Government Actuary's Department

Firefighters' Pension Scheme (England)

Cost control valuation as at 31 March 2016

Cost cap valuation report

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Contents

In this report, terms written in ***bold italics*** are defined in the Glossary.

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1. Summary

Background

Cost control mechanism introduced

- Established to ensure a fair balance of risks between scheme members and the taxpayer
- Introduced by section 12 of Public Service Pensions Act 2013 and policy details set out in HM Treasury (HMT) paper of March 2014

2012 valuation: Employer cost cap set at 16.8% of pay

- Set in Regulation 150A of the 2014 Regulations, based on the 2012 valuation
- If at subsequent valuations the cost of the scheme is outside a ±2% corridor above / below the employer cost cap, the 2013 Act requires action to be taken to bring costs back to the target cost

2016 valuation: Pause of cost control mechanism

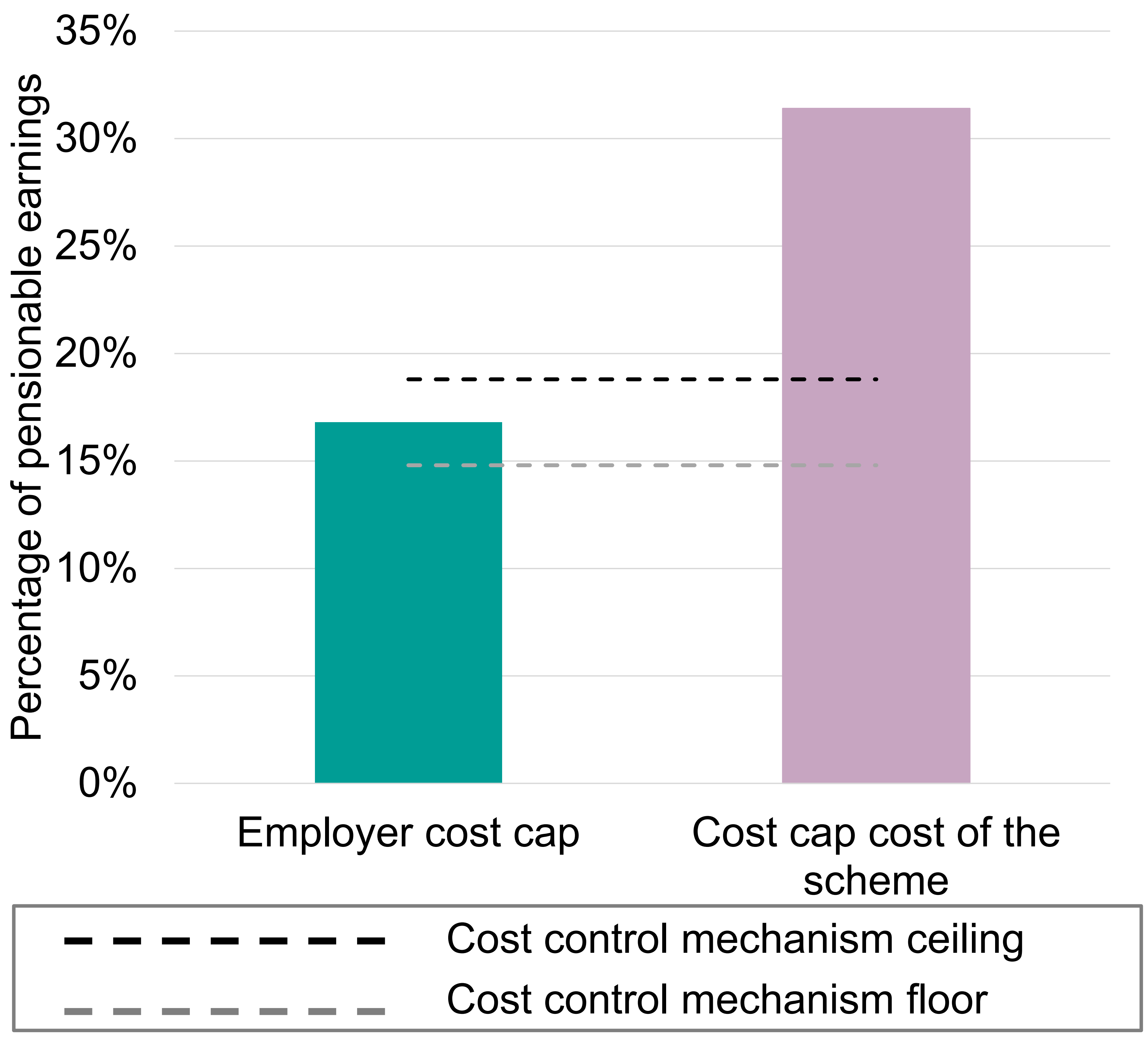
- HMT announcement 30 January 2019: followed the McCloud/Sargeant judgment and was implemented in February 2019 the Directions
- The 2016 valuation dated 28 February 2019 set the employer contribution rate to be 30.2% of pay with effect from 1 April 2019

2016 valuation: Completion of cost control mechanism

- HMT announcement 16 July 2020: the pause would be lifted and the costs of transitional protection remedy would be taken into account.
- HMT announcement 4 February 2021 that breaches of the cost cap ceiling would be waived.
- HMT Amendment Directions dated 7 October 2021 set the detailed requirements, and further information is available in the Government Actuary's letter of 6 October 2021

Summary of results

This report has been commissioned by, and is addressed to, the Home Secretary and sets out the ***cost control valuation results*** of the Firefighters' Pension Scheme (England) as at 31 March 2016 (see Appendix A: Reliance for further details).



The ***employer cost cap*** was determined at the 2012 valuation in accordance with [section 12 of Public Service Pensions Act 2013]

The ***cost cap cost of the scheme*** is

14.6%

above the ***employer cost cap***.

This result lies above the +/-2% corridor specified in ***HMT regulations***. The 2015 regulations require the Home Secretary to consult on the steps required to restore costs to the employer cost cap. However, a clause of the Public Service Pensions and Judicial Offices Bill amends section 12 PSPA 2013 (employer cost cap) so that ceiling breaches from the 2016 cost cap valuation have no effect. You may wish to take legal advice on the immediate actions required until the Bill receives Royal Assent.

The results of this cost cap valuation are not used to set the employer contribution rate. HMT has confirmed that changes to the employer contribution rates resulting from the 2020 valuations will take effect from April 2024.

2. Results

Cost cap cost of the scheme

Data, assumptions and methodology

We have been instructed by the Home Secretary, following consultation with relevant stakeholders, to adopt the best estimate assumptions recommended in our formal advice on the assumptions, methodology and data dated 21 December 2021. A summary of the main assumptions is set out in Appendix F of the 2016 valuation dated 28 February 2019.

Calculation of the cost cap cost of the scheme

The ***cost cap cost of the scheme*** has been calculated as follows, in accordance with the ***Directions***:

Cost cap cost of the scheme	=	Employer contribution correction cost	+	Transitional protection remedy cost
31.4%		11.6%		19.8%

The calculation of the transitional protection remedy cost is set out in Appendix B.

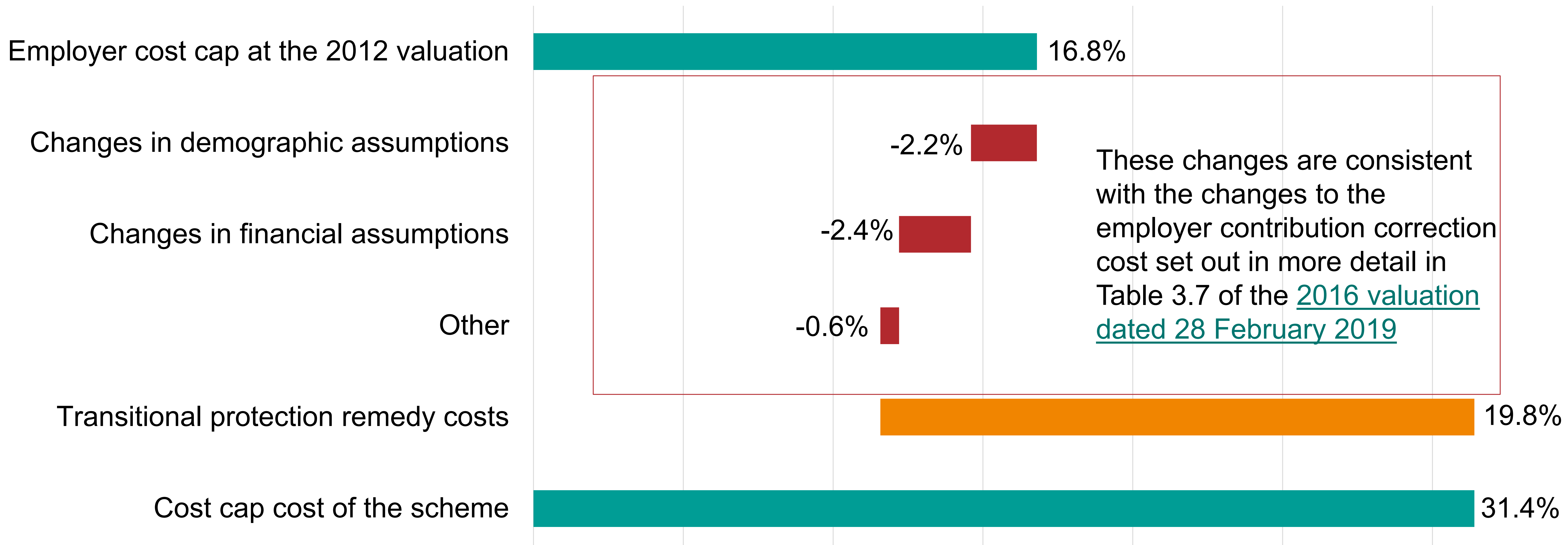
Comparison with employer cost cap

The ***cost cap cost of the scheme*** is 14.6% above the ***employer cost cap***. The result lies above the ± 2% corridor. This report provides formal confirmation by the ***scheme actuary*** that the ***cost cap cost of the scheme*** is outside of the 2% margin, as required under direction 48(g).

Cost cap cost of the scheme	31.4%
Employer cost cap	16.8%
Difference	14.6%

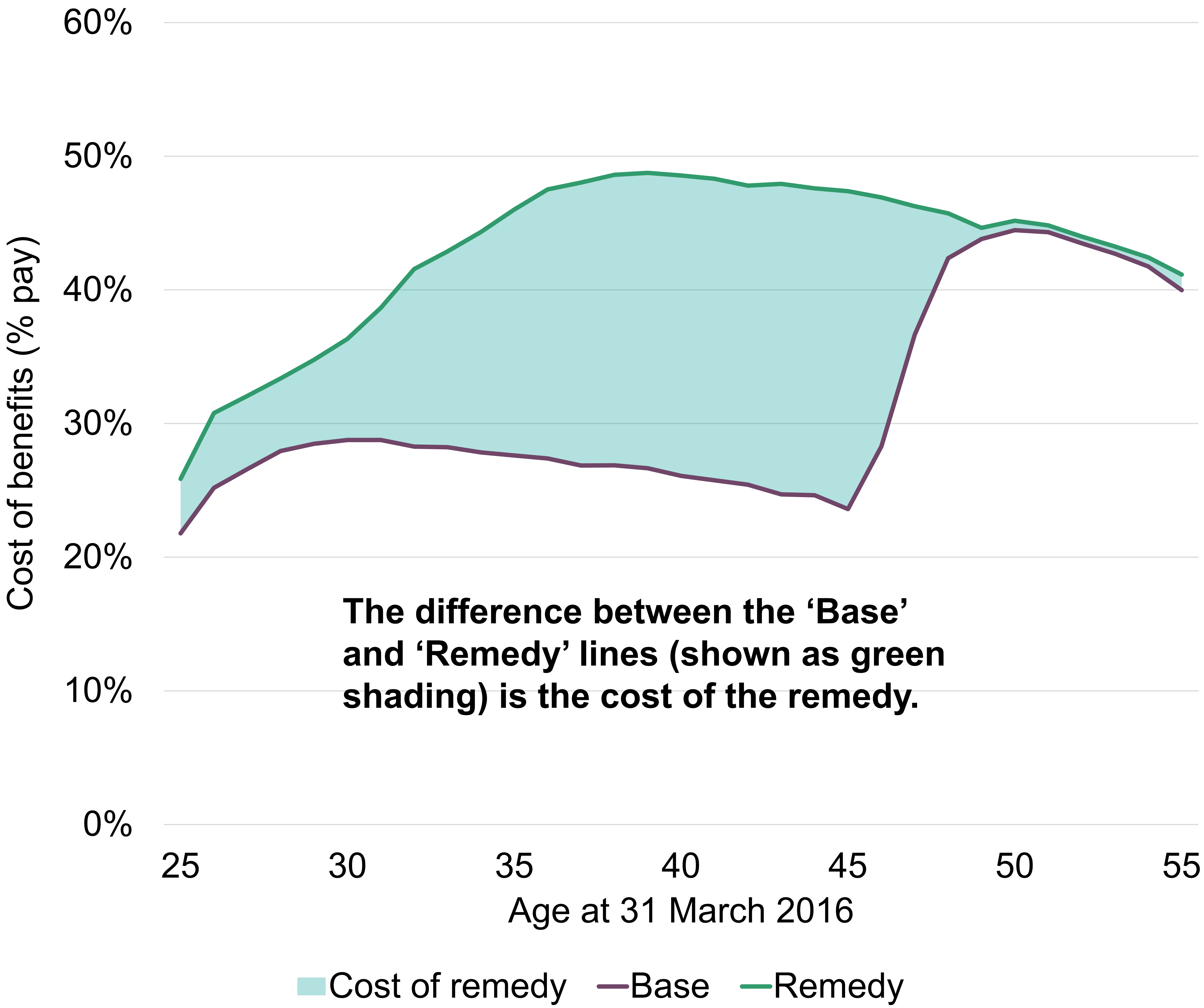
Analysis of change in cost cap cost of the scheme

The chart below shows the key reasons for the difference between the cost cap cost of the scheme and the employer cost cap. Changes in financial and demographic assumptions set by HM Treasury reduce the cost cap cost of the scheme. This is offset by an increase in the cost cap cost of the scheme driven by the transitional protection remedy costs ('cost of remedy').



Results – Cost by age

This chart shows the cost (as a percentage of pensionable salary) by age of different benefits:



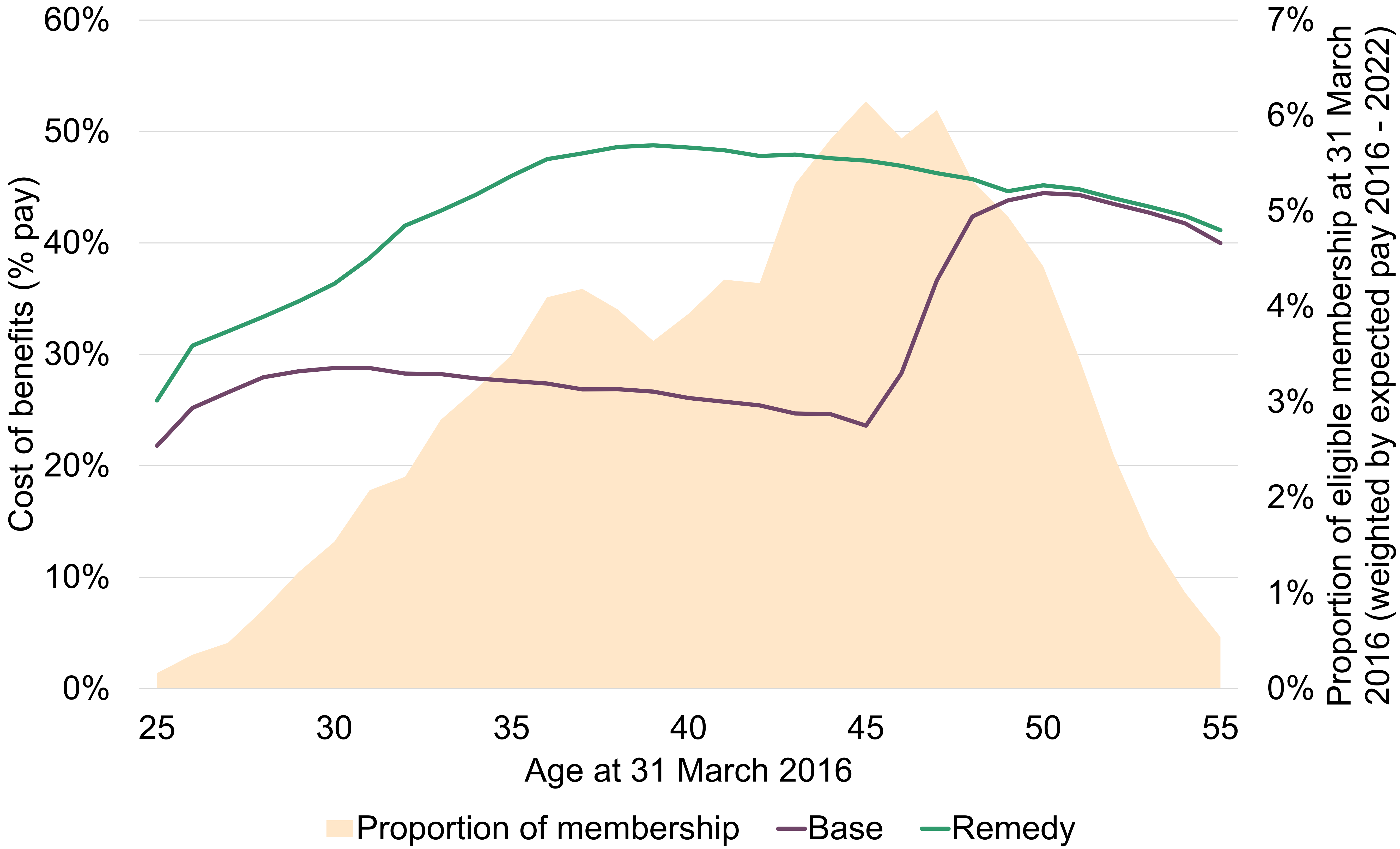
The 'Base' line shows the cost of the benefits under the transitional protection arrangements: CARE for younger unprotected members, transitioning towards pre-2015 for older protected members.

The 'Remedy' line shows the cost of the benefits under deferred choice underpin.

The remedy line is significantly higher than the base line for younger members. It sits above the base line for older protected members because under some circumstances the CARE scheme benefits (eg ill-health retirement) may provide a higher cost benefit than the pre-2015 scheme.

Results – Cost by age with membership by age

This chart shows the cost of remedy (as a percentage of pensionable salary) by age. Alongside this we can see a summary of the distribution of the eligible membership by age at 31 March 2016.



At all ages the cost of the pre-2015 schemes is greater than for the CARE scheme.

For members who transitioned to the 2015 scheme there is an associated expected remedy cost

Older members who remained in the pre-2015 schemes have a small expected remedy cost (eg due to ancillary benefits).

3. Sensitivities

Key sensitivities

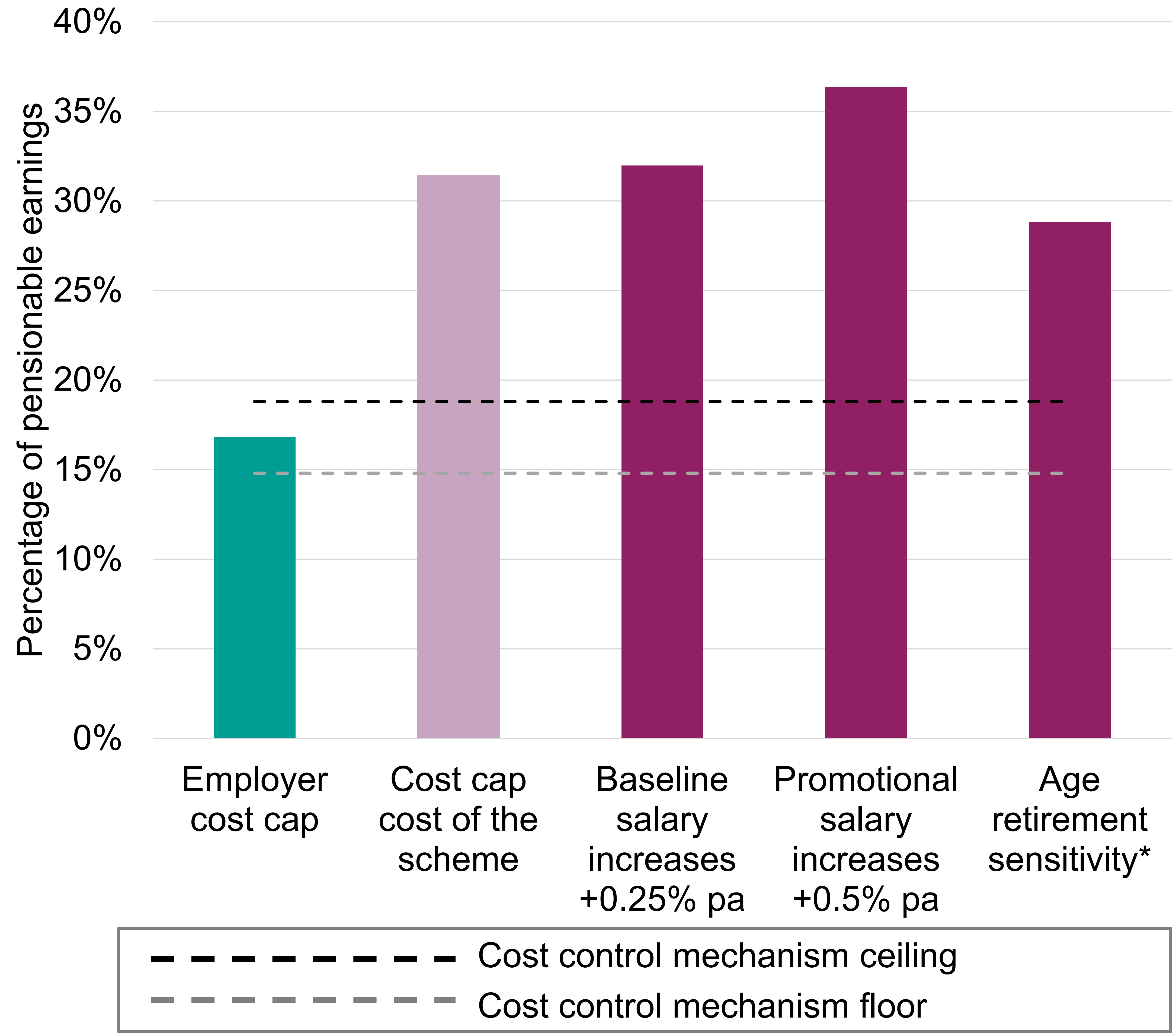
This section illustrates the main sensitivities of the cost control valuation results to the assumptions adopted, to illustrate the range of reasonable outcomes which might have been determined at this valuation had different assumptions been used.

The chart shows the employer cost cap and the cost cap valuation result from this report, then shows what the cost cap valuation result would have been if the following changes were made to the assumptions:

- Baseline salary increases +0.25% pa
- Promotional salary increases +0.5% pa
- *All new entrants to the 2015 scheme retire at age 55

They are not intended to show the possible range of variation in assumptions which might be considered at future valuations and in light of future experience.

Additional information on sensitivities can be found in Appendix C.



4. Future valuations

Future valuations

Reform of cost control mechanism

- Following a review by the Government Actuary and a HMT consultation, the UK Government intends to reform the cost control mechanism as follows:
  - Move to reformed scheme only
  - Widen the cost control 'corridor' from ±2% to ±3% of pensionable pay
  - Introduce an economic check

2020 valuation

- The UK Government is aiming to implement all three proposals above in time for the 2020 valuations
- Legislation to implement these proposals will be taken forward when parliamentary time allows

Possible outcomes

- The full impact of the review can only be assessed once the proposals are confirmed, and detailed implementation instructions provided in the Directions
- The following page sets out our high-level view of the key factors which may affect future cost control valuations

Future impact of these results

- The remedy cost calculations are subject to a number of uncertainties, including in relation to eligibility data, future salary increases, and future retirement ages
- These calculations are suitable to determine whether there has been a floor breach at the 2016 valuation, but should not be used for other purposes

Future valuations - outcomes

The table below sets out our high-level view of the key factors which may affect the core cost control mechanism (ie excluding the economic check) at future valuations in the medium term. The table includes an assessment of the size of the impact of these factors, as well as the potential direction of the impact (ie whether it will increase or decrease costs) – further details are provided overleaf. Each item is considered separately; a combination of these items could have a larger impact than is considered likely for any of those items individually.

	Factors potentially affecting results of future valuations	Potential impact on cost cap cost of the scheme, compared with employer cost cap	Direction of impact on costs to the scheme
Expected to occur	Changes allowed for in this 2016 valuation	✓	⇩
	Further anticipated changes to mortality assumptions	✓	⇩
Likely to occur	Legislative and policy changes	✓✓	⇳
	Financial and demographic experience	✓	⇳
Possible but less likely to occur	Unanticipated change in average age of the membership	✓	⇳
	Assumption changes:		
	- long term experience effects	✓	⇳
	- directed assumptions (including any further emerging change to mortality assumptions)	✓	⇳

✓ = impact may be more than 0.5% of pay but, although possible, is quite unlikely to be more than 3% of pay
✓✓ = impact may be more than 3% of pay
⇧ = increase in costs ⇩= decrease in costs ⇳= costs could increase or decrease

Future valuations - outcomes

Factors potentially affecting results of future valuations	Explanation of impact
Changes allowed for in this 2016 valuation	The employer cost cap was set based on the assumptions at the preliminary (2012) valuation. Changes to mortality and other assumptions recognised at this 2016 valuation will continue to result in downward cost pressures at the 2020 valuation (if all else remains equal).
Further anticipated changes to mortality assumptions	The latest 2020-based ONS population projections anticipate further slow downs in improvements to mortality rates, which will result in further downward cost pressures.
Legislative and policy changes	Impacts can vary based on legal challenges and legislative/policy changes.
Financial and demographic experience	If experience is not in line with the assumptions made, a gain or loss will emerge over an inter-valuation period.
Unanticipated change in average age of the membership	The future scheme membership may differ from that projected at this valuation.
Assumption changes:	
- long term experience effects	Assumption changes at future valuations, in light of scheme experience, may have substantial effects on the results.
- directed assumptions (including any further emerging change to mortality assumptions)	Some of the assumptions set in the ***Directions*** are likely to change for each valuation.

There is further detail on these factors at section 5 of the 2016 valuation report dated 28 February 2019.

Appendices

Appendix A Reliance

The ***cost cap valuation results*** have been calculated in accordance with the requirements as to data, methodology and assumptions specified by the ***Directions***.

GAD has been appointed as scheme actuary by the Home Secretary to carry out an actuarial valuation of the Firefighters' Pension Scheme (England) as at 31 March 2016 (the effective date), as required by Regulation 150 of the ***2014 Regulations***.

The cost cap valuation report required by the ***Directions*** comprises this report, read alongside our advice on assumptions, methodology and data, and the 2016 valuation reporting in the table below.

Area	Document
2013 Act	Sections 11 and 12 of the Public Service Pensions Act 2013
Scheme regulations	Regulation 150 and 150A of the 2014 Regulations
Directions	The Public Service Pensions (Valuations and Employer Cost Cap) Directions 2014, as amended, including in particular amendments made by the Public Service Pensions (Valuations and Employer Cost Cap) (Amendment) Directions 2021 See also the Government Actuary's letter dated 6 October 2021
Remedy	HMT consultation response dated 4 February 2021
Assumptions, methodology and data	Formal advice on the assumptions, methodology and data dated 21 December 2021.
2016 valuation	Published 2016 valuation reports dated 28 February 2019: • Report on membership data • Advice on assumptions • Valuation report

Appendix A Reliance

This work has been carried out in accordance with the applicable Technical Actuarial Standards: TAS 100 and TAS 300 issued by the Financial Reporting Council (FRC). The FRC sets technical standards for actuarial work in the UK.

This report has been prepared for the use of the Home Secretary, to report on cost cap valuation results in accordance with sections 11 and 12 of the Public Service Pensions Act 2013. The information and advice in this report should not be relied upon, or assumed to be appropriate, for any other purpose or by any other person. HM Treasury announced on 4th February 2021 that ceiling breaches that arise in the 2016 cost cap valuation would **not** be implemented, whereas floor breaches would be honoured. This policy is to be legislated for in the Public Service Pensions and Judicial Offices Bill 2022, which is currently going through the Parliamentary process. The cost control element of the 2016 valuations will therefore only be used to determine whether there has been a floor breach, in which case member benefits would be improved for the period 2019-22. We have performed calculations with sufficient accuracy to determine this question, but have adopted calculation simplifications where these do not affect this conclusion. The valuation results are therefore appropriate for this purpose, but should not be used for other purposes.

We are content for the Home Secretary to release this report to third parties, provided that:

- it is released in full;
- the advice is not quoted selectively or partially;
- GAD is identified as the source of the report, and;
- GAD is notified of such release.

Third parties whose interests may differ from those of the Home Secretary are encouraged to seek their own actuarial advice where appropriate. 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.

GAD relies on the accuracy of data and information provided by each Fire and Rescue Authority or via their appointed pension administrators. GAD does not accept responsibility for advice based on wrong or incomplete data or information provided by each Fire and Rescue Authority or via their appointed pension administrators.

Appendix A Reliance

GAD is not responsible for any decision taken by Home Office, except to the extent that the decision has been made in accordance with specific advice provided by GAD. Advice provided by GAD must be taken in context and is intended to be read and used as a whole, not in parts. GAD does not accept responsibility for advice that is altered or used selectively. No significant action should be taken based on oral advice alone. Clarification should be sought if there is any doubt about the intention or scope of advice provided by GAD.

Throughout this report the totals given for summed data may not be exactly the same as the sum of the components shown due to rounding effects.

As required by the ***Directions***, this report is based on data as at 31 March 2016, and the assumptions are the same as those adopted in the 2016 valuation report. No allowance has been made for any events after 31 March 2016, except for any allowance detailed in the 2016 valuation report. In particular, there is no specific allowance for the impact of the following:

- Covid-19 (or any other pandemics)
- Any changes to benefits and member contributions since the 2016 valuation report (save to the extent that those benefits and member contributions are determined in accordance with the ***Directions*** to have changed as a result of the transitional protection remedy), including in particular any changes as a result of the following:
  - GMP equalisation, further to the Lloyds ruling in October 2018, including the GMP indexation changes announced in March 2021
  - Survivor benefit equalisation, relating to survivor benefits for opposite–sex widowers and surviving male civil partners as detailed in a Written Ministerial Statement made by the then Chief Secretary to the Treasury on 20 July 2020
  - Any other legal cases
- Actual public service pension increases / CARE revaluations awarded in April 2019, April 2020 and April 2021
- Development in mortality expectations after the 2016 valuations were signed, including in particular the ONS 2020-based population projections, which assumed lower life expectancy increases than the 2016-based projections

Appendix B Remedy cost

The Directions require the transitional protection remedy cost to be calculated as follows:

	Remedy cost component	Value	
		% of pensionable earnings	£ billion
A	Change in liabilities in the remedy period	20.3%	0.56
B	Change in liabilities before the remedy period	0.0%	0.00
C	Change in liabilities after the remedy period	0.0%	0.00
D	Change in member contributions in the remedy period	0.5%	0.01
E	Change in member contributions after the remedy period	0.0%	0.00
	Transitional protection remedy cost A + B + C – (D + E)	19.8%	0.55

The remedy cost will emerge in the form of increased pension payments over the coming decades as eligible members retire and receive their pensions. Members will be expected to pay contributions prior to their retirement, so will arise over a sooner and shorter time period.

Appendix C Sensitivities

This section illustrates the main sensitivities of the cost control valuation results to the assumptions adopted, including those set out in the ***Directions*** and those set by the Home Secretary.

The table shows the sensitivities relative to the employer contribution correction cost and the transitional protection remedy costs. The ***cost cap cost of the scheme*** is the sum of these two sensitivities, as shown.

The assumptions determined by the Home Secretary are set as best estimate based on available evidence. The sensitivities shown for the Home Secretary determined assumptions are intended to illustrate a range of reasonable outcomes which might have been determined at this valuation had different assumptions been used. They are not intended to show the possible range of variation in assumptions which might be considered at future valuations and in light of future experience.

Directed assumptions		Increase in	
	Employer contribution correction costs	Transitional protection remedy costs	Cost cap cost of the scheme
Discount rate in excess of CPI (-0.25% pa)	-0.4%	1.3%	0.9%
Pension increases as applicable to pensions in payment and deferred pensions (+0.25% pa)	-0.2%	0.9%	0.7%
Long term rate of public service earnings growth in excess of CPI (+0.25% pa)	-0.3%	0.9%	0.6%

Appendix C Sensitivities

Directed assumptions	Employer contribution correction costs	Increase in Transitional protection remedy costs	Cost cap cost of the scheme
Short term rate of public service earnings growth (+0.25% pa to each short term rate)	0.7%	0.4%	1.1%
CARE revaluation rate (+0.25% pa to earnings measure revaluation rates)	0.0%	-0.8%	-0.8%
Allowance for future mortality improvements (reduction in mortality improvements such that (period) life expectancy lower by around 1.25 years over a period of 75 years)	-1.7%	0.0%	-1.7%
State Pension age (SPa for 2015 scheme one year later than under current Directions)	0.0%	0.0%	0.0%
Allowance for commutation as directed (additional 2% of pension assumed to be commuted for cash)	-0.3%	0.0%	-0.3%
Shortfall spreading period (spreading period increased by 5 years)	1.0%	-11.1%	-10.1%

Appendix C Sensitivities

Assumptions set by the Home Secretary	Employer contribution correction costs	Increase in Transitional protection remedy costs	Cost cap cost of the scheme
Membership profile (2 years older on average over implementation period)	0.2%	-2.5%	-2.3%
Mortality rates (5%* heavier rates of pensioner mortality)	-0.8%	0.0%	-0.8%
Age retirement rates (All new entrants to the 2015 Scheme retire at age 55)	-2.6%	0.0%	-2.6%
Commutation, other than as directed (all unprotected members of the 1992 Scheme commute 17.5% of 2015 Scheme pension)	-0.4%	0.7%	0.3%
Ill-health retirement (5%* increase to assumed rates)	0.1%	0.0%	0.1%
Ill-health retirement (5%* increase in proportion assumed to receive higher tier benefits)	0.0%	0.0%	0.0%
Proportions partnered (5%* more members assumed to have qualifying partners at death)	0.5%	0.0%	0.5%
Resignations and opt outs (5%* higher numbers assumed to leave voluntarily before retirement, net of rejoiners)	0.0%	0.0%	0.0%
Promotional pay increases (0.5% higher promotional pay increases than assumed)	2.5%	2.5%	5.0%

* All these represent multiplicative increases to rates, i.e. 5% means rates 1.05 times higher

Appendix D Glossary

Many of the terms below are defined by regulations and in such cases this glossary is intended to assist in understanding.

Transitional protection remedy/remedy, also known as the ‘McCloud / Sargeant remedy’ means benefit changes resulting from the Court of Appeal of England and Wales ruling on 20 December 2018 in relation to the McCloud judgment, as set out in Direction 49(2) of the ***Directions***.

The ***cost cap cost of the scheme*** means the contribution rate which is compared against the ***employer cost cap*** at the first and each subsequent valuation of a scheme. Apart from the impact of the **transitional protection remedy**, the ***cost cap cost of the scheme*** is set out in more detail in the completed 2016 valuation reporting.

The ***employer cost cap*** is the contribution rate, as determined at the 2012 valuation, to cover the cost of benefits accruing over the implementation period as if all active members were in the 2015 scheme and had no pre-2015 scheme service, minus the expected average contribution rate payable by members over the implementation period. This can be thought of as a baseline cost for the scheme under the cost control mechanism.

Pensionable earnings is the part of pay that is included for the purposes of determining contribution requirements and benefit payments.

Appendix D Glossary

The ***2013 Act*** means the Public Service Pensions Act 2013.

The ***2014 Regulations*** means the The Firefighters' Pension Scheme (England) Regulations 2014 (SI 2014/2848).

The ***Directions*** means The Public Service Pensions (Valuations and Employer Cost Cap) Directions 2014, as amended, including in particular amendments made by the Public Service Pensions (Valuations and Employer Cost Cap) (Amendment) Directions 2021.

HMT regulations means the Public Service Pensions (Employer Cost Cap) Regulations 2014.