerging Issues

Climate risk

5.47 The 2019 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 MHCLG to agree broad principles on such analysis ahead of the 2022 valuations. These principles are included in Appendix B.

5.48 82 of the 87 funds carried out climate risk analysis in line with these broad principles with the results of the analyses included in the 2022 valuation reports. We are grateful to the fund actuaries and MHCLG 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.

5.49 The other five funds provided their reasons for adopting a different approach as follows:

Table 5.4: Commentary on climate change approach adopted (provided by each fund)

Fund	Climate change approach commentary provided by the fund
City of Westminster Pension Fund; London Borough of Hammersmith and Fulham Pension Fund; and Royal Borough of Kensington and Chelsea Pension Fund	The approach taken by the fund to evaluate the possible effect 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 2022 valuation. The Fund's approach to evaluating the effect of climate change on the funding strategy will next be reviewed at the 2025 valuation.
Environment Agency Closed Fund	The Environment Agency (as the Administering Authority to the Environment Agency Closed Fund) recognise 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 the future. The risk exposure was not quantified at the 2022 valuation, as the Closed Fund's funding agreement with Defra means its exposure to climate risk is minimal. In effect, any future shortfall that may emerge due to climate change risks would be met via grant-in-aid payments from Defra, and so the impact of climate change risks on the funding position is neutral.

Fund	Climate change approach commentary provided by the fund
West Midlands Pension Fund	West Midlands Pension Fund is committed to undertaking and providing meaningful climate change analysis, extending to advocacy and engagement with key stakeholders to drive real change. The approach adopted by the West Midlands Pension Fund is based upon an integrated framework, which considers funding, employer covenant and investment risk. At the time that the broad principles document was agreed between the Fund actuaries and MHCLG our work on climate change, in respect of the 2022 valuations, was well advanced, supported by a range of analysis which has provided a foundation for engagement with stakeholders. Whilst our analysis aligned with the agreed climate change principles, we believe it extended beyond. We are seeking to achieve a consistent set of principles (including climate scenarios), across our assets, liabilities and employer covenant, to aid our risk-based decision making and enable meaningful onward engagement with key stakeholders which informs our assessment of risk. As such it was not appropriate to include partial and incomplete analysis in one area of reporting when a broader context is required to assess and manage climate change risk. West Midlands Pension Fund is supportive of the objective for consistency across the LGPS, as well as continuing to develop and enhance climate risk modelling to enable useful analysis which can drive real world change and will review the revised 2025 climate change principles document and expect to publish consistent analysis for the 2025 valuation.

5.50 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 in Charts B7 and B8 in Appendix B. This has been provided for information only as a high-level summary of the analysis reported. 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.

5.51 MHCLG has consulted on proposals for new requirements for assessing and reporting on climate risks in line with the recommendations of the Taskforce on Climate-related Financial Disclosures (TCFD) but

has not yet responded to the consultation. Climate risk analysis is evolving rapidly and we anticipate a maturing in analysis for the 2025 valuations. The importance of climate risk analysis, and in particular the appropriate communication of risks relative to scenarios presented, was highlighted in the recent (June 2024) Institute and Faculty of Actuaries (IFoA) risk alert on climate change scenario analysis . We strongly promote the further development of climate risk analysis and its integration in decision-making by funds. We recommend that the SAB continue to work with stakeholders to refine the climate risk analysis principles document prior to the 2025 valuations.

Recommendation 2:

We recommend that the Scheme Advisory Board 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 2025 fund valuations.

Other risks

5.52 There are a number of risks and issues which have the potential to affect the LGPS pension funds in future. In particular, the recent growth in the number of funds in surplus has the potential to affect risks and opportunities. These issues require consideration from the funds and their advisors as they emerge. We encourage continued dialogue with a view to recognising the benefits of consistency across the scheme in the 2025 valuation and beyond.

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

6. Solvency

Key Solvency findings

- Funding levels have continued to improve on local bases since 2019, primarily due to asset outperformance. In aggregate, the funds of the LGPS are 106% funded on their local funding bases. This reduces current solvency concerns, but we note future solvency risk remains an important consideration.
- Growth of funds' assets relative to the size of the underlying local authorities means that those funds that are in deficit are more likely to trigger our asset shock measure. Where this is the only concern raised, we have considered this a white flag.
- No other solvency flags have been raised. 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, and to ensure they have appropriate governance structures in place in relation to any asset transfer arrangements.

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, which we adopt for the purposes of section 13, 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 2022

6.4 Over the period from 31 March 2019 to 31 March 2022, the aggregate funding position of LGPS funds has improved markedly, mainly driven by strong investment returns. 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 range of funding positions across the scheme, the sensitivity of funding levels to future experience and competing pressures on employers' budgets mean that solvency risks still exist.

6.5 To provide some context on the current position, following the 2022 valuations 78 funds (90%) were in surplus on GAD's best estimate basis, with the aggregate best estimate funding level being 119%. This compares to the position in 2019, where 62 funds were in surplus with an aggregate funding level of 109%. 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 the LGPS. 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 the LGPS and so does not reflect fund specific circumstances or experience.

6.6 Not all funds are above 100% funded on GAD's best estimate basis. Funding levels on this basis range from 83% to 164% (excluding the Environment Agency Closed fund, as benefits payable and costs of the fund are met by Grant-in-Aid funding by DEFRA).

6.7 The solvency definition above means those funds that are relatively poorly funded are not considered insolvent, but they do need to be taking adequate action to resolve that deficit (which is the subject of long term cost efficiency) and monitor the affordability of any additional future contributions that may be required.

SAB Funding Level Metric

6.8 Five funds have a “white” flag in relation to their SAB funding level as they are the poorest funded on the SAB basis, with the distance in percentage points below the average SAB funding level shown below:

Fund	SAB Funding Level Distance below average
Royal County of Berkshire Pension Fund	36%
London Borough of Waltham Forest Pension Fund	35%
London Borough of Brent Pension Fund	25%
Bedfordshire Pension Fund	22%
London Borough of Hillingdon Pension Fund	22%

6.9 This is a purely relative measure and we did not engage with funds that flag on this measure only. We consider this a “white” flag. However, the lowest two funds on this metric, London Borough of Waltham Forest Pension Fund and the Royal County of Berkshire Pension Fund, are both also raising a flag in relation to long term cost efficiency and are considered further in the next chapter of this report.

6.10 We encourage the funds shown above to monitor closely the risk that additional pension contributions may be required in the future to eliminate the deficit.

Non-statutory Members Metric

6.11 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 employers fall into this category.

6.12 The London Borough of Barnet Pension Fund has over a third of its members employed by non taxpayer-backed employers, for example private sector employers and higher education establishments. We are encouraged to note that Barnet actively considered the covenant of one of its larger such participating employers, Middlesex University, as part of its 2022 valuation. We understand that the fund undertook an extensive engagement exercise with Middlesex University in 2022 and agreed a funding strategy which reflects and manages the relevant risks. Given the clear consideration given to the risk and the fact that there are no other flags being raised for the fund, we consider this a “white” flag on this metric.

Asset Shock Metric

6.13 This is a stress test. It considers what may happen if there is a sustained reduction in the value of return-seeking assets for tax-raising employers (those employers whose income is covered by core spending and financing data). For example, a market correction in which asset values do not immediately recover and losses are not absorbed by changes in assumptions.

6.14 We model the additional contributions that would be required by tax-raising employers to meet the 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.

6.15 Funds with a high level of return-seeking assets are more exposed to asset shocks and more likely to trigger this flag.

6.16 Fewer funds flag on the asset shock measure in 2022 than in 2019.

6.17 Funds have grown considerably, measured by the value of either their assets or liabilities, over recent years. The size of the employers, and particularly that of the relevant local authorities as measured by their core spending power and financing data, has not grown at the same pace as their pension assets. (Core spending power and financing data is used as a measure of the financial resource of the underlying tax-raising employers, as detailed in Appendix C).

6.18 We considered this situation carefully in 2019 and concluded that it would be difficult for funds to take specific action in response to individual fund flags which have been primarily driven by the increase in the size of funds relative to the possible resource available. We have adopted the same approach for this review and are noting these concerns as a “white” flag only in Appendix C. This is a “for information” flag that highlights a risk, but which may require monitoring rather than action.

6.19 This highlights an ongoing risk across the LGPS due to the nature of open but maturing funds. If a shock were to occur, that shock would be more significant now and in the future, as funds have grown relative to the size of the local authority. This also needs to be considered in the context of competing pressures on local authorities’ and other employers’ budgets.

6.20 The table of solvency measures by fund in Appendix C includes the funds with a white flag (5 funds in total).

6.21 The potential for future variations in contribution rates is discussed further in our Asset Liability Modelling (ALM) section in the long term cost efficiency chapter.

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Management of Risks

Funding

6.22 The general risk comment made in the 2019 section 13 report remains relevant. Local authorities and other employers have finite resources. In recent years, the size of pension funds has increased more than their budgets and there has been increased focus on competing pressures on 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.

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

6.24 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.

6.25 The risk of contribution rate increases and how stability mechanisms might influence contribution rates over time are discussed further in the Asset Liability Modelling (ALM) section included within Chapter 7.

Governance and other risks

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

6.27 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.

6.28 Pension funding is long term in nature. We support the approach adopted by the actuarial advisors in relation to the 2022 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 SAB guidance should be carefully considered prior to carrying out such a review.

6.29 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.

6.30 Concerns were raised in the 2019 section 13 report in relation to contingent property transfers or other asset transfer arrangements from local authorities within the LGPS.

6.31 A contingent property transfer is where councils commit to transferring property they own, for example, a portfolio of social housing owned by the council, to the pension fund. The assets are not immediately transferred to the pension fund but at the end of the agreed management period often a large number of years into the future, the property portfolio is transferred to the pension fund, possibly on a contingent basis, on the expectation that the underlying properties will generate revenues and/or sales proceeds that will reduce or eliminate any deficit that remains in the pension fund at that time. In return, the council committing to the future transfer receives an immediate reduction in deficit contributions, calculated as a present value of the expected future revenue from the portfolio of properties.

6.32 While we are not aware of any new arrangements being put in place over the 3 years to March 2022, competing pressures on employer budgets could lead to such options being considered in the future, particularly if there is a market downturn. The risks, additional complexity and ongoing monitoring and governance requirements of such arrangements need to be balanced against the benefits they may provide. As a minimum we would expect the pension fund to receive specialist advice on the suitability of such assets as pension investments and to demonstrate that the conflict of interest between the fund and the council has been appropriately recognised and managed.

6.33 Whilst we are not commenting on the actions of any fund that already holds such an asset, potential concerns, that we expect would need to be addressed if any new arrangements were to be considered include:

- Funds need to carefully consider compliance aspects of such arrangements, including:
    - Compliance with local authority capital requirements, which specify that pension contributions should be met via revenue rather than capital accounts. At the point the transfer is realised, this could be considered a capital asset transfer arrangement
    - Compliance with restrictions on employer related investments in the Occupational Pension Schemes (Investment) Regulations 2005 (as amended)
    - Management of any conflicts of interest

- The assets may not be the form of asset which best meets a pension fund's long term objectives
- Due to complexity, such asset transfer arrangements are likely to be associated with high set-up and management costs

6.34 These arrangements are utilised in the private sector to act as a security for the risk of defaults by scheme sponsors. The difference in covenant strength between private sector employers and local authorities means that different considerations apply.

6.35 We recommend that the SAB consider if additional guidance on local authority asset transfers would be helpful as part of their Funding Strategy Statement guidance review (see Recommendation 3).

7. Long term cost efficiency

Key long term cost efficiency findings

- In 2022, we are flagging two funds in relation to deficit recovery periods. This is the same as the number of funds flagged in 2019.
- For a further fund, we are concerned that employer contribution rates are decreasing (reducing the burden on current taxpayers) at the same time as the deficit recovery is being extended further into the future (increasing the burden on future taxpayers).
- 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 set out the approach we intend to use to assess how funds have utilised surpluses at future valuations.
- We propose that the Scheme Advisory Board consider the approach to surpluses in their review of the Funding Strategy Statement (FSS) guidance.
- We have undertaken an Asset Liability Modelling (ALM) exercise to illustrate two different surplus sharing options. The ALM also highlights the potential contribution volatility and funding risks even though an "average" fund may find itself in a strong funding position currently.

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, so far as relating to the pension fund.

7.2 This chapter sets out:

- A definition of long term cost efficiency
- The results of our analysis on long term cost efficiency.
- The outcome of our engagement with funds
- Future considerations in respect of fund surpluses
- Outcomes of our asset liability modelling

Definition of long term cost efficiency

7.3 In line with the definition in CIPFA's Funding Strategy Statement Guidance, which we adopt for the purposes of section 13, 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. We note the Funding Strategy Statement Guidance is currently under review.

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. The LTCE part of the 2019 section 13 review focused on deficits, and not deferring deficit payments too far into the future so that they affect future generations of taxpayers disproportionately. This reflected the aggregate funding position of the scheme at that time. Whilst this remains a key consideration, as more funds have moved into surplus at the 2022 valuations, the use of surpluses has been given greater consideration at this review. Our focus is on intergenerational fairness, and whether the current generation of taxpayers is benefiting from any surplus appropriately relative to future taxpayers.

7.5 Two funds are flagged in relation to deficit recovery periods in the 2022 review, the same as the number of funds flagged in 2019.

7.6 For the two funds (Royal County of Berkshire Pension Fund and London Borough of Waltham Forest Pension Fund), we are concerned that flags are still being raised despite using the same flag thresholds as at the 2019 section 13 review. The average funding level of funds has increased by 8% since 2019, which has driven a reduction in the number of flags. Whilst we recognise funding plans are long term in nature and both these funds have improved their funding position, where a flag remains, despite the generally positive movements in economic conditions for the scheme, this identifies some risk.

7.7 We have also considered graphically the positioning of funds on a consistent basis. Chart 7.1 on the next page 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). The two funds identified above stand out as having relatively weak funding on the consistent basis. This combination of flag and relative positioning led us to engage with those funds.

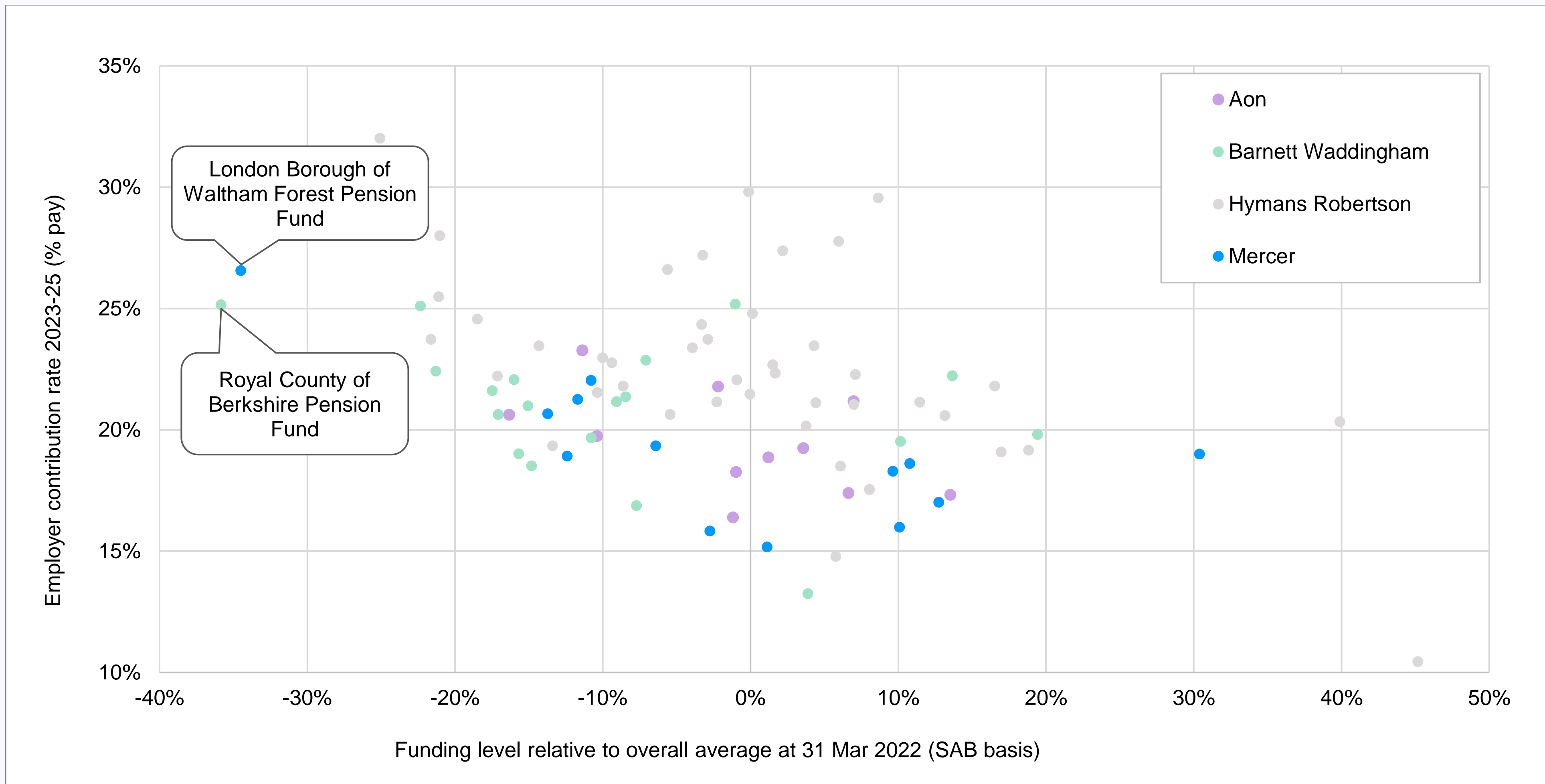
7.8 For a further fund, London Borough of Redbridge Pension Fund, we are concerned that employer contribution rates are decreasing (reducing the burden on current taxpayers) at the same time as the deficit recovery end point is being extended further into the future (increasing the burden on future taxpayers). This led to this fund raising a flag in relation to its deficit recovery plan.

7.9 Some other funds raised initial flags against LTCE measures, but on closer review most were not considered to be sufficiently wide outliers or present sufficient risk to warrant further investigation or engagement.

7.10 We have not flagged any funds on the utilisation of surplus at this review. We comment on the range of approaches adopted by funds in surplus and set out our approach to this issue for future valuations.

Deficit Metrics (Required period, required return and return scope)

Chart 7.1 SAB relative funding level vs Employer contribution rate



Royal County of Berkshire Pension Fund

7.11 The Royal County of Berkshire Pension Fund is one of the least well-funded funds on a local basis, with a funding level of 86%. It is the lowest funded on the common SAB basis (excluding the Environment Agency Closed fund).

7.12 Chart 7.1 shows that, although the Royal County of Berkshire Pension Fund is ranked lowest on funding level, its employer contribution rate, whilst above average, is lower than around 10 funds, all of which have much higher funding levels on the common SAB basis.

7.13 Employer contributions are 25.2% of pensionable pay. This has increased from 24.0% of pay in 2019. However, this increase is driven by an increase in primary rates (up 1.5% to 16.9% of pay). Average secondary rates have decreased slightly as a percentage of pay.

7.14 The Royal County of Berkshire Pension Fund raised an amber flag in relation to deficit recovery period (12 years on GAD's best estimate basis). In other words, current contribution rates are not estimated to be sufficient to reach full funding on a best estimate basis within 10 years.

7.15 More generally it is positive to note the reduction in the number of amber flags on long term cost efficiency for Royal County of Berkshire Pension Fund (which have reduced from four in 2019 to one in 2022).

7.16 We were also pleased to observe that the Royal County of Berkshire Pension Fund has retained its deficit recovery end point, although this remains relatively long at 2040.

7.17 Following engagement with the Royal County of Berkshire Pension Fund, we were advised that employers participating in the fund have been continuing to increase their total contributions to reduce the deficit over the longer term. We were reassured by this long-term commitment.

7.18 The officers we engaged with appreciated that additional funding will be required over a long timeframe and reaffirmed their commitment to do so.

7.19 It was noted that committees have been put in place to assist with the management of the fund and it was noted that investment returns have been relatively strong in recent years.

7.20 Overall we were pleased to note the improvements made over the past three years, however given its relative funding position and relative to the contribution rates being paid into other funds, we consider that an amber flag for long term cost efficiency is appropriate.

London Borough of Waltham Forest Pension Fund

7.21 The London Borough of Waltham Forest Pension Fund has the second lowest funding level on a local basis at 81%. The funding level increased by 1% since the 2019 valuation, much less than most other funds which on average saw an 8% increase. It is the second lowest funded on the common SAB basis (excluding the Environment Agency Closed fund).

7.22 Chart 7.1 shows that, although the London Borough of Waltham Forest Pension Fund is ranked second lowest on funding level, around 7 funds, all of which have higher funding levels on the common SAB basis, are receiving greater contributions.

7.23 Employer contributions are 26.6% of pensionable pay. This has increased from 25.9% of pay in 2019. However, this increase is driven by an increase in primary rates (up 1.6% to 17.2% of pay). Average secondary rates have decreased as a percentage of pay.

7.24 The secondary contribution rate for one major employer in the fund incorporates a deduction to reflect the assumed value placed on the residual property investments currently held as a contingent asset transfer that will be transferred to the Fund in 36 years' time, if it is in deficit at that time. The value of the contingent asset is not allowed for in the asset values or used in our metric calculations.

7.25 The London Borough of Waltham Forest Pension Fund also raised an amber flag in relation to deficit recovery period (just over 10 years on GAD's best estimate basis). In other words, current contribution rates are not estimated to be sufficient to reach full funding on a best estimate basis within 10 years. However, we acknowledge that London Borough of Waltham Forest Pension Fund is just above the required threshold, and no allowance was made for the contingent asset in this assessment.

7.26 We were pleased to observe that the London Borough of Waltham Forest Pension Fund has retained its deficit recovery end point, although this remains relatively long at 2039.

7.27 Following engagement with the London Borough of Waltham Forest Pension Fund we were advised that employers have been adhering to their plan to remove the deficit by 2039. We were reassured by this long-term commitment to improving the funding position.

7.28 London Borough of Waltham Forest Pension Fund also referred to the modest increase in funding being the result of below expected returns. The fund is continuing to monitor asset performance and has already taken action to improve performance since 31 March 2022.

7.29 The London Borough of Waltham Forest Pension Fund also provided additional information on the contingent asset arrangement referred to in their 2022 valuation report. The allowance for this when setting contributions is dependent on the fund receiving satisfactory legal

confirmation on the arrangement, with GAD's understanding being that this is now the case. GAD highlighted the points raised in the 2019 section 13 report, which London Borough of Waltham Forest Pension Fund were aware of. Through our engagement, we have been made aware by the London Borough of Waltham Forest Pension Fund that the governance structure in place, in relation to the contingent asset referred to above, was strengthened as part of the 2022 valuation and this includes a regular flow of information between the relevant parties and annual ratification of the arrangement's viability provided to the Pension Committee.

7.30 We acknowledge that the London Borough of Waltham Forest Pension Fund has increased contributions but given its relative funding position and relative to the contribution rates being paid into other funds, we consider that an amber flag for long term cost efficiency is appropriate.

Deficit Reconciliation

7.31 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

7.32 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.

7.33 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 into the future (increasing the burden on future taxpayers). This expectation balances intergenerational fairness between current and future generations of taxpayers, which is required for LTCE.

7.34 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.

7.35 We consider that reconciliation of the deficit recovery plan is an essential component for all funds to demonstrate they meet LTCE requirements.

7.36 We note that most funds have maintained their deficit recovery end points in accordance with recommendation 2 from our 2019 section 13 report.

7.37 The 2019 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.

7.38 Hymans Robertson use stochastic techniques to set contribution rates, analysing the probability of success ("meeting the funding target by the funding time horizon") over a projection period (for example, twenty years). This makes reconciliation as outlined in 7.31 difficult, as additional information is required to illustrate a continuation of the plan. We are grateful to Hymans Robertson for providing information to facilitate reconciliation.

7.39 In relation to the funds advised by Hymans Robertson whose total employer contributions have reduced and their likelihood of success, at the previous valuation end point, has also decreased we note the following:

- In respect of two funds London Borough of Brent Pension Fund and London Borough of Croydon Pension Fund we did not think it was appropriate to retain an amber flag. Both funds had contributed above the minimum required in 2019 and had not reduced the minimum likelihood of success in 2022. Further we note a reasonable degree of prudence in the minimum likelihood of success probability. We therefore considered this to be a white flag.

- London Borough of Redbridge Pension Fund, where the funding level is 99%: total employer contributions have reduced by 2.7% of pay and the likelihood of success at the 2022 valuation on the 2019 time horizon has reduced. We recognise that contribution rates are set considering an analysis of future funding risk over a time horizon of 17 years, however we consider it appropriate to retain the amber flag.

7.40 We engaged with Durham Pension Fund that flagged initially on this measure where the funding level is 97%: there was a reduction in total employer contributions of 1.8% of pay and the end point increased by one year.

7.41 In the engagement with Durham Pension Fund, it was noted that the fund is close to being fully funded and the end point increased by only one year. This was part of a package of changes which included an increase in

prudence within their funding basis; and an increase in the surplus buffer for those employers in surplus.

7.42 Aon provided evidence that total contributions payable following the valuation are greater than those which would have been required had the 2019 valuation basis been retained with a three year reduction in the deficit recovery end point. In effect, the one year increase in end point reflected the new deficit arising due to the increase in prudence. The fund demonstrated they had considered relevant options and issues when deciding on funding strategy and agreed with the importance of being able to reconcile deficit recovery plans between valuations.

7.43 In light of this evidence, we agreed that it would not be appropriate to maintain the amber flag under the deficit recovery plan metric for Durham Pension Fund, and agreed to adopt a white flag. We draw attention to the definition of white flags in Appendix D: 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.

7.44 We recommend that the SAB consider if additional guidance on deficits would be helpful, and in particular how funds ensure that the deficit recovery plan can be demonstrated to be a continuation of the previous plan (see Recommendation 3).

Surplus considerations

7.45 At the 2022 valuations, 61 funds (over 70% of funds by number) were in surplus on a local basis, an increase from 24 at the 2019 valuations.

7.46 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

7.47 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.

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

- Utilising surplus too quickly; and
- Retaining large surpluses

7.49 On this basis, we have reviewed the different approaches adopted by funds in surplus at the 2022 valuations. We are grateful to the actuarial advisors for providing general insights into the range of considerations taken into account by administering authorities. We also engaged with the SAB surplus working group on surpluses and have had regard to the SAB statement on surpluses issued in December 2023.

7.50 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. 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.

7.51 Outcomes from the 2022 valuations depend on the priorities given by funds to different uses of surpluses.

7.52 In our view, the uses outlined in 7.46 are consistent with current CIPFA and SAB guidance and SAB statements on scheme contributions. However, inconsistencies in outcomes across funds can arise where funds place different weights on the options for use of surplus. We support the SAB in facilitating a review of the guidance on Funding Strategy Statements with relevant stakeholders. We recommend that the treatment of surpluses and deficits, together with the governance on asset transfers, should be included as part of this review.

Recommendation 3:

We recommend that the Scheme Advisory Board consider the following:

- Where funds are in surplus, whether additional guidance can be provided to support funds in balancing different considerations.
- Where deficits exist, how can all funds ensure that the deficit recovery plan can be demonstrated to be a continuation of the previous plan.
- Whether additional guidance is required in relation to the treatment of asset transfers from local authorities.

7.53 GAD has not flagged any funds on the utilisation of surplus at this review. This is in part because, from the discussions we have had at a high level, funds appear to have made decisions on surplus at the 2022 valuations having considered relevant factors signposted in CIPFA and SAB guidance and SAB statements. Therefore, we instead set out our approach to this issue for future valuations.

Funds utilising surpluses too quickly

7.54 For future reviews, GAD will introduce a surplus retention metric to consider how quickly a surplus is being utilised on GAD's best estimate basis, if the total employer contribution rate being paid is less than GAD's 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.

7.55 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.

7.56 If we had introduced such a metric in the 2022 section 13 review, all funds would have a green flag.

Funds retaining "large" surpluses

7.57 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.

7.58 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
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

7.59 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.

7.60 We would then engage with any funds identified from this process to discuss any concerns before deciding which funds to flag.

7.61 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 as discussed in Chapter 5.

7.62 To illustrate the potential impacts of surpluses and the trade-offs between the considerations referred to above, we have undertaken an ALM analysis to illustrate the potential implications of different approaches and relationship to solvency risks.

Asset Liability Modelling (ALM)

Introduction

7.63 An Asset Liability Model (ALM) allows us to simultaneously project the assets and liabilities of the scheme under a range of simulations to investigate possible outcomes for key variables and metrics. Modelling the scheme in this way allows us to understand not only central, expected outcomes but also the wider range of possible outcomes and uncertainties. It also demonstrates the importance of considering the assets and liabilities together to understand how particular risks and relationships might manifest in simultaneous movements on both sides of the balance sheet.

7.64 The ALM exercise was undertaken to illustrate:

- Uncertainty of future employer contributions and funding position
- Impact of different surplus strategies

7.65 The contribution and funding analyses in the ALM section are for illustrative purposes and are based on a set of assumptions and methodology set by GAD. This type of analysis is particularly dependent on the assumptions and methodology adopted. Other models could produce different outcomes.

7.66 The ALM models the whole scheme rather than individual funds. Whilst the positions of funds will vary, with differing contributions and funding levels, the risks considered in the ALM are expected to be relevant for individual funds.

7.67 The methodology used for the ALM is set out in Appendix E.

Uncertainty of future employer contributions and funding position

7.68 Even though the overall scheme funding position has improved since 2019, with 61 funds in surplus on their local funding bases at March 2022, significant financial risks remain particularly over the longer term.

7.69 Charts 7.2 and 7.3 illustrate the variability of total employer contributions (primary and secondary rates combined) and funding levels projected at future valuations from a large number of simulations of future asset returns and economic conditions. The projections assume that any funding deficits are paid off over a 20-year period with no adjustment to contributions for any surplus.

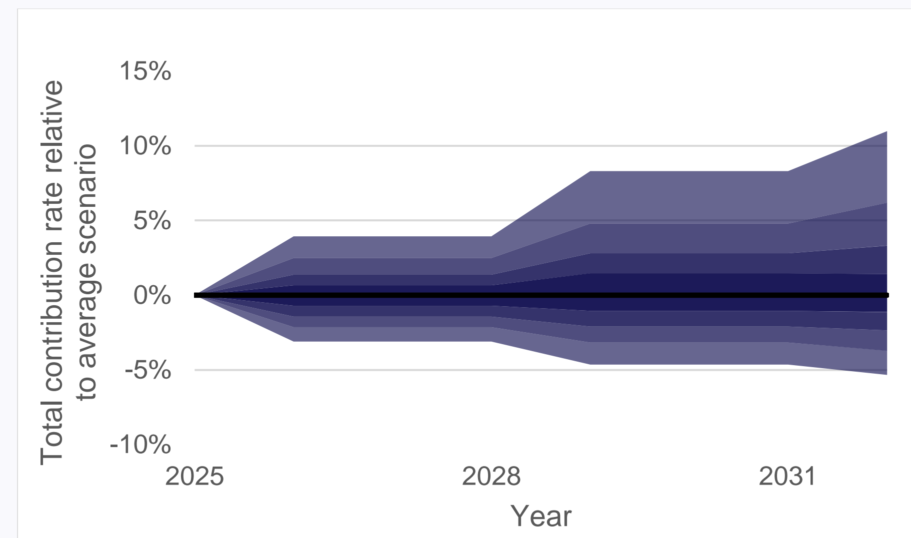
7.70 In both charts:

- the thick black line represents the median simulation at each point in time (in other words, the scenario which falls exactly in the middle of the range of simulated values, with half of the simulations having higher outcomes than the median and half having lower)

- each shade of purple represents the range of outcomes for a decile (10%) of scenarios, with the subsequent lighter shade representing the next decile - we have not shown the most extreme deciles (0-10% and 90-100%)

- the limits of the shaded area illustrate the range of outcomes whereby 80% of the simulations lie within the shaded area and the most extreme 20% are outside (with 10% of outcomes being above the top of the shaded area, and 10% of outcomes being below the bottom of the shaded area)

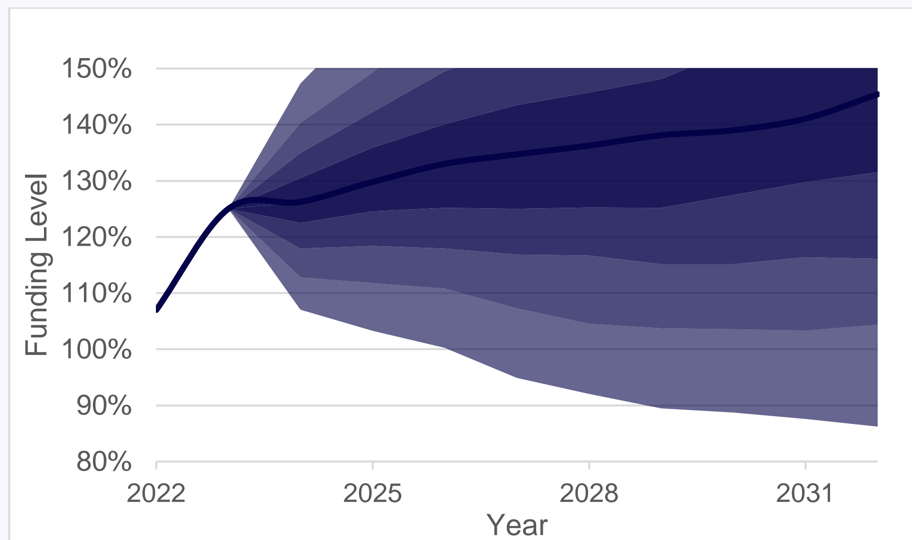
Chart 7.2 – Illustrations of the variability in total employer contributions relative to the median scenario (% of pay)



7.71 Chart 7.2 shows the uncertainty around future employer contributions. For example, Chart 7.2 shows that, relative to an expected (median) projected future employer contribution rate following the 2028 valuation, there is a 20% chance that the future employer contribution rate could be more than 5% of pay higher than this central expectation due to uncertainty in economic conditions. While the precise values shown in Chart 7.2 reflect the modelling assumptions used and a simplified approach to setting employer contribution rates, the feature being illustrated is the uncertainty in how future employer contribution rates might develop relative to current expectations.

7.72 Chart 7.3 illustrates the modelled range of future funding levels under the same set of scenarios as in Chart 7.2. Chart 7.3 shows that, even with an assumed increase in aggregate funding level from around 106% at March 2022 to 125% at March 2023, there remains a nearly one in ten chance of a funding deficit two years later at the March 2025 valuation. A material chance of valuation deficits remains in the longer-term despite the model assuming additional contributions are paid to meet deficits and any surplus is retained.

Chart 7.3 – Illustrations of funding level



7.73 Chart 7.3 also shows a high chance of very favourable outcomes. This reflects an expectation that, on average, future investment returns will exceed the prudent rates assumed in local funding bases; the modelling assumption that all surpluses are retained in the scheme; and a simplistic allowance for recent changes in economic conditions that might not be borne out in practice.

7.74 The model has limitations with high funding level outcomes. Chart 7.3 is intended to illustrate the significant downside risk that remains despite a favourable central scenario, rather than to provide detailed forecasts of such a central scenario or potential favourable outcomes. In particular, it does not allow for any actions taken to utilise surplus at each valuation. For this reason, the chart is curtailed at a funding level of 150%. Nevertheless, the very wide range of possible future outcomes is clear from the chart.

7.75 The output of the ALM should not be regarded as a prediction of future employer contribution rates or funding level but rather an illustration of the range of possible funding outcomes. Changes to employer contribution rates in the short term do not affect the long term cost of the scheme (which depends on the level of scheme benefits and scheme experience, including asset returns) but do affect the balance of costs between different generations of taxpayers.

Impact of different surplus strategies

7.76 The previous section in this Chapter outlined different approaches to surplus. We have considered the impacts on future employer contribution rates of two options adopted by funds, surplus buffers and stability mechanisms:

- "Surplus buffer" – For illustration, we have assumed:
    - Any valuation deficit is recovered over 20 years through additional contributions
    - Any valuation surplus up to 20% of the liability value (so where the funding level is between 100% and 120%) is retained in the scheme
    - Any valuation surplus in excess of 20% of the liability value (so a funding level above 120%) is spread over 20 years through reduced employer contributions
- "Stability mechanism" (or smoothing) – For illustration, we have assumed the same approach to setting contributions as the "Surplus buffer" scenario, but employer contribution rate changes are limited to 2% of pay each year (relative to the previous year)

7.77 Some funding strategies set by LGPS funds seek to maintain stability of contributions at least for local authority employers. Stability assists year-to-year budgetary management and helps to avoid frequent upward and downward changes in employer contributions as a result of short-term volatility. However, it can be difficult to know whether recent experience at a valuation is a result of short-term volatility or the start of a long-term trend. Any delay in changes in employer contributions to reflect such experience could lead to more extreme funding levels in the medium-long term.

7.78 While this discussion focuses on approaches to surplus, a stability mechanism also restricts contribution increases in response to a deficit which may delay a return to being fully funded.

7.79 For illustration, the analysis in this part assumes a starting funding level of 100% at March 2023.

7.80 Charts 7.4 and 7.5 illustrate the potential impacts of the two surplus scenarios on the changes in employer contribution rates at successive actuarial valuations. Each chart shows the distribution of increases (positive numbers) or decreases (negative numbers) in employer contribution rates at an actuarial valuation relative to the rates from the previous valuation. Chart 7.4 shows the "Surplus Buffer" scenario and Chart 7.5 shows the "Stability Mechanism" scenario.

Chart 7.4 – Illustrations of distribution of change in employer contributions (% of pay) between actuarial valuations for "Surplus Buffer" scenario

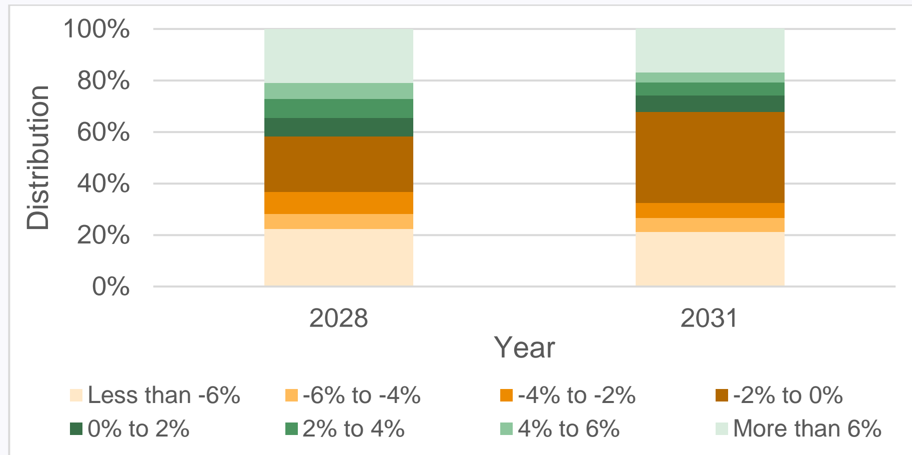
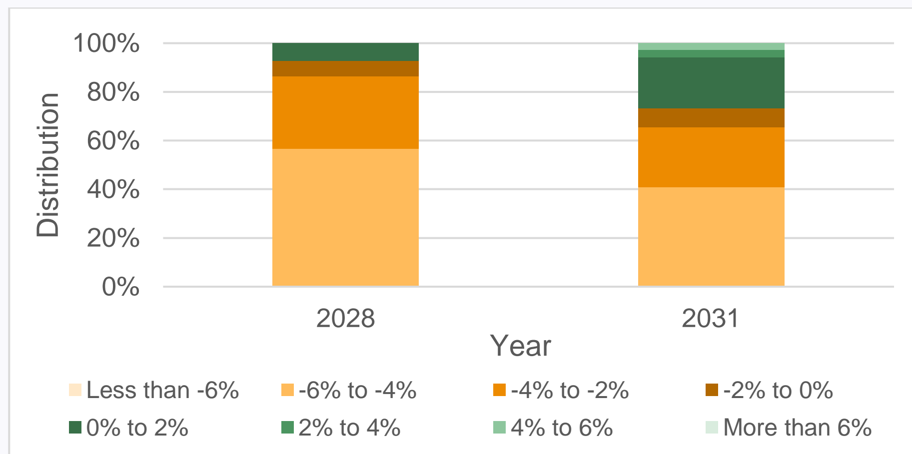


Chart 7.5 – Illustrations of distribution of change in employer contributions (% of pay) between actuarial valuations for "Stability Mechanism" scenario



7.81 These charts reflect the underlying scenario, with an increase in median funding level over time but significant volatility around this median position. The modelling adopted is a simplified approach to setting contribution rates, as it does not reflect all factors taken into account by funds in practice. In this case:

- The charts illustrate the impact of the stability mechanism limiting contribution rate changes. Chart 7.4 shows that, without a stability mechanism, there is a chance of relatively large contribution rate changes at valuations (for example, a combined chance of nearly 40% that contribution rates either increase or decrease by more than 6% of pay at the 2028 valuation relative to those from the previous valuation). The stability mechanism illustrated in Chart 7.5 limits such contribution rate changes to no more than 6% of pay (in either direction), equivalent to 2% a year over the 3 years between valuations.

- In the modelled scenario, the smallest contribution changes (increases or decreases of less than 2% of pay at a valuation) are more likely in the "Surplus Buffer" scenario in the 2028 and 2031 valuations. This is due to that scenario adjusting more quickly to any change in economic conditions whereas the stability mechanism spreads changes over a longer period of time.

7.82 As noted above, the impacts of a stability mechanism depend on whether recent experience at a valuation is a result of short-term volatility or the start of a long-term

trend, which can only be known over time. The central economic scenario adopted for these illustrations assumes the latter. However, if the expectation is that this is short-term volatility, we would expect the “stability mechanism” approach to maintain a more stable contribution rate between valuations when compared to the “surplus buffer”.

Asset Liability Modelling Limitations

7.83 None of the lines shown in the above charts represent a single simulated scenario – instead they are intended to represent the distribution of possible outcomes in the future and how the range of simulated scenarios changes over the projection period.

7.84 The scenarios considered are only two illustrative surplus approaches. Funds may reasonably adopt other parameters and approaches. Further, for modelling purposes we have adopted a simplified approach to calculating funding levels and setting contribution rates which does not reflect all factors taken into account by funds in practice.

7.85 The illustrations are based on one perspective of the future economic environment (using an economic scenario generator provided by Moody’s Analytics based on the March 2023 outlook) and scheme experience. Alternative assumptions and models are reasonable and would lead to different results.

7.86 In particular, the projections reflect one view of the economic outlook at March 2023. This differs to the outlook three years ago, which explains in part why these illustrations are different from those shown in the 2019 section 13 review report.

7.87 Rather than placing too great a reliance on the precise values shown in this section, it is helpful to consider a range of measures of risk and the impacts of actions in response to future changes. For example, the solvency section illustrates a deterministic scenario, whereby there is an asset shock, with no immediate rebound, with the risk of higher employer contributions. The modelling in this section is not intended to illustrate likely future contribution rates since the modelling assumptions are too simplified for that purpose. Rather, the modelling is intended to illustrate the wide range of uncertainty in future outcomes and the importance of understanding this uncertainty.