Pension Protection Fund

Response to consultation

Assumptions to be used for valuations

March 2023

1 Introduction

1.1 In January we published a consultation on changes to the actuarial assumptions required for valuations carried out under sections 143, 152, 156, 158 and 179 of the Pensions Act 2004. The consultation lasted six weeks and there were eleven responses, from the companies listed in Appendix 1 to this document. We would like to thank all those who took the time to respond, as well as the seven insurance companies who helped us shape the proposals.

1.2 Following consideration of the responses, we have decided to implement the proposed assumptions for section 143 and section 179 valuations in line with the consultation document. The new assumptions will take effect from 1 May 2023.

1.3 The updated assumptions guidance documents are now available on our website (version B10 for section 143 and version A11 for section 179). This document provides a summary of the responses that were given to the consultation.

2 Overview

2.1 The January consultation document contained a reminder of the ten principles that we have adopted for setting assumptions for section 143 and section 179 valuations[1]. These have been reproduced in Appendix 2 to this document.

2.2 The consultation also set out specific changes to the actuarial assumptions that the PPF believed to be appropriate. The most significant changes were as follows:

- to increase the discount rates for both the section 143 and section 179 basis to capture a reduction in insurer pricing since the last review,
- to adopt a yield curve approach for section 143 valuations, whereby the discount and inflation rates will differ for each future timestep,
- to change two of the indices used for the section 179 discount rates,
- to adopt the 2021 version of the CMI's model for the projection of mortality improvements with the core parameters except for an initial addition of 0.25% and a weighting of 10 per cent on the 2021 and 2022 experience data,
- to amend the wind-up and the benefit installation expenses to reflect the reduced value of future expenses following the recent increases to yields.

2.3 There was general agreement amongst respondents that bulk annuity prices had altered sufficiently as to merit a change to the assumptions at the present time. There was also strong support for the move to a yield curve approach for section 143 valuations. On the whole, the responses were sufficiently supportive that we have decided to proceed with our proposals.

2.4 Our consultation proposed the changes should come into effect from 1 April. Many respondents commented that this would mean valuations with an effective date of 31 March and 5 April would be carried out on the different sets of assumptions. As a result, we have changed our proposal and the new assumptions will take effect from 1 May 2023.

[1] Valuations carried out under sections 152, 156 and 158 will also be affected.

3 Responses to the six specific questions raised in the consultation document

3.1 *Question 1:* "Do you agree that we should introduce both section 143 and section 179 assumptions from 1 April 2023? If not, what date would be more appropriate?"

3.1.1 Many respondents suggested that we implement the basis from 1 May or a later date, so that the same set of assumptions could be used for schemes that have a year end of 31 March and those that have a year end of 5 April. One respondent suggested introducing the section 143 assumptions from 1 October, which is consistent with the timing that is currently expected for The Pensions Regulator's new Code of Practice.

3.2 *Question 2:* "Do you agree that it is appropriate to move to a yield curve approach for valuations under sections 143, 152 and 158 but that a single discount rate should be maintained for all other valuations, including section 179 and section 156 valuations? If not, please specify your reasons and the approach you would favour for each valuation type."

3.2.1 There was universal agreement that we should adopt a yield curve approach for section 143 valuations, and all bar one respondent agreed that we should continue to use a single discount rate approach for section 179 assumptions. This respondent felt that because The Pensions Regulator's proposed wind-up trigger for consolidators is linked to section 179 assumptions, we should seek to make section 179 valuations as accurate as possible so as to secure the best outcome for members.

3.2.2 One respondent suggested that we consider using a single discount rate for smaller schemes' section 143 valuations, perhaps schemes with fewer than 100 members. This would be consistent with The Pensions Regulator's new Code of Practice.

3.2.3 It was acknowledged that while a yield curve approach might be theoretically more accurate for section 156 valuations, it was acceptable to use a single rate approach on the grounds that if a scheme were to apply for entry to the PPF following an underfunded section 156 valuation, it would have to first carry out a section 158 valuation using a yield curve approach.

3.3 *Question 3:* "Do you foresee any problems in using these curves as a basis for determining the appropriate discount rate and inflation assumption when a curve-based approach is used? Are there any other curves that you believe would be more appropriate?"

3.3.1 All respondents agreed that the Bank of England curves could be incorporated into their valuation systems.

3.3.2 A few respondents noted that using swap-based rather than gilt-based curves would better capture the pricing of insurance companies, and the Merrill Lynch RPI curve was called out as being a more appropriate curve for deriving the CPI rate. However, these respondents also acknowledged the challenges associated with these curves, e.g. swap curves are generally only published for limited terms.

3.3.3 There was widespread acknowledgement that the Bank of England curves satisfied our desire for low cost and operational simplicity. Specifically, it was generally acknowledged that these curves have the advantage of being freely available and available at every date.

3.3.4 One respondent (LCP) suggested that we produce our own curves and provide these to the appointed actuaries who produce section 143 valuations.

3.3.5 It was observed by several respondents that the Bank of England curves are missing entries at some maturities, and it was requested that we are explicit in our guidance as to how actuaries should calculate the missing rates. It was noted that in a period of high short-term inflation our proposed methodology might unduly understate liabilities.

3.4 *Question 4*: "Do you foresee any potential issues incorporating the proposed approach into existing processes for section 143, 152 and 158 valuations? If so, are there any structural changes you would propose that would materially reduce the implementation burden?"

3.4.1 The vast majority of respondents commented that they would have no problem implementing the proposed approach.

3.4.2 A couple of respondents noted that while theoretically insurers will use term-dependent adjustments to their discount rate curves when pricing bulk annuities, a fixed adjustment will reduce the burden of implementation.

3.4.3 One respondent asked how frequently we would update the volatility assumption, as updating this more frequently would add to the costs of implementation.

3.4.4 One respondent felt that it would be disproportionate to precisely match the discount and inflation rates given that they already have in place processes to construct assumptions from the Bank of England curves. It was suggested that we could amend our valuation guidance to permit consultancies to use their existing in-house buyout curves, similar to how we permit bespoke mortality or expense assumptions if there is evidence to justify it.

3.4.5 One respondent suggested that we clarify in section 3.2 of the B10 assumptions guidance that the compound cap in deferment applies from the effective date rather than the date that non-pensioner members left the scheme.

3.5 *Question 5:* "Do you believe that the proposed assumptions are appropriate? If not, which assumptions do you believe should be changed, and why?"

3.5.1 There was widespread agreement that our current assumptions had moved out of line with insurance pricing and our changes were a move in the right direction.

3.5.2 One respondent suggested that pricing can be competitive for larger bulk annuity contracts and we cannot therefore be confident that in all cases we will be understating liabilities for larger schemes. Another separately stated that we could consider having different assumptions for schemes of different sizes, as pricing varies by size.

3.5.3 One respondent noted that splitting out the interest and inflation curves for section 143 purposes will make it easier to set assumptions for the purpose of the Bauer and Hampshire calculations that schemes are required to carry out as part of the section 143 approval process.

Discount rates

3.5.4 Respondents generally agreed that the discount rates satisfy our objective of erring on the side of understating liabilities based on prices they have seen in recent months.

3.5.5 A couple of respondents noted that bulk annuity prices are linked to the yield on credit assets and it was suggested that we incorporate an element of credit spreads in the discount rate.

3.5.6 A couple of respondents commented on the changes to supply and demand dynamics in the start of 2023 and the corresponding hardening of insurance prices.

Inflation rates

3.5.7 A number of respondents suggested that our assumption for CPI may be too high in respect of the period before 1 March 2030, as our assumption is the Bank of England inflation curve minus 20 basis points. It was suggested that our wedge of 20 basis points is too prudent and may therefore not satisfy our principle of erring on the side of understating the liabilities for non-pensioner members.

3.5.8 Other respondents were supportive of the adjustments with one specifically agreeing the proposal was in line with their observations of the gap between Bank of England and swap implied inflation and insurer pricing of CPI benefits.

Pension increase assumption

3.5.9 There was no major objection to the use of the Black 76 model, although it was noted by LCP that this model tends to understate liabilities relative to other models such as the SABR model.

3.5.10 One respondent suggested that an alternative would be to use the inflation assumption but to cap it annually at the 2.5 per cent cap.

Base mortality rates

3.5.11 A number of respondents agreed that the use of the SAPS S3 tables without adjustment was an appropriate approach.

3.5.12 One respondent suggested that we should adjust the base mortality tables to reflect the fact that they are calibrated using a lot of public sector scheme data, which might be expected to reflect different life expectancy than our universe of private sector schemes. It was also pointed out that the SAPS S3 tables contain a known error in relation to one particular scheme.

3.5.13 One respondent (LCP) suggested that we incorporate the different types of S3DF tables for female dependants.

3.5.14 Several respondents suggested that we could incorporate some degree of scheme specificity into the base tables, either via an adjustment to the mortality rates or the use of postcode-based tables. A couple of respondents suggested that we use different pension bandings, including separate bandings for deferred and pensioner members.

Mortality improvements

3.5.15 Several respondents agreed that we should move to the latest CMI table for mortality improvements and a few specifically agreed that our treatment for the pandemic years of 2020 and 2021 was appropriate and in line with the proposal for the CMI 2022 tables.

3.5.16 One respondent suggested that in isolation the improvement for females was too optimistic.

3.5.17 One respondent questioned whether our adjustments to the mortality table were spuriously accurate and whether adopting the tables unadjusted might be sufficiently accurate for our purposes.

3.5.18 One respondent commented that it would be useful to understand how we had arrived at our proposed assumptions.

Other demographic assumptions

3.5.19 One respondent felt that our proportion married assumption for relevant partners was too high. It was suggested that we use information from Club Vita (who provide us with mortality assumptions for our annual valuation of the PPF), consultancies and reinsurers to help inform this assumption.

Expenses

3.5.20 There was general agreement that the proposed changes to wind-up and benefit installation and payment expenses was appropriate. One respondent suggested that we introduce a minimum wind-up expense charge as the proposed expenses for small schemes are likely to be understated.

3.6 *Question 6:* "Do you have comments on any other matter in this consultation document which is not included in responses to the questions above?"

3.6.1 In the section 143 valuation guidance we permit schemes to use bespoke mortality assumptions if there is sufficient evidence in existence that justifies such a decision. One respondent suggested that we broaden out this option to include regional-specific mortality variations.

3.6.2 One respondent requested that we clarify our principle of "deliberately erring on the side of understating liabilities" and explain how it fits in with the scheme actuaries' requirement to certify that they are not understating liabilities.

3.6.3 One respondent asked us to consider broadening our principles to reflect the wider use of section 179 assumptions by consolidators. In this context, more frequent review and updates to the assumptions would be helpful in ensuring the correct outcome for members of consolidators.

4 Our decisions in response to the consultation

4.1 We have decided to introduce the bases proposed in our consultation. This decision is supported by the respondents' unanimous agreement that a yield curve approach is appropriate for section 143 valuations and the consensus that the proposed bases were a move in the right direction and succeed in understating the liabilities relative to current insurance pricing.

4.2 Many respondents observed that 31 March and 5 April are very common valuation dates. If we introduced the section 179 basis with effect from our proposed date of 1 April, this would mean that valuations carried out on these two dates would be based on different sets of assumptions. For this reason, we have decided to introduce the new assumptions from 1 May 2023.

4.3 We will continue to monitor insurance pricing monthly and complete a formal review of the bases at least every 6-months by discussing the bases with insurers.

Proposed improvements to assumptions suggested by respondents

4.4 We will continue to keep our approach to setting the assumptions under review, taking into account the individual suggestions made. There were a few areas of commonality amongst responses:

- There were a number of proposed refinements to the base mortality assumptions,
- It was suggested that we seek to incorporate some degree of the excess yield on credit assets over gilts (the "credit spread") into our discount rates,
- There were suggestions that a one-size-fits-all basis might not be appropriate for the smaller and larger schemes and that some form of differentiation based on scheme size should be introduced.

4.5 One respondent suggested that we introduce a minimum level of expenses. We have investigated this previously before but found that there was a wide range of expenses incurred by the smaller schemes during an assessment period. We therefore concluded that using a bespoke assumptions for smaller schemes remained more appropriate. As is the case for all our assumptions, we will keep this approach under review. For section 143 valuations, actuaries can always adopt a bespoke expense assumption if the real world expenses are different from the standard assumption.

4.6 A few commented on the "wedge" used in our assumption for CPI in the period to 1 March 2030. We start with a Bank of England RPI curve and then convert it to a CPI basis by deducting a "wedge" of 20 basis points, which is a lower deduction than some were expecting. For clarity we should note that this wedge comprises three elements:

- 80 basis points representing what we think is a realistic gap for actual RPI and CPI,
- a 40 basis point negative adjustment to allow for the fact that the BoE curve is derived from gilt yields whereas we think a curve derived from swap yields would better capture insurers' pricing,
- a further 20 basis points negative adjustment which represents the implicit inflation premium that we believe is captured in insurance companies' pricing bases.

Other points raised in the consultation

4.7 This section addresses points raised by respondents that were not about the individual assumptions per se but addressed broader points in relation to setting the bases.

4.8 One respondent asked how our principle of seeking to understate liabilities ties in with our requirement that scheme actuaries certify that they had **not** understated the liabilities for section 179 valuations. Here the distinction is that the two statements are relative to different baseline liabilities, specifically:

- Our principle for setting our section 143 and section 179 bases seeks to understate liabilities *relative to insurers' pricing bases.*
- The section 179 certification requires the actuaries to state that they haven't understated liabilities *relative to our published section 179 basis.*

4.9 One respondent asked how frequently we intend to update the volatility assumption that feeds into the Black 76 model. We intend to update it infrequently, in order that schemes do not incur the costs of recalibrating their models. However, if the underlying volatilities have moved materially, we will update the volatility and will publish this on our website.

4.10 One respondent commented that it would be useful to know how we had arrived at our proposed assumptions for mortality improvements. This is perhaps the most subjective of all the assumptions to set, but ultimately we are guided by the seven bulk annuity providers and what they believe is an appropriate assumption for approximating their pricing bases. The adjustment made was chosen as a pragmatic way of allowing for the change in pricing observed. We also pay attention to published survey information.

4.11 One respondent mentioned that the section 179 basis is used for the wind-up trigger for consolidators and therefore we should seek to make it as accurate as possible, and in particular adopt a yield curve approach for section 179 purposes. We believe, however, that it would cause a disproportionate cost for levy payers to require them to use a yield curve approach for section 179 valuations. Also it would significantly complicate the roll-forward that we use for calculating levies, which goes against our principle of simplifying levy calculations.

5 Feedback on the consultation

5.1 The Board would value any feedback on the effectiveness of this consultation process. If you have any comments, please contact:

Georgina Watson
Stakeholder Manager
Pension Protection Fund
Renaissance
12 Dingwall Road
Croydon, Surrey
CR0 2NA
Email: Georgina.Watson@ppf.co.uk

Appendix 1: list of respondents to the consultation

We would like to thank the following respondents for replying to our consultation:

Aon plc
Barnett Waddingham LLP
Broadstone
Clara-Pensions
Hymans Robertson LLP
LCP
Mercer
PricewaterhouseCoopers LLP
Spence
The Society of Pension Professionals
Willis Towers Watson

Appendix 2: Policy principles around setting assumptions

The Board has adopted the following ten principles to underlie the setting of assumptions for section 143 and section 179 valuations:

a) Compliance with the regulations. In particular, the assumptions are required to reflect insurance company buy-out pricing terms for PPF compensation.
b) Seeking evidence from confidential dialogue with market participants.
c) Seeking anecdotal evidence from consultants of the state of the market; a significant shift would indicate the need for a review of assumptions.
d) If the need for a review under principle (c) has not been invoked, nonetheless reviewing the market by speaking to market participants every year to eighteen months.
e) Proportionality (balancing the degree of precision with the cost, taking into account the purpose of the valuation).
f) Adoption of new tables and techniques as appropriate, having regard to the principle of proportionality.
g) Reasonable stability in the assumptions over time; i.e. frequent changes are undesirable.
h) Deliberately erring on the side of understating liabilities; i.e. assessing section 143 liabilities at a level that is believed for most schemes to be somewhat below the best market price.
i) Consulting with the pensions industry to check proposals.
j) Providing sufficient notification of changes.

These principles are not binding but the Board has made a commitment to follow them as far as possible.