Government Actuary's Department

Judicial Pension Schemes

Cost-cap valuation as at 31 March 2016
Assumptions, methodology and data

Michael Scanlon FIA
Andrew McGlashon FIA

17 January 2022

Contents

At GAD, we seek to achieve a high standard in all our work. We are accredited under the Institute and Faculty of Actuaries' Quality Assurance Scheme. Our website describes the standards we apply.

Purpose

This report was commissioned by Ministry of Justice(MoJ) and is addressed to them. We understand it will be made available to the Scheme Advisory Board.

The purpose of this report is to set out our proposed approach to the cost cap valuation as at 31 March 2016 and assist MoJ with their decision making. It is important that MoJ test the assumptions and methodology adopted for the 2016 valuation signed in early 2019 in light of the transitional protection remedy. MoJ will also need to ensure it is content with the approach we have taken in respect of eligibility of members for the transitional protection remedy.

The report provides advice to MoJ on these matters, as required by Direction 55.

We would be pleased to provide advice on any alternative approaches which MoJ would like to consider in relation to any of the proposals in this report.

MoJ should consult with stakeholders as required on the contents of this report and confirm to GAD that it is content with the assumptions, methodology and approach to data that MoJ will adopt for the 2016 cost cap valuation.

Next steps

MoJ should consider the following recommendations and either confirm that they are content or instruct us to adopt alternative approaches:

1. No changes from the 2016 valuation assumptions
2. The calculation methodology we recommend, as set out in section 2
3. Derivation of member eligibility from available data, as set out in section 3

1. Assumptions

2016 assumptions

The assumptions set by MoJ and used in the 2016 cost cap valuation report must be the same as those adopted in the 2016 valuation reports signed in early 2019, **unless those assumptions are not best estimates or are insufficient for the purpose as a direct result of the impact of the transitional protection remedy.** This may apply because the original 2016 assumptions:

1. May be insufficient for the 'better-of' calculations we need to perform to value the remedy
2. May not be best estimate because member behaviour may change in light of the remedy

MoJ should consider the following recommendation and either confirm that they are content or instruct us to adopt alternative assumptions:

Recommendation

We recommend no changes from the 2016 valuation assumptions.

In making the recommendations below in Appendices 1C to 1E we have tested that the possible impact of any potential changes driven by analysis of data described does not exceed the materiality limit described on appendix 2A. We set out further details in Appendix 1A to 1F.

2. Methodology

Calculation methodology

MoJ should consider the following recommendations on calculation methodology and either confirm that they are content or instruct us to adopt alternative approaches:

Recommendations

- Calculations performed with sufficient accuracy to determine whether there has been a floor breach but should not be used for other purposes
- Members choose the higher valued benefit
- Remedy costs are assessed for the period 2015-2022, with costs in respect of 2015-16 assumed to be equal to the costs in 2016-17
- There is no allowance for costs of remedy in respect of member contributions
- There is no allowance for the cost of reinstating members who opted out of the pension scheme
- There is no allowance for the costs of protected members' post-2022 benefits accruing in the post-2015 scheme, rather than their pre-2015 scheme
- A 50% uplift to approximately allow for the cost of remedy for the fee paid judiciary
- Tax and other impacts are excluded from the calculations

We set out further details in Appendices 2A to 2H.

Remedy cost - components

The Directions list five components of the transitional protection remedy costs. The following table sets out a summary of the calculation of each of these components, based on the methodologies above.

Remedy cost component	Calculation
Change in liabilities for the remedy period	Based on choice after remedy period (see Appendix 2B)
Change in liabilities pre remedy period	Nil: no changes to assumptions
Change in liabilities post remedy period	Assumed nil: treatment of protected members' post-2022 benefits and no change to assumptions (see Appendix 2F)
Change in member contributions during the remedy period	Assumed nil (see Appendix 2D)
Change in member contributions post remedy period	Assumed nil: treatment of protected members' post-2022 benefits and no change to assumptions (see Appendix 2F)

3. Data: Member eligibility for the transitional protection McCloud remedy

Determining members in scope for remedy

Summary of methodology

It is critical to identify members in the 2016 valuation data who are in scope for the transitional protection remedy. Broadly, as set out in the MoJ consultation response, members in service before 1 April 2012 and on or after 1 April 2015 are in scope of the transitional protection remedy. We have identified the following members as being in scope of the transitional protection remedy:

- unprotected status with date of Joining before 1 April 2012; and
- taper protected status, regardless of date of joining shown in the data.

We have taken a member's date of joining to be the earliest date of joining across all records related to that members (ie including JUPRA, FPJPS and NJPS).

However, this will not always accurately identify members in scope, for the reasons set out on the next slide.

Following discussions with MoJ, we do not expect these limitations to have a material impact on the results and we do not require any additional data to prepare the cost cap valuation report.

Determining members in scope for remedy

Limitations of methodology

We have identified the following potential sources of inaccuracy:

a. The Date of Joining item is not always clearly defined and may not be correctly recorded by administrators.

b. Date of Joining is before 1 April 2012 but the member may have had a disqualifying breaking service (for example, five years or more) or was not an active member of the scheme as at 31 March 2012 or 31 March 2015.

c. The Date of Joining is after 1 April 2012, but the member is a ‘gap’ judge who is entitled remedy (‘gap’ judges are those who were in fee-paid service on 31 March 2012, took up salaried office between 1 April 2012 and 1 December 2012 and had not made a claim for a fee-paid pension within three months of the end of their fee-paid service)

d. The Date of Joining is after 1 April 2012 and reflects the date first joined scheme but the member may have had previous service in a different scheme which brings them in scope for the transitional protection remedy.

Summary

Figures and charts in this section refer to the salaried judiciary only.

Summary of active data as at 2016

2,104
Active members as at 31 March 2016

£259.0 million
Active salary roll as at 31 March 2016

Members in scope for remedy

720
Active members in scope for remedy

33%
Of the active membership as at 31 March 2016 is in scope for remedy (based on actual pay)

Determining members in scope for remedy

All tapered members and active unprotected members who joined the scheme before 1 April 2012 are assumed to be in scope.

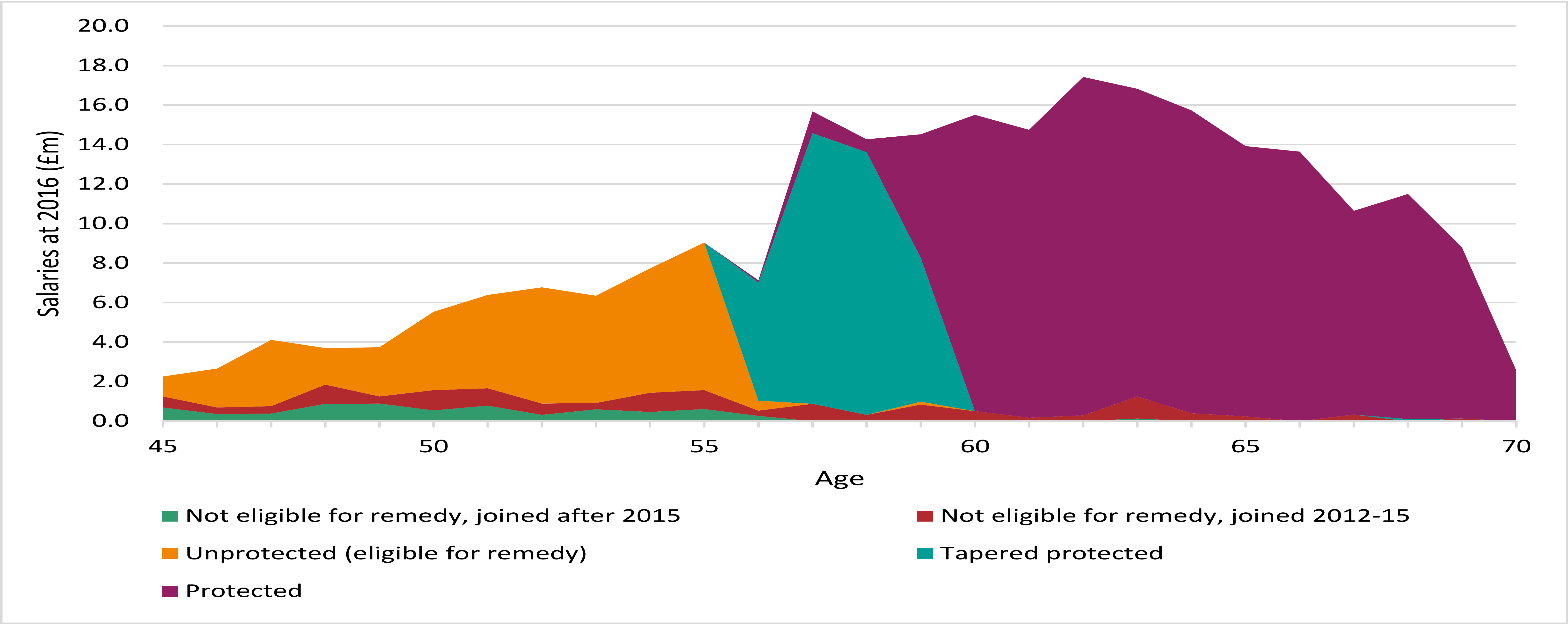
Data uncertainty

There is **residual data uncertainty** in relation to members in scope for remedy which could affect the valuation results.

An impact of between **-0.5% and +0.5%** on the cost cap contribution rate

The sensitivity to the left shows the impact on the cost cap contribution rate if 5% more or less active members are eligible for remedy than assumed.

Membership in scope for transitional protection remedy

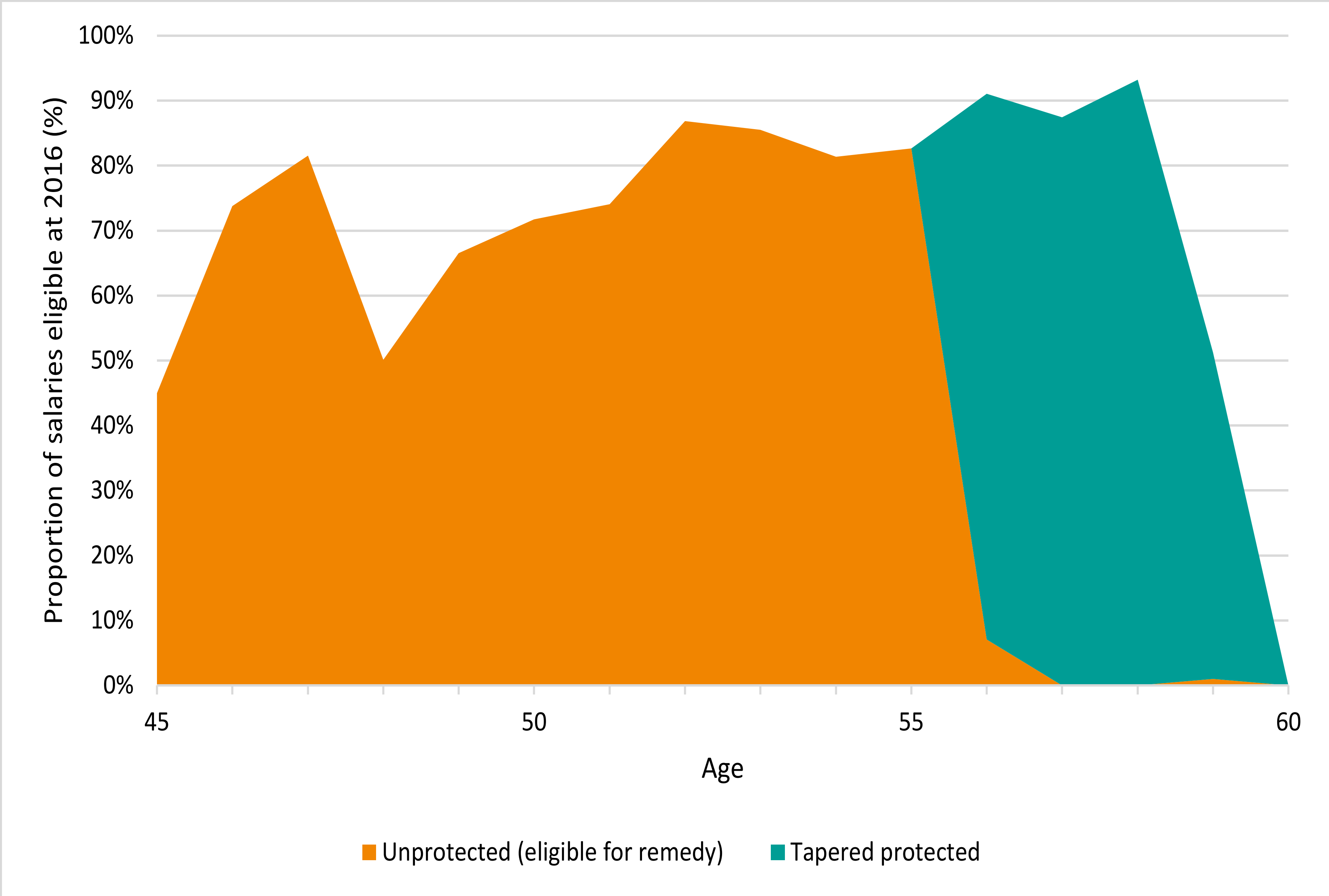


Summary statistics at 31 March 2016 – Actives

Protection status as at 31 March 2016

Section	Number of members	Salary £m
Protected members	1,159	148.8
Tapered protected members	333	40.4
Eligible unprotected members	387	46.2
Ineligible and joined between 2012-2015	148	15.4
Ineligible and joined after 1 April 2015	77	8.2
Total	**2,104**	**259.0**

Proportion of members eligible for the transitional protection remedy



4. 2016 data: quality and uncertainties

Active data as at 31 March 2016

Summary statistics

2,104 Actives	70:30 Male:Female membership	£259.0m actual salary roll	60yrs average age	£123,087 average salary

Figures above refer to the salaried judiciary only.

Data quality

2016 valuation data adjustments

Data was received from Punter Southall Administration Limited for the 2016 valuation. This was generally adequate for the purposes of the valuation calculations, however, some aspects of the data were incomplete and/or unreliable for certain elements of our calculations. The results of this valuation therefore rely on assumptions and adjustments in respect of incomplete and/or unreliable data. As stated in our reports dated 5 March 2019, in GAD's opinion these adjustments are adequate for the purpose of this actuarial valuation. However, it should be noted that the results in the 2016 valuation reports might have been different if more reliable data had been available. GAD have subsequently received data for the valuation as at 31 March 2020, and the process of checking that data and reconciling it with the data as at 31 March 2016 is ongoing.

Where can I find out more?

Details of the 2016 valuation data provided including any checks and adjustments made to the data are set out in the 2016 valuation data report. Details of the assumptions made for data uncertainties are set out at Appendix H of the 2016 valuation assumptions report.

5. Reliance and limitations

Limitations

Data

As set out in the 2016 data report issued on 5 March 2019, GAD has relied on data and other information supplied by MoJ or their appointed administrator as described in the report. GAD has not sought independent verification around its general completeness and accuracy.

Any checks that GAD has made are limited to those described in the report, including those relating to the overall reasonableness and consistency of the data. These checks do not represent a full independent audit of the data supplied.

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.

Macro-level risks

The Directions permit changes to the 2016 valuation data and assumptions only as a direct result of the impact of the transitional protection remedy. In preparing this advice, we have therefore not made any adjustments for material macro-level risks or uncertainties, such as climate-related risk.

Reliance

Reliance and sharing

This report has been prepared for the use of MoJ and will be made available to the Scheme Advisory Board.

No other person or third party is entitled to place any reliance on the contents of this report, except to any extent explicitly stated herein. GAD has no liability to any person or third party for any action taken or for any failure to act, either in whole or in part, on the basis of this report.

Compliance statement

This report has been prepared 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.

QAS Institute and Faculty of Actuaries ®
Quality Assurance Scheme

Appendix 1: Assumptions

Appendix 1A: Direction requirements

The Directions require that assumptions set by MoJ used in the 2016 cost cap valuation report must be the same as those adopted in the 2016 valuation reports signed in early 2019, **unless those assumptions are not best estimates or are insufficient for the purpose as a direct result of the impact of the transitional protection remedy** (Direction 55).

Where this applies, MoJ must determine new assumptions:

- having obtained advice from GAD
- following such consultation of such persons (or representatives of such persons) as MoJ considers appropriate
- that are best estimates, and do not include margins for prudence or optimism
- that have regard to:
    - previous valuation assumptions
    - the analysis of demographic experience in the 2016 valuation report
    - relevant data from any other source
    - any emerging evidence about historic long term trends or long term trends expected in the future

Appendix 1B: Assumptions not affected by remedy

The following summarises assumptions set by MoJ which we have not considered further as part of this work on the basis that we see no reason why they would be inappropriate as a direct result of the transitional protection remedy:

- Mortality before and after retirement
- Ill-health retirement
- Proportion married / partnered
- Age differences between spouses / partners

Appendix 1C: Age retirement

The original 2016 age retirement assumptions distinguished between members depending on whether they were:

- Protected (pre-2015 scheme service and members with ‘tapered’ protection) – retire earlier
- New entrants after 2015 (all 2015 scheme service) – retire later

As a result of the transitional protection remedy, those in scope for remedy have the option of taking pre-2015 scheme benefits for service up to 2022, and so such members might be expected to behave more like protected members and retire earlier, which could increase the cost of remedy.

Analysis

We recommend that the existing age retirement assumptions continue to be adopted.

We have considered adjusting retirement patterns with a greater weighting towards the pre-2015 scheme age retirement assumption. Our analysis has shown the impact of such a change in the retirement assumption would be immaterial to the results of this valuation, based on the approach adopted in the 2016 valuation.

Appendix 1D: Salary scales

For the purposes of an actuarial valuation, it can be appropriate to set a long-term assumption that reflects the ‘average’ expected experience of scheme members. However, this does not take account of more granular variations in pay growth, which may impact on the valuation of a choice of benefits.

Analysis

We recommend retaining the original salary scale assumptions.

The original 2016 valuation assumptions do not differentiate between members. We have therefore investigated whether adopting three alternative salary scales (low/medium/high) and applying these to the population in-scope of the transitional protection remedy of a typical scheme would materially impact on the transitional protection remedy cost.

Our analysis has shown the impact of such a change in the salary assumption would be immaterial to the results of this valuation.

Appendix 1E: Withdrawal

Like salary scales, different groups of members may have withdrawal rates that are significantly higher than the average adopted at the 2016 valuation. In theory, this could affect the cost of the transitional protection remedy.

Analysis

We would not suggest further work in this area.

It would be possible to further refine the withdrawal assumption by splitting the population into groups (low withdrawal rates, medium withdrawal rates, high withdrawal rates). However, the analysis we have carried out on salary scales indicates the impacts of changes to salary scale are immaterial. Sensitivity analysis indicates that the transitional protection remedy cost is less sensitive to withdrawals than salary scales. This indicates that the impact of a refinement of the withdrawal assumption would also be immaterial.

Appendix 1F: Turnover

‘Turnover’ is a collective term for the set of assumptions we use to project a population of active members. As part of this valuation, we will project the number of members who are eligible for the transitional protection remedy from the data as at 31 March 2016 out to 31 March 2022. The original valuation assumptions are long-term assumptions set with the purpose of valuing the accrued liabilities as at 31 March 2016, and allowed for decrements over all future service, not just for the period to 2022. It is therefore appropriate to consider whether the 2016 valuation assumptions are appropriate for projections over the period to 2022.

Analysis

We have considered the appropriateness of the projection of the 2016 data using our valuation assumptions for typical schemes, by comparing the projected run off in 2016-20 with the known run off from 2012 to 2016. Projected run offs in 2016-20 are generally below the known run off from 2012-16, but we think this outcome is reasonable because:

- Run off in 2012-16 would have included a high number of recent joiners leaving the scheme, we would expect lower turnover in the transitional protection remedy group after 2016 because (by definition) this group will have at least 4 years' service.
- The number of withdrawals and age retirements in 2012-16 were typically above assumptions. The 2016 assumptions reflected the 2012-16 experience, but also considered experience over a longer period, and so it was assumed that withdrawals would not remain at their higher 2012-16 rates. This is consistent with the outcome in the projections: run offs in 2016-20 are generally below the known run off from 2012-16.

We are therefore content that the original long-term projection assumptions remain appropriate for the population in scope of the transitional protection remedy.

Appendix 2: Methodology

Appendix 2A: Materiality limits

In preparing the valuation results, we may adopt specific simplifications provided they are not expected in aggregate to have a material impact on the valuation results. MoJ's consultation document confirmed that the cost control element of the 2016 valuation will not affect the proposed design of the reformed scheme. 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. With the agreement of MoJ, 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.

Appendix 2B: Member choice

Under the Directions, eligible members have the assumed right to choose after the remedy period to have accrued pension benefits for the remedy period either in their pre-2015 scheme or in the post-2015 CARE scheme. We assume that members choose to take the higher valued benefit.

Details

We have valued the remedy benefits by projecting the member's benefits for the remedy period in both the pre-2015 final salary scheme and the post-2015 CARE scheme. Benefits are valued in each contingency (eg retirement or death) and for each eligible individual using the same demographic assumptions (eg retirement ages) for both the pre-2015 and post-2015 scheme. The higher valued benefits for each individual in each contingency are chosen.

Note that when choosing the pre-2015 and post-2015 scheme, exits at different ages (eg retirement between ages 60 and 70) are considered together, and no account is taken of any offsetting costs / savings (eg if the pre-2015 scheme were more valuable on retirement at 65, but the post-2015 scheme were more valuable on retirement at age 70). We are content that any such offsetting costs / savings are immaterial, given the design of the schemes.

Appendix 2C: Remedy benefits accrual period

The costs of remedy are assessed for the remedy period between 1 April 2015 and 31 March 2022, calculated as follows:

- 1 April 2016 to 31 March 2022: Costs are calculated prospectively based on membership data as at 31 March 2016.
- 1 April 2015 to 31 March 2016: Costs assumed to be in line with cost for service from 1 April 2016 to 31 March 2017.

Details

The direct calculation of costs for the period 2015 to 2016 is challenging both in terms of data requirements and calculation methodology. Since the data we would require is unlikely to be available and the overall impact of this period is small compared with the overall uncertainty in the calculation, the approach appears the most reasonable and practical.

Appendix 2D: Member contributions

The contribution rates in the pre-2015 scheme are generally lower than those in the post-2015 scheme. As part of the transitional protection remedy it will be necessary to make good any under or over payment of contributions by members who are currently in one scheme but opt for benefits in the other.

We have made no allowance for this making good of contributions in our calculations.

Analysis

Although the contributions are different in the pre-2015 and post-2015 schemes, making allowance for these contribution difference would increase the cost of remedy and therefore would not affect the conclusion on whether there has been a floor breach.

Appendix 2E: Opt-outs

Some individuals would have been eligible for the transitional protection remedy but opted out of the scheme. We understand that members who opted out due to the changes to the pension scheme may be eligible to apply to have their opt-out reversed and benefits reinstated. This may lead to an additional cost for accrual prior to 2016 and may also affect on the cost of benefits accruing after 2016.

Analysis

Although there is a potential cost, we recommend making no allowance for these additional liabilities. This is on the basis that we have limited data on which to assess the number of members who would be eligible for this reinstatement, and in any case any allowance would increase the cost of remedy and therefore would not affect the conclusion on whether there has been a floor breach.

Appendix 2F: Protected members: post-2022 benefits

Under the 2015 scheme reforms, protected members would accrue benefits in the pre-2015 scheme until retirement, which could be after 2022 if members work beyond their scheme's normal pension age (NPA). Without further reform, these members would be moved into the 2015 scheme from 2022. We are aware that MoJ plan to introduce a reformed scheme later this year in any case.

Analysis

Our analysis shows that the costs associated with protected members working beyond 2022 would be immaterial.

Appendix 2G: Fee paid judges

The valuation results include an approximate allowance for the cost of remedy for fee paid judiciary in post as at 31 March 2012 equal to 50% of the calculated costs for the salaried judiciary.

Analysis

The total cost of protecting all the fee paid judiciary in post as at 31 March 2012 is much more uncertain than the costs for the salaried judiciary, because we have less information about the career paths of the fee paid judiciary. For example:

- Some fee paid judges may cease to do judicial work, and there would be no further costs of transitional protection after that point.
- Some fee paid judges may be appointed to the salaried judiciary, which would significantly increase their judicial salary and the cost of remedy.

The approximate allowance recommended is consistent with evidence presented to the Employment Tribunal, and is based on the fees earned by unprotected fee paid judges in 2014/15.

If the cost of remedy for fee paid judiciary was instead equal to 25% or 75% of the calculated costs for the salaried judiciary, then the cost cap cost of the scheme would be about 1.5% of pay lower or higher: this would not change conclusion on whether there has been a floor breach.

Appendix 2H: Exclusions

The calculated costs of remedy make no allowance for the following:

- Any tax impact on members or HMRC, consistent with the treatment at the 2016 valuation
- Any impact of tax compensation schemes associated with the remedy
- Any impact on the Judicial Service Award
- Members’ additional voluntary contributions or transfers-in, the value of which are assumed to be unchanged as a result of remedy
- Pension debits and credits on divorce, which are assumed to be cost neutral to the scheme
- Any adjustments made in respect of Public Sector Transfer Club transfers

The calculations also make no allowance for the reformed scheme which is expected to be introduced later this year.