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Dear Conrad,

**Public Service Pensions (Valuations and Employer Cost Cap) (Amendment) Directions 2021**

Thank for your letter of 5 October 2021[1] asking for my professional opinion on the draft Public Service Pensions (Valuations and Employer Cost Cap) (Amendment) Directions 2021 (the "Amending Directions"), which were attached to your letter, in line with the requirements of Section 11(4) of the Public Service Pensions Act 2013 (the "Act"). In particular, you have asked for my views on the extent to which they are technically complete and coherent and meet the Government's policy intentions and objectives (as set out in Annex C of your letter).

You separately asked me to undertake a Review[2] of the Cost Control Mechanism ("the CCM"), following which you consulted on changes to the CCM,[3] and the views I set out in this letter take account of those publications. For the avoidance of doubt, you confirmed that the Amending Directions covered by this letter do not have regard to those changes on which you have consulted; those will be reflected (where necessary) in future HMT directions.

For brevity, where reference in this letter is made to a defined term, that term has the same meaning as ascribed in your letter, save where indicated otherwise.

## Executive Summary

Reformed public service pension schemes were set up in 2015.[4] Members closest to retirement were protected from the reforms and typically continued to accrue benefits in the legacy schemes. The courts ruled that this difference in treatment amounted to unjustified discrimination and so

[1] Your letter is set out in Appendix B to this letter.

[2] My final report is here: https://www.gov.uk/government/publications/cost-control-mechanism-government-actuarys-review-final-report.

[3] See https://www.gov.uk/government/consultations/public-service-pensions-cost-control-mechanism-consultation.

[4] Some schemes had different start dates, for example 2014 for LGPS England and Wales.

HM Government is applying a Remedy[5] in the form of a Deferred Choice Underpin ("DCU"). This gives members in scope of the Remedy a choice at retirement between legacy-scheme and reformed-scheme benefits during the Remedy Period.[6] Furthermore, from the end of the Remedy period all active members will accrue benefits in the reformed schemes. As set out in your letter, the Amending Directions seek to un-pause the cost control element of the 2016 valuations and reflect your main policy intentions, of which there are four, regarding how to allow for the Remedy, as well as taking account of the nine pre-existing objectives for the 2016 valuations.

My overall opinion is that the draft Amending Directions will deliver results which, where relevant, largely meet the nine objectives and four policy intentions, with some better met than others. Note that my opinion is limited to commenting on the extent to which the Directions (as amended by the draft Amending Directions) meet the policy intentions and objectives and not the appropriateness of those intentions or objectives, nor whether other approaches might exist which also meet them.

Furthermore, I consider that the Directions (as amended) are, in the round, technically complete and coherent. There are a few areas of possible ambiguity, but I do not consider these to be material or in need of additional clarification.[7]

The rest of this letter set outs some further introduction and detailed considerations underpinning my opinion. In Appendix A, I make further comments relating to data, methodology and assumptions.

[5] The government's decision regarding Remedy for most schemes was set out in the Written Ministerial Statement of 4 February 2021. https://questions-statements.parliament.uk/written-statements/detail/2021-02-04/hcws757, while local government and judges' schemes will have their own specific remedies.

[6] For most schemes, this will be 1 April 2015 to 31 March 2022, see diagram in Appendix A.

[7] Further commentary on these ambiguities is set out in Appendix A.

## 1. Introduction

In 2019, before HMT's decisions regarding Remedy, the cost control element of the 2016 valuations was paused and the unfunded public service schemes published 2016 valuation[8] reports to set employer contribution rates. Provisional results,[9] which pre-dated the Court of Appeal's ruling on discrimination, had indicated that costs in all public service schemes would have breached their schemes' employer cost caps. The employer contribution rates therefore included an adjustment to allow for rectification based on those provisional results.

The Directions are being amended so that the cost control elements of the 2016 valuations can now be completed, including for schemes that did not need to publish valuation reports in 2019 since their employer contribution rates were set through other processes.

From an actuarial perspective there is no unique answer to how to amend the 2016 cost control calculations to allow for Remedy. In reaching my overall opinion, I have therefore considered in detail how the approach set out in the Amending Directions measures up against HMT's stated objectives and policy intentions.

I note that HMT have decided to waive[10] the need for any scheme changes resulting from breaches of the CCM ceiling. In terms of the outcome of the cost control element of the 2016 valuations for a scheme, this means that the particular choices HMT make over how to amend the Directions to account for Remedy can only affect whether or not there is a floor breach and, if so, its size.

Indicative 2016 cost control results based on the latest draft Amending Directions are that all schemes will now either not breach the CCM or will breach the ceiling.[11] This suggests that no member benefits or contributions are expected to change as a result of the cost control valuations. However, outcomes will not be certain until valuation reports have been completed and finalised based on the final Amending Directions. I note that the Amending Directions do not include any process to be followed if a scheme were to have a floor breach, or if a ceiling breach needed to be rectified. If that were to occur, HMT will need to consider how to assess or certify the proposed amendments.

[8] In this letter, "valuation" is taken to mean a valuation under the Directions, not any other type of valuation. "2016" means with effective date of 31 March 2016 for most schemes, but 31 March 2017 and 1 April 2017 for other schemes.

[9] As discussed in the Written Ministerial Statement of 6 September 2018. https://questions-statements.parliament.uk/written-statements/detail/2018-09-06/HCWS945.

[10] This was set out in the Written Ministerial Statement of 4 February 2021, as per footnote 5. The waiver is not implemented by the Amending Directions.

[11] Note that LGPS England & Wales operates its own SAB cost control mechanism, in addition to the HMT CCM. The indicative result assumes that the LGPS E&W SAB process either does not amend benefits before the HMT CCM takes effect, or that any amendments do not cause a subsequent floor breach in the HMT 2016 CCM.

## 2. Commentary on the four policy intentions set out your letter

This section sets out my views regarding the four policy intentions, which are repeated in purple text for reference.

*2.1 Reflect the entire impact of Remedy on the cost cap cost of the scheme at this set of valuations, because the Remedy period ends by the end of the implementation period for this set of valuations.*

In my view, the Amending Directions do reflect the entire impact (including positive and negative elements) to an appropriate level of detail as far as it is possible to determine them at this stage. In doing so, in my view the right balance is struck between consistency with previous 2016 valuation calculations and the need to amend the Directions to ensure elements are reflected in full.

**Different types of Remedy effect**

Remedy affects the costs of the schemes in a number of ways:

A. Members with service in the relevant periods receiving benefits that are different to those previously assumed (and in some cases there are corresponding changes in the member contributions due). This change occurs:
   i. As a result of the member electing, under DCU, to choose the alternative form of benefit for service during the Remedy period; and
   ii. Because of transitionally protected members now being moved to the new schemes at the end of the Remedy period.

B. Members changing their career behaviour (for example retiring at different times) which affects:
   i. The value of benefits accrued by in-scope members; and
   ii. The profile of the future workforce.

**Different periods of service**

To include the costs of Ai, Aii and Bi[12] in full, these Directions necessarily include effects relating to periods of service[13] that would not have been included within the CCM in the past:

- Service between the valuation's effective date and the start of its implementation period, which falls within the Remedy period.
- Service beyond the end of the implementation period[14] (which forms the majority of the service after the Remedy period).

Where members' career behaviours change as a result of Remedy, the future workforce profile will also be altered and this in turn affects the cost of providing benefits to the future workforce. One approach to assess this would be to assume a profile of new entrants to replace those retiring and consider the resultant workforce profile at all future points in time both before and after the inclusion of Remedy. This would ensure the costs of Remedy are captured to their fullest extent. A

[12] Ai is captured in new Direction 50, while Aii is captured in new Directions 52 and 54. Bi is captured in Directions 50 to 54.

[13] Appendix A includes a diagram illustrating various service periods referred to in this section.

[14] This is captured in Directions 52 and 54.

more pragmatic approach would be to consider only the costs of Remedy as they apply to the existing membership and their expected periods of service in the schemes.

The Amending Directions take this second approach[15] for service after the implementation period, so the effect of Bii above is excluded. I consider this to be reasonable because projections of the future workforce profile will be highly uncertain, relying on assumptions such as about the size of the public sector and the career behaviours of future members. Furthermore, I would expect such effects to be small in the context of Remedy costs as a whole.

*2.2 Remedy should be subject to cost control through the operation of the CCM. The required changes to the cost control element of the 2016 valuations should not unduly reduce intergenerational fairness.*

In my view, the Directions (as amended) largely meet this objective, noting that there may be consequences from the waiving of implementation of any ceiling breaches.

**Dealing with Remedy costs through the operation of the CCM**

Provisional results of the 2016 valuations indicated that all schemes would have had floor breaches, were it not for the effect of Remedy in the CCM. These would have led to benefit improvements (or contribution reductions) through the CCM as the breaches were rectified. Allowing for Remedy costs in the 2016 cost control calculations will increase the assessed cost cap cost of the scheme leading to one of the three outcomes in the following table. In all cases, the rectified benefits in the reformed scheme will be less valuable than would have been the case before allowing for Remedy.

| Cost control outcome | Effect on rectified scheme benefits |
|---|---|
| Floor breach (but smaller than before Remedy) | Increase to reformed scheme benefits (but smaller change than before Remedy) |
| No cost control breach | No change |
| Ceiling breach | Reductions to reformed scheme benefits (though the government has committed to waiving these) |

I have interpreted "subject to cost control through the operation of the CCM" to mean that all expected costs are included such that they can affect CCM outcomes. Actual costs will differ from expected costs, and these differences may not be picked up, especially in view of planned changes to the CCM for future valuations following the consultation.

As discussed in section 2.1, the entire expected cost is captured. By spreading these costs over the implementation period of the 2016 valuations, all the costs will affect the 2016 cost control valuation outcomes and there is no residual Remedy cost to be allowed for at subsequent valuations.

However, by waiving the need to rectify ceiling breaches,[16] any Remedy costs above the ceiling will not affect the 2016 cost control valuation outcomes and will therefore effectively not have been

[15] See Appendix A for further details.

[16] The Written Ministerial Statement of 4 February 2021, see footnote 5, sets out the reasons for the waiver.

subject to cost control through the CCM unless they are picked up at subsequent valuations. I estimate that approximately 10% of the total Remedy costs will be affected in this way but this is concentrated in those schemes that have ceiling breaches. For these schemes, the proportion of Remedy costs above the ceiling could be much higher, possibly in excess of 50% for some schemes.

Overall, therefore, Remedy costs will be largely, but perhaps not entirely, subject to cost control through the CCM at the 2016 valuations. This is because costs related to waiving ceiling breach impacts will fall on the public service scheme employers (and so, indirectly, taxpayers) unless they are picked up at future valuations.

**Intergenerational Fairness ("IF")**

The CCM is by its very nature expected to lead to some generational transfers. This is because a scheme's assessed cost is influenced by the past (benefits accrued and experience), while rectification changes only affect the future (benefits accruing). On average, older scheme members have more past service and less future service than younger members, and so will probably have contributed proportionately more to any CCM breaches and be affected proportionately less by any rectification of those breaches. I made similar points in my Review of the CCM.

The choice of spreading period is a key factor influencing IF. In general, a shorter spreading period increases the overlap between the members who contributed to breaches and the members who are affected by rectification. Conversely, a longer spreading period reduces this overlap and so leads to greater generational transfer.

Past service costs in the CCM (other than Remedy costs) are spread over 15 years. These types of costs can be positive or negative and the 'best estimate' nature of assumptions means that there is no intended bias between these two outcomes. As such, it may be considered appropriate to spread these costs (or savings) on each occasion across generations. Also, it is often unclear whether these cost changes are persistent. In some cases, cost changes in a given period may be offset by cost changes in a future period. The use of a longer spreading period allows such offsets to occur without affecting benefits. In general, the use of a much shorter spreading period for these cost changes would lead to a much less stable mechanism, with more frequent and larger breaches, such that overall pension outcomes for members would be highly dependent on their periods of service.

In contrast, Remedy costs are a one-off event, incurred in relation to a particular cohort of scheme members and by definition can only be positive costs. In these circumstances, it may be considered more appropriate not to spread these costs across generations. This is what the Amending Directions do since Direction 56 specifies the spreading period to be the implementation period[17] (i.e. 4 years for most schemes).

I note there are a few complications when considering the appropriate spreading period for Remedy costs in the context of IF:

- For relatively short spreading periods, there is an interaction between this general trend (shorter spreading periods increase the overlap between those affecting breaches and

[17] The Directions require any rectified benefits to be in force for the full implementation period. Therefore, the implementation period is effectively the shortest period over which costs could be spread. Spreading over shorter periods would require further changes to the Directions.

those affected by rectification) and the fact that during the Remedy period many members who are in scope of Remedy will not choose the reformed scheme benefits and thus not be affected by the outcome of the cost control element of the 2016 valuations.

- The interaction of the spreading period with the CCM corridor and other CCM experience/assumption changes affects CCM outcomes, including whether any rectification is required at the 2016 and/or future valuations.

Notwithstanding these complications, I consider the spreading period used in the Directions to be a reasonable way to achieve the IF policy intention, although it may not be the only way.

As with the first part of the policy intention 2.2 (subjecting Remedy costs to cost control through the CCM), there are extra considerations affecting the second part (IF) for schemes with a ceiling breach since these will not need to be rectified. If, for example, the Remedy costs that would otherwise fall on public service scheme employers are transferred to future CCM assessments (even if only partially), this would reduce IF because the members affected after future valuations will increasingly be those who were not in scope of Remedy.

Overall, therefore, the Amending Directions largely meet the first part of this policy objective and would also seem appropriate in light of the second part, albeit schemes with ceiling breaches have a tension between the two parts of this objective.

### *2.3 Revisit assumptions made in completing the employer contribution rate element of the 2016 valuations only to the extent required to properly reflect the Remedy, with no changes being made to the calculation of other elements of the cost of a scheme as assessed for cost control purposes*

The Employer Contribution Correction Cost ("ECCC") represents the cost of a scheme as assessed for cost control purposes before Remedy is included. With that in mind, this policy intention is clearly met because:

- New Direction 57 requires previous calculations of the ECCC to be used with new calculations of the cost of Remedy to be added on; and
- Assumptions are updated only where affected by Remedy (see new Direction 55).

Because HMT's aim is for Remedy calculations to be performed in accordance with the other three policy intentions (2.1, 2.2 and 2.4) while not revisiting ECCC calculations, this leads to some inconsistencies in methodology between the two calculations. Appendix A sets out examples of these inconsistencies and the reasons why I do not consider that these inconsistencies compromise the CCM approach.

The policy intention that limits the updating of assumptions effectively means that HMT is setting many of the assumptions to be used in these calculations without regard to all available information. It would be normal in actuarial work to update assumptions given the passage of time. For example, the Directions specify a SCAPE discount rate that was chosen by reference to a July 2018 report from the Office for Budget Responsibility ("OBR") on long-term growth forecasts, whereas the OBR have published updated reports since then. Furthermore, the COVID-19 pandemic may have affected the outlook even since the most recent OBR forecast.

However, the context of these calculations is relevant:

- They are applying a time-bound formula under a cost control arrangement (as opposed to an assessment of the financial condition of the scheme or to set employer contributions); and
- The CCM assessments are being “un-paused”, with the original pause specifically due to the uncertainty caused by the need for Remedy.

In these specific circumstances, my view is that it is not unreasonable to use the assumptions that applied at the time of the previous Amending Directions, as specified by HMT.

### *2.4 Aim for a “best estimate” calculation of Remedy costs, in line with the “no bias” objective referred to in paragraph 10(b) of this letter*[18]

In my opinion, these Directions (as amended) do on the whole meet the aim for best estimate calculations of the Remedy costs. The following amendments, in particular, assist in meeting this objective:

- The facility under new Direction 55 to update or make additional assumptions in order to achieve best estimate where this change is required as a result of Remedy, including assumptions about career behaviours that allow for Remedy.
- The use of the short-term assumptions for pay rises and pension increases (which are already specified for some elements of the 2016 valuations) when valuing all Remedy costs, which aims to provide a better estimate compared to only using the long-term assumptions as some other elements of the 2016 cost control calculations do.

Advising on a best estimate calculation involves judgement and there is rarely a unique answer. In particular, for the 2016 cost control valuations:

- As with previous directions, these Amending Directions do not specify fully all the assumptions, with some being left for individual schemes to decide in order to allow for their particular characteristics. In some cases, two sets of assumptions that are both reasonably viewed as best estimate could lead to materially different results.
- Some of the assumptions specified may not have sufficient data available to support them, for example because it is too early to have any data on how Remedy is affecting retirement decisions.

There might be assumptions that were acceptably best estimate in the context of the valuation reports issued in 2019 but that may no longer viewed as best estimate for the upcoming cost cap valuation reports, not as a result of Remedy but because of a difference in materiality. That is, choosing a slightly different assumption might have a material impact on the current calculations when it would have had no material impact on those reported in 2019. If any schemes consider this might be the case, then HMT might like to reconsider this direction.

Finally, note there is a tension between this aim for a best estimate of the costs of Remedy and the policy intention in 2.3 not to revise assumptions except as a result of Remedy. The calculations will not, therefore, be best estimate in the sense of incorporating all information now available, e.g. future mortality expectations will not be based on the latest available evidence. Such effects will instead emerge in future cost control valuations.

[18] This refers to the numbering of your letter to me.

## 3. More detailed commentary: nine objectives set out in 2021 letter

The nine objectives set out Annex C of your letter are repeated in purple text below followed by my comments. I would first refer to the comments I made in my letter[19] regarding the 2018 Amending Directions, which is included as Appendix C of this letter.

### *3.1 Completeness – "employer and employee contributions, taken together, reflect the full costs of the benefits provided by public service pension schemes, including any past service effects that arise between valuations"*

In my view, I expect this objective to be met for the cycle of valuations as a whole. Valuations will always depend on assumptions about the future that are not yet known and so of course corrections will be required at subsequent valuations. The employer contribution rates are more likely to require adjustment at the 2020 valuation than in a typical valuation, because the 2016 valuation rates were set before the outcome of the court judgments regarding discrimination were known.

The employer contribution rates published in reports in 2019 for the unfunded public service schemes had been calculated assuming rectification of provisional breaches of the CCM floor would be achieved via changes to accrual rates. No further amendments were allowed for to reflect Remedy. In order to provide stability for employers, HMT decided that these contribution rates would not be revisited once the outcome of the court cases was known. Instead, they would be revisited, in the usual way, as part of the next (2020) valuations cycle.

These contributions rates would not (except by chance) be the same as the rates that would have been calculated had full details of Remedy been known at the time. For the 2016 valuations, therefore, employer and employee contributions together are unlikely to exactly meet the current expected cost of the benefits now accruing. However, the impact of this difference will be automatically taken into account in the next (2020) cycle of valuations.

### *3.2 No bias – "assumptions used to assess costs should be best estimates, with no margin for prudence or optimism"*

In my 2018 letter, I noted that it was not possible to completely satisfy the no bias objective while also completely satisfying the consistency objectives. The extent to which the Directions met the no bias objective was limited somewhat by the priority given to the consistency objective. Not surprisingly, the tension between these two objectives has become more pertinent in this latest round of Amending Directions. This is because of the lengthening period from valuation effective dates to the publication of cost cap valuation reports, and the decision, under objective 2.3, not to revisit valuations except to the extent required to incorporate Remedy.

However, as previously noted in 2.4, in new Direction 55, the Amending Directions allow the assumptions to be revised where the actuary has advised that those used in the valuation reports published in 2019 are no longer best estimate because of Remedy, or where additional assumptions are required to undertake the calculation of the Remedy costs. In my view, this flexibility to change assumptions is necessary to ensure the no bias objective can continue to be

[19] My 2018 letter, which includes as an appendix your letter requesting my opinion, can be found at https://www.gov.uk/government/publications/public-service-pensions-actuarial-valuations. It is set out in Appendix C of this letter.

met (except as before to the extent that the consistency objective limits this), even if in practice actuaries advise that no changed or additional assumptions are actually required.

*3.3 Discount rate – "the discount rate will be 2.4% per annum plus CPI, in line with the Office for Budget Responsibility's long-term growth forecasts, as set out in their July 2018 Fiscal Sustainability Report"*

The Amending Directions do not change the discount rate to be used, so Direction 18 continues to require a discount rate of 2.4% pa from April 2019. This is in line with objective 2.3 to only revisit valuations to the extent required to incorporate Remedy. Section 2.3 comments on the fact that this assumption has not been updated for the passage of time.

*3.4 Consistency – "valuations of all public schemes should be consistent, allowing for comparisons to be made across schemes, including over time. Where different scheme workforces have different characteristics, then there should be consistency in the way that assumptions are set"*

In general, this objective continues to be met but the Amending Directions introduce a possible inconsistency between schemes in the way that scheme managers can set assumptions. For assumptions set by HMT, the same assumptions will be used across schemes.[20]

For schemes that published a valuation report (containing the calculated ECCC) in 2019, the Amending Directions specify that their cost control calculations must use the assumptions from that report except where the best estimate has changed as a result of Remedy. Most assumptions cannot, therefore, be informed by any information that has become available after those reports were signed.

In contrast, the Amending Directions allow those schemes who did not publish a valuation report in 2019 to set assumptions using more recently available information and this could influence CCM outcomes. I recommend that you monitor the approach used by these schemes to consider whether this inconsistency is causing unjustifiable differences in outcomes.

As before, there are also some differences between schemes due to specific scheme circumstances:

- The previous Directions already allowed for a different approach to calculating the ECCC for the Members of the Senedd pension scheme. In line with this, the Amending Directions appropriately disapply some disclosure items that would be irrelevant. Furthermore, they introduce a different approach to Remedy cost impacts for this scheme compared to others; this is explored further in Appendix A.
- The changes to timings of LGPS valuations mean that the LGPS Scotland's current (2017) valuation will have a three-year implementation period and therefore Remedy cost spreading period, compared to four years for the other schemes (apart from the Members of the Senedd pension scheme). This would need to be taken into account when Remedy costs across the schemes are compared, as a shorter spreading period leads to higher costs.

[20] The amendment to Direction 14 means that, for example, the calculations use published rates of pension increases only to the extent that they come into force before the start of the implementation period. For other years, the assumptions for the rates as set out in the Directions should be used. This ensures consistency between schemes who did and schemes who did not publish reports including ECCC results in 2019 (before the start of the implementation periods).

- These Amending Directions are prepared to enable the CCM elements of 2016 valuations to be completed. They are therefore not relevant to the Security Services schemes, which were not due a cost control assessment until the 2020 valuations.

*3.5 Clarity – "the Directions should lead to valuation reports that include sufficient information to allow those who are technically competent to understand how the valuation has been carried out. Valuations reports should provide clear and transparent assessments of schemes' costs, and reports should include information that may be helpful to scheme members and stakeholders in understanding the costs of providing benefits"*

As in 2018, the requirements for certain information to be published in scheme valuation reports meet this objective. Certain reporting requirements relating to the CCM were removed in the 2019 changes, and these have now been put back in, so far as they relate to 2016 valuations. The required information will be published in a combination of the 2019 reports (or more recent reports setting out the ECCC) and the cost cap valuation reports.

The assessment of schemes' costs includes the cost of future accrual net of member contributions, together with an assessment of the impact on past service liabilities of both experience having been different from expectations and revisions to assumptions about future experience. I would note, however, that the current valuation methodology takes no account of the difference between the actual experienced GDP growth and the growth rate that was anticipated by HMT when directing the discount rate at the previous valuations. Consideration of this difference might aid transparency and understanding of pension costs from a wider perspective. However, in practice, past GDP growth experience does not affect the benefit cashflows required to be met by the schemes on an annual basis.

*3.6 Cost control – "the directions ensure that the 2016 valuation report includes valuation results that measure changes in the costs of the schemes against the employer costs cap (as envisaged in Section 12(4)(b) of the Act and as required by Section 12(5) of the Act)"*

With the cost control mechanism un-paused, the Amending Directions require disclosure of this information in the cost cap valuation reports currently being prepared (see Direction 22A), thus meeting the requirements of this objective. This is better met than in 2018, in the sense that the calculations allow for the effects of the McCloud and Sargeant court case judgments, whereas in 2018 no allowance for this possibility was made.

*3.7 Sustainability – "for each scheme, the measurement of changes in the cost of the scheme against the employer cost cap (as envisaged in Section 12(4)(b) of the Act and as required by Section 12(5) of the Act) includes effects of scheme experience and future valuation assumptions differing from the assumptions used to determine the employer cost cap"*

The Amending Directions allow for the full Remedy cost expected and therefore the calculations include:

- The scheme experience effect, in relation to Remedy period service completed prior to the valuation effective date, of benefit structures and member contributions being different from earlier expectations;
- Revised assumptions, in relation to Remedy period service to be completed after the valuation effective date, of benefit structures and member contributions being different from earlier expectations; and

- Any secondary effect that changes in benefit structure has on expected member career behaviours relating to service before or after the Remedy period, as far as can be anticipated at this point using actuarial judgment.

In my view, therefore, this objective continues to be met within the context of the current CCM though I would also refer to my Review of the CCM in which sustainability of scheme costs interpreted in its broadest meaning is also addressed.

*3.8 Technical immunity – "the measurement of changes in the costs of the scheme against the employer cost cap excludes effects caused by changes to the discount rate, the long-term earnings assumptions or changes in the actuarial methodology used in the valuations"*

The methodology set out in the Directions continues to be largely in line with the requirements of this objective as the cost assessed does not include calculations measuring any changes to those items. In practice, as noted in 2018, the current structure means that changes to the discount rate and long-term earnings assumptions will affect the calculations in an indirect way as they affect the size of other effects (including Remedy) added on to the future service cost.

The Remedy costs might be larger for some schemes, and smaller for others, when calculated using the most recent directed discount rate and long-term earnings assumptions compared to those used in the calculation of the initial employer cost caps. This highlights the tension between the discount rate and technical immunity objectives (3.3 and 3.8).

*3.9 Stability – "for each scheme, the measurement of changes in the cost of the scheme against the employer cost cap excludes:*

- *costs of the scheme which relate to the payment of benefits to deferred members and pensioner members in existing/connected schemes*
- *changes in the cost of the new schemes which arise due to the effects of members having service in the existing schemes."*

Costs related to the payment of benefits to deferred members and pensioner members in existing/connected schemes remain excluded from the cost control calculations under the Amending Directions, thus meeting the first bullet point for this objective.

I understand that the intention behind the second bullet point of this objective is to ensure that the costs of a new scheme, interpreted as the future service accrual element of the cost cap cost, is not expected to drift over time because of the reducing level of legacy scheme service of the active scheme membership. Consistent with this, the calculations for future service accrual costs assume that all members accrue reformed scheme service and use behavioural assumptions that assume no past service in legacy schemes.[21]

By contrast, calculations for past service costs in the CCM allow for actual scheme membership and thus allow for members being in legacy schemes. Similarly, where it is assumed that a

[21] This is required because the legacy schemes often have lower retirement ages than the new schemes, so members with more legacy scheme benefits are more likely to retire earlier than others. If these differences were allowed for when assessing costs of the new schemes in the CCM, those costs would be likely to change as legacy scheme members retire.

member will choose the legacy scheme under DCU, Remedy costs necessarily allow for that. The concern to avoid a drift over time is not relevant to these other aspects of the calculations.

My opinion is therefore that the methodology set out in the Directions (see Directions 30 to 42A and 48 to 62) remains in line with the intention behind the second bullet point.

## 4. Compliance, limitation and third-party disclaimer

My opinion is based on the current understanding of the form of Remedy, CCM, the announced waiving of the requirement to rectify ceiling breaches, and other relevant considerations as at the date of this letter. If these were to change, my view on the appropriateness of the Amending Directions in meeting HMT's objectives might be affected. As noted above, the assumptions are not being updated to allow for more recent views on various factors that influence pension costs, such as future GDP growth, pay rises, inflation or mortality changes. I would expect all of these factors to be affected in future by COVID-19. Additionally, EU exit and climate change are some of the risks that make assumptions inherently uncertain.

In line with your requesting letter, I have not considered any equality aspects of the Amending Directions, except to the extent that my comments on IF in line with your policy intention 2.2 might be read as having a bearing on the wider equality considerations.

This letter 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.

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Yours sincerely

**Martin Clarke**
Government Actuary

# Appendix A: more detailed points on data, assumptions and methodology

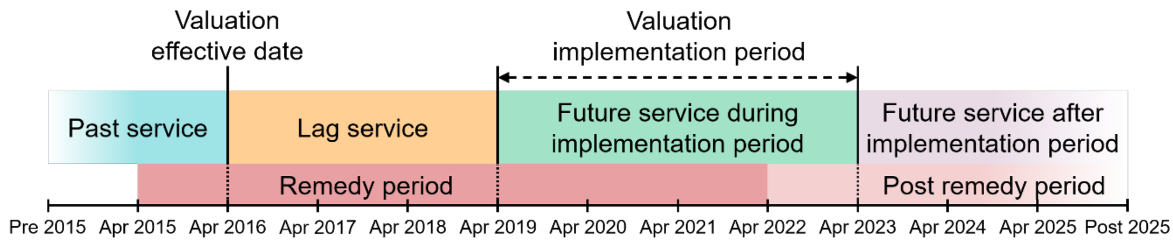
The comments set out in Appendix A of my 2018 letter still apply. In addition, the existence of Remedy introduces some further complications regarding data, assumptions and methodology that I comment on below. For the avoidance of doubt, none of the comments set out in this Appendix change my overall view regarding the Amending Directions as set out in the main body of this letter.

## Comments regarding inconsistencies between methodology for different elements of the cost control calculations

As outlined in section 2.3, performing the Remedy calculations while not revisiting ECCC calculations leads to inconsistencies between the two elements of the CCM calculation.

To illustrate some of the terms used in this letter, especially as regards inconsistencies between calculations, the following diagram is a visual representation of the relevant periods. The position shown is for schemes with a valuation date in 2016 and a 4-year implementation period with Remedy period expected to end in 2022.[22] The diagram summarises how costs are treated in the two elements of CCM calculation and also, for comparison, how costs are treated in the calculation of employer contribution rates. For each, it shows if the costs for those periods are included and if so the relevant spreading period.

<u>Treatment of periods of service in three valuations calculations</u>




| | | | | |
|---|---|---|---|---|
| Employer cost | 15 years | 15 years | 4 years | Excluded |
| CCM: Remedy | 4 years | 4 years | 4 years | 4 years |
| CCM: All other costs | 15 years | Excluded | 4 years | Excluded |

The diagram illustrates the inclusion of some service periods for Remedy in the CCM that are excluded in other calculations.

One difference is the treatment of the period 2016-19, which is excluded from the ECCC calculations but included in Remedy calculations.

The exclusion of this period in the ECCC calculations means that changes in the costs of providing benefits for service during that period (other than as a result of Remedy) are excluded from the CCM at this valuation. Such changes in costs could result from changes to short-term salary and life expectancy assumptions, amongst others. This approach for ECCC calculations is in line with the original construction of the CCM. At that time, it was unknown whether such changes in costs

[22] Some other schemes have different dates, but the same principles apply.

would result in additional costs or savings and so this structure represented a reasonable approach. In line with objective 2.3, no change is being made to the calculation of the ECCC.

In contrast, Remedy represents a one-off additional cost that was unknown about at the time that the CCM was originally established and which HMT have decided should be included in the CCM at this valuation. To exclude costs relating to service in the period 2016-19, but to include 2015-16 and 2019-22 would not seem logical.

Service after the end of the implementation period is also treated differently for Remedy costs. It is unusual for an actuarial valuation to consider effects after the period of accrual for which contributions are being set, i.e. the implementation period for unfunded public service schemes. We do not, for example, consider the effects of changes to mortality assumptions on service after the implementation period and instead these are generally picked up at subsequent valuations.

However, any effect of changes in career behaviours, as a result of Remedy, on the costs of service after the end of the Remedy period will be predominately in relation to service that will accrue after the end of the implementation period, as illustrated in the diagram above. In order to meet the policy intent (2.1) for the 2016 valuations to capture the entire Remedy costs at this valuation, it is therefore necessary to include the post-implementation period effect and indeed new Directions 52 and 54 do this.

As noted in the main body of this letter, the approach taken for post-implementation service does not allow for any changes in the workforce profile arising from changes in member career behaviours. Instead, the change in costs for the post-implementation period is valued using the period of future service that is expected under the assumptions that allow for Remedy. This is an effective way to exclude workforce profile changes as long as the assumptions that allow for Remedy result in a shorter (or identical) expected period of future service than under pre-Remedy assumptions. I understand that the indicative results are based on post-Remedy assumptions that meet this criterion. Otherwise, HMT should consider revisiting the Directions.

Another difference in approach relates not to the inclusion of a service period but to the assumptions used in the two calculation elements of the CCM. In the future service element of the ECCC, only long-term assumptions for earnings increases are used. Also, all members are treated as if they have only ever had service in the reformed schemes (which affects the expected date of retirement). Again, this approach is in line with the original construction of the CCM and is reasonable as a way of avoiding bias in the CCM over time. In contrast, Remedy calculations use short-term earnings assumptions and members' actual career histories are used when considering likely retirement patterns. This is necessary to give a better estimate of the actual cost.

This section discussed three differences in approach between the calculations of the two elements of the CCM calculation. The section on IF in the main body of the letter also referred to a difference in spreading period. For each of these differences, because of the particular nature of the Remedy costs and in view of HMT's policy objectives, I consider the inconsistency to be reasonable.

## Comments on data

I would not expect the data typically gathered for valuations to be sufficient to precisely identify which members are in scope for Remedy. Apart from possible inaccuracies in dates of joining held on pension administration systems, data is not usually gathered for items such as disqualifying breaks in service, or previous service in other public service schemes that would bring an individual into scope of Remedy. The Amending Directions give scheme actuaries flexibility to work with schemes' responsible authorities to collect additional data if it seems likely to have a material impact on results.

## Comments on methodology

### Level of prescription in the draft Amending Directions

Practically, the Directions cannot specify the full detail of all actuarial calculations; this remains true for Remedy cost impacts in the draft Amending Directions. For some areas, the draft Amending Directions are prescriptive (for example the inclusion of any impact on service after the Remedy period). For other aspects of the calculations, the draft Amending Directions permit a number of reasonable methods. This produces some technical challenges over the choices to be made, especially given that these calculations are in effect an overlay onto valuation results already reported in the 2019 reports. However, each scheme will have its own set of circumstances and the same approach may not be appropriate for all schemes in all cases. In my view, there are no areas where I feel it inappropriate that the Directions give schemes the opportunity to choose the details of the calculations work, allowing for their specific circumstances.

Note that under DCU, it will not be known which benefit structure a member will have actually received during the Remedy period, until that choice is exercised, in some cases years into the future. When calculating Remedy, the assumed choices that scheme members will make at the point of their DCU decision will depend on the other assumptions made, such as pay rises and rates of leaving the scheme. This adds another element to the general uncertainty that there always is at any valuation over the cost of accruing and accrued pensions. Therefore, in future valuations there will be relatively more adjustments than would otherwise be required to allow for actual versus expected experience. However, my colleagues advising the pension schemes have advised me that this additional uncertainty is not expected to be an order of magnitude different from existing sources of uncertainty such as future life expectancy and financial conditions.

### Comments regarding approach where Directions are possibly ambiguous

The Amending Directions are potentially ambiguous in two areas. This section sets out how the scheme actuaries plan to interpret them, so that HMT can clarify if that is not in line with their intentions:

- New Direction 49 (2) (c) sets out what Remedy should be taken to mean in the context of CCM calculations for LGPS, by referring to an extension of the statutory underpin. Meanwhile, the LGPS consultation documents[23] propose changes that mean that the revised underpin regulations will differ in a number of respects from the existing underpin provisions, with these amendments viewed as essential to ensure that the underpin regulations are clear and consistent. The scheme actuaries will interpret Direction 49 (2) in light of those anticipated amendments, taking instruction from the

[23] See https://www.gov.uk/government/consultations/local-government-pension-scheme-amendments-to-the-statutory-underpin
and https://hansard.parliament.uk/commons/2021-05-13/debates/21051320000019/LocalGovernmentPensions.

Department for Levelling Up, Housing and Communities and the Scottish Public Pensions Agency if appropriate.

- New Directions 53 and 54 allow for any changes to member contributions as a result of Remedy. The scheme actuaries plan to interpret these directions as meaning they should value the member contributions that are appropriate for the post-remedy benefits that are assumed to be chosen under DCU, even though contributions are treated as if they are paid at the time of accrual, i.e. before DCU so that in practice at that point it will not be known which are the appropriate contribution rates. Furthermore, the Directions do not mention tax, and the scheme actuaries plan to allow for these contributions gross of tax in the CCM calculations. These plans are subject to the relevant scheme bodies approving the interpretations, and I will ask the scheme actuaries to raise any issues with you if the position changes.

## Comments affecting specific schemes only

### Pension Increase Orders

The draft Amending Directions now limit the period when the pension increase assumption should be overridden by an actual Pension Increase Order to only where the Order was in force before the start of the implementation period (i.e. April 2020 for the Scottish Local Government scheme and the Members of the Senedd Pension Scheme and April 2019 for all other relevant schemes). This is necessary due to the delay caused by the pause of the cost control mechanism.

This requirement applies only to those schemes that have not signed a valuation report for the employer contribution under the Directions – that is those schemes that set employer contributions through another mechanism. This includes the Local Government Pension Scheme.

For all other schemes, this ties in with the actual and assumed pension increase assumptions that were used in the reports signed in 2019.

### Members of the Senedd Pension Scheme

The draft Amending Directions exempt the Members of the Senedd Pension Scheme from full calculation of the Remedy cost impact and instead contain a figure for this. This scheme's CCM already operates differently and the simplified approach seems appropriate in the circumstances.

### Paying for Remedy cost impacts over the implementation period

The Local Government Pension Scheme (Scotland) and the Members of the Senedd Pension Scheme both have a 3-year implementation period at this valuation; the other schemes have a 4-year implementation period. This reflects a difference in timing of the valuations.

The Remedy cost impact is paid over the implementation period, as per the discussion under 2.2 above. However, the annual cost of Remedy (as a percentage of pay) is higher when paid over 3 years than when paid over 4 years. This means that the cost cap cost of the scheme is higher for the Local Government Pension Scheme (Scotland) and the Members of the Senedd Pension Scheme than if these schemes had a 4-year implementation period.

However, indicative results show that these schemes are expected to remain above the CCM floor (either within the corridor or above the ceiling, the implementation of which is to be waived) whether the costs are spread over 3 or 4 years. This means that this difference in implementation period does not affect the 2016 valuation outcome (i.e. no effect on member benefits).

Overall, given your objectives and that valuation outcomes are not affected, this approach seems reasonable.

## Appendix B – HMT letter

The following pages contain a copy of the letter from Conrad Smewing (HMT) to Martin Clarke (Government Actuary) of 5 October 2021 regarding the draft Public Service Pensions (Valuations and Employer Cost Cap) (Amendment) Directions 2021.

HM Treasury

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HM Treasury

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Via email

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5 October 2021

Dear Martin,

**Public Service Pensions (Valuations and Employer Cost Cap) (Amendment) Directions 2021 ("the Amending Directions")**

1. I am writing following the announcement that the cost control mechanism (CCM) will be un-paused and the cost control element of the 2016 valuation process completed. As the Government has announced, this process will take account of the impact of the Government's policy to remedy the age discrimination identified by the courts in the McCloud and Sargeant litigation ("Remedy").

2. Sections 11 and 12 of the Public Service Pensions Act 2013 (the Act) enable HM Treasury to make directions regarding valuations of the public service pension schemes made under that Act, and relevant connected schemes. The Public Service Pensions (Valuations and Employer Cost Cap) Directions 2014 (the "Directions") were amended most recently[1]:

    a. in 2018 to update them for the next set of valuations (mainly with effective dates of 31 March 2016) being the first time the scheme costs were to be measured by the CCM and compared to the employer cost caps, then

    b. in 2019 to pause the cost control element of the valuations (which is used to test whether a breach of the cost control mechanism has occurred) while allowing for valuation reports to be signed that set out revised employer contribution rates.

    On each occasion I consulted you, with exchanges of letters on 9 and 22 November

[1] For completeness, a full list of amendments: the Public Service Pensions (Valuations and Employer Cost Cap) Directions 2014 were amended by The Public Service Pensions (Valuations and Employer Cost Cap) (Amendment) Directions 2014, The Public Service Pensions (Valuations and Employer Cost Cap) (Amendment) (No. 2) Directions 2014, The Public Service Pensions (Valuations and Employer Cost Cap) (Amendment) (No. 3) Directions 2014, The Public Service Pensions (Valuations and Employer Cost Cap) (Amendment) Directions 2015, The Public Service Pensions (Valuations and Employer Cost Cap) (Amendment) (No. 2) Directions 2015, The Public Service Pensions (Valuations and Employer Cost Cap) (Amendment) Directions 2016, The Public Service Pensions (Valuations and Employer Cost Cap) (Amendment) Directions 2018, and The Public Service Pensions (Valuations and Employer Cost Cap) (Amendment and Savings) Directions 2019.

2018 and 13 and 14 February 2019.

3. When the Directions were finalised in 2019, the outcomes of the McCloud and Sargeant litigation were unknown. This meant that there was uncertainty around the benefits that members were earning, as those benefits would, on average, become more generous either as a result of rectification (if the Court of Appeal judgment were to be overturned) or as a result of Remedy (if the Government's application to appeal (or appeal) were to be unsuccessful), albeit in different ways and to different degrees. As stated in my letter of 13 February 2019, I considered it important to update employer contribution rates to reflect the general increase in costs anticipated so that a deficit did not build up, but felt it necessary to pause the cost control element of the valuations while benefits were so uncertain. Now that we know the form of Remedy, benefits are more certain and the cost control element of the 2016 valuations can be completed. Therefore, the Directions now need to be amended to un-pause the CCM, and properly allow for Remedy.

4. In deciding how to allow for Remedy in the cost control element of the 2016 valuations, the Government has the following policy intentions:

    a. to reflect the entire impact of Remedy on the cost cap cost of a scheme at this set of valuations, because the Remedy period ends by the end of the implementation period for this set of valuations;

    b. that Remedy should be subject to cost control through the operation of the CCM. The required changes to the cost control element of the 2016 valuation process should not unduly reduce intergenerational fairness;

    c. to revisit assumptions made in completing the employer contribution rate element of the 2016 valuations only to the extent required to properly reflect the Remedy, with no changes being made to the calculation of other elements of the cost of a scheme as assessed for cost control purposes; and

    d. to aim for a "best estimate" calculation of Remedy costs, in line with the "no bias" objective referred to in paragraph [10(b)] of this letter.

5. Based on these policy intentions, decisions have been taken to, for example:

    a. reflect the change in benefits and member contributions for the entire Remedy period; and also the impact, if any, that Remedy is expected to have on service before and after the Remedy period as a result of changes to member behaviour;

    b. spread all the Remedy costs (whether related to before, during or after the Remedy period) over the implementation period of the valuation; and

    c. add the Remedy costs onto the employer contribution correction cost ("ECCC") as reported in the employer contribution rate element of the 2016 valuations that were issued in 2019 (i.e. not to recalculate the ECCC, as the ECCC represents the cost of a scheme as assessed for cost control purposes before Remedy is included).

    In addition, schemes will revise assumptions and/or collect new data where Remedy is expected to change behaviour such that assumptions underpinning the employer contribution rate element of the 2016 valuations can no longer be accepted as "best estimates", or are insufficient for the purpose of calculating the impact of the Remedy. Assumptions will not be revised solely because of more information becoming available (for example regarding mortality trends) between now and when the employer contribution rate element of the 2016 valuations were completed in 2019. Such information will be taken into account in subsequent valuations (together with any more recent information becoming available after the cost control element of the 2016 valuations has been completed).

6. The cost control element of the 2016 valuations was paused as a result of McCloud and Sargeant litigation. The Directions are therefore being amended solely to allow for the Remedy in relation to this litigation. No changes are being made in relation to any other court cases about which new information has become available that might affect public service pension schemes.

7. While the Directions apply to all relevant schemes, there are special provisions for some of them.

8. Our legal advisors have prepared the necessary Amending Directions (set out in Annex A of this letter). We have shared drafts and taken advice from your department in considering the Amending Directions and I am grateful to your officials for all their work.

9. Following the Review[2] you conducted of the CCM, your report was published in June and HM Treasury have since consulted[3] on their proposed changes to the CCM. For the avoidance of doubt, the Amending Directions annexed to this letter do not have regard to your Review of the CCM and HM Treasury's subsequent consultation. Any changes to the Directions required to implement the outcome of the consultation on reforms to the CCM will be a matter for later directions ahead of future valuations.

10. I am now writing to formally ask for your professional opinion on the proposed Amending Directions. Annex B of this letter includes a more detailed technical explanation of each of the proposed Amending Directions.

    In particular, I would welcome your views on the extent to which the Directions, as amended by the proposed Amending Directions, are technically complete and coherent, and the extent to which, in relation to the 2016 valuation process only, they deliver:

    a. our intentions set out above and

    b. the nine objectives (completeness, no bias, discount rate, consistency, clarity, cost control, sustainability, technical immunity and stability) that have previously informed the Directions[4], as repeated most recently in my letter of 9 November 2018 regarding the 2018 amendments, and included in Annex C of this letter.

    I am not asking for your view on any equality aspects of the Amending Directions;

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[2] As per the Written Ministerial Statement of 16 July 2020, this will be completed ahead of the 2020 valuations. https://questions-statements.parliament.uk/written-statements/detail/2020-07-16/HCWS380. The final report is here: https://www.gov.uk/government/publications/cost-control-mechanism-government-actuarys-review-final-report .

[3] https://www.gov.uk/government/consultations/public-service-pensions-cost-control-mechanism-consultation

[4] HM Treasury acknowledge that these objectives may change in respect of future valuations pursuant to the Government Actuary's review of the CCM and the subsequent consultation (and consultation response).

HM Treasury will assess the Amending Directions in accordance with their Public Sector Equality Duty. I note that when you address intergenerational fairness in line with policy intention 4 (b) above, it might be read as having a bearing on the wider equality considerations.

11. It would be helpful if you were able to let me have your professional opinion by 7 October.

Yours sincerely

**Conrad Smewing**

Annex A: Amending Directions
Annex B: Technical Annex
Annex C: The 9 objectives as per previous consultations

### Annex A: Amending Directions

# The Public Service Pensions (Valuations and Employer Cost Cap) (Amendment) Directions 2021

The Treasury make the following Directions in exercise of the powers conferred on them by sections 11(2) and 12(3) of the Public Service Pensions Act 2013([5]).

In accordance with section 11(4) of that Act, these Directions are made following consultation with the Government Actuary.

**Citation and entry into force**

**1.** These Directions may be cited as the Public Service Pensions (Valuations and Employer Cost Cap) (Amendment) Directions 2021, and come into force the day after the day on which they are signed.

**Amendment of the Public Service Pensions (Valuations and Employer Cost Cap) Directions 2014**

**2.** The Public Service Pensions (Valuations and Employer Cost Cap) Directions 2014([6]) are amended as follows.

**Amendment of Part 1: General**

**3.** In direction 2 (interpretation)—

(a) at the appropriate places insert—

"change in liabilities after the remedy period" means the difference between post-remedy liabilities and pre-remedy liabilities accruing after the transitional protection closure date, calculated in accordance with direction 52;

"change in liabilities before the remedy period" means the difference between post-remedy liabilities and pre-remedy liabilities accrued before the remedy period, calculated in accordance with direction 51;

"change in liabilities in the remedy period" means the difference between post-remedy liabilities and pre-remedy liabilities accruing during the remedy period, calculated in accordance with direction 50;

"change in member contributions after the remedy period" means the difference in member contributions expected to be paid to the scheme after the remedy period as a result of the transitional protection remedy, calculated in accordance with direction 54;

([5]) 2013 c. 25.

([6]) The Public Service Pensions (Valuations and Employer Cost Cap) Directions 2014 were amended by The Public Service Pensions (Valuations and Employer Cost Cap) (Amendment) Directions 2014, The Public Service Pensions (Valuations and Employer Cost Cap) (Amendment) (No. 2) Directions 2014, The Public Service Pensions (Valuations and Employer Cost Cap) (Amendment) (No. 3) Directions 2014, The Public Service Pensions (Valuations and Employer Cost Cap) (Amendment) Directions 2015, The Public Service Pensions (Valuations and Employer Cost Cap) (Amendment) (No. 2) Directions 2015, The Public Service Pensions (Valuations and Employer Cost Cap) (Amendment) Directions 2016, The Public Service Pensions (Valuations and Employer Cost Cap) (Amendment) Directions 2018, and The Public Service Pensions (Valuations and Employer Cost Cap) (Amendment and Savings) Directions 2019. These directions are available electronically from: https://www.gov.uk/government/publications/public-service-pensions-actuarial-valuations-and-the-employer-cost-cap-mechanism-supplementary-documents; https://www.gov.uk/government/publications/public-service-pensions-actuarial-valuations; and https://www.gov.uk/government/publications/public-service-pensions-changes-to-2016-valuations.

"change in member contributions in the remedy period" means the difference in member contributions expected to be paid to the scheme during the remedy period as a result of transitional protection remedy, calculated in accordance with direction 53;

"cost cap cost of the scheme" means the contribution rate which is compared against the employer cost cap and which reflects the cost of the scheme, calculated in accordance with direction 57;

"cost cap valuation report" means the report prepared by the scheme actuary in accordance with direction 48 for the purpose of determining the cost cap cost of the scheme;

"cost cap valuation results" means the numerical values stated in accordance with direction 48(e) in the cost cap valuation report prepared by the scheme actuary;

"employer cost cap" has the same meaning as in section 12 of the 2013 Act;

"post-remedy assumptions" means the assumptions used to calculate the cost cap liabilities in the first valuation report but modified by any additional or revised assumptions made where direction 55(2) applies;

"post-remedy benefits" means the post-remedy benefits as determined in accordance with direction 49;

"post-remedy member contributions" means the post-remedy member contributions paid, payable or assumed to be payable in respect of the post-remedy benefits, as determined in accordance with direction 49;

"pre-remedy benefits" means the benefits used to determine the cost cap liabilities in the first valuation report;

"remedy period" means, for the purpose of directions 49 to 56, the period beginning on (and including) the day after the closing date and ending on (and including) the day before the transitional protection closure date;

"transitional protection remedy" has the meaning given in direction 49(2);

"transitional protection remedy cost" means the element of the cost cap cost of the scheme that reflects the transitional protection remedy, calculated in accordance with direction 56;

"transitional protection closure date" means 1st April 2022.

(b) in the definition of "closing date"—
   (i) for "the date specified in section 18(4) of the 2013 Act" in subparagraph (a) substitute "the date as it was specified in section 18(4) of the 2013 Act immediately before the Public Service Pensions (Valuations and Employer Cost Cap) (Amendment) Directions 2021 come into force";
   (ii) for "the date determined by the" in subparagraph (b) substitute "the date that has been determined immediately before the Public Service Pensions (Valuations and Employer Cost Cap) (Amendment) Directions 2021 come into force by any";
(c) in the definition of "SCAPE discount rate", after "results", insert "or cost cap valuation results".
(d) in the definition of "valuation report", for "22" substitute "22A for the purpose of calculating the employer contribution correction cost; and "first valuation report" means a valuation report for a valuation with an effective date determined in accordance with direction 6(1)".

**Amendment of Part 2: Valuations**

**4.** In direction 3 (Meaning of “a scheme”)—

(a) after “made” insert “or deemed to be made”;

(b) after “single scheme” insert “(unless otherwise indicated in these Directions)”.

**5.** In direction 5 (Scheme Actuary), after “report” insert “and a cost cap valuation report”.

**6.** After direction 5 (Scheme Actuary) insert—

“**5A.** The cost cap valuation report may be signed after the valuation report has been signed”.

**7.**—(1) In direction 9 (Membership and other data)—

(a) after direction 9(1) insert—

“(1A) Before preparing the cost cap valuation report, the scheme actuary must specify—

(a) the scheme membership data and any other data in relation to the closing date of the connected schemes; and

(b) the scheme membership data and any other data in relation to the effective date;

(c) that they require to prepare the cost cap valuation report.”

(b) in direction 9(2), after “paragraph (1)” insert “or (1A)”;

(c) in direction 9(4), after “results” insert “or the cost cap valuation results”.

**8.** In direction 10—

(a) after “valuation results” insert “or cost cap valuation results”;

(b) for “directions 11 to 19” substitute “directions 11 to 18”.

**9.** In direction 11(1), omit “to calculate the valuation results”.

**10.** In direction 14—

(a) omit "When calculating the valuation results”;

(b) after “Pensions (Increase) Act 1971” insert "(and which comes into force before the start of the implementation period)”.

**11.** In direction 15 omit “When calculating the valuation results”.

**12.** In direction 16 omit "When calculating the valuation results”.

**13.** In direction 17 omit “When calculating the valuation results”.

**14.** In direction 18 omit "When calculating the valuation results”.

**15.** Before direction 19, insert the heading “The valuation report”.

**16.** In direction 19, for “All” substitute “When calculating the valuation results, all”.

**17.** After direction 20, omit the heading “The valuation report”.

**18.** After direction 22 insert—

**“Contents of the valuation report: employer contribution correction cost**

**22A.** The valuation report prepared by the scheme actuary must also include a statement of—

(a) the prior value of the cost cap fund calculated in accordance with direction 30;

(b) the cost cap contribution yield calculated in accordance with direction 31;

(c) the cost cap income calculated in accordance with direction 33;

(d) the cost cap benefits paid calculated in accordance with direction 34;

(e) the cost cap net leavers liabilities calculated in accordance with direction 35;

(f) the cost cap notional investment returns calculated in accordance with direction 36;

(g) the value of the cost cap fund calculated in accordance with direction 37;

(h) the cost cap liabilities calculated in accordance with direction 39;

(i) the cost cap future service cost calculated in accordance with direction 40;

(j) the cost cap past service cost calculated in accordance with direction 41;
(k) the employer contribution correction cost calculated in accordance with direction 42; and
(l) the cost cap difference calculated in accordance with direction 42A."

**19.** After direction 46 insert—

**"Application of Part 2 to a scheme providing benefits for employees of the Secret Intelligence Service or the Security Service.**

**46A.** Directions 48 to 57 do not apply in relation to a first valuation of a scheme providing benefits for employees of the Secret Intelligence Service or the Security Service.".

**20.** In direction 47(4)—

(a) for "National Assembly for Wales Members' Pensions Scheme", substitute "Members of the Senedd Pension Scheme";
(b) after subparagraph (b) insert—

"(ba) directions 22A(a), 22A(c) to 22A(h) and 22A(j) do not apply;";

(c) in subparagraph (d), for "and 41" substitute ", 41 and 43A"; and
(d) in subparagraph (e), for "National Assembly for Wales" substitute "Senedd".

**21.** After direction 47 insert—

## "The cost cap valuation report

**Contents of the cost cap valuation report**

**48.** The cost cap valuation report prepared by the scheme actuary must include—

(a) a summary of any additional data determined in accordance with direction 55(2) including any checks, adjustments or projections made to the data by the scheme actuary;
(b) a statement of the assumptions used by the scheme actuary in preparing the report, including—
 (i) a summary of any additional or revised assumptions determined by the responsible authority in accordance with direction 55(2);
 (ii) a statement of how regard has been had to the matters listed in direction 19 (as modified by direction 55(4)) in making any additional or revised assumptions; and
 (iii) an illustration of the main sensitivities of the cost cap valuation results to the assumptions used;
(c) a statement that the cost cap valuation results have been calculated in accordance with the requirements as to data, methodology and assumptions specified by these Directions;
(d) a summary of the regulations, directions and professional standards applicable to the preparation of the cost cap valuation report;
(e) a statement of—
 (i) the employer contribution correction cost that was calculated in accordance with direction 42 and stated in the first valuation report,
 (ii) the change in liabilities in the remedy period calculated in accordance with direction 50,
 (iii) the change in liabilities before the remedy period calculated in accordance with direction 51,
 (iv) the change in liabilities after the remedy period calculated in accordance with direction 52,
 (v) the change in member contributions in the remedy period calculated in accordance with direction 53,
 (vi) the change in member contributions after the remedy period calculated in accordance with direction 54,
 (vii) the transitional protection remedy cost calculated in accordance with direction 56, and
 (viii) the cost cap cost of the scheme calculated in accordance with direction 57;
(f) a comparison of the cost cap cost of the scheme identified in the cost cap valuation report with the employer cost cap in accordance with direction 59;
(g) where the cost cap cost of the scheme has gone beyond the margins on either side of the employer cost cap specified in Regulations made under section 12(5) of the 2013 Act, a statement to that effect to notifiy the responsible authority;

(h) an analysis of the difference between the employer cost cap and the cost cap cost of the scheme, identifying and quantifying any noticeable differences caused by–

   (i) a change in the average age of members;

   (ii) a change in the average normal pension age of members (whether resulting from a change in state pension age or otherwise);

   (iii) a change in the expected member contribution yield;

   (iv) scheme experience or a change in assumptions relating to–

      (aa) new entrant profiles;

      (bb) mortality rates;

      (cc) rates of age retirement;

      (dd) rates of early and late retirements;

      (ee) rates and severity of ill health retirements;

      (ff) resignations and opt-outs;

      (gg) rates of rejoining service;

      (hh) general earnings growth until 31st March 2023;

      (ii) promotional earnings increases;

      (jj) members' dependants;

      (kk) take up of commutation options; and

      (ll) any other relevant factor or consideration and

(i) any other matters that the scheme actuary considers to be relevant.

## The cost cap valuation report: cost cap cost of the scheme

**Post-remedy benefits and post-remedy member contributions**

**49.**—(1) Post-remedy benefits and post-remedy member contributions are the benefits and member contributions stated in the first valuation report (save to the extent that those benefits and member contributions are determined in accordance with these Directions to have changed as a result of the transitional protection remedy), being in particular:

(a) the benefits that have accrued and are accruing in a scheme to those members of that scheme who are not entitled to the transitional protection remedy and the member contributions paid or payable in respect of those benefits; and

(b) the benefits that have accrued or are assumed to have accrued and are accruing or assumed to be accruing in or before the remedy period to those members of that scheme who are entitled to the transitional protection remedy and the member contributions paid or assumed to have been paid or payable or assumed to be payable in respect of those benefits; and

(c) the benefits that are assumed to be accruing after the transitional protection closure date to those members of that scheme who are entitled to the transitional protection remedy, being the benefits in the scheme made (or deemed to be made) under section 1 of the 2013 Act, and the member contributions that it is assumed will be paid in respect of those benefits.

(2) For the purpose of these directions the "transitional protection remedy" means:

(a) for members of a scheme other than for local government workers or the judiciary who were in pensionable service on or before 31st March 2012 and on or after the day after the closing date of a connected scheme (including those with a qualifying break in service of not more than 5 years or linked service), the accrual of pension benefits in a connected scheme in respect of any pensionable service in the remedy period with the assumed right to choose on benefit crystalisation to have accrued pension benefits either in that connected scheme or in the scheme made under section 1 of the 2013 Act in respect of all pensionable service in the remedy period;

(b) the assumed right for members of a scheme for the judiciary who were: (i) in pensionable service (in a connected scheme) on or before 31st March 2012; and (ii) in pensionable service (in a scheme made under section 1 of the 2013 Act) on or after the day after the closing date of a connected scheme or had the option to join a scheme (made under section 1 of the 2013 Act) on 1st April 2015 (including those with a qualifying break in service of not more than 5 years or linked service), to choose following the end of the remedy period to have accrued pension benefits either in that scheme made under section 1 of the 2013 Act or in a connected scheme in respect of all pensionable service in the remedy period; or

(c) the assumed extension of the statutory underpin, as set out in the Local Government Pension Scheme (Transitional Provisions, Savings and Amendment) Regulations 2014([7]) and Local Government Pension Scheme (Transitional Provisions and Savings) (Scotland) Regulations 2014([8]) (and modified as appropriate), to cover all qualifying members of a scheme for local government workers who were in service on 31st March 2012 and on or after the day after the closing date of a connected scheme (including those with a qualifying break of not more than 5 years or linked service).

**Change in liabilities in the remedy period**

**50.**—(1) The change in liabilities in the remedy period must be calculated as at the effective date as—

**A – B**

where—

**A** is the value of the liabilities corresponding to the post-remedy benefits that have accrued and are expected to accrue over the remedy period; and

**B** is the value of the liabilities corresponding to the pre-remedy benefits that have accrued and are expected to accrue over the remedy period.

(2) For the purpose of calculating A in paragraph (1), the data, methodology and assumptions used to calculate the cost cap liabilities in the first valuation report must be used, except where direction 55 applies.

(3) For the purpose of calculating B in paragraph (1), the data, methodology and assumptions used to calculate the cost cap liabilities in the first valuation report must be used.

**Change in liabilities before the remedy period**

**51.**—(1) The change in liabilities before the remedy period must be calculated as at the effective date as—

**A – B**

where—

**A** is the value of the liabilities that relate to the post-remedy benefits accrued before the closing date by members who were in pensionable service at that date; and

**B** is the value of the liabilities that relate to the pre-remedy benefits accrued before the closing date to members who were in pensionable service at that date.

(2) For the purpose of calculating A in paragraph (1), the data, methodology and assumptions used to calculate the cost cap liabilities in the first valuation report must be used, except where direction 55 applies.

(3) For the purpose of calculating B in paragraph (1), the data, methodology and assumptions used to calculate the cost cap liabilities in the first valuation report must be used.

**Change in liabilities after the remedy period**

**52.**—(1) The change in liabilities after the remedy period must be calculated as at the effective date as—

**A – B**

where—

**A** is the value of the liabilities that relate to the post-remedy benefits expected to accrue to all members who are entitled to the transitional protection remedy over the period from and including the transitional protection closure date until the date that each member is expected to leave service, with that leaving date assessed in line with post-remedy assumptions; and

**B** is the value of the liabilities that relate to the pre-remedy benefits expected to accrue to all members who are entitled to the transitional protection remedy over the period from and including the transitional protection closure date until the date that each member is expected to leave service, with that leaving date assessed in line with post-remedy assumptions.

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([7]) S.I. 2014/525.

([8]) S.S.I. 2014/233.

(2) For the purpose of calculating A in paragraph (1), the data, methodology and assumptions used to calculate the cost cap liabilities in the first valuation report must be used, except where direction 55 applies.

(3) For the purpose of calculating B in paragraph (1), the data, methodology and assumptions used to calculate the cost cap liabilities in the first valuation report must be used.

**Change in member contributions in the remedy period**

**53.**—(1) The change in member contributions in the remedy period must be calculated as at the effective date as—

**A – B**

where—

**A** is the value of normal member contributions expected to be paid in respect of the remedy period by members with post-remedy benefits, assuming that those contributions are paid at the same time as the related benefits accrue; and

**B** is the value of normal member contributions expected to be paid in respect of the remedy period by members with pre-remedy benefits, assuming that those contributions are paid at the same time as the related benefits accrue.

(2) For the purpose of calculating A in paragraph (1), the data, methodology and assumptions used to calculate the cost cap liabilities in the first valuation report must be used, except where paragraph 55 applies.

(3) For the purpose of calculating B in paragraph (1), the data, methodology and assumptions used to calculate the cost cap liabilities in the first valuation report must be used.

**Change in member contributions after the remedy period**

**54.**—(1) The change in member contributions after the remedy period must be calculated as at the effective date as—

**A – B**

where—

**A** is the value of normal member contributions expected to be paid by all members with post-remedy benefits who are entitled to the transitional protection remedy, assuming that these contributions are paid at the same time as the related benefits accrue, in respect of the period from and including the transitional protection closure date until the date that each member is expected to leave service, with that leaving date assessed in line with post-remedy assumptions; and

**B** is the value of normal member contributions expected to be paid by all members with pre-remedy benefits who are entitled to the transitional protection remedy, assuming that those contributions are paid at the same time as the related benefits accrue, in respect of the period from and including the the transitional protection closure date until the date that each member is expected to leave service, with that leaving date assessed in line with post-remedy assumptions.

(2) For the purpose of calculating A in paragraph (1), the data, methodology and assumptions used to calculate the cost cap liabilities in the first valuation report must be used, except where direction 55 applies.

(3) For the purpose of calculating B in paragraph (1), the data, methodology and assumptions used to calculate the cost cap liabilities in the first valuation report must be used.

**Updated data or assumptions to reflect the impact of transitional protection remedy**

**55.**—(1) This direction applies where—

(a) the responsible authority, having obtained advice from scheme actuary, determines that the data or the assumptions determined in accordance with direction 19(a) used to calculate the cost cap liabilities in the first valuation report no longer constitute the responsible authority's best estimates or are insufficient for the purpose of calculating the change in liabilities and member contributions in directions 50 to 54; and

(b) the determination in paragraph (a) results from the impact of the transitional protection remedy (as defined in direction 49(2)).

(2) Where paragraph (1) applies, additional or revised data or assumptions must be determined by the responsible authority, having taken the advice of the scheme actuary, so that the assumptions and data used to calculate the change in liabilities and member contributions in directions 50 to 54 constitute the responsible authority's best estimates and are sufficient for that purpose.

(3) Any additional or revised assumptions determined by the responsible authority in accordance with paragraph (2) must be determined in accordance with direction 19, as modified by paragraph (4).

(4) For the purpose of paragraph (3) of this direction only, direction 19 is modified as follows—

(a) for "when calculating the valuation results, all other assumptions used by the scheme actuary, other than those detailed in direction 11 to 18", substitute "when calculating the change in liabilities and member contributions under directions 50 to 55, any additional or revised assumptions determined by the responsible authority in accordance with the requirements of those directions";

(b) omit subparagraph (a);

(c) in subparagraph (d)(iii), omit the words "(including relevant data that becomes available after the effective date)";

(d) omit subparagraph (e).

**Transitional protection remedy cost**

**56.**—(1) The transitional protection remedy cost must be calculated as—

**A + B + C – (D + E)**

where—

**A** is the change in liabilities in the remedy period calculated in accordance with direction 50;

**B** is the change in liabilities before the remedy period calculated in accordance with direction 51;

**C** is the change in liabilities after the remedy period calculated in accordance with direction 52;

**D** is the change in member contributions in the remedy period calculated in accordance with direction 53; and

**E** is the change in member contributions after the remedy period calculated in accordance with direction 54.

(2) The transitional protection remedy cost as calculated under paragraph (1) must be stated to the nearest 0.1% of pensionable payroll, as a contribution rate payable over the implementation period.

(3) For the purpose of calculating the transitional protection remedy cost the data, methodology and assumptions used to calculate the cost cap liabilities in the first valuation report must be used (save to the extent otherwise indicated in these Directions).

**Cost cap cost of the scheme**

**57.** The cost cap cost of the scheme must be calculated as—

**A + B**

where—

**A** is the employer contribution correction cost that was calculated in accordance with direction 42 and stated in the first valuation report; and

**B** is the transitional protection remedy cost calculated in accordance with direction 56.

## The cost cap valuation report: special applications

**58. Application of Part 2 (cost cap valuation report) to Members of the Senedd Pension Scheme**

In relation to the cost cap valuation report of the Members of the Senedd Pension Scheme, Part 2 of these Directions applies with the following modifications—

(a) directions 48(a), (b), and (e)(ii) to (vii) do not apply;

(b) directions 49 to 56 do not apply; and

(c) in direction 57, the cost cap cost of the scheme must be calculated as—

**A + 7.5%**

where—

**A** is the employer contribution correction cost that is calculated in accordance with direction 42.

## PART 3: EMPLOYER COST CAP

**Comparison with the employer cost cap**

**59.**—(1) At the first and each subsequent valuation of a scheme, the scheme actuary must compare the cost cap cost of the scheme identified in the cost cap valuation report with the employer cost cap.

(2) Where the cost cap cost of the scheme has gone beyond the margins on either side of the employer cost cap specified in Regulations made under section 12(5) of the 2013 Act, the scheme actuary must notify the responsible authority.

**Application of Part 3 to a scheme providing benefits to employees of the Secret Intelligence Service or the Security Service**

**60.** In relation to a scheme providing benefits to employees of the Secret Intelligence Service or the Security Service, Part 3 does not apply."

**Annex B: Technical Annex**

**The Draft Public Service Pensions (Valuations and Employer Cost Cap) (Amendment) Directions 2021**

Completing the cost control component of the 2016 scheme valuations – Amending directions 5 to 7, 9, 11 to 18 & 21

- The cost control element of the 2016 scheme valuations was paused in 2019 as a result of the uncertainty arising from the Court of Appeal judgment in the McCloud and Sargeant litigation. The employer contribution rate element of the 2016 valuations was subsequently completed in spring 2019 by those schemes that required an employer contribution rate calculation at the time. These Directions allow for the cost control element of the 2016 valuations to be completed.
- Amending Directions 5 to 7, 9 and 11 to 18 allow for the valuation for schemes that have already reported their employer contribution rate to be completed with a cost cap valuation report. This report will only contain results of the cost control calculations. These Amending Directions also allow schemes that have not already reported their employer contribution rate to now report both this and the result of their cost control calculations.
- Amending Direction 21 inserts a new Direction 48 into the Public Service Pensions (Valuations and Employer Cost Cap) Directions 2014, which sets out the disclosures required in the cost cap valuation report that will complete the 2016 valuation.
- Each cost cap valuation report will use the “employer contribution correction cost” that was set out in the valuation report published in 2019 in the calculation of the cost cap cost of the scheme. Amending Direction 21 inserts a new Direction 57, which requires the cost cap cost of the scheme to be equal to the “employer contribution correction cost” stated in the employer contribution rate report (or as set out in a valuation report prior to the cost cap valuation report, for those other schemes), plus the remedy cost.

Transitional protection remedy costs – Amending directions 3, 4, 8, 10 & 21

- These Directions ensure that the transitional protection remedy costs are included in the cost control element of the 2016 valuation process.
- The transitional protection remedy costs relate to members who were in service on 1 April 2012 and at any point between the starting date of their reformed scheme and 31 March 2022 (the “Remedy period”), as long as they did not have a break in service of more than 5 years in that ten-year period. They will be able to choose whether their pension scheme accrual (and member contributions payable) during the Remedy period is determined by reference to the relevant legacy or reformed scheme benefit and contribution structure. Different remedy arrangements apply for pension schemes for local government workers and the judiciary. The transitional protection remedy costs arise from the higher benefits payable as a result of giving members this choice.
- Direction 49 specifies what transitional protection remedy benefits and contributions should be valued, since these are not yet specified in schemes’ regulations. It also requires that, when valuing the revised benefit and contribution structures to calculate the remedy cost, only changes in benefits and contributions made as a result of the transitional protection remedy should be allowed for.
- Amending Directions 3 and 4 and new Directions 50 to 54 and 56 inserted by Amending Direction 21 provide further details on how the remedy cost should be valued:
    - Remedy costs should include the impact of costs relating to changes in the value of benefits accrued before (Direction 51) and after (Direction 52) the Remedy period (to the extent that transitional protection remedy changes member behaviour over, for example, retirement age or commutation) as well as changes in the value of benefits accrued during (Direction 50) the Remedy period.
    - Remedy costs should also allow for any changes in value of member contributions (Directions 53 and 54) as a result of transitional protection remedy.
    - Total Remedy costs should be recognised over the valuation implementation period (Direction 56).
- Amending Directions 8 and 10 and the new Direction 55 inserted by Amending Direction 21 require the same data and assumptions to be used for the cost control calculations as were used

to calculate the employer contribution rate. New data or assumptions may be used when calculating the Remedy cost only if the implementation of the Remedy means that the existing data or assumptions are no longer a best estimate or if the existing assumptions are insufficient to calculate the remedy cost.

- Amending Direction 10 also ensures that pension increase orders that come into force after the valuation's implementation date are not allowed for. Instead, the assumptions as set out in the HMT Directions are to be used. This is to ensure consistency in this respect between those schemes that published valuation reports in 2019 and those that did not.

Comparison with employer cost cap – Amending Direction 21

- The final step of the cost control element of a scheme valuation is to compare the cost cap cost of the scheme to the employer cost cap (the specified percentage of pensionable pay set out in scheme regulations in accordance with Section 12 of the Public Service Pensions Act 2013). Amending Direction 21 inserts new amendment 59 which sets out the process to be followed for this comparison.

Secret Intelligence and Security Services pension schemes – Amending directions 19 & 21

- The process for including remedy cost set out in these Amending Directions applies to schemes whose first valuations are "as at" dates in 2016 or 2017.
- The first valuations of the pension schemes for employees of the Secret Intelligence Service and the Security Service have an effective date of 31 March 2020. The employer contribution rate elements of those valuations have not yet been completed.
- Amending Direction 19 and new Direction 63 inserted by Amending Direction 21 therefore clarify that the requirements brought in under these Amending Directions for cost control valuations do not apply to the 2020 valuations of the Secret Intelligence Service and the Security Service pension schemes. Instead, further directions will set out the requirements for their valuations.

Members of the Senedd Pension Scheme – Amending Directions 20 & 21

- The Members of the Senedd Pension Scheme has a very small membership and has a simplified cost control calculation which only considers the cost of pensions accruing in the future. Direction 20 reflects this as well as the renaming of the scheme.
- The Remedy cost for this scheme is set in new Direction 58, inserted by Amending Direction 21. The cost has been set following advice from the Scheme Actuary of the Members of the Senedd Pension Scheme.

**Annex C**: The 9 objectives as per previous consultations

This text is copied from my letter of 9 November 2018

7. Our objectives for the valuations continue to be:

   a. Completeness – employer and employee contributions, taken together, reflect the full costs of the benefits provided by public service pension schemes, including any past service effects that arise between valuations;

   b. No bias – assumptions used to assess costs should be best estimates, with no margin for prudence or optimism;

   c. Discount rate – the discount rate will be 2.4% per annum plus CPI, in line with the Office for Budget Responsibility's long-term growth forecasts, as set out in their July 2018 Fiscal Sustainability Report;

   d. Consistency - valuations of all public schemes should be consistent, allowing for comparisons to be made across schemes, including over time. Where different scheme workforces have different characteristics, then there should be consistency in the way that assumptions are set;

   e. Clarity – the Directions should lead to valuation reports that include sufficient information to allow those who are technically competent to understand how the valuation has been carried out. Valuations reports should provide clear and transparent assessments of schemes' costs, and reports should include information that may be helpful to scheme members and stakeholders in understanding the costs of providing benefits;

   f. Cost control – the directions ensure that the 2016 valuation report includes valuation results that measure changes in the costs of the schemes against the employer costs cap (as envisaged in Section 12(4)(b) of the Act and as required by Section 12(5) of the Act);

   g. Sustainability – for each scheme, the measurement of changes in the cost of the scheme against the employer cost cap (as envisaged in Section 12(4)(b) of the Act and as required by Section 12(5) of the Act) includes effects of scheme experience and future valuation assumptions differing from the assumptions used to determine the employer cost cap;

   h. Technical immunity – the measurement of changes in the costs of the scheme against the employer cost cap excludes effects caused by changes to the discount rate, the long-term earnings assumptions or changes in the actuarial methodology used in the valuations; and

   i. Stability – for each scheme, the measurement of changes in the cost of the scheme against the employer cost cap excludes:

      - costs of the scheme which relate to the payment of benefits to deferred members and pensioner members in existing/connected schemes

      - changes in the cost of the new schemes which arise due to the effects of members having service in the existing schemes.

## Appendix C –my 2018 letter to HMT

The following pages contain a copy of the main body and appendices A and B of my letter to Conrad Smewing (HMT) of 22 November 2018 regarding the draft Public Service Pensions (Valuations and Employer Cost Cap) (Amendment) Directions 2018.

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Conrad Smewing
Director, Public Spending
HM Treasury

*by email only*

22 November 2018

Dear Conrad

**Public Service Pensions (Valuations and Employer Cost Cap) (Amendment) Directions 2018**

Thank you for your letter of 9 November 2018[1], asking for my professional opinion on the draft Public Service Pensions (Valuations and Employer Cost Cap) (Amendment) Directions 2018 (the "Amending Directions") which were attached to your letter, in line with the requirements of Section 11(4) of the Public Service Pensions Act 2013 ("the Act"). In particular, you have asked me to set out my views on the extent to which the Amending Directions meet the government's objectives set out in your letter and the extent to which they are technically complete and coherent.

In your letter you have also noted the government's intention to ask me to undertake a review of the cost cap mechanism for the public service pension schemes after the current valuations have been completed. Although this letter focuses on the extent to which the draft Amending Directions meet the stated objectives within the existing framework for the current valuations, as the cost cap mechanism is one of the key components of the existing framework I do comment in this letter on some aspects of how the mechanism is operating.

It is clear to me that the framework introduced by the Act is delivering assessments of the costs of providing public service pension schemes as was intended, and that these costs are being recognised and reviewed on a transparent and consistent basis. As part of GAD's mission is to support effective decision-making and robust reporting within government this is an outcome I welcome.

**Professional opinion**

My overall opinion on the draft Amending Directions is that they will deliver results which largely meet the stated objectives, with some better met than others, and that they are, in the round, technically complete and coherent.

In the section below headed "Detailed professional opinion" I comment on the extent to which the Amending Directions meet the intentions you set out in paragraph 4 of your letter, noting a few areas where I believe it would be helpful to consider further. I also outline how I believe the consolidated directions (after the draft Amending Directions have been implemented) continue to meet each of the objectives you set out in paragraph 7 of your letter. Finally, in Appendix A to this letter I add further comments on the impact on

[1] Your letter is set out in Appendix B to this letter.

valuation outcomes of actuarial assumptions and the material risks arising from unreliable valuation data.

The analysis in this letter draws upon the initial results from the 2016 actuarial valuations which were provided to HMT by the respective schemes in September 2018. I have relied upon the accuracy and completeness of these initial results for the purposes of this letter (subject to the comments on valuation data as noted above).

**Background and context**

The Act provided the legislative framework for the introduction of new public service pension schemes, mainly introduced in April 2015, for regular actuarial valuations of these schemes to be carried out, and for the establishment of an employer cost cap mechanism, in order to ensure that the full costs of providing the schemes are recognised and remain sustainable in the future.

Directions were subsequently made (the "2014 Directions")[2] using the powers in the Act. Preliminary valuations of the schemes, mainly with an effective date of 31 March 2012, were carried out under the 2014 Directions to calculate the schemes' employer contribution rates to be paid from 1 April 2015 to 31 March 2019 and to set the initial employer cost caps (as a percentage of pensionable pay).

The 2014 Directions are now being reviewed, with proposed changes set out in the draft Amending Directions, to provide the framework for the next set of actuarial valuations to be carried out, mainly with an effective date of 31 March 2016. As part of this valuation process:

- scheme costs as measured by the cost cap mechanism will be compared to the employer cost caps initially established;
- for each scheme, if costs are outside a 2% margin above or below the employer cost cap, the scheme's provisions will be amended to bring the costs back to the level of the employer cost cap;
- the resulting employer contribution rates to be paid from 1 April 2019 to 31 March 2023, after allowing for the impact of any scheme amendments made as a result of any cost cap breaches, will be determined for each scheme.

**Initial valuation results**

The initial results from the 2016 actuarial valuations, based on the draft Amending Directions, indicate that for the majority of schemes the cost as measured by the cost cap mechanism has reduced compared to the position at the 2012 valuations by more than the 2% margin. As a result, changes to the schemes' provisions will be required in order to bring the scheme costs back to the original level.

There are a number of reasons for these reductions, but the following two areas in particular have resulted in lower expected costs for future pension payments under the cost cap mechanism:

- the short-term earnings growth assumptions have reduced and are now applied over a different period to the previous valuations (based on OBR forecasts);

[2] The Public Service Pensions (Valuations and Employer Cost Cap) Directions 2014

- the long-term mortality assumptions have changed to reflect reduced forecasts of future life expectancy (based on ONS projections).

The size of the cost cap breach varies by scheme, but typically the scheme costs as measured by the cost cap mechanism have reduced by between around 3% and 5½% of pensionable pay (with an average reduction of around 4%).

Conversely, the employer contribution rates (the amount that employers are required to pay to schemes on an ongoing basis) for all of these schemes have increased from their current levels, even before allowing for the cost of any changes which need to be made to the schemes as a result of the cost cap breaches.

This divergence reflects the different features which are used to measure the cost of the schemes for the purposes of the cost cap mechanism and for setting employer contribution rates. Whilst the changes to the short-term earnings growth and mortality assumptions that reduce the cost cap cost also reduce the employer contribution rates, this effect has been more than offset by increases resulting from the reduction to the SCAPE discount rate assumption[3]. The SCAPE discount rate effects sit largely outside of the cost cap mechanism.

After allowing for the impact of changes which will be required to rectify the cost cap breaches and the proposed changes to the actuarial assumptions for the 2016 valuations as set out in the draft Amending Directions, the initial valuation results indicate that total employer contribution rates will be required to increase from current levels by between around 5% and 13% of pensionable pay (the amounts varying by scheme across this range).

The table below shows an analysis of the main differences between the original employer cost caps (which were set at the 2012 valuations) and the updated costs of the schemes (from the initial 2016 valuation results), averaged across six of the largest schemes[4].

| | Past service | Accrual cost |
|---|---|---|
| Change in short-term financial assumptions | -1.1% | n/a |
| Change in mortality assumptions | -0.9% | -0.9% |
| Changes in other demographic assumptions | -0.1% | -0.3% |
| Change in average age | n/a | -0.2% |
| Change in average SPa | n/a | -0.3% |
| Identified experience gain | -0.2% | n/a |
| Mortality improvements: due to elapsed time | n/a | 0.2% |
| Total change in cost cap cost of the schemes (past service/accrual cost) | -2.3% | -1.5% |
| **Change in cost cap of the schemes** | **-3.8%** | |

It is worth noting that the changes in the cost cap cost of the schemes between the 2012 and 2016 valuations are almost entirely due to changes in actuarial assumptions, and in particular the short-term financial and the mortality assumptions.

[3] SCAPE stands for Superannuation Contributions Adjusted for Past Experience, and is the methodology used to determine the discount rate used to set contributions rates for the unfunded public service pension schemes through valuations. The SCAPE discount rate was reduced from 3.0% per annum above CPI to (i) 2.8% per annum above CPI at the March 2016 Budget, and (ii) 2.4% per annum above CPI at the October 2018 Budget.

[4] The figures in this table are a weighted average (by 2019/20 projected payroll) across the schemes for the civil service, NHS, Teachers, Police, Fire and Armed Forces (only for those schemes which include members in England)

This highlights how the tensions between some of the government's objectives – in particular those on no bias (providing for assumptions to be best estimates), consistency (allowing for similar treatment across all the schemes) and sustainability (changes in the cost caps including the effect of both experience and changes to assumptions) – impact upon the valuation results in practice.

Whilst it is important to reflect emerging experience when setting best estimate assumptions, the structure of the cost cap mechanism requires changes in costs resulting from amendments to certain assumptions to be recognised immediately, leading to potential volatility of outcomes. In due course (over many decades) any deviation between assumptions and experience will flow through the cost cap mechanism anyway – but if certain key assumptions were changed less frequently then this would come through at a slower rate and thereby lead to less volatility.

**Government objectives**

The government's initial objectives and principles for the valuation directions are described in the HMT 2014 policy paper "Public service pensions: actuarial valuations and the employer cost cap mechanism" published in March 2014[5]. This policy paper notes that the directions will ensure regular actuarial valuations of the reformed public service pension schemes are carried out on a transparent and consistent basis. The policy paper also notes a key objective – to ensure a fair balance of risks between scheme members and the taxpayer – with the cost cap mechanism providing backstop protection to taxpayers, to ensure that the risks of pension provision are shared with scheme members.

The paper also outlines nine principles which HMT had regard to in preparing the directions – completeness, no bias, discount rate, consistency, clarity, cost control, sustainability, technical immunity and stability.

You have confirmed in paragraph 7 of your letter that these objectives and principles continue to apply for the current round of actuarial valuations and the Amending Directions. Paragraph 4 of your letter also outlines six purposes which the Amending Directions are intended to achieve.

**Detailed professional opinion**

*Overall opinion*

Overall, I consider that the Amending Directions will deliver results which are, in the round, technically complete and coherent. I would note however that because this is the first valuation at which the cost cap mechanism has been tested and in view of the complex nature of actuarial valuations, it is impossible to be completely certain at a detailed level that the Amending Directions are fully technically complete and coherent until the valuations they apply to have been completed. Accordingly, it will be appropriate to keep the directions under review.

There are areas of conflict between some of the government's stated objectives (in particular, no bias and consistency) which mean that they cannot all be met in full and there are some trade-offs between them – although this is not due to a particular change in approach in the Amending Directions compared to the 2014 Directions.

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[5] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/289366/public_service_pensions_actuarial_valuations_130314.pdf

Many of the objectives (such as clarity, cost control, sustainability and stability) relate to information disclosed in valuation reports and the approach to measuring changes in the cost of the schemes against the employer cost cap. There have been limited amendments to the directions in these areas, and the proposals in the Amending Directions largely continue to meet the requirements of these objectives (and to the same extent that they did in the 2014 Directions).

However, the technical immunity objective (which requires the cost cap to be unaffected by changes to the discount rate, long-term earnings growth and price inflation assumptions) is not being precisely complied with, as these assumptions do have an impact, albeit a marginal one, on the size of the cost cap breaches in the 2016 valuations. It would be possible to adjust the Amending Directions to remove some of these effects if that is desired, to improve consistency with the original policy intent. To do this would require "hard-coding" the SCAPE discount rate assumption of 3% per annum used to set the initial employer cost caps into the cost cap mechanism and could give rise to tensions relative to some of the other objectives. This may be something the government would prefer to consider in more detail as part of the review of the cost cap mechanism in due course.

The draft Amending Directions introduce additional requirements for actuarial certification of the rectification of any cost cap breaches, which are relevant to some of the objectives (in particular no bias and consistency). It should be noted that the structure of the directions means that cost cap costs can only be changed by amending the value of benefits for current active members (not deferred members or pensioners) and only in respect of accrual in certain periods[6]. The draft Amending Directions will accommodate certain simple rectifications, for example an increase to accrual rates. But, to the extent that different scheme benefit improvements are proposed, there could be a need to make further changes to the Amending Directions. This is because improvements to certain benefits may influence changes in member behaviours, the prospect of which may result in the need to revisit demographic assumptions. For example, changes to schemes' retirement lump sum provisions might lead to a need to consider changing the assumption about take-up of commutation in order to maintain assumptions that are consistent.

As this actuarial certification is a new feature of the valuation process which has yet to be worked through in practice, careful consideration will be needed of how this will operate under the Amending Directions. Accordingly, whilst you may be content to finalise the draft Amending Directions so that final valuation reports can be issued, as noted in your letter you may need to consider whether any further amendments should be made to the Amending Directions before the cost cap breach certification process is complete, should any issues arise as part of this process.

*More detailed commentary*

In this section I comment in more detail on the extent to which each of the objectives set out in your letter is being met by the draft Amending Directions. Note that the paragraph numbers quoted are those that would appear in the consolidated directions (after the draft Amending Directions have been implemented), rather than the paragraph numbers from the Amending Directions themselves.

In my opinion, each of the six purposes listed in paragraph 4 of your letter is fulfilled in the draft Amending Directions, as set out in the table on the next page, subject to the further comments I make below regarding the specific objectives.

[6] For example, the cost cap cost of the schemes will not be affected by changes which affect the value of benefits built up in the 3-year period between the valuation date and the implementation date for new employer contribution rates, or changes to the value of future service benefits for any protected active members who remain in the final salary schemes.

| Purpose | Direction numbers |
|---|---|
| (a) to update the assumptions that the directions require schemes to use in completing their valuations to current central best estimates (without any adjustment for prudence or optimism); | 14 - 18 |
| (b) to deliver the previous commitment to broadly exclude the impact of SCAPE discount rate changes from the cost cap mechanism; | 30 - 42A |
| (c) to implement the government's decision to change the SCAPE discount rate from 2.8% plus CPI to 2.4% plus CPI, which was confirmed at Budget 2018; | 18(a), 25(4) |
| (d) to extend the directions to clarify the process for actuarial costings and reporting in relation to rectifying any cost cap breaches; | 49A - 49D |
| (e) to improve the transparency of the valuation reports by enhancing the disclosure requirements; and | 21, 23 |
| (f) to make miscellaneous changes to ensure that the valuations operate as intended, one of these is a technical change that is relevant for all schemes - all the others relate to scheme specific issues that have emerged since the previous valuations (generally relating to valuation timing cycles, litigation outcomes or data quality). | 2, 6, 8, 25, 35, 47, 50, 55 and Schedules 1, 2, 3 |

I comment below on the nine objectives set out in paragraph 7 of your letter.

- *Completeness – "employer and employee contributions, taken together, reflect the full costs of the benefits provided by public service pension schemes, including any past service effects that arise between valuations"*

The specified actuarial methodology of the projected unit method (*see Direction 11*) provides for contributions to reflect the expected cost of benefits provided over the period following the valuation, based on the assumptions adopted (although it should be recognised that the cost as a percentage of pensionable pay would increase if the workforce ages).

The specification of notional assets for the first valuations (*see Direction 25*) for each scheme fits with this objective, by including any past service effects that have arisen since previous valuations. This does lead to a tension with the consistency objective, although it is consistent with the approach adopted for the 2014 Directions.

The Amending Directions include amendments to ensure that the relevant costs of the additional lump sums paid out as a result of the Milne v GAD litigation, and the additional costs arising from the retrospective introduction of the Fee-Paid Judges pension scheme in 2017, are reflected in employer contribution rates *(see Direction 25)*, which is consistent with this objective.

Lastly, the Amending Directions update the notional assets for the civil service scheme, resulting from a discrepancy in the 2012 valuation data *(see Schedule 2)*. This is consistent with the treatment of similar data issues for other schemes which arose during the 2012 valuations and is in line with the completeness objective.

- *No bias – "assumptions used to assess costs should be best estimates, with no margin for prudence or optimism"*

The Amending Directions specify a number of assumptions that must be used by all schemes in their valuations *(see Directions 14 to 18)*. These include:

  - Economic and financial assumptions – these are based on economic forecasts produced by the OBR, as set out in the Economic and Fiscal Outlook (EFO) published in March 2018, which are intended to be best estimates without any margins for prudence or optimism.

  - Assumptions for future changes in life expectancy – these are based on the principal population projections for the UK produced by the ONS, which are produced on a best estimate basis. I note that, in the technical annex to the draft Amending Directions which you published in September 2018 ("the technical annex"), you express the view that whilst there is some emerging evidence that public service pension scheme life expectancy changes may not fully align to the general population experience, there is no clear trend at the moment to justify changing from the current approach of using the latest principal population projections. I would concur with this view.

  - The pattern of future State Pension ages to be assumed in the valuations – this is in line with currently published legislation governing such changes.

  - Commutation assumption – this has been updated from 15% to 17.5% to reflect recent experience and has been set on a best estimate basis, as explained in the technical annex.

Whilst these assumptions are set to be in line with the no bias objective, the technical annex noted that the assumptions for pension increases and earnings would not be updated to reflect any further EFO in the next 12 months. In particular, this means that no account has been taken of the updated forecasts set out in the EFO published in October 2018. This approach is reasonable from a practical perspective since a line has to be drawn somewhere to enable calculations to be carried out, noting that schemes will be signing their valuation reports at different dates (some of which may be after future EFOs have been issued). Drawing this line supports the consistency objective but does lead to the potential for the no bias objective to become compromised.

For assumptions which are determined on a scheme-specific basis, the directions state that these "must be the responsible authority's best estimates and not include margins for prudence or optimism" *(see Direction 19)*, which is in line with the no bias objective.

- *Discount rate – "the discount rate will be 2.4% per annum plus CPI, in line with the Office for Budget Responsibility's long-term growth forecasts, as set out in their July 2018 Fiscal Sustainability Report"*

The SCAPE discount rate is subject to a separate review process, and was reduced to CPI+2.4% pa at the 2018 Budget. My letter of 25 October 2018 (in response to your letter of 23 October) sets out my professional opinion on this change[7]. The Amending Directions reflect this confirmed change to the SCAPE discount rate *(see Direction 18)*.

[7] These letters are set out in Appendix C to this letter

- *Consistency – "valuations of all public schemes should be consistent, allowing for comparisons to be made across schemes, including over time. Where different scheme workforces have different characteristics, then there should be consistency in the way that assumptions are set"*

As noted above under the no bias objective, the Amending Directions specify a number of assumptions that must be used by all schemes in their valuations and also state that other scheme-specific assumptions should be set on a best estimate basis. Whilst this is broadly in line with the consistency objective, there could still be inconsistencies between schemes for the simple reason that best estimates may be set in different ways for different schemes, based on experience levels that will differ by scheme. Thus, certain assumptions may vary for different schemes for reasons which may not be entirely attributable to genuine differences in workforce characteristics. In this regard, the directions effectively give the no bias objective precedence over the consistency objective, which is the same as the approach adopted in the 2014 Directions. You may wish to consider whether the balance is right between which assumptions are specified in the directions and which are set at a scheme-specific level – greater consistency between schemes could be achieved by specifying more assumptions in the directions, but this could create more tension with the no bias objective.

The proposed changes to the timings for the LGPS valuations *(see Direction 6)* are intended to assist with comparisons between schemes and hence would appear to be more in line with the consistency objective than the 2014 Directions. These proposals may also help with data problems associated with the LGPS valuations, noting the difficulty of obtaining reliable data for the cost cap valuations for LGPS when these are carried out at a different date to the scheme funding valuations. (I comment further on valuation data quality more generally in Appendix A to this letter.)

Similarly, the new requirement that any preliminary valuation which takes place after the 2014 Directions are amended will be carried out using the same assumptions as other schemes used to conduct preliminary valuations *(see Direction 50)* is also in line with this objective.

The proposed changes to reflect the position of the reformed pension scheme for the Security Services (*see Directions 6 and 50*) allow for different valuation dates and implementation periods for contribution rates as compared with those which apply for other schemes. This is not entirely in line with the consistency objective but is not unreasonable as the proposals do enable future scheme valuations to be aligned with the cycle of the other schemes.

The proposed changes in respect of the pension scheme for members of the National Assembly for Wales *(see Directions 47 and 55)* enable the cost cap mechanism to work in a different way to all other schemes covered by the directions, being based on future service accrual only, alongside some technical amendments regarding the membership profile. I note from your letter that these changes were not included in the draft Amending Directions published by HMT on 6 September 2018, but have been subsequently added to the draft Amending Directions for the purposes of your letter. The proposed approach does not appear to be in line with the consistency principle when considering the directions as a whole, in that it provides for a different cost cap mechanism to that which applies to all other schemes covered by the directions. You have noted in your letter that these amendments are, as requested by the Welsh Government, intended to align with the approach adopted in implementing reforms to the scheme for UK Government MPs, and so in this narrower context they are consistent. However, as currently drafted, these proposed amendments mean that there is a requirement to calculate and disclose a number of items for this scheme which would not appear to be necessary[8]. It should be noted that this is a funded scheme which carries out a separate funding valuation under the scheme rules to set the employer contribution rate and hence the valuation under the directions for this scheme is only required to determine whether there has been a breach in the cost cap. Accordingly, you may wish to consider whether these requirements could be removed, to avoid the additional costs associated with having to calculate these items which could be disproportionate given the small size of the scheme.

- *Clarity – "the Directions should lead to valuation reports that include sufficient information to allow those who are technically competent to understand how the valuation has been carried out. Valuations reports should provide clear and transparent assessments of schemes' costs, and reports should include information that may be helpful to scheme members and stakeholders in understanding the costs of providing benefits"*

The requirements for certain information to be published in scheme valuation reports are consistent with this objective *(see Direction 21)*. The Amending Directions provide for some additional information to be disclosed on the sensitivities to certain assumptions and information about projected levels of future service and payroll levels (beyond the requirements of the 2014 Directions), and these additions further complement the requirements of the clarity objective.

Additionally, the process introduced by the Amending Directions for scheme actuaries to follow for schemes which breach the cost cap *(see Direction 49)* should further add to compliance with the clarity objective.

- *Cost control – "the directions ensure that the 2016 valuation report includes valuation results that measure changes in the costs of the schemes against the employer costs cap (as envisaged in Section 12(4)(b) of the Act and as required by Section 12(5) of the Act)"*

The directions require disclosure of this information in the valuation reports *(see Direction 23)*, thus meeting the requirements of this objective. This is also consistent with the 2014 Directions.

- *Sustainability – "for each scheme, the measurement of changes in the cost of the scheme against the employer cost cap (as envisaged in Section 12(4)(b) of the Act and as required by Section 12(5) of the Act) includes effects of scheme experience and future valuation assumptions differing from the assumptions used to determine the employer cost cap"*

The methodology set out in the directions *(see Directions 30 to 43 and 48 to 53)* is in line with the requirements of this objective and is consistent with the 2014 Directions. However, as I have commented in this letter, the initial 2016 valuation results have highlighted how the majority of the changes in the scheme costs calculated using the cost cap mechanism have resulted from changes to the actuarial assumptions being adopted, with very little of the changes resulting directly from the effect of actual observed experience over the inter-valuation period.

[8] specifically, the value of the liabilities using direction assumptions, an analysis of changes in those liabilities, and an employer contribution rate for the scheme as if it was an unfunded scheme

- *Technical immunity – "the measurement of changes in the costs of the scheme against the employer cost cap excludes effects caused by changes to the discount rate, the long-term earnings assumptions or changes in the actuarial methodology used in the valuations"*

The methodology set out in the directions is largely in line with the requirements of this objective. In practice, however, the current structure does mean that changes to the discount rate and long-term earnings assumptions will affect the calculations to a certain minor extent.

This is because the choice of discount rate affects the calculation of the cost cap liabilities, and hence the size of any surplus or deficit which is then spread over a 15-year period. The long-term earnings growth assumption has a much bigger impact on the size of the initial fund than on the value of the cost cap liabilities, and because of this asymmetry a change to this assumption can also have an impact on the cost cap cost of the schemes.

These features have affected the scale of the cost cap breaches in the 2016 valuations. As I have noted, it would be possible to adjust the Amending Directions to remove some of these effects if that is desired to retain consistency with the original policy intent This would require "hard-coding" into the cost cap mechanism the SCAPE discount rate assumption of 3% per annum used to set the initial employer cost caps.

- *Stability – "for each scheme, the measurement of changes in the cost of the scheme against the employer cost cap excludes:*
    - *costs of the scheme which relate to the payment of benefits to deferred members and pensioner members in existing/connected schemes*
    - *changes in the cost of the new schemes which arise due to the effects of members having service in the existing schemes."*

The methodology set out in the directions *(see Directions 30 to 43 and 48 to 53)* is broadly in line with the requirements of this objective and is also consistent with the 2014 Directions.

**Further commentary**

Whilst I am content that the draft Amending Directions will deliver results which largely meet the stated objectives, it is important to recognise that there is much professional judgement involved in the scheme valuation process, particularly around the derivation of best estimate actuarial assumptions and the way in which certain objectives have been interpreted and prioritised by HMT. Additionally, it would be possible for a different balance of assumptions to be specified in the directions and set on a scheme-specific basis, which could materially affect the results. This means that it would be entirely possible for a different set of Amending Directions and/or valuation results to be produced which would meet the majority of the stated objectives equally well.

The cost cap breaches that have occurred are a result of the operation of the structure of the cost cap mechanism and the draft Amending Directions. The extent to which this is operating in line with the original policy intentions is a matter which could be looked at as part of the review of the cost cap mechanism.

In Appendix A to this letter I set out some general commentary in other areas, including a more detailed analysis of the impact of actuarial assumptions upon the initial valuation results.

*Compliance with technical standards*

This letter has been prepared in accordance with the applicable Technical Actuarial Standards: TAS 100 and TAS300 issued by the Financial Reporting Council (FRC). The FRC sets technical standards for actuarial work in the UK.

*Third party disclaimer*

This letter is addressed to HMT. The purpose of this letter is to give my professional opinion on the draft Public Service Pensions (Valuations and Employer Cost Cap) (Amendment) Directions 2018. I understand that HMT intend to publish this letter. Other than HMT, no person or third party is entitled to rely on the contents of this letter, and GAD has no liability to any person or third party for any act or failure to act based on this letter.

Yours sincerely

**Martin Clarke**
**Government Actuary**

## Appendix A – additional comments on the impact of actuarial assumptions and data quality

In this Appendix I set out some additional comments on various aspects of the directions, including a more detailed analysis of the impact of actuarial assumptions upon the initial valuation results and how these features may affect future valuations. Please note that this Appendix does not alter in any way my professional opinion on the Amending Directions, as stated in the main body of this letter, but is intended to provide some further context and relevant observations which may be worthy of further consideration.

*Background*

The directions specify a number of assumptions that must be used by all schemes in their valuations. These include the economic and financial assumptions (based on economic forecasts produced by the OBR), assumptions for future changes in life expectancy (based on population projections produced by the ONS), and certain commutation assumptions.

Most other assumptions are set on a scheme-specific basis, with a requirement that the Minister responsible for each scheme sets them as best estimates, without margins for prudence or optimism.

It should be noted that the assumptions that have been used in the valuations are based on current legislative requirements and do not allow for the potential impact of any changes that may be required to public service pension schemes as a result of age discrimination litigation that is currently in progress[9].

*Setting actuarial assumptions*

Whether assumptions are directed or set at scheme-specific level, it can be particularly challenging to set appropriate "best estimate" actuarial assumptions to project the future experience of pension schemes. Such assumption setting is an imprecise science – actual experience will almost inevitably deviate from previously set assumptions.

Even when there is a substantial body of past experience data, it can be challenging to analyse different aspects of scheme experience from the membership movement data. Trends can take decades to emerge and can change over time, making it difficult to determine suitable valuation assumptions. Where there are major changes to pension scheme design, as has been the case following the introduction of the new public service schemes, the process can be a lot more challenging given the lack of available relevant experience data. Therefore, one can only have relatively limited confidence in any central "best estimate" basis.

Hence, whilst it is important to regularly review the appropriateness of the assumptions that have been adopted, assumption-setting is a process of continual updating over successive valuations. Actuarial valuation results can be very sensitive to some of the assumptions adopted, and the impact of changing certain assumptions can lead to material changes in the resulting costs, which can be seen from the table on page 3 of this letter.

*Changes to short-term assumptions*

The tables below set out a summary of the short-term economic assumptions which are specified in the directions and how they have changed between those used in the preliminary valuations, mainly at 31 March 2012 (as set out in the 2014 Directions) and

[9] See https://www.gov.uk/employment-appeal-tribunal-decisions?tribunal_decision_categories%5B%5D=age-discrimination

those proposed for the first valuations, mainly at 31 March 2016 (as set out in the Amending Directions).

**Preliminary valuations, mainly at 31 March 2012 (as set out in 2014 Directions)**

| Assumption | CPI (April following year-end) | Earnings (April following year-end) | Public service earnings growth |
|---|---|---|---|
| Direction no. | 14 | 16 | 17 |
| Year | | | |
| 2016/17 | Long-term (2.0%) | 3.6% | 2.5% |
| 2017/18 | Long-term (2.0%) | 3.7% | 3.0% |
| 2018/19 | Long-term (2.0%) | 3.7% | 3.0% |
| 2019/20 | Long-term (2.0%) | Long-term (4.75%) | Long-term (4.75%) |
| 2020/21 | Long-term (2.0%) | Long-term (4.75%) | Long-term (4.75%) |
| 2021/22 | Long-term (2.0%) | Long-term (4.75%) | Long-term (4.75%) |
| 2022/23 | Long-term (2.0%) | Long-term (4.75%) | Long-term (4.75%) |
| 2023/24 | Long-term (2.0%) | Long-term (4.75%) | Long-term (4.75%) |

**First valuations, mainly at 31 March 2016 (as set out in Amending Directions)**

| Assumption | CPI (April following year-end) | Earnings (April following year-end) | Public service earnings growth |
|---|---|---|---|
| Direction no. | 14 | 16 | 17 |
| Year | | | |
| 2016/17 | n/a (order made) | n/a (order made) | 1.2% |
| 2017/18 | n/a (order made) | n/a (order made) | 2.2% |
| 2018/19 | 2.2%[10] | 2.7% | 2.1% |
| 2019/20 | 1.8% | 2.4% | 2.3% |
| 2020/21 | Long-term (2.0%) | 2.5% | 2.6% |
| 2021/22 | Long-term (2.0%) | 2.8% | 2.8% |
| 2022/23 | Long-term (2.0%) | 3.0% | 3.0% |
| 2023/24 | Long-term (2.0%) | Long-term (4.2%) | Long-term (4.2%) |

*Earnings growth*

The directions specify the assumptions to be used for general earnings growth. In the short-term period of 7 years from the valuation date, these assumptions are derived from a combination of observed experience (over the initial period from the valuation date) and OBR projections for payroll per head for government employment, taking account of future agreed pay awards and applying a central pay drift assumption based on observed trends. The long-term assumption after this initial 7-year period is based on the OBR's long-term earnings forecast; this has changed from 4.75% a year at the 2012 valuations to 4.2% a year at the 2016 valuations.

The cut-off point of 7 years for the switch from short-term to long-term earnings assumptions is somewhat arbitrary, in line with the period of short-term projections published by the OBR. An alternative approach to smooth the transition from short-term to long-term assumptions could be to allow for the OBR's projected earnings assumptions beyond the initial 7-year period, noting that these do not reach the long-term rate of 4.2% per annum until 14 years after the valuation date in 2030/31 in the March 2018 EFO[11].

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[10] Note that the directions require that if the relevant pensions increase order for April 2019 (which is expected to be 2.4%, in line with September 2018 CPI) has been made when the valuation results are finalised, that this rate should be used instead of the 2.2% specified in the Amending Directions – if so, this will have a small impact on the valuation and cost cap results.

[11] See "Long-term economic determinants" spreadsheet at https://obr.uk/efo/economic-fiscal-outlook-march-2018/

Public sector earnings growth experience in recent years has been somewhat lower than was anticipated at the 2012 valuations, and short-term projections have changed substantially over the inter-valuation period. As a result, the short-term earnings growth assumptions for the period from 2016-2019 in the 2014 Directions for the 2012 valuations are markedly different to those in the draft Amending Directions for the 2016 valuations, as shown in the table above.
The structure of the directions means that the impact of this feeds through to the cost cap mechanism, and hence the change in the 2019-2023 earnings assumption – from a long-term rate in the initial cost cap fund set during the 2012 valuations to a short-term rate in the 2016 valuations – has resulted in a source of downwards cost cap pressure.

This highlights how each of the observed experience, the changes to future assumptions, the point of moving from short-term to long-term assumptions and the prescribed starting point for measuring the cost cap costs can have a material impact on the cost cap mechanism. These features result in an overall downwards cost pressure in the 2016 valuations of around 1.1% of pensionable pay (as shown in the table on page 3 of this letter).

*Mortality assumptions*

The impact of changing the post-retirement mortality assumptions is mainly the result of moving from using the ONS 2012-based population projections to the 2016-based projections, as specified in the Amending Directions. Schemes have also changed their baseline mortality assumptions in line with recent scheme experience, which has had a much smaller impact on the results. (There is also a minor impact shown in the table from improvements due to elapsed time[12].)

The ONS 2016-based projections are based on actual population experience up to 2016 then converge to a long-term rate of mortality improvement of 1.2% a year for most ages in 2041 (the 25th year of the projections) and thereafter. This is the same general long-term rate of improvement as the 2012-based projections.

However, life expectancies using the ONS 2016-based projections are on average lower than the comparable life expectancies using the 2012-based projections, reflecting a statistically significant slowdown in the long-term improvement in age-standardised mortality rates which has taken place during the early 2010s. This has resulted in a reduction to both the past service and accrual costs, as shown in the table on page 3 of this letter, illustrating how sensitive the cost cap mechanism is to changes in the mortality assumptions.

The ONS publishes new sets of population projections every two years and, despite the smoothing methodologies adopted, successive sets of ONS projections can produce significant variations in future improvement rates over the short to medium term (resulting in the effect noted in the previous paragraph). It is worth noting that initial population mortality experience since mid-2016 has been heavy and this may lead to further future downwards pressure on the cost cap cost of the schemes and employer contribution rates at the next valuations, depending upon how this trend progresses over the period until the ONS 2020-based projections are published.

Further, whilst the long-term improvement rate has remained consistent at 1.2% a year between the 2012-based and 2016-based projections, any change to this long-term rate in

[12] This is because a member aged 45 (for example) at the 2016 valuations will have a higher future life expectancy than a member aged 45 at the 2012 valuations

the future could have a much larger impact on the results of any future valuations which use such a new rate.

*Commutation assumptions*

The directions specify the assumption to be used by all schemes for the proportion of pension that members will exchange for a tax-free lump sum at retirement (for schemes where there is no automatic lump sum and where commutation is at the rate of £12 of lump sum for every £1 of pension surrendered). This assumption was specified as 15% for the 2012 valuations. Following analysis of recent experience data, HMT has determined that this is to be increased under the Amending Directions to 17.5% for the 2016 valuations. This change has the effect of reducing the accrual cost of the schemes, both for setting ongoing employer contribution rates and for assessing the impact under the cost cap mechanism, by around ¼% of pensionable pay.

The revised assumption is based on experience that has emerged following the introduction of the new schemes and that was not available at the time the previous assumption was set. The effect of changing the assumption is to reduce the cost cap cost of the schemes, but it is arguable whether the actual costs have reduced or whether the original assumption overstated them.

It could be argued that the commutation assumption does not necessarily need to be amended at this valuation to fully reflect the emerging experience. Whilst the assumption should be set on a best estimate basis, it could be appropriate to change it less frequently as more relevant experience emerges gradually over time. As noted in the main body of this letter, if certain assumptions were adjusted less frequently, this should lead to less volatility.

*Other demographic assumptions*

There are a number of other demographic assumptions which can have an impact on both employer contribution rates and the cost cap mechanism. These include assumptions for rates of withdrawals from active service, age retirement patterns, promotional pay scales, pre-retirement mortality rates, ill-health retirements and the proportion of members with dependants.

The initial 2016 valuation results indicate that for the majority of schemes, the effect of changing these assumptions is small on both employer contribution rates and the cost cap mechanism, with the recommended assumption changes mainly changing costs by less than ½% of pensionable pay. However, this is not exclusively the case – for example, for one of the larger schemes, the proposed changes to the demographic assumptions reduces the employer contribution rate by around 1½% of pensionable pay, much of which is as a result of proposed changes to the ill-health retirement assumptions.

For this scheme it is unlikely that there has been a fundamental shift in costs in recent years to this extent due to changes in ill-health retirement patterns, and more probable that recent experience data has suggested that a refinement to the previous assumption would be appropriate. However, along with introducing a sizeable reduction in employer contribution rates, the way that the cost cap mechanism operates means that the effect of refining the demographic assumptions at this valuation has been to contribute towards a required improvement in benefits.

*State Pension age*

The new public service schemes link normal pension age for future service accrual to a member's State Pension age (SPa). This design feature links the value of benefits accruing over time automatically to changes in SPa, noting the government's framework for changing SPa over time to reflect improvements in longevity[13].

However, there is a disconnect between the timing of changes to the mortality assumptions used in the scheme valuations (which under the directions policy will be updated every four years based on the latest ONS projections) and changes to legislated SPa timetables (which are less frequent, do not coincide precisely with valuation dates, and have a timing lag[14]). Further, this disconnect is effectively "hard-coded" into the starting point for the cost cap mechanism (at which point calculations were based on the ONS 2012-based principal projections and the SPa timetables in place at that time).

Although the link of normal pension age to SPa allows for some of the impact of changes in longevity over the long-term, these measures are not moving in tandem. The initial 2016 valuation results highlight how this can increase volatility in the short-term and lead to potential inconsistencies at valuations.

The table on page 3 of this letter also shows that SPa can have an impact on the changing cost of the schemes even when there are no changes to SPa timetables between valuations. This is because, for a pension scheme active membership at the 2016 valuations with the same average age as at the 2012 valuations, the SPa will on average be later as a result of legislated SPa timetables changing over time. This higher retirement age results in cost savings to the schemes, which has contributed a small downwards pressure on the cost cap costs of the schemes.

*Scheme membership profile*

A feature of defined benefit pension schemes is that employer costs are set on an aggregate basis across a scheme. When the membership profile of a scheme changes – for example, if the average age of the active scheme members increases or reduces – this can have a knock-on effect to the overall costs. As the directions require the estimation of the cost of benefit accrual for future periods, any change to assumptions about ageing in the future can also contribute to changes in expected costs.

The initial results of the 2016 valuations illustrate this point. Changes in the average age of the membership have impacted upon the employer contribution rates and cost cap costs of the schemes. For most schemes this is a fairly minor effect, but for one large scheme the effect has been much bigger. For this scheme, an unanticipated reduction in the average age of the active membership between the 2012 and 2016 valuations reduced the employer contribution rate and the cost cap costs by a little over ½% of pensionable pay.

The fact that this has affected one scheme much more than the others illustrates that this feature, similar to the effect of changing demographic assumptions, can also result in uncertainty and volatility – workforce profiles can change over time but the extent of such changes can be often difficult to anticipate in advance when setting valuation assumptions.

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[13] This framework, which was reviewed in 2017, seeks to maintain a proportion of up to 32% adult life in receipt of State Pension – although the methodology effectively shares the impact of increasing longevity between individuals and the government, as for each year of increased longevity, SPa (and hence normal pension age in the public service schemes) is increased by up to 0.68 years. See https://www.gov.uk/government/publications/state-pension-age-review-final-report

[14] Current legislation requires the SPa timetable to be reviewed at least every six years, but the legislated SPa timetable was not changed following the 2017 review.

*Valuation data quality*

The initial 2016 valuation results have highlighted a number of issues with the quality of the membership data provided for the purpose of the valuations. Valuation results are critically dependent on the quality and accuracy of the data used, and the various scheme actuaries for the relevant schemes have noted a number of issues:

- the data provided for the valuations was not fully correct and complete for all members and so approximations have necessarily been made to enable valuation calculations to be undertaken;
- data limitations have resulted in some difficulty in determining liability figures to a reasonable degree of accuracy;
- a lack of confidence in the data at any particular effective date and concerns about inconsistency with data at other relevant dates.

For some schemes, it was also noted that there are issues with the membership movement data, which could potentially feed through into the analysis of experience. This could therefore result in scheme experience appearing to deviate from the underlying reality over the inter-valuation period. This could then lead to unexplained changes from one valuation to the next which might need to be rectified by further changes to assumptions at future valuations, potentially introducing additional volatility.

There were previously a number of problems with data quality at the 2012 valuations. This led to a number of amendments to the 2014 Directions being required after they had originally been signed, to correct notional asset figures at the first valuations due to previous data errors for various schemes.

The initial 2016 valuation results highlight that data quality continues to be a major issue. This potentially means that benefit improvements made as part of the forthcoming cost cap rectification process may need to be revisited in future, if the extent of data deficiencies only becomes apparent at a subsequent valuation.

Accordingly, I would maintain that it is very important to consider initiatives to address valuation data deficiencies, in good time before the next round of valuations take place, to reduce the risk of these issues continuing to arise in the future. My colleagues in GAD are able to, and do, support these initiatives where appropriate.

## Appendix B – HMT letter

The following pages contain a copy of the letter from Conrad Smewing (HM Treasury) to Martin Clarke (Government Actuary) of 9 November 2018 regarding the draft Public Service Pensions (Valuations and Employer Cost Cap) (Amendment) Directions 2018.

# HM TREASURY

Conrad Smewing
Director, Public Spending

www.hm-treasury.gov.uk

1 Horse Guards Road
London
SW1A 2HQ

9 November 2018

Martin Clarke
Government Actuary
Via email

Dear Martin

**Public Service Pensions (Valuations and Employer Cost Cap) (Amendment) Directions 2018**

1. As you know, Section 11(2) of the Public Service Pensions Act 2013 (the Act) enables HM Treasury to make Directions regarding valuations of the public service pension schemes made under the Act, and relevant connected schemes. Section 12(3) of the Act also enables HM Treasury to make Directions setting out how the employer cost caps will be set for schemes made under the Act.

2. HM Treasury made directions, the Public Service Pensions (Valuations and Employer Cost Cap) Directions 2014 (the directions), under sections 11(2) and 12(3) of the Act on 11 March 2014. These directions set out when and how the first valuations of the schemes were to be undertaken, generally with an effective date of 31 March 2012, and the framework for subsequent valuations of the schemes. Minor amendments have been made since (four of which related to data issues emerging as the 2012 valuations were completed under these directions).

3. HM Treasury has considered the changes needed to the directions for the current valuations of the public service schemes, with an effective date of 31 March 2016. We have shared drafts and taken advice from your department in considering the necessary amendments to the directions and I am grateful to your officials for all their work. I am now writing to formally ask for your professional opinion on the proposed final directions, which I plan to make shortly to enable the valuations of the schemes to be concluded and for scheme managers to take necessary steps to implement changes from April 2019.

4. We are updating the directions to achieve 6 things:

   a. to update the assumptions that the directions require schemes to use in completing their valuations to current central best estimates (without any adjustment for prudence or optimism);

   b. to deliver the previous commitment to broadly exclude the impact of SCAPE discount rate changes from the cost cap mechanism;

   c. to implement the government's decision to change the SCAPE discount rate from 2.8% plus CPI to 2.4% plus CPI, which was confirmed at Budget 2018;

   d. to extend the directions to clarify the process for actuarial costings and reporting in relation to rectifying any cost cap breaches;

   e. to improve the transparency of the valuation reports by enhancing the disclosure requirements; and

   f. to make miscellaneous changes to ensure that the valuations operate as intended, one of these is a technical change that is relevant for all schemes - all the others relate to scheme specific issues that have emerged since the previous valuations (generally relating to valuation timing cycles, litigation outcomes or data quality).

5. The Treasury published a draft of the directions on 6 September 2018. Further detail on each of the amendments we are proposing was set out in the technical annex that was published alongside the draft directions. Since that publication we have drafted one further set of amendments to implement the cost cap mechanism for the pension scheme for Members of the National Assembly for Wales. These amendments deliver the approach requested by the Welsh Government which aligns the cost cap mechanism in the Welsh Assembly pension scheme with that adopted by the Independent Parliamentary Standards Authority in implementing reforms to the scheme for UK Government MPs.

6. The Chief Secretary to the Treasury set out, in her written ministerial statement on 6 September 2018 (HCWS945) that she would be asking you to conduct a review of the cost cap mechanism for the public service pension schemes. The Chief Secretary will write separately about the review, after the current valuations are completed.

7. Our objectives for the valuations continue to be:

a. Completeness – employer and employee contributions, taken together, reflect the full costs of the benefits provided by public service pension schemes, including any past service effects that arise between valuations;

b. No bias – assumptions used to assess costs should be best estimates, with no margin for prudence or optimism;

c. Discount rate – the discount rate will be 2.4% per annum plus CPI, in line with the Office for Budget Responsibility's long-term growth forecasts, as set out in their July 2018 Fiscal Sustainability Report;

d. Consistency - valuations of all public schemes should be consistent, allowing for comparisons to be made across schemes, including over time. Where different scheme workforces have different characteristics, then there should be consistency in the way that assumptions are set;

e. Clarity – the Directions should lead to valuation reports that include sufficient information to allow those who are technically competent to understand how the valuation has been carried out. Valuations reports should provide clear and transparent assessments of schemes' costs, and reports should include information that may be helpful to scheme members and stakeholders in understanding the costs of providing benefits;

f. Cost control – the directions ensure that the 2016 valuation report includes valuation results that measure changes in the costs of the schemes against the employer costs cap (as envisaged in Section 12(4)(b) of the Act and as required by Section 12(5) of the Act);

g. Sustainability – for each scheme, the measurement of changes in the cost of the scheme against the employer cost cap (as envisaged in Section 12(4)(b) of the Act and as required by Section 12(5) of the Act) includes effects of scheme experience and future valuation assumptions differing from the assumptions used to determine the employer cost cap;

h. Technical immunity – the measurement of changes in the costs of the scheme against the employer cost cap excludes effects caused by changes to the discount rate, the long-term earnings assumptions or changes in the actuarial methodology used in the valuations; and

i. Stability – for each scheme, the measurement of changes in the cost of the scheme against the employer cost cap excludes:

    - costs of the scheme which relate to the payment of benefits to deferred members and pensioner members in existing/connected schemes

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- changes in the cost of the new schemes which arise due to the effects of members having service in the existing schemes.

8. As has been noted in previous correspondence, the Treasury recognises that it is important that the Directions are kept under review in order to ensure that they deliver the Government's objectives. In particular, it was stated that the Treasury would review these Directions before each valuation round to ensure they remain fit for purpose.

9. I would be grateful if you could offer your professional opinion on these Directions (set out in the Appendix to this letter). In particular, I would welcome your views on the extent to which they meet the government's objectives and are technically complete and coherent.

10. We will consider whether further amendments to the directions are needed once scheme managers have identified the steps they wish to take in remedying any cost cap breaches.

11. I look forward to receiving your views.

Yours sincerely

**Conrad Smewing**

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