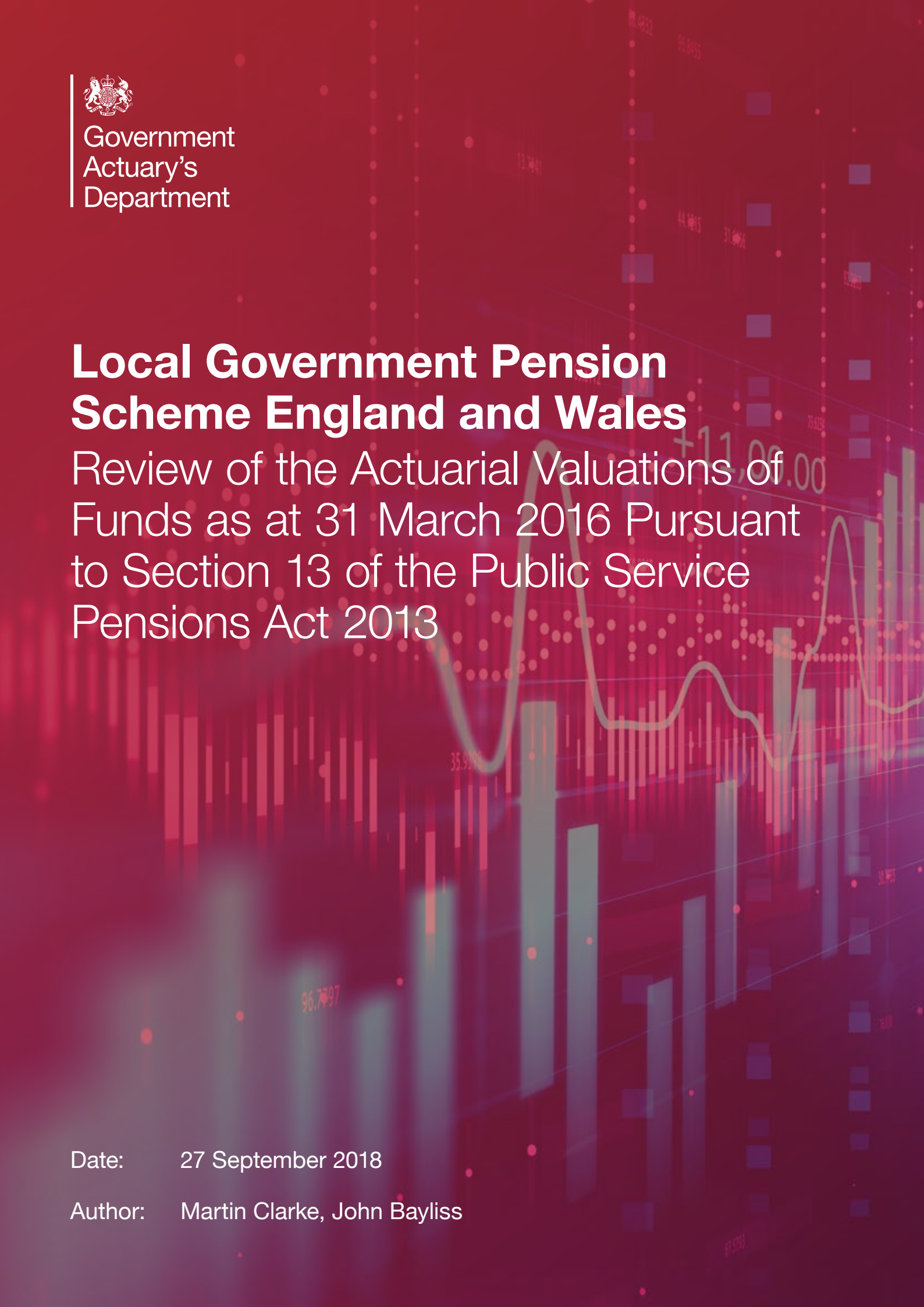


Government Actuary's Department

Local Government Pension Scheme England and Wales

Review of the Actuarial Valuations of Funds as at 31 March 2016 Pursuant to Section 13 of the Public Service Pensions Act 2013

Date: 27 September 2018

Author: Martin Clarke, John Bayliss

Contents


35%

1 Introduction

1.1 This report is addressed to the Ministry of Housing, Communities and Local Government (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 to set out the results of our review of the 2016 funding valuations of the Local Government Pension Scheme (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 and Accountancy (CIPFA), as well as other LGPS stakeholders.

1.2 In this introduction we provide:

- background information on the LGPS and fund valuations
- background information on this review and section 13 of the Act
- details of the structure of this report, including the executive summary and the appendices
- discussion of the metrics and flags that we have used in this report, noting the significant improvement in outcomes compared with the previous review
- commentary on the role of the actuary and other stakeholders, noting that nothing in this report should be taken as criticism of administering authorities, their actuary, or other stakeholders
- discussion of the data and assumptions underpinning this review
- a note of our engagement with stakeholders
- a statement of compliance and limitations

The Local Government Pension Scheme and fund valuations

1.3 The LGPS is a funded scheme and periodic assessments are needed to ensure the fund has sufficient assets to meet its liabilities. Employer contribution rates may change depending on the results of valuations. Scheme regulations set out when valuations are to be carried out.

1.4 Each LGPS pension fund is required to appoint its own fund actuary, who carries out the fund's valuation. The fund actuary uses a number of assumptions to value the liabilities of the fund. Liabilities are split between those that relate to the past (the past service cost), and those that relate to 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.

GAD's review and section 13

1.5 Section 13 applies for the first time to the valuations as at 31 March 2016.

1.6 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 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 scheme, so far as relating to the pension fund

1.7 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

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

c) the responsible authority may

iii) require the scheme manager to report on progress in taking remedial steps

iv) direct the scheme manager to take such remedial steps as the responsible authority considers appropriate

1.8 A dry run of this exercise was published[1] following the valuations as at 31 March 2013.

Structure of this report

1.9 An executive summary to this report is provided in a separate document.

1.10 In the remaining chapters in this report, we consider each of the four aims of section 13:

- Chapter 2: Compliance
- Chapter 3: Consistency
- Chapter 4: Solvency
- Chapter 5: Long term cost efficiency

1.11 Appendices are contained in a separate document, and cover:

- Appendix A: Compliance
- Appendix B: Consistency
- Appendix C: Solvency
- Appendix D: Long term cost efficiency
- Appendix E: Asset liability study
- Appendix F: Data provided
- Appendix G: Assumptions
- Appendix H: Section 13 of the Public Service Pensions Act 2013
- Appendix I: Extracts from other relevant regulations

Metrics and flags

1.12 In its notes to the establishment of key performance indicators[2] (KPIs), the Scheme Advisory Board states: "The SAB considers that maintaining and improving the overall performance of the LGPS is best done by focusing on improving key financial and governance metrics of 'under-performing' funds, and concurrently seeking to raise the level of performance of 'average' funds to that of the 'highest performing' funds."

[1] http://www.lgpsboard.org/images/Reports/Section13DryRun20160711.pdf

[2] http://committees.westminster.gov.uk/documents/s15058/11%20-%20Appendix%201%20-%20KPI%20Guidance.pdf

1.13 We have looked at a range of metrics to identify potential issues in respect of solvency and long term cost efficiency. Each fund's score under each measure is colour coded or flagged, where:

- 🟢 indicates that there are no material issues that may contribute to a recommendation for remedial action in order to ensure solvency or long term cost efficiency
- 🟡 indicates a potential issue should be recognised, but in isolation would not usually contribute to a recommendation for remedial action in order to ensure solvency or long term cost efficiency
- 🔴 indicates a potentially material issue that may contribute to a recommendation for remedial action in order to ensure solvency or long term cost efficiency

1.14 The trigger points for these flags are based on a combination of absolute measures and measures relative to the bulk of the funds in scope. We have had regard to the particular circumstances of some potential exceptions, following engagement with the administering authority and the fund actuary.

Results

1.15 In total, 70 out of 89 funds tested had green flags on all solvency and long term cost efficiency metrics. This is a significant improvement compared with the previous dry run report (52 out of 90). There are a total of 20 amber and 2 red flags, which is again a significant improvement compared with the dry run (58 amber, 5 red).

Interpretation of flags

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

1.17 In broad terms, amber flags are advisory signals that may indicate action and a need for further investigation through engagement with the relevant administering authority and their actuary. It should be noted that these flags are intended to highlight areas where risk may be present, or further investigation is required. Where an amber flag remains following that engagement, we believe this relates to an area where an issue remains that administering authorities and pension boards should be aware of. There is no implication that the administering authority was previously unaware of the issue.

1.18 A green flag (ie the absence of a red or amber 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.

Limitations

1.19 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 significantly less detailed than that available to funds. Our risk assessment framework is designed to broadly assess scheme risks and decide on our engagement with schemes on an indicative basis.

1.20 Because of the nature of this exercise, the only post-valuation events considered are those that may have already been taken into account in the valuation disclosures.

1.21 Further detail is provided in the solvency and long term cost efficiency chapters and appendices.

Exclusions

1.22 The Environment Agency Closed Pension Fund is different from other LGPS funds, in that the benefits payable and costs of the fund are met by Grant-in-Aid funding by the Department for Environment, Food and Rural Affairs[3], guaranteeing the security of these benefits. South Yorkshire Passenger Transport Pension Fund's assets and liabilities have been transferred to the Greater Manchester Pension Fund, hence we have not considered the fund further. In general, these funds have been excluded from the analyses that follow.

The role of the actuary and other stakeholders

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

- Aon
- Barnett Waddingham
- Hymans Robertson
- Mercer

1.24 Local valuation outputs depend on the local circumstances of each fund, the administering authorities' Funding Strategy Statements, and the actuary's work on the valuation.

1.25 We have reported where the review raised concerns in relation to the aims of section 13. In some cases these concerns are related to the particular circumstances of individual funds – for example mature funds that could have large liabilities relative to the financial resources of their employers have some inherent risks and may be more likely to be flagged under our 'asset shock' measure.

1.26 It is not our role to express an opinion as to whether any concerns raised are driven by the local circumstances of a fund, or the actions of authorities, their actuary, or other stakeholders. Nothing in this report should be taken as criticism of authorities, their actuary, or other stakeholders.

Data and assumptions

1.27 The metrics are based on publicly available data and data provided to GAD by or on behalf of administering authorities. Further details are in Appendix F.

1.28 To make meaningful comparison of valuation results, we have referred to results restated on two bases:

- the standard basis established by the SAB, as calculated by fund actuaries
- a market consistent basis derived by us

1.29 Further details of both these bases are set out in Appendix G.

1.30 The market consistent basis is GAD's best estimate as at 2016, based on our views of likely future returns on each asset class across the Scheme. Future asset returns are uncertain and there is a wide range of reasonable views on what future asset returns will be and therefore the best estimate discount rates should be. We have presented GAD's view above, but there are other reasonable best estimate bases which may give materially different results.

1.31 This use of these standard bases does not imply the bases are suitable to be used for funding purposes:

- the SAB standard basis is not market consistent

[3] http://www.lgpsboard.org/images/Valuations2016/EAPFClosed2016.pdf

- the market consistent basis is a best estimate (while regulations and CIPFA guidance call for prudence to be adopted). This best estimate is based on the average investment strategy for the overall scheme, and so will not be pertinent to any given fund's particular investment strategy. Further, this does not take into account any anticipated changes in investment strategy that may be planned or in train

1.32 The local valuations and our calculations underlying this report are based on specific sets of assumptions about the future. Some of our solvency measures are stress tests but these are not intended to indicate a worst case scenario.

Engagement with stakeholders

1.33 In preparing this report, we are grateful for helpful discussions with and cooperation from:

- MHCLG
- fund administrators
- actuarial advisors
- LGPS Scheme Advisory Board
- HMT

1.34 We note that this report is GAD's alone and the stakeholders above are not responsible for the content.

1.35 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 and expect that our approach to section 13 will continue to evolve to reflect ever changing circumstances and feedback received.

Compliance and limitations

1.36 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.

1.37 GAD has no liability to any person or third party 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.

1.38 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. In addition, the appointment to report under section 13 does not give the Government Actuary any statutory power to enforce actions on scheme managers (or others).


0,8

2
Compliance

Key compliance findings

- All reports checked contained a statement of compliance.
- All reports checked contained confirmation of each of the requirements in Regulation 62.
- We concluded that the aims of section 13 were achieved under the heading of compliance.

2.1 Section 13 requires that GAD must report on whether the actuarial valuations of the funds have been completed in accordance with the scheme regulations.

2.2 We found no concerns over compliance.

2.3 There is a great deal of consistency between 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 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.[4]

2.4 We found that the actuarial valuation reports for each of the above funds have been completed in accordance with Regulation 62, and have therefore concluded that the compliance criteria of section 13 have been achieved. We note that this is not a legal opinion.

2.5 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.

2.6 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 only to whether the valuations appear to achieve the aims of section 13.

[4] The statutory instrument governing the publication of actuarial valuations for the LGPS in England and Wales is Regulation 62 of the Local Government Pension Scheme Regulations 2013.

3
Consistency

Key consistency findings

- There has been an improvement in relation to disclosure of contribution rates.
- We recommend the SAB consider how best to implement a standard way of presenting relevant disclosures.
- The following assumptions show a marked difference for funds advised by the different firms of actuarial advisors that are not apparently due to local differences:
  - discount rate
  - mortality improvements
  - salary increases
  - commutation
- We recommend the SAB consider what steps should be taken to achieve greater clarity and consistency in actuarial assumptions, except where differences are justified by material local variations.
- We recommend the SAB seeks a common basis for future conversions to academy status.

3.1 Section 13 requires that GAD must report on whether the actuarial valuation has been carried out in a way which is not inconsistent with other valuations.

3.2 In this chapter we:

- provide some background on the legislation, and previous valuations
- discuss two types of consistency: presentational and evidential
- consider presentational consistency in more detail, looking in particular at the presentation of employer contribution rates and the analysis of the change in these rates since the previous valuation
- consider evidential consistency in more detail, looking first at liability values and then at various assumptions: discount rate, mortality improvements, salary increases and commutation assumptions
- conclude and make recommendations
- take a more detailed look the treatment of academies

Background: legislation and previous valuations

3.3 Section 13(4)(b) requires us to report on whether actuarial valuations have been carried out in a way which is not inconsistent with other valuations completed under the scheme regulations.

3.4 We consider how consistency relates to the ability to compare two actuarial valuation reports and draw appropriate conclusions. This relates to how key information is presented as well as whether the outcomes are able to be compared. We consider it is wholly appropriate for assumptions to be set relative to local conditions, but that this should be clearly explained and permit such comparisons to be made.

3.5 Note that Regulation 62 of the 2013 regulations does not include a requirement that the actuarial valuations are carried out in a way which is not inconsistent with other valuations completed under the scheme regulations. However, section 13 of the 2013 Act requires us to comment whether they have been carried out in this way.

3.6 We found improvements in consistency of contribution rate disclosure since the dry run. This was a major concern at the time. We welcome this significant progress. However, we found some other aspects of consistency had not improved since the dry run. Some aspects of this are discussed below.

Presentational and evidential consistency

3.7 Readers of the actuarial valuations face two difficulties in making meaningful comparisons between the reports:

- Presentational: information may be presented in different ways in different reports (eg funding levels), and sometimes information is contained in some reports but not others (eg life expectancies), so readers may have some difficulties in locating the information they wish to compare. We call this presentational inconsistency.
- Evidential: even when the reader has located the relevant information (eg 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 (eg financial assumptions are affected by the current and future planned investment strategy, different financial circumstances leading to different levels of prudence adopted). However, in some areas, it appears that the choice of assumptions is highly dependent on the house view of the particular firm of actuaries advising the fund, with only limited evidence of allowance for local circumstances.

3.8 Under both aspects there is a great deal of consistency when comparing any two reports produced by the same firm of actuarial advisors, but comparisons between reports of different firms of actuaries are more difficult.

Presentational consistency

3.9 We have taken a report produced by each firm of actuarial advisors to assess whether the information disclosed is consistent across all four advisors. The chosen funds are:

- Merseyside Pension Fund: Mercer
- London Borough of Haringey Pension Fund: Hymans Robertson
- Hampshire County Council Pension Fund: Aon
- Royal County of Berkshire Pension Fund: Barnett Waddingham

3.10 All four funds provide most of the key information that we expected from an actuarial valuation report. Each report also contains a section that summarises the changes to the funding position since the 2013 reports, and these are presented in very similar ways making for easy comparison.

3.11 However, the whole fund secondary contribution rates were not presented consistently, which might cause user difficulties if they wished to make comparisons between funds. This is discussed in more detail below.

Contribution rates

3.12 Contribution rates include the following components:

- primary contribution rate
- secondary contribution rate
- member contribution rate

3.13 The primary contribution rates are easily found in the valuation reports for each fund, and, as they are all expressed as a percentage of pay, are easily comparable. The same is true of member contribution rates.

3.14 Secondary contribution rates are more complex and the whole fund rates are not presented consistently in the valuation reports. All firms of actuarial advisors provide a detailed breakdown of the secondary contribution rates by employer for each of the next three years in their Rates and Adjustments Certificates. However, the summary statistics provided for the funds as a whole varied significantly between firms of actuarial advisors.

3.15 Table 3.1 summarises the information with regard to secondary contribution rates that are given in the valuation reports for the different firms of actuarial advisors. The inconsistent presentation of the secondary contribution rates relates to the presentation of the whole of fund / aggregate secondary contribution rates rather than individual employer secondary contribution rates. To aid comparison of these rates it would be helpful to present them more consistently. Given funds are of different sizes, translating whole fund secondary rates into a percentage of pensionable pay would assist.

Table 3.1: Secondary contribution rates

Fund (Firm of actuarial advisors)	2017	2018	2019	Average for recovery period
Hampshire (Aon)	£75,680,400 less 2.9% of pensionable pay	£81,548,300 less 1.9% of pensionable pay	£87,248,800 less 0.9% of pensionable pay	7.5% of pensionable pay
Berkshire (Barnett Waddingham)	£21,017,000 or 5.3% of pensionable pay	£27,468,000 or 6.7% of pensionable pay	£34,075,000 or 8.2% of pensionable pay	7.7% of pensionable pay
Haringey (Hymans Robertson)	£9,252,000	£8,612,000	£9,554,000	-
Merseyside (Mercer)	£136,300,000 less 0.9% of pensionable pay	£52,500,000 less 0.4% of pensionable pay	£53,600,000 plus 0.1% of pensionable pay	-

3.16 Barnett Waddingham expressed the secondary contribution rate as a percentage of pay and also gave the equivalent monetary amount. Aon and Mercer expressed the secondary contribution rate as a combination of a monetary amount and a (negative) percentage of pay. Hymans Robertson gave a monetary amount only.

3.17 Aon and Barnett Waddingham gave a single headline figure that summarises the average secondary contribution rate over the entire deficit recovery period for that fund.

3.18 In our view, the 2016 reports represent an improvement in the consistency of disclosures compared to those in the 2013 reports. Nevertheless, presentational inconsistency makes it difficult to compare the funds from all four firms of actuarial advisors based on the information provided in the valuation reports, without performing further analysis.

Change in contribution rates since the previous valuation

3.19 We note that regulations have changed with common contributions being replaced by primary and secondary contribution rates for employers. This makes comparison with the previous valuation difficult. Ideally, in future, we would expect to see a comparison of recommended primary and secondary contribution rates with those from the previous valuation. Table 3.2 shows the comparisons provided in each of the four reports.

3.20 A comparison with aggregate employer rates is provided in some cases. Others provide a comparison of primary rates only. We believe such a comparison is useful to enable the reader to understand the total level of contributions being paid into the fund.

Table 3.2: Comparison with prior valuation contribution rates

Fund	Comparison provided
Hampshire (Aon)	Comparison of the aggregate employer total contribution rate
Berkshire (Barnett Waddingham)	Analysis of the change in primary contribution rates, but no comparison of total employer rates
Haringey (Hymans Robertson)	The 2013 common contribution rate[5] alongside a comment that the change in regulatory regime and guidance on contribution rates means that a direct comparison to the whole fund rate at 2016 is not appropriate
Merseyside (Mercer)	Breakdown of the primary employer contribution rate compared with the previous valuation

[5] The common contribution rate (CCR) has been replaced by primary and secondary contribution rates in legislation. In some cases the CCR bore no relationship to actual contributions paid by employers.

Evidential consistency

3.21 We have considered whether the local fund valuations have been carried out in a way which is not inconsistent with each other. We have not found any significant inconsistencies in the results of the valuations (the recommended employer contribution rates), but there are significant inconsistencies in the assumptions adopted.

3.22 Inconsistencies in the methodology and assumptions are less critical than inconsistencies in the results would be. However these inconsistencies make it difficult for users to compare reports, and in our view do not serve any clear purpose. We therefore make a recommendation below that the SAB consider this issue.

3.23 In the paragraphs that follow we:

- look at the range of difference in the value assigned to the liabilities between the local basis and the standard SAB basis, which illustrates the impact of inconsistencies in the local bases
- consider some specific assumptions in detail (including the discount rate), to illustrate the apparent inconsistences

Value assigned to the liabilities

3.24 The value assigned to liabilities in each actuarial valuation report has been calculated on 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.

3.25 Table 3.4 shows a comparison of local basis liability values vs SAB basis liability values, and charts B1 and B2 in Appendix B shows a comparison of local funding levels vs SAB basis funding levels, which illustrate the variation in levels of prudence adopted in each valuation, and therefore the difficulty in drawing conclusions based on liability values.

3.26 The liability value on the local basis for Berkshire is lower than on the SAB standard basis, yet the reverse is true for the other three funds. Across the whole Scheme, the range is between 36% and -1%. This illustrates the difficulty for the reader in drawing comparisons between reports.

Table 3.3: Liability values

Fund	Local basis £m	SAB standard basis £m	Difference between local basis and SAB standard basis
Hampshire (Aon)	6,453	5,718	13%
Berkshire (Barnett Waddingham)	2,242	2,267	-1%
Haringey (Hymans Robertson)	1,323	1,118	18%
Merseyside (Mercer)	8,081	7,019	15%

Assumptions adopted

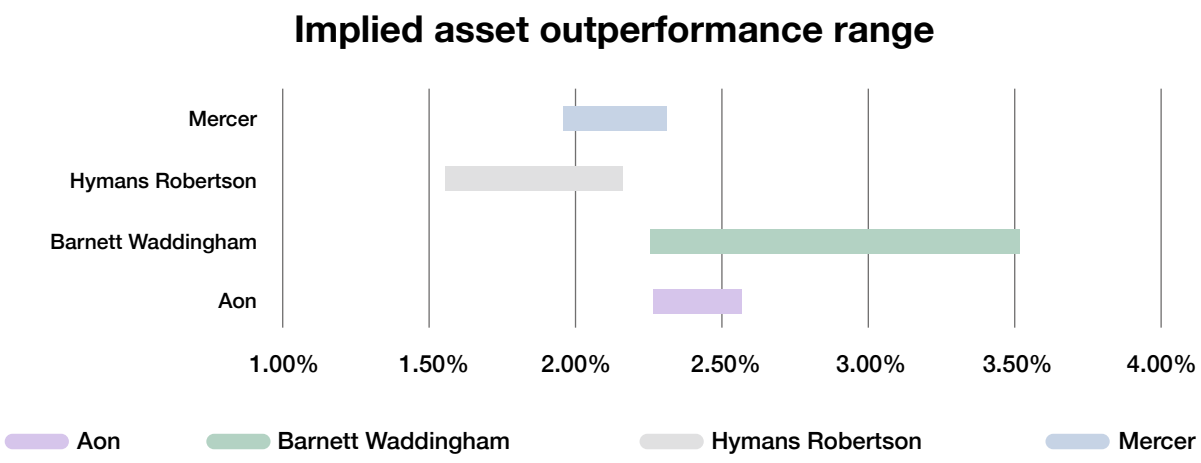
3.27 We compared the following key assumptions that need to be made for the actuarial valuations for all funds to consider whether variations in those assumptions are justified in terms of local conditions:

- discount rate
- mortality improvements
- salary increases
- commutation rates

Discount rates

3.28 A way of measuring the level of prudence built into the pre-retirement discount rate used to assess past service liability is by considering the implied asset outperformance within the discount rate (the implied real return above the risk free return within the discount rate) (see Appendix B.8 for more details). Note this applies to all assets, not just 'return seeking' assets. The following chart illustrates implied asset outperformance ranges within the discount rate used to assess past service liability[6], by firm of actuarial advisors.

Chart 3.1: Implied asset outperformance



[6] Note that some funds use different discount rates to assess past service liabilities and future service contribution rates, we consider only the former here.

3.29 We would expect some fund-by-fund variation due to asset strategy and different levels of risk appetite. Therefore 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 so there is a wide range of reasonable assumptions that may be adopted.

3.30 We are not stating that any particular set of assumptions adopted is not reasonable. However it does appear that they are not consistent with each other.

3.31 Chart 3.1 illustrates one aspect of this difference in assumptions applied by the four firms of actuarial advisors. The funds advised by Hymans Robertson tended to show the lowest level of asset outperformance within the discount rate. Those advised by Mercer sit in the middle of the range, and the funds advised by Aon and Barnett Waddingham have the highest level of outperformance within the discount rate used for assessing past service liability values.[7]

3.32 We might expect less bunching by firm of actuarial advisors if discount rates were set according to local conditions. The discount rate chosen appears to depend on the choice of firm of actuarial advisors. In this regard, we consider the aim of section 13 under consistency may not be achieved.

3.33 We acknowledge, given there are multiple funds advised by four different actuarial advisors, that there is difficulty ensuring consistency of methodologies and assumptions used. This, in conjunction with adequate disclosure in the reports, should allow comparison by a reader of the reports. Consistency is, however, one of the four aims of section 13 and we consider that to improve consistency, stakeholders should work together to overcome some of these difficulties.

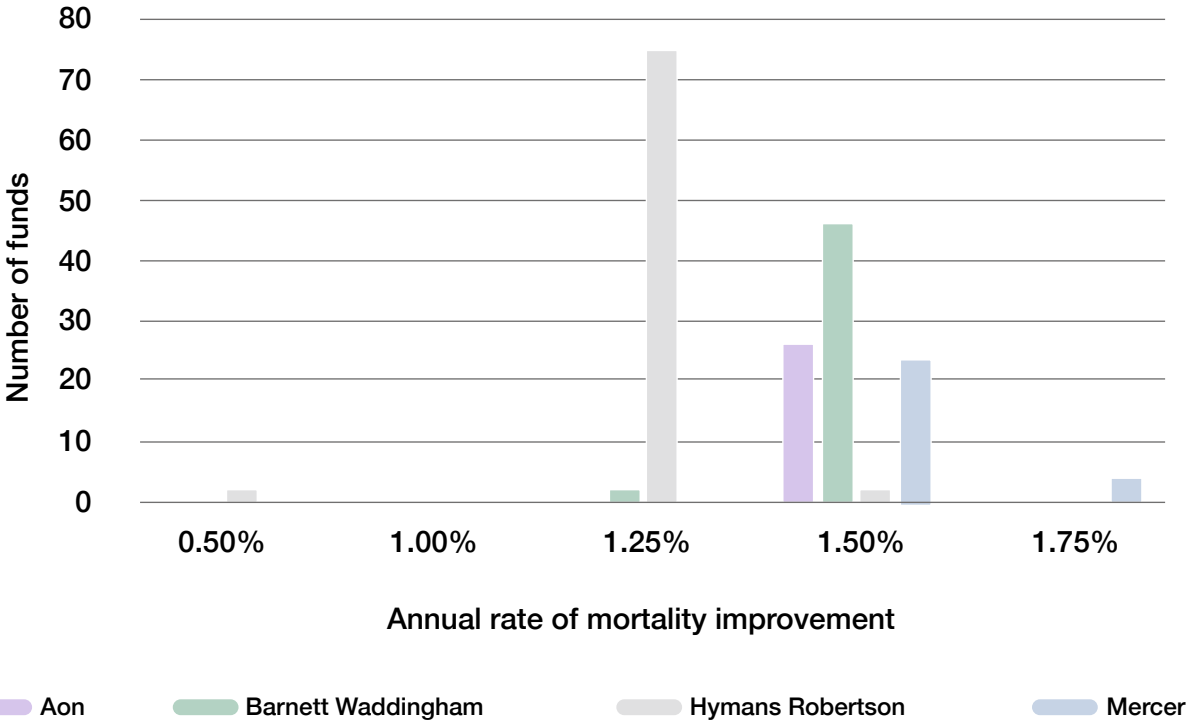
Mortality improvements

3.34 The mortality assumption is a function of current (or base) mortality and expectations for future improvements. It is reasonable to set the base mortality assumption on local data. However, mortality improvements must be based on a projection, such as the Institute and Faculty of Actuaries' CMI projections[8] with an assumed rate of future increases counted separately. The assumed long term rates of future mortality improvements for males and females are summarised in Chart 3.2 below:

[7] The asset outperformance in Chart 3.1 relates to the discount rate for past service liabilities only. For setting future service contribution rates, Hymans Robertson use a stochastic approach . Mercer follow a deterministic method, but add eg 0.5% to the discount rate for setting contribution rates.

[8] https://www.actuaries.org.uk/learn-and-develop/continuous-mortality-investigation/cmi-investigations/mortality-projections

Chart 3.2: Mortality improvements assumptions for males and females



3.35 Hymans Robertson tends to assume a rate of mortality improvement 0.25% lower than that of the three other firms of actuarial advisors. Hymans Robertson also use an earlier mortality improvements model. The other three firms of actuarial advisors used higher improvement rates and based their mortality improvements on more recent projections. This is understandable because it is difficult to assess future mortality trends, and during the period up to 2016 there was considerable uncertainty in the direction of these trends. The assumption adopted by each fund appears to be heavily influenced by the advisor rather than any local considerations. Each assumption falls within an acceptable range, but we consider it would be helpful if the four firms adopted a consistent assumption for this item.

Salary increases and commutation assumptions

3.36 The rate of promotional pay increases and commutation (the extent to which members on average exchange pension in favour of a tax free cash benefit) assumptions appear in the case of some of the firms of actuarial advisors to be set as a house view rather than an approach clearly based on local conditions. Charts B5 and B6 in Appendix B illustrate this.

3.37 Most firms of actuarial advisors confirmed they perform some analysis under both these areas. In some cases this appears to result not in local variation, but rather an average assumption across the funds under a given advisor. The firms of actuarial advisors cite lack of materiality in some cases, which we consider reasonable. However, in these cases, we believe it would be helpful to use a common assumption across all funds to aid comparability.

Conclusion and recommendations

3.38 Section 13 requires valuations to be carried out in a way that is not inconsistent with other LGPS fund valuations. We interpret this in a presentational and evidential way. We consider the criterion has not been achieved if a user is not able to draw comparisons between the results from two valuation reports.

3.39 Stakeholders may wish to set out objectives for a possible project to improve consistency to help readers to understand the prudence being used in the report with regard to both past service liabilities and aggregate contribution rates. These objectives may include:

- a framework for relevant assumptions to be set by local government collectively
- recognition that, where appropriate, assumptions should be set according to local conditions, following review of local experience and discussion with relevant stakeholders
- assumptions should be set consistently, in that different assumptions should be clearly justified by specific local circumstances (eg different asset strategies, different risk appetites, different local mortality experience)

3.40 Examples of where the criterion may not have been achieved include:

- some remaining inconsistency in reporting of whole of fund secondary contribution rates
- assumptions with a marked difference for funds advised by the different firms of actuarial advisors that cannot be justified by local differences:
  - mortality improvements
  - discount rate
  - salary increases
  - commutation

3.41 These differences contribute, alongside genuine local variations, to differences between funding levels and recommended contribution rates on local bases which a reader may find it difficult to interpret without undertaking further analysis.

Recommendation 1: We recommend that the Scheme Advisory Board should consider how best to implement a standard way of presenting relevant disclosures in all valuation reports to better facilitate comparison, with a view to making a recommendation to the MHCLG minister in advance of the next valuation. We have included a draft dashboard in this report to facilitate the Scheme Advisory Board's consultation with stakeholders.

3.42 We set out a possible dashboard to facilitate the Scheme Advisory Board's consultation with stakeholders. Such a dashboard could facilitate comparison both between funds and between successive valuations of the same fund.

Table 3.4: Possible dashboard for inclusion in valuation reports

Item	Proposed format
Funding level (assets/liabilities)	%
Funding level (change since previous valuation)	%
Market value of sssets	£m
Value of liabilities	£m
Surplus (deficit)	£m
Deficit recovery end point	year
Change in deficit recovery end point	+/- number of years
Primary contribution rate (average for the fund)	£ pa, % of pay
Secondary contribution rate (average for the fund)	£ pa, % of pay
Total employer rate (average for the fund)	£ pa, % of pay
Total employer rate (change since previous valuation)	£ pa, % of pay
Employee contribution rate	£ pa, % of pay
Discount rate(s)	% pa
Assumed pension increases (CPI)	% pa
Method of derivation of discount rate, plus any changes since previous valuation	Freeform text
Life expectancy for current pensioners – men age 65	years
Life expectancy for current pensioners – women age 65	years
Life expectancy for future pensioners – men age 45	years
Life expectancy for future pensioners – women age 45	years
Funding level on SAB basis (for comparison purposes only)	Simple overall percentage

3.43 We note that such a dashboard would facilitate comparison between funds, but should not be translated into funding advice.

Recommendation 2: We recommend that the Scheme Advisory Board should consider what steps should be taken to achieve greater clarity and consistency in actuarial assumptions, except where differences are justified by material local variations, with a view to making a recommendation to the MHCLG minister in advance of the next valuation.

Academies

3.44 MHCLG has asked GAD to review academy contribution rates under the heading of consistency, following recent work led by the SAB.

3.45 We conducted our investigation based on data provided by the firms of actuarial advisors in order to understand how academies are being treated in the LGPS. The outcomes of this investigation are summarised below.

3.46 The SAB has identified two work-streams – administration and funding – and plans to complete its work and make recommendations to ministers later this year.

GAD's investigations

3.47 GAD's report is published here.[9]

3.48 The analysis concluded that:

- on average academies currently pay 2% of payroll less in contributions than local authorities (LAs) (21% on average for academies, 23% on average for local authorities)
- there is a high degree of variability in individual contribution rates
- academies are treated consistently with LAs, suggesting that the DfE guarantee is currently being recognised by funds
- given the existing approach for setting academy contribution rates, we would expect (material) nationwide variation between individual academy contribution rates and LA contribution rates to persist in future. Further, the extent of the variation observed at the 2016 valuation could potentially increase, particularly if there is a large increase in the number of new academies

Conclusions and recommendations

3.49 We concluded that, on average, academies were treated fairly in relation to LA employers, but there was considerable inconsistency in methods adopted for allocating initial assets to the academies, and in some cases the period for repaying initial deficits, and this has contributed to a wide range of contribution rates paid by academies.

3.50 Two streams are being pursued by the SAB:

- administration stream: we support the work of the SAB in seeking to simplify and streamline administration processes, noting that these improvements are not just relevant to academies, but to all employer groups
- funding stream

3.51 One area that can improve consistency of treatment between academies is the allocation of assets upon conversion to academy status. Consistency in the basis adopted at conversion, in particular for allocation of assets between the academy and the fund, and for the deficit recovery period, will help provide clarity to multi academy trusts about the costs associated with conversion.

Recommendation 3: We recommend that the Scheme Advisory Board seeks a common basis for future conversions to academy status that treat future academies more consistently, with a view to making a recommendation to the MHCLG minister in advance of the next valuation.

[9] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/740947/Academies_analysis_report_final.pdf


BALANCE
SAVINGS

4
Solvency

Key solvency findings

- Most funds in the LGPS meet the conditions required to be able to demonstrate solvency and in general funding levels have improved significantly across the scheme since the dry run.
- In total, 74 out of 89 funds tested had green flags on all solvency measures, an improvement since the dry run (56 out of 90).
- We have highlighted a number of funds where substantial contribution increases may need to be absorbed. Although we did not conclude that the aims of section 13 were not achieved, we believe fund managers should be aware of this risk.
- We recommend that West Midlands Integrated Transport Authority Pension Fund puts a plan into place to ensure the fund is able to continue to meet benefits in the event that no future contributions are available.

4.1 Under section 13(4)(c) of the Act, the Government Actuary must report on whether the rate of employer contributions to the fund is set at an appropriate level to ensure the solvency[10] of the pension fund.

4.2 In this chapter we:

- provide a definition of solvency
- provide some background on solvency issues, and the measures and flags we have used in considering them
- consider the potential volatility of contributions through an asset liability study
- set out flagged solvency risks for open funds
- discuss the solvency risks for West Midlands Integrated Transport Authority, which is a closed fund

Definition of solvency

4.3 We do not regard that solvency means that a pension fund should be 100% funded at all times. Rather, in line with the definition in CIPFA's Funding Strategy Statement guidance[11] 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 solvency of the pension fund if:

- the rate of employer contributions is set to target a funding level for the whole fund (assets divided by liabilities) of 100% over

[10] The explanatory notes to the Act state that solvency means that the rate of employer contributions should be set at "such a level as to ensure that the scheme's liabilities can be met as they arise".

[11] http://www.cipfa.org/policy-and-guidance/publications/p/preparing-and-maintaining-a-funding-strategy-statement-in-the-lgps-2016-edition

an appropriate time period and using appropriate actuarial assumptions

and either:

- employers collectively have the financial capacity to increase employer contributions, and/or the fund is able to realise contingent assets should future circumstances require, in order to continue to target a funding level of 100%

or

- there is an appropriate plan in place should there be, or there is expected in future to be, no or a limited number of fund employers and/or a material reduction in the capacity of fund employers to increase contributions as might be needed

Background on solvency

4.4 Most funds have improved their funding level since the 2013 valuations. For example, on GAD's best estimate basis, the aggregate funding level across all LGPS funds at 2016 had improved from around 93% to approximately 106%, and around 60 funds were in surplus on this basis. This means that we expect, on average, there is a greater than 50% chance that existing assets would be sufficient to cover benefits in respect of accrued service when they fall due.

4.5 In the case of tax-raising employers, accommodating contribution variability is a political, as well as financial, consideration. We consider it is important that administering authorities and other employers understand the potential range of future cost, so that they can understand the affordability of potential future contribution requirements.

4.6 We have performed some asset liability modelling work to help illustrate the potential for variation in contribution rates that may be required if foreseeable variations to market conditions were to occur.

4.7 We have assessed risk against a range of measures and have highlighted funds where we believe specific risk is present. These are risks of potential contribution volatility that managers should be aware of. Managers should consider actions required to manage these risks, but accepting the risk may be a valid option. The flag does not imply that anything has gone wrong and maintaining the flag does not imply that we take issue with any decision to accept the risk. The amber flag is an indication that the risk is accepted or has not been mitigated – it is not implying that the administering authority is unaware of the risk.

4.8 All funds should be aware of their solvency position, to ensure that the relevant plans are in place to be able to pay benefits when they fall due and employers are able to accommodate potential future increases in contributions.

4.9 This is particularly important in the case of mature funds, where volatility of contributions may be greater. In particular, they should ensure that sufficient plans are in place to be able to pay benefits when they fall due in the potential environment of no future employer contributions.

4.10 We note that, in total, 74 out of 89 funds had green flags on all solvency measures, a significant improvement since the dry run (56 out of 90).

4.11 Flagged measures in this report include:

- SAB funding level, where we have highlighted as a risk to be aware of the ten open funds with the lowest figures. This is a purely relative, existing risk
- asset shock, where we have highlighted four funds that could be required to absorb a large increase in contribution rates (relative to core spending power for all but one fund) should a significant, sustained shock occur

Volatility of contributions: asset liability study

4.12 Volatility of asset returns and changes in economic conditions may place significant pressures on the future rate of employer contributions.

4.13 We performed an asset liability study to investigate and help quantify these pressures. The asset liability study provides a simultaneous projection of the assets and liabilities of the scheme under a large number of stochastic economic scenarios to demonstrate potential funding and hence contribution outcomes of the scheme under different potential circumstances.

4.14 For the purpose of assessing liabilities and determining contributions, assumptions are needed on what set of assumptions will be used to carry out an actuarial valuation at each future point in time being considered. In our modelling we have assumed that:

- changes to the financial assumptions will reflect market conditions at the valuation date (specifically, long term gilt yields)
- the length of the recovery period is fixed at 20 years at each valuation to approximate what funds are doing in practice

4.15 The output of the model is the upwards or downward pressure on contribution rates assuming that the impact of changes in economic conditions feeds through directly to contribution setting.

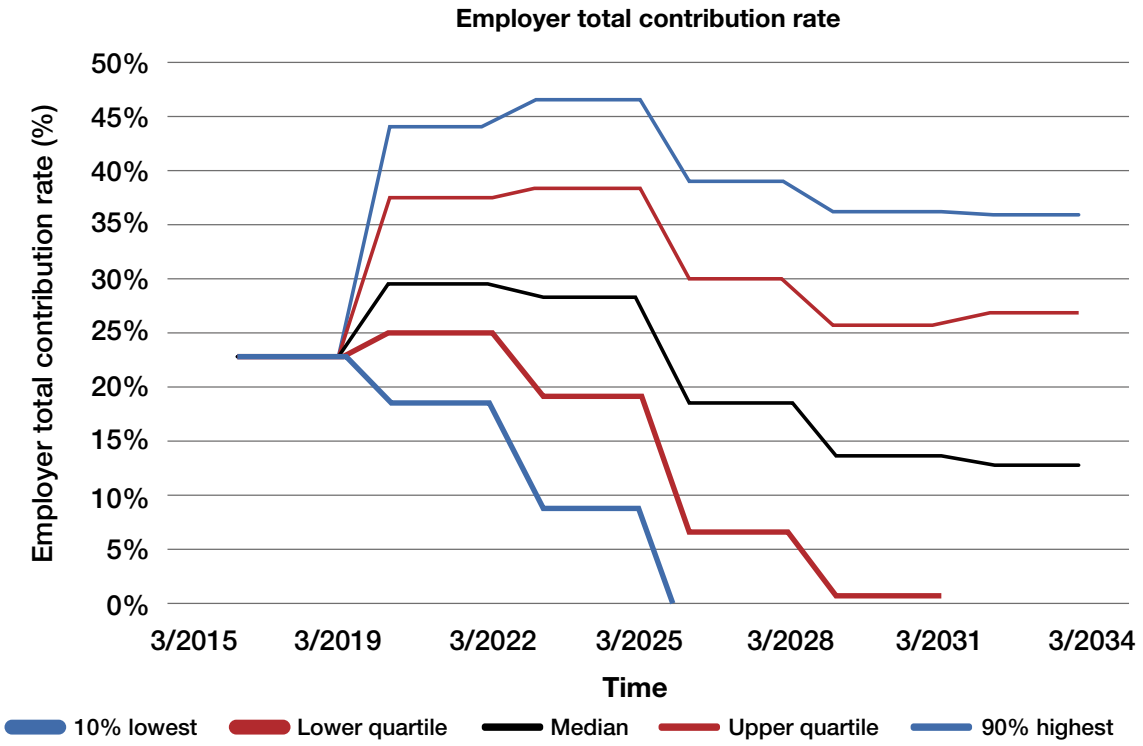
4.16 In practice we might not expect these pressures to feed directly into changes in employer contribution rates, because for example, if there was a downward (or upward) cost pressure the following adjustments might be considered:

- asset strategy might be made more defensive which would be expected to reduce future volatility but would reduce the scope for reducing contributions (conversely, if there was an upward cost pressure, the asset strategy might be made more return seeking)
- the length of the recovery period might be reduced (conversely, if there was an upward cost pressure, the length of the recovery period might be increased)
- the level of prudence might be increased, which could reduce the chance that future experience was worse than assumptions, but could also limit the scope for reducing contributions (conversely, if there was an upward cost pressure, the level of prudence might be reduced)

4.17 The output of the model should not therefore be regarded as predictions of changes in future employer contribution rates, but rather the potential pressures on the employer contribution rate that might need to be managed in some way. Any changes to manage down employer contribution rates in the short term do not alter the long term cost of the scheme (which depends on the level of scheme benefits and scheme experience, including asset returns) and more generally might have some other less desirable outcomes, for example:

- increasing the length of recovery periods transfers costs onto future generations
- choosing a more return seeking asset strategy would be expected to increase volatility and risk

Chart 4.1 Range of employer total contribution rate



4.18 Chart 4.1 illustrates the potential upward or downward pressures on employer contribution rates. The black line represents the median[12] expected outcome, the red lines the 25th and 75th percentile[13] outcomes and the blue lines the 10th and 90th percentile outcomes.

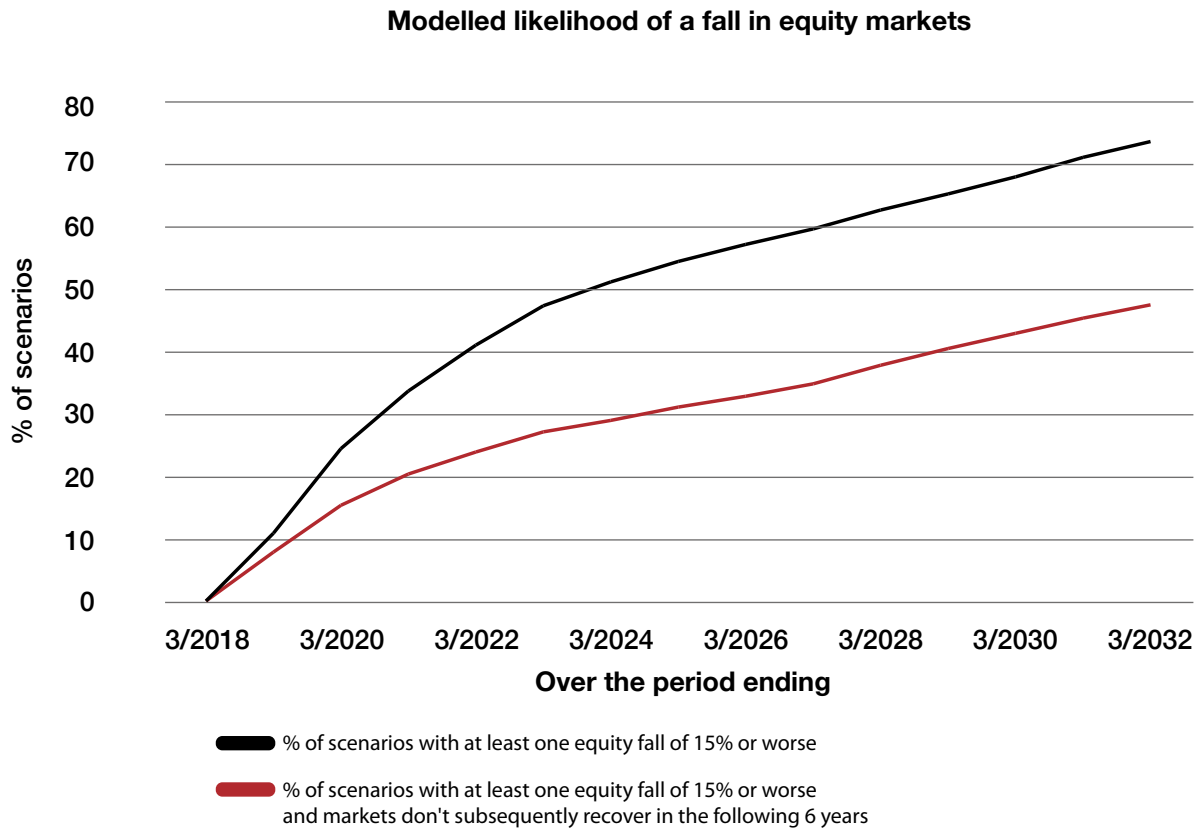
4.19 Chart 4.2 illustrates the cumulative risk[14] that equity markets fall over 12 months by more than 15% at some point over the next 20 years, and the chances of those markets not recovering within two valuation cycles. This indicates the scenario envisaged in our asset shock measure is plausible.

[12] The median is the central outcome of the range, which means, according to the model, the actual outcome is equally likely to be higher or lower than the median. Note that the median is the middle outcome at each point in time. The median line does not represent a prediction of outcomes.

[13] The 25th and 75th percentile outcomes represent the outcomes where there is a one in four chance the outcome will be more extreme in the relevant direction. For the 10th and 90th percentile outcomes, there is a 10% chance of a more extreme outcome.

[14] This is an output from our model, which itself is dependent on assumptions/economic scenario generator underlying that model, for example in relation to equity market mean reversion. Different models will produce different outcomes. Our model assumes discount rates are driven from underlying gilt yields with a variable equity outperformance assumption.

Chart 4.2 Modelled likelihood of a fall in equity markets



Key message

4.20 It is highly likely that there are significant developments between each valuation that could result in relatively large pressures on employer contribution rates. In particular, after removing potential trends in the projected future contribution rate, we estimate that, based on economic circumstances alone, there is around a 30% chance of an upward pressure of 8% of pay or more and a 30% chance of a downward pressure of 8% of pay or more. This should not be regarded as a prediction of the changes in future employer contribution rates, because adjustments might be made to manage such pressures as discussed above.

4.21 In addition to the key message above, the asset liability study provides further illustration of possible changes in contribution rates.

- **In the short term, there may be upwards pressure on employer contributions at the next valuation cycle.**

  This primarily reflects the modelled reduction in valuation discount rates, relative to the last valuation – as a result of falling gilt yields although this is mitigated by strong asset returns since 2016. In practice, the upward pressure on contributions may be further managed (perhaps to the point that upward pressures are relieved) if valuation discount rates (relative to gilt yields) increase or by other changes.

- **In the medium to longer term, employer contributions are expected to fall, such that they are expected to be lower than current contribution levels.**

  This reflects reducing deficit repair contributions and expected asset outperformance from growth assets. Depending on the assumptions made about future gilt yields and return expectations, there may also be increases in valuation discount rates which further ease contribution pressures.

- **There remains a risk that contributions are materially higher than current levels.**

  There is still a significant chance that economic assumptions and factors do not turn out as expected and contribute to a deterioration in the scheme's funding position or cost of accrual that lead to significant upward pressure on employer contributions.

4.22 These messages are illustrated in charts in Appendix E which shows the median and outer percentile results of this exercise. Employer total contributions include the cost of ongoing benefit accrual and deficit recovery contributions where appropriate, less member contributions, aggregated across all funds.

Solvency risks for open funds

4.23 In the following tables we illustrate the results of the solvency measures we have used for each of the individual funds in the LGPS where at least one measure of solvency was amber or red. In Appendix C (Table C1) we set out the considerations with regards to risks already present and emerging risks, and map these to the measures we have adopted for this exercise.

SAB funding level

4.24 The SAB basis is a useful measure to compare the relative funding position of each fund, but it is not a market related basis, and is therefore not directly appropriate for funding purposes. Our definition of solvency does not require a fund to be 100% funded on any given basis at all times. Rather, this measure gives an indication of the extent of remedial action that may be required to ensure solvency. Long term cost efficiency measures are designed to check whether funds are taking suitable steps to improve the level of funding. Table 4.1 outlines those funds in the lowest decile for funding level (the measure is the distance from the average funding level).

4.25 We have engaged with the funds with the lowest SAB funding levels. Most have indicated they have plans to improve funding levels over time, by paying increased deficit contributions. Brent, in particular, indicated that their long term budgeting process allows for these expected contributions over the full term of the expected deficit recovery period, which we acknowledge. If other funds set similar long term budgets this would help to demonstrate solvency. In our engagement with Worcestershire Pension Fund, the administering authority highlighted that their funding position has increased significantly and that their strategy for investments now includes equity protection. This was adopted during early 2018 and runs past the next actuarial revaluation. The fund is assessing its investment strategy and risk appetite also before the next valuation.

Table 4.1 – Funds with an amber flag on SAB funding level

Pension fund	SAB funding level distance from mean
Bedfordshire Pension Fund	-13%
City of London Corporation Pension Fund	-11%
London Borough of Barnet Pension Fund	-13%
London Borough of Brent Pension Fund	-29%
London Borough of Croydon Pension Fund	-15%
London Borough of Havering Pension Fund	-17%
London Borough of Waltham Forest Pension Fund	-19%
Royal County of Berkshire Pension Fund	-23%
Somerset County Council Pension Fund	-15%
Worcestershire County Council Pension Fund	-11%

Asset shock

4.26 We have performed a series of tests in relation to emerging risks. These are stress tests in relation to what may happen if certain events occur. Asset shock considers the scenario of a sustained reduction in the value of return seeking assets. For example, this could be a market correction in which asset values do not immediately recover, and therefore cannot be absorbed by a change in assumptions. In this scenario we model the additional contributions that would be required to meet the emerging deficit (as opposed to the total contributions required following the shock). 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.

4.27 We consider these additional contributions in the context of the financial resources of the underlying statutory employers, for which we have used core spending power[15], as a proxy as advised by MHCLG. A shock which generates high additional contributions as a proportion of core spending power generates a flag, as this may indicate that the local authority may be less likely to be able to absorb substantial contribution increases without affecting core services. Funds with a high level of return seeking assets (whether due to a high funding level or their strategic asset allocation between return seeking and defensive) are more exposed to asset shocks and more likely to trigger this flag. More detail is given in Appendix C. We note core spending power does not represent all sources of income for all local authorities.

4.28 The funds in table 4.2 have generated an amber flag for the asset shock. We consider that an asset shock flag, on its own, does not imply that the aims of section 13 are not achieved, and so do not recommend immediate remedial action. Rather, we believe this may indicate some risk in relation to solvency that fund managers should be aware of and monitor over time.

[15] See definition in Appendix C

4.29 We also developed two other stress tests:

- liability shock (in which we consider the impact of an increased liability value as a result of sustained lower interest rates)
- employer default shock (in which non-statutory employers are assumed to default on their pension liabilities, so their deficit transfers to remaining employers)

In practice we considered that the liability shock was not independent of the asset shock and few funds triggered the employer default shock, so we have opted not to highlight the results in this report.

Asset shock - specific engagement outcomes

4.30 We note that, with the exception of London Pensions Fund Authority, the other three amber flags relate to metropolitan funds. The main driver for this is the fact that the pension liabilities for the metropolitan funds are relatively high compared with their core spending power, rather than differences in asset strategies. Further analysis would be required to determine whether there is a different relationship between core spending power and other financial resources in the metropolitan funds, compared with non-metropolitan funds.

Table 4.2 – Funds with an amber flag on asset shock

Pension fund	Asset shock increase in contributions as a % of CSP
South Yorkshire Pension Fund	3.0%
Tyne and Wear Pension Fund	3.5%
West Yorkshire Pension Fund	3.7%
London Pensions Fund Authority Pension Fund	Amber

South Yorkshire Pension Fund

4.31 In our engagement with South Yorkshire Pension Fund, the administering authority highlighted that their investment now includes equity protection, which is intended to protect against falls in equity markets of between 5 and 30% over two years, while giving up gains above 14.25%. As such, if the strategy works as intended this will insulate the fund against the sort of major shocks we have modelled. This strategy was implemented during 2018.

4.32 This form of equity protection may be a suitable approach to protecting against shocks in the market. We make some brief comments about the operation of this strategy in Appendix C, however we do not comment on the effectiveness of this strategy.

4.33 We welcome the fact that South Yorkshire Pension Fund in consultation with the fund's employers has recognised that a risk does exist, and has reviewed the options available, and taken positive action. We maintained the asset shock flag for this report, because it the strategy was implemented after the 2016 valuation date. But if it remains in place, we will do further analysis in the next section 13 report.

London Pensions Fund Authority Pension Fund

4.34 LPFA is a special case as it has no core spending power and is a fund with primarily legacy liabilities. In the case of LPFA, the asset shock flag indicates a risk of a significant increase in contribution rate expressed as a percentage of pensionable pay. We engaged with LPFA. They considered pensionable pay as an incomplete representation of their ability to meet contribution variation. We intend to continue to engage with LPFA at the next section 13 exercise to further understand their particular circumstances.

Tyne and Wear Pension Fund, West Yorkshire Pension Fund

4.35 We engaged with both funds. They each considered core spending power as an incomplete representation of their ability to meet contribution variation.

Closed Funds: West Midlands Integrated Transport Authority

4.36 Funds that are closed to new members typically have decreasing payrolls, and funds which may be large relative to that payroll. This may lead to reduced scope to be able to meet variations in contributions. This in turn means that they may require outside funding in the future, which in turn may be uncertain, for example if there is no specific commitment from a guarantor.

4.37 The Environment Agency Closed Pension Fund has been excluded from the analyses in this report as the benefits payable and costs of the fund are met by Grant-in-Aid funding by the Department for Environment, Food and Rural Affairs as set out in the Compliance chapter.

4.38 South Yorkshire Passenger Transport Pension Fund's assets and liabilities have been transferred to the Greater Manchester Pension Fund, hence we have not considered the fund further.

4.39 West Midlands Integrated Transport Authority Pension Fund (WMITA) is the only remaining fund that is closed to new members and fully private sector backed. Tables 4.4 and 4.5 set out the red flags generated by WMITA.

Table 4.3 – Closed funds with an amber or red flag on open fund measure

Pension fund	Open fund
West Midlands Integrated Transport Authority Pension Fund	No

Table 4.4 –Closed funds with an amber or red flag on non-statutory employees

Pension fund	Non-statutory employees
West Midlands Integrated Transport Authority Pension Fund	100%

Specific engagement outcomes

4.40 Heightened employer covenant risk from the two non-statutory employers in this fund has been mitigated in part through guarantee arrangements, which provide some (albeit limited) additional financial capacity.

4.41 It is a relatively small fund, with total assets of around £500m.

4.42 If the employers were operating in a private sector pension scheme, PPF protection to members' benefits would apply. However, PPF protection does not apply to LGPS funds.

4.43 We consider two scenarios in which the solvency of the fund may be at risk:

- if the existing employers both exited the funds (by meeting the exit requirements under Regulation 64), there would be no fall-back in the event that the funds were ultimately insufficient to meet benefits when due
- if the last remaining employer defaulted and the employer (allowing for any remaining guarantee arrangements) was unable to meet its exit requirements

4.44 One employer (with a smaller share, approximately 5% of liabilities) has no active members and is almost sufficiently funded (as at 31 March 2016) to be able to exit the fund. The other employer has remaining but reducing active members and has in collaboration with the Administering Authority taken significant steps in recent years towards reducing reliance on employer covenant and ensuring solvency.

Ongoing contributions are around 25% of pensionable pay. These are supplemented by around £7m per year to help pay off the deficit. This leads to total contributions of around 80% of payroll. This represents a significant commitment on the part of the employer towards the solvency of the fund.

Independent covenant review, obtained from specialist advisers appointed by the Administering Authority, assessed employer strength as "tending to strong", as at March 2016.

The fund's assets include a Prudential 'buy in' product. This was implemented to cover all pensioners as at 2011, albeit excluding increases in payment. We understand further asset changes are underway to protect the funding position.

4.45 We have engaged extensively with the administering authority for WMITA. We also engaged with the respective employers following the dry run. We understand the administering authority recognises the risk and is working to mitigate it.

Recommendations

4.46 A plan should be put in place for WMITA to ensure that members' benefits are able to be met from the fund when due in an environment of no future employer contributions being available, to ensure the aims of section 13 are achieved.

4.47 We recommend that the administering authority put such a plan in place and that MHCLG review that plan.

4.48 Following our dry run report, the only other passenger transport fund in existence at that time has merged with the Greater Manchester Pension Fund. Such a merger could reduce the dependency on a single employer.

Recommendation 4: We recommend that the administering authority put a plan in place to ensure that the benefits of members in the West Midlands Integrated Transport Authority Pension Fund can continue to be paid in the event that employers' contributions, including any exit payments made, are insufficient to meet those liabilities.

5
Long term cost efficiency

Key long term cost efficiency findings

- Funding levels have improved on a best estimate basis, partly as a result of asset performance and partly due to increased contribution levels since the dry run.
- In total, 83 out of 89 funds had green flags on all long term cost efficiency measures. There are a total of 6 amber and no red flags, an improvement since the dry run (14 amber and 3 red).
- We recommend all funds review their funding strategy statement to ensure handling of surplus or deficit is fair to both current and future taxpayers.
- A small number of funds have extended their deficit recovery plan in conjunction with a reduction in employer contributions.

5.1 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[16] of the scheme, so far as relating to the pension fund.

5.2 In this chapter we:

- provide a definition of long term cost efficiency
- provide some background on long term cost efficiency issues, and the measures and flags we have used in considering them
- set out flagged long term cost efficiency issues: deficit reconciliation and deficit recovery period

Definition of long term cost efficiency

5.3 In line with the definition in CIPFA's Funding Strategy Statement guidance[17], 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.

Background on long term cost efficiency

5.4 Long term cost efficiency relates to not deferring payments too far into the future so that they affect future generations of taxpayers disproportionately.

[16] Explanatory notes to the Act state that: "long term cost efficiency implies that the rate must not be set at a level that gives rise to additional costs. For example, deferring costs to the future would be likely to result in those costs being greater overall than if they were provided for at the time."

[17] http://www.cipfa.org/policy-and-guidance/publications/p/preparing-and-maintaining-a-funding-strategy-statement-in-the-lgps-2016-edition

5.5 Following the 2013 valuations, 13 funds (14%) were in surplus on our best estimate basis. Following the 2016 valuations, that number has improved significantly to around 60 funds (67%). This follows a particularly strong period of asset outperformance, but also greater levels of contributions being paid into some funds.

5.6 Since much of our focus under long term cost efficiency is around deficit recovery on the best estimate basis, there are few flags being raised, and some of the flags raised in the dry run have been eliminated. In total, 83 out of 89 funds had green flags on all long term cost efficiency measures. There are a total of 6 amber and no red flags, an improvement since the dry run (14 amber and 3 red).

5.7 Other than Deficit Reconciliation and Deficit Recovery Period no flags were raised under the other long term cost efficiency measures. This can be interpreted as the funds' employers are on average paying sufficient contributions into their funds at present.

5.8 The two funds that gave rise to concerns in the 2013 dry run report were:

- Royal County of Berkshire Pension Fund
- Somerset County Council Pension Fund

5.9 Both Berkshire and Somerset Pension Funds flagged under all 2013 LTCE measures other than deficit extension.

5.10 Both funds' employers have addressed many of the concerns raised, and in particular have increased their contributions compared to the 2013 contributions in addition to both funds benefitting from improved funding levels.

5.11 For the 2016 report, Berkshire raises a flag under the deficit period measure. On further engagement, Berkshire indicated a commitment to repaying the deficit. Berkshire also flagged on funding level under solvency.

5.12 Somerset does not raise any flags under LTCE measures in the 2016 report.

Deficit reconciliation

5.13 CIPFA's Funding Strategy Statement guidance[18] states "Administering authorities should avoid continually extending deficit recovery periods at each and subsequent actuarial valuations. Over time and given stable market conditions, administering authorities should aim to reduce deficit recovery periods."

5.14 There are different interpretations of CIPFA's guidance – in particular 'deficit recovery periods' might be interpreted to mean either:

- the period over which deficit recovery contributions are paid (a recovery plan following the 2013 valuations might have been payable over the 2014 to 2034), in which case the CIPFA guidance suggests the period should not be continually extended beyond 2034
- the length of period – ie 20 years in the example above – in which case the CIPFA guidance suggests 20 years should not be continually increased and in stable market conditions, administering authorities should aim to reduce the length of the deficit recovery period

5.15 This first interpretation is in line with guidance from the Pensions Regulator (tPR) for private sector schemes. We believe that, despite differences in environment and covenant value of employers, principles set out by tPR are a useful guide.

[18] http://www.cipfa.org/policy-and-guidance/publications/p/preparing-and-maintaining-a-funding-strategy-statement-in-the-lgps-2016-edition

5.16 An extract of tPR's funding statements is reproduced below.

Type	Scheme characteristics	What we expect of trustees
a. With strong or tending to strong employers	Where the scheme's funding position is on track to meet their funding objectives and where technical provisions are not weak and recovery plans are not unduly long	As a minimum to **continue with their current pace of funding by not extending their recovery plan end dates** unless there is good reason to do so
b. With strong or tending to strong employers	With a combination of weak technical provisions and long recovery plans.	**To seek higher contributions now** to mitigate against the risk of the employer covenant weakening and other scheme risks materializing in the future

5.17 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.

5.18 We understand that new deficit may emerge between valuations, as a result of the fund's experience, in which case it may 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 may not be appropriate in the context of fairness between current and future generations of taxpayers to repay that new deficit within three years.

5.19 We consider that reconciliation of the deficit recovery plan is an important component of section 13 for all funds.

5.20 Through this exercise, we have identified and engaged with a number of funds that have extended their deficit recovery end points. We have not concluded that this implies the aims of section 13 are not achieved, however we do recommend that all funds review their funding strategy and consider whether this is in accordance with the CIPFA guidance referred to above.

5.21 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 being extended further into the future (increasing the burden on future taxpayers).

Recommendation 5: We recommend that all funds review their funding strategy to ensure that the handling of surplus or deficit is consistent with CIPFA guidance and that the deficit recovery plan can be demonstrated to be a continuation of the previous plan, after allowing for actual fund experience.

5.22 A significant minority of funds (37 of 91) have maintained their plans to eliminate their deficit (on their own funding basis). Of the remaining 54 funds, according to the data provided, 37 had increased contributions and 5 left them unchanged (expressed as a percentage of pensionable pay). We have engaged with the remaining 12. Through the engagement process, 8 were able to demonstrate that they had in fact increased contributions, or that their chances of deficit recovery are not reduced at the previous end point. We consider this is consistent with the aims of section 13.

Table 5.1 – Funds with an amber flag on deficit reconciliation measure

Pension fund	Deficit recovery plan
London Borough of Lambeth Pension Fund	+ 3 years
London Borough of Merton Pension Fund	+ 3 years
London Borough of Newham Pension Fund	+ 3 years
Royal Borough of Kingston Upon Thames Pension Fund	+ 2 years

5.23 We acknowledge that extending deficit recovery periods is appropriate in some circumstances, for example when new deficit emerges.

5.24 We engaged with those funds who appear to have extended their deficit recovery end point in conjunction with a reduction in overall contributions. However, where funds have been able to demonstrate that the probability of being fully funded at the previous recovery plan end point is not reduced, we have not flagged them.

Commentary from engagement in relation to deficit reconciliation

5.25 We have engaged with the funds listed above and listened to their decision making process in relation to this aspect.

London Borough of Lambeth Pension Fund

5.26 Following the 2013 valuation, Lambeth council opted to pay more than their actuary's central recommendations which would have implied a shorter recovery period than that set out in their funding plan at those times and requested that the Rates and Adjustments Certificates reflect their desire to pay more than required. However, as a result of budgetary pressures, the council have needed to reduce contributions. Therefore, some of the reduction in the 2016 SCR has been driven by the removal of these additional contributions which will have given the appearance of the fund extending its deficit recovery plan (but in actuality this put them back onto the underlying plan).

5.27 In addition, the fund reviewed both its funding and investment strategies with the ultimate goal of giving the Fund a two-thirds probability of full funding over a 20 year period.

London Borough of Merton Pension Fund

5.28 Similarly to Lambeth, Merton council opted to pay significant additional contributions into the fund following the 2013 valuation. They paid these contributions in lump sum form, rather than spreading them, and subsequently have had to reduce their contributions to a level below the 2013 level, excluding the lump sum contributions.

5.29 We acknowledge that Merton have made considerable contributions, and have a relatively short deficit recovery period. However, we have retained the flag, because following the 2016 valuation employer contribution rates were decreased (reducing the burden on current taxpayers) while at the same time as extending the deficit recovery end point (increasing the burden on future taxpayers).

London Borough of Newham Pension Fund

5.30 Newham council stated they paid contributions above minimum into the fund following the 2013 valuation and subsequently have had to reduce their contributions to a level below the 2013 level.

Royal Borough of Kingston upon Thames Pension Fund

5.31 Kingston extended their deficit recovery end point by 2 years. Kingston have also reduced their contributions by around 2%. They indicate that the level of contributions is above the minimum level implied by their actuary's model.

5.32 In general, most funds referred to the improvement in funding level and affordability of contributions in the light of other demands on budgets. These are all valid concerns, however we consider under section 13 that this involves a risk under long term cost efficiency.

Deficit recovery period

5.33 We included, as a relative measure, deficit recovery period. This refers to the period expected to repay the deficit, restated on our best estimate basis (see Appendix G), on the assumption that fund contributions are maintained at the current level.

5.34 Two funds also flagged on our deficit recovery period measure, having particularly long deficit recovery periods (after adjusting to our standardised best estimate basis). We consider this to be a risk, but not on its own, contrary to the aims of section 13 under long term cost efficiency, noting that these two funds appear in Table 4.1: Funds with an amber flag on SAB funding level.

Commentary from engagement in relation to deficit recovery period

5.35 In this case, we consider that these funds are carrying a risk that fund managers should be aware of, but we do not consider this sufficient to warrant a recommendation.

5.36 In our engagement with the Brent Pension Fund it is clear that Brent have taken significant steps towards addressing the deficit. Contribution rates are relatively high at an average of 33.6% of pensionable pay over the period 2017/18 to 2019/20 and the deficit recovery plan has been adhered to (the recovery period has reduced from 22 years at 2013 to 19 years at 2016, maintaining the same deficit recovery period end point). This demonstrates that Brent understands the issue and have made a strong commitment to reducing the deficit.

Table 5.2: Open funds with amber flag on deficit recovery period

Pension fund	Deficit recovery period (years)
London Borough of Brent Pension Fund	10
Royal County of Berkshire Pension Fund	13