# USS valuation

## Aon comments on March 2021 materials

Prepared for: Universities UK
Prepared by: John Coulthard FIA, Andrew Claringbold FIA, Joanna Davies FIA
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# Introduction

## Why bring you this report?

On 3 March 2021, the USS Trustee published seven documents (see “Document downloads”) which set out its decision on how current benefits are to be priced, along with various supporting information, following the consultation on the Technical Provisions.

After UUK’s request for the USS Trustee to review its decision, the USS Trustee has provided five further documents (same link as above, but under “Engagement”). The USS Trustee has said that it will not review its approach until an alternative proposal (on covenant support measures, contributions and benefit reform) or proposals are put forward, or until new information materialises.

In our 24 September 2020 paper, we suggested that the debate among stakeholders would be more meaningful if the USS Trustee provided options centred around the current contribution rate. Unfortunately, the USS Trustee has chosen to continue to focus on the cost of current benefits, which it believes is the appropriate process to follow.

We have been asked by UUK to comment on the USS materials, and to try to identify what benefit reform options may be plausible to the USS Trustee as part of an overall package – taking into account the alternative covenant support set out in UUK’s paper.

## Summary

Our view is that the USS Trustee is being overly prudent on the pre-retirement discount rate, but we acknowledge that this is the USS Trustee’s decision to make. We believe there is scope for the USS Trustee to revisit the discount rate – particularly in light of different covenant support and benefit packages, which may enable a resolution to the valuation. We also note that favourable market movements after the valuation date may help.

For benefit reform, we comment on a potential hybrid approach, and an alternative conditional indexation design which we explain in this paper. Ultimately, benefit reform is a matter for the JNC.

Please read our report alongside UUK’s consultation.

## Contents

# At a glance…

The USS Trustee has determined the cost of current benefits based on three covenant support scenarios.

The USS Trustee has handed the baton on to the JNC to decide how to respond. Universities UK (UUK) is consulting with employers to give the employer representatives at the JNC a clear mandate. This is not an easy task. The ultimate cost of benefits will be determined by an iterative loop involving the precise covenant support that is provided, and the nature of any benefit reform. The four key strands of the valuation are as follows:

**Covenant support**

The USS Trustee sets contributions that vary depending on the covenant support provided. They also mention additional scenarios are possible, including potentially contingent assets or contingent contributions.

1

**Prudence**

There remain disagreements in the approach taken by the USS Trustee, and the approach advocated by UUK in its response on behalf of employers. Ultimately, this is a USS Trustee decision due to the way the contribution Rule was drafted when the stakeholders established the scheme.

2

**Benefits**

If current contributions are to be maintained, then the USS Trustee's materials suggest that member benefits will need to be reformed. Benefit changes can also lead to revised actuarial assumptions, as reduced DB risk leads to less reliance on sponsor covenant in future. In this report we consider two broad paths – continuing with the DB hybrid, and conditional indexation.

3

**Post valuation experience**

Most schemes have seen positive experience since 31 March 2020. In USS's case, the bulk of the contribution rate is made up of the cost of new benefits. The position is not yet clear on whether post valuation experience will help overall, but it is something the USS Trustee will examine at 31 March 2021 – and this could become an important part of the discussions.

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# 1. Covenant support

We have been asked by UUK to focus primarily on Scenario 3, for consistency with the companion UUK report.

## Impact of covenant support

The Trustee's contribution rates for current benefits are 56.2% for current covenant, 49.6% if employers agree to the support package proposed by UUK, and 42.1% for an alternative set out by the USS Trustee (so-called Scenario 3). For reasons we explain, the first two scenarios are unlikely to be implementable with members.

While the extent of the difference in contribution rates is somewhat surprising, the USS Trustee's covenant advisers have in the past defended a Strong covenant rating to the Pensions Regulator (TPR), with TPR viewing the covenant as Tending to Strong. For this to continue, the USS Trustee requires additional covenant support. UUK comments on covenant support in more detail in their paper.

## Contingent assets

The USS Trustee states that better outcomes may be possible on contributions if employers are willing to pledge contingent assets. However, in a multi-employer scheme, it is difficult for employers to pledge specific assets to benefit other employers. Also, the special purpose vehicle mooted by the USS Trustee in the March 2020 consultation required cash contributions to be paid to this vehicle. While there was technically a saving on cash contributions to the scheme, this was offset by additional contributions to the special purpose vehicle, so the contribution savings were a mirage. UUK is again consulting on this topic.

## Contingent contributions

The arguments on contingent contributions are similarly well-rehearsed. It is difficult to see why the USS Trustee benefits from contingent contributions when it can unilaterally call a valuation and set contributions. The other main point encountered in earlier incarnations of this debate are that employers (and employees) require a high degree of budgeting certainty. Thus, the scope for contingent contributions is very modest, meaning they will have limited value. Similarly, UUK is consulting again on this.

# 2. Prudence

The actuarial valuation involves considering a best estimate cost of delivering benefits, and deciding how much prudence to layer on top. We agree with the USS Trustee that different stakeholders can legitimately hold different views on what prudence is appropriate. But given its unilateral contribution power, it is incumbent on the USS Trustee to explain very clearly why it has made particular decisions.

## Technical Provisions

The Technical Provisions assumptions determine the amount of deficit or surplus, and the cost of new benefits. The USS Trustee has a unilateral contribution power. The USS Trustee must take advice from their Scheme Actuary, and consult with UUK. In practice they will also consider input from the covenant advisers, and from the Pensions Regulator since the USS is one of the schemes TPR has placed under regulatory supervision.

In reviewing the approach, our primary focus has been to test the USS Trustee's assumptions against the views of the Joint Expert Panel (JEP) set out in their two reports, allowing for Aon views on how these should be updated to the valuation date. The JEP conclusions, including the dual discount rate and suggestions for how these are set, were supported overwhelmingly by employers. And the experts on the JEP considered a range of views – some more prudent, some less prudent – before coming to a considered view.

Viewed in this way, there is no disagreement on the technical provisions at 31 March 2020 aside from:

- The "pre-retirement discount rate". This is the rate of interest used to value benefits in the period before members retire. It is a particularly important assumption for an open scheme.
- The salary increase assumption (particularly as applies in Metric A which influences the pre-retirement discount rate, and also the Recovery Plan).

**Pre-retirement discount rate**

Our principal issue with the Trustee's material is that they have not explained why UUK's suggestion of Gilts+3.5% p.a. is unacceptable. There are references to the *"employers having strong views"*, and to the USS Trustee believing it has *"given appropriate weight and consideration to UUK's formal response to the TP consultation"*, but no explanation for why UUK's response has been rejected. We believe it is good governance to be able to explain why a specific discount rate was set, and why requested alternatives were rejected.

The range of discount rates considered in the September 2020 consultation was Gilts+2% p.a. to Gilts+3.5% p.a. Now, the range of the three scenarios is Gilts+2% p.a. to Gilts+2.5% p.a., i.e. we are confined to the bottom third of the original range – whereas we believe the top-end is appropriate as at 31 March 2020.

We have interpreted the USS Trustee's assumptions through its IRM framework. The table sets out the "headroom" for the three metrics for Scenarios 1 to 3. In the rightmost column, we add Scenario 3* which uses a Gilts+3% p.a. discount rate.

**How does Gilts+3% p.a. stack up against USS Trustee's own IRM framework?**

| Headroom | Threshold for green/red | Scenario 1 | Scenario 2 | Scenario 3 | Scenario 3* (Gilts+3%) |
|---|---|---|---|---|---|
| Metric A | £7-8Bn | £9-11Bn | £8-11Bn | £10-13Bn | £7.3-10.3Bn |
| Metric B | 0 | -£7-9Bn | -£5-8Bn | -£2-5Bn | -£2-5Bn |
| Metric C | £15-19Bn | £28Bn | £33Bn | £41Bn | £41Bn |

Source: Page 44 of main Trustee response, with Scenario 3* figures calculated by Aon. Please see this document for more detail of the USS Trustee's metrics

For metric A, the Scenario 3* headroom figures look more comparable to Scenarios 1 and 2 than Scenario 3 does, in our view. While Metrics B and C are unchanged. Indeed, we can see why Gilts+3% p.a. was the USS Trustee's starting point before Christmas for Scenario 3.

In the Trustee's 29 March letter, the explanation for moving from Gilts+3% to Gilts+2.5% p.a. is that the trustee took time to refine and finalise its position – meeting nine times and considering a significant amount of additional analysis, and taking *"proportionate account"* of input from TPR. However, we are concerned that we are hearing about process, rather than why decisions have been made. If no rationale can be articulated, then this also casts doubt on how the assumptions will be set at future dates. We comment further on this in section 4.

Scenario 3* differs from Scenario 3 only as it relates to Metric A. We set out the derivation of Metric A in more detail below:

**Metric A**

| | Scenario 1 | Scenario 2 | Scenario 3 | Scenario 3* (Gilts+3%) |
|---|---|---|---|---|
| *ARC | 26-28 | 27-30 | 30-33 | 30-33 |
| Discount rate for calculating ARC | Gilts+2.2% | Gilts+1.9% | Gilts+1.2% | Gilts+1.2% |
| **Self-sufficiency minus Technical provisions | 17.1 | 18.9 | 20.1 | 22.7 |
| Metric A (* minus **) | £9-11Bn | £8-11Bn | £10-13Bn | £7.3-10.3Bn |

Source: ARC Discount rate provided by USS Trustee in respect to question from UUK

Note: ARC = Affordable risk capacity = NPV of 10% of pay for 30 years

Metric A is highly sensitive to the input parameters much in the same way as blighted Test 1. For example, if a salary increases assumption of CPI+1.5% p.a. was adopted as for the ARC calculation (rather than CPI+1% p.a.), then this would provide an additional £2.5Bn of buffer which

## Pensions jargon alert

The three IRM metrics are extraordinarily technical, but Metric A in particular seems key for how the Trustee sets the pre-retirement discount rate.

could enable a Gilts+3.5% p.a. discount rate to be justified under this framework. A similar effect would arise if employers were assumed to pay 10.5% rather than 10%. Another odd feature of Metric A is that the calculation is extremely sensitive to the "discount rate" the USS Trustee uses for calculating the ARC. This subjective judgement then informs what discount rate is used for the technical provisions. We find this circularity peculiar.

While the USS Trustee does not explain why the UUK proposal (or indeed Gilts+3% p.a.) do not work, in various parts of the documents, we are presented with several arguments that relate to the discount rate. We consider these in more detail below.

- **Relative prudence.** The USS Trustee pushes back on claims of excessive prudence by arguing that the 2020 valuation approach is not "more prudent" than 2018 when looked at through other "lenses".
- **JEP report being overly relied on.** The USS Trustee posits that the JEP did not recommend a set of discount rates, and claims that the *"illustrations provided in its second report were simply to show how a dual discount rate approach could work".*
- **TPR influence.** The USS Trustee comments on the role of TPR.

## Comment

Our view is that a higher discount rate can be justified, and for a resolution to be found to the valuation, the final package (including covenant support and benefit reform) will need to include movement from the USS Trustee on the prudence applied.

**Relative prudence**

Earlier in the valuation process, the USS defined prudence quite simply for the VMDF: "In the 2017 and 2018 valuations we defined the prudence to correspond to a 67% probability". The deficit would have been lower had the 2018 valuation approach been adopted (with the same discount rate methodology, and using a 67$^{th}$ percentile).

The USS Trustee has responded to the criticism of increased prudence by providing what feels like a hall of mirrors, where we are invited to compare the prudence in the 2020 and 2017/8 valuations using five different "lenses" (or in fact ten, since many of the lenses are shown in multiple ways). This attempts to show that prudence is unchanged if looked at differently.

It is true that there is no uniformly accepted definition of prudence, and therefore different perspectives are possible. Our view is that the analysis does not demonstrate what USS thinks it does, and we set out more detailed comments in the Appendix.

Curiously, after writing this section, we have seen the USS Trustee's letter of 29 March. This now suggests that since the covenant is weaker for 2020 than it assumed for the 2018 valuation, this corresponds to taking less risk which means higher contributions. So, the basis is more prudent after all. (Although, in response to one of UUK's questions about the March materials, we understand that UUK were told the Trustee is not contending that the covenant is weaker than in the 2018 valuation. It is a little confusing.)

**JEP report**

The UUK response to the consultation placed material weight on the findings of the JEP. After all, this group – set up by UUK and UCU – provided an independent review of the valuation in its entirety, and made a series of comments designed to help pave the way for better valuations in future.

The USS Trustee has responded to this by focusing on the caveats included in the JEP document, and claiming the *"illustrations provided in its second report were simply to show how a dual discount rate approach could work".* This explanation was repeated in the USS Trustee's latest letter of 29 March 2021.

To our mind, the JEP's caveats about not wishing to provide a formal recommendation are understandable from a legal perspective given that the JEP constitutes seven private individuals.

Moreover, in their second report, the JEP suggested a pre-retirement discount rate of Gilts+3% p.a. would "*enable some reduction in deficit"* and *"strongly encouraged the Trustee to explore whether a move to this assumption may be permitted"*. This does not suggest that Gilts+3% was put forward merely to help show how a dual discount rate approach could work.

In our advice, we noted that Gilts+3.5% p.a. was comparable at the valuation date to Gilts+3% p.a. when the JEP issued its report, which led to the UUK position (following consultation with employers).

## JEP suggestion

It is clear to us that the JEP's suggestion of Gilts+3% p.a. goes well beyond a mere illustration to show how a dual discount rate approach could work.

**Pensions Regulator**

The USS Trustee position on Scenario 3 changed from suggesting a discount rate of Gilts+3% p.a. before Christmas, to the Rule 76 report setting out a discount rate of Gilts+2.5% p.a.

The Pensions Regulator states that it views Gilts+2.5% p.a. as being on the limit of compliance with legislation.

TPR appears to have been partly responsible for the USS Trustee's decision to change from a pre-Christmas position of Gilts+3% p.a. to Gilts+2.5% p.a. In its latest letter, the USS Trustee seeks to portray TPR's input as being one of a number of factors, and we have no way of knowing whether it was decisive. In the past, the USS Trustee's covenant advisers have stood firm with a different view on covenant to TPR. It does seem that the USS Trustee has been more malleable on the actuarial assumptions.

**Salary increase assumption**

On the salary increase assumption, UUK had supported CPI+2% p.a.

- For the recovery plan, the Trustee has decided to adopt CPI+1.5% p.a., largely because only 70% of employers supported CPI+2% with around 30% not giving a view. The practical impact of the difference is that 8.5% deficit contributions under Scenario 3 would become about 8.2% on using CPI+2% p.a. However, it is not clear at this stage whether this is worth pursuing since the final deficit contribution may be floored at 6% (the rate that applies from 1 October 2021). We comment further on this point in section 3a.
- For metric A, the Trustee has decided to adopt CPI+1% p.a. described as *"consistent with the long-run revenue growth rates"*. This has a material impact on this metric, as noted above. Our main issue is on the suitability of metric A to make decisions.

## Recovery Plan

We are in a strange position where the USS Trustee has effectively decided the recovery plan for the purpose of the Rule 76 report, and has asked the JNC to decide what to do next, but we have not yet had the recovery plan consultation with UUK. (Having said that, the USS Trustee only need consult, and can disregard feedback in favour of its own views.)

For Scenario 3, the proposed recovery plan is 15 years from the valuation date (with the new contribution rate assumed to apply from 1 October 2021). It allows for asset outperformance of 0.5% p.a. which we understand from USS broadly equates to 30% of the estimated gap between the effective discount rate and the best estimate investment return, assuming a 55% growth strategy at outset.

On the face of it, this is an improvement on the illustrated recovery plan from the September 2020 consultation, which showed a minimum overall contribution of 40.8% on using an 8-year recovery plan with 0.5% p.a. asset outperformance. However, this used a Gilts+3.5% p.a. discount rate, so what the USS Trustee has given through the Recovery Plan, has been more than taken away by strengthening the discount rate leading to a higher contribution of 42.1%.

Viewing the recovery plan in isolation, our overall view is that it is in line with the JEP recommendations. We believe that there is justification in extending the recovery plan to a figure higher than 15 years (and within the 15-20-year JEP window), particularly under UUK's suggested new covenant support package. We may not achieve a one-to-one correspondence in terms of extending the moratorium and extending the recovery plan (and TPR suggested this in their letter), however a small extension could help provide valuable breathing space for a solution.

## IRM framework (integrated risk management)

The USS Trustee states that *"having an Integrated Risk Management Framework (IRMF) is a regulatory requirement"*. This is not strictly true, and many schemes do not have a formal IRM plan, although it is certainly good practice to do so. Our objections to the Trustee's three IRM metrics are:

- It is not entirely clear how they are used, and what impact employer feedback on the metrics would have on the end result. Our objections here remain, particularly in light of the discount rate discussion above. We question the merits of spending a lot of money and resources developing Metrics A to C and attempting to explain these to the stakeholders, if some other unspecified logic is used to override it.
- Open vs closed schemes. For an open scheme with a long-term investment strategy, the valuation results will be very volatile from one valuation to the next – because the assets are mismatched. It is only by chance that the scheme will be anywhere near its "expected" funding level at the next valuation. We are therefore concerned that the risk framework is more appropriate for a closed scheme, with a much better hedged investment strategy.

The USS Trustee also states that no credible alternative was put forward. We disagree. Linked to this, there is also some confusion about the smoothing approach UUK and Aon suggested:

*"UUK's advisor Aon stated that the precise figures for the TP basis should not matter, provided that a sensible 'smoothing' approach is then applied to the information at the valuation date. ... This would normally mean taking market conditions into account at other dates – not just the valuation date. We will examine post-valuation experience when we finalise the deficit recovery contributions… Actual market movements since the valuation date would imply an increase in future service contribution rates, so smoothing across post-valuation dates would (at the time of writing) imply higher future service contributions."*

The Aon suggestion, which USS modelled as part of the VMDF and which led to smoother contributions over time, made no attempt to use average market conditions after the valuation date (or before, for that matter). So, the bulk of the answer has no relevance.

We set out our suggested risk framework in a paper to the VMDF dated 7 April 2020. Much of the thinking around smoothing was informed by ideas presented by the USS Executive to the VMDF on 6 February 2020. As a recap:

- A dual discount rate helps the scheme achieve a funding level close to self-sufficiency in a reasonable period if really needed, as following a scheme closure, the post-retirement discount rate would merge over time into the self-sufficiency discount rate. In such a scenario this would also envision some continued investment in growth assets, which may be a more realistic guide to what the Trustee would do (rather than switching to a self-sufficiency portfolio as soon as possible, which is captured in the "asset transition risk" for Metric A).
- The post-retirement discount rate provides an in-built escape path to self-sufficiency. Therefore, it would be reasonable given the unique characteristics of covenant visibility to monitor risk primarily through the technical provisions.
- The primary risk to employers is that contribution rates increase. In turn, this leads to the risk of benefit reform being needed in a system where contributions are essentially fixed. A sensible IRM framework should avoid large changes in contributions (in either direction) to reduce cross-subsidies between generations.
- We suggested modelling a particular smoothed approach – with the post-retirement discount rate to be Gilts plus a fixed margin, and a pre-retirement discount rate of CPI plus a fixed margin. While this will not necessarily be perfect or capture every scenario, it provides transparency, and if there is adequate smoothing in converting the results to a new contribution rate, then some variability in implied prudence could be tolerated (rather than having a "perfect" discount rate, but introducing variability in overall prudence by adjusting the recovery plan parameters at each valuation anyway).

## Comment

Given the VMDF discussions on smoothing, and the modelling carried out by the USS team for June and August 2020 meetings, we cannot fathom why the USS Trustee has equated the "smoothing" suggestion to taking an average of market conditions in the period after the valuation date.

- As to the details of smoothing, the Trustee could identify an acceptable corridor for *future service contributions* vs the *future service cost* at each actuarial valuation. We suggested a simple corridor of ±10% relative to the contribution rate paid for the previous actuarial valuation (so only contribution increases or reductions outside of the corridor are applied, with the rest smoothed through the Recovery Plan). Similarly, the Recovery Plan contribution could be based on 15-20 years with 30%-60% asset outperformance. And then smoothing should be applied so that the Recovery Plan contribution is not changed from the deficit contributions as at the valuation date if this still results in a credible Recovery Plan.

The Trustee provided some modelling based on this approach to the VMDF, which they have published in a document entitled "*Scenario Testing & Stochastic Analysis: as discussed at the VMDF*" dated 28 August 2020. The modelling showed that the smoothing mechanisms largely did their job and led to a much more stable pattern of contributions at successive valuations, and hence reduced the intergenerational cross-subsidies.

## Interaction between benefits and assumptions

The USS is an open scheme with a payroll of around £9Bn. If current benefits were maintained, then the cost would be 31.1% under Scenario 3, and this would aggregate to around £8Bn of additional liabilities over 3 years. Over time, relatively small changes to the DB benefits being accrued can therefore have a noticeable impact on the overall size of the DB section of the scheme, and hence on the need to rely on sponsor covenant.

In discussions with UUK and Aon, the Pensions Regulator has indicated that, if future DB benefits are reduced, then it would assess any revised funding proposal overall and, as part of that, its views on the reasonableness of the discount rate. The USS Trustee has also signalled that the final assumptions would depend on both the final covenant support, and on any benefit reform agreed.

Modifying the assumptions considering benefits would be consistent with the approach taken for the 2014 and 2017 valuations. Here, Test 1 enabled the USS Trustee to translate different benefit options into different underlying discount rates. With the 2020 valuation approach, the IRM metrics do not consider the position in 20 years' time, so it is less obvious how to adjust the parameters if benefits are changed. It possibly makes sense to leave the post-retirement discount rate unaltered because it equals the self-sufficiency discount rate. And therefore, some relaxation of prudence could come either through the pre-retirement discount rate, and/or within the recovery plan parameters. In section 3a, we consider this further.

### Closing thoughts

Employers will be disappointed with the USS Trustee's decision on the assumptions.

The benefit reform options that are illustrated by the USS Trustee do not appear implementable, unless the USS Trustee is prepared to relax the assumptions in light of updated covenant support proposals, and any JNC proposals for benefit reform. We return to this in more detail in the next section.

# 3a. Benefits – Hybrid

In this section, we consider what benefit reform may be affordable assuming UUK's alternative covenant support suggestion is put to the USS Trustee, assuming 30.7% contributions are maintained, and making assumptions about how the USS Trustee would view the covenant support and benefit change.

Ultimately, pricing is a trustee decision, and the USS Trustee has said that it will not revisit its pricing unless packages are put forward by the JNC. There is a therefore a danger that the USS Trustee prices the benefits more conservatively than illustrated below. Conversely, others will argue that the USS Trustee should price benefits more cheaply. From a practical perspective, the longer the valuation goes on, the more likely it is that the 1 October 2021 contribution increase will apply. It is for this reason that Aon has been asked to fill in the gap and estimate what benefit packages may be affordable, noting the USS Trustee will not provide further information at this stage.

## USS examples

The USS Trustee examples of benefit reform do not make for pretty reading.

Scenario 1 would lead to the end of the hybrid benefit design with members effectively receiving a Defined Contribution (DC) benefit of 11.5% of salary but paying 9.6% of the costs.

Turning then to Scenarios 2 and 3, UUK have been supplied with an expanded table of high level illustrations:

| Scenario | DC contribution rate above threshold | Salary Threshold | Accrual rate for indexation: | | Estimated DIS / Ill-health element % pay |
|---|---|---|---|---|---|
| | | | Current | Capped at 2.5% p.a. | |
| **2** | 12% | £40k | 1/170 | 1/155 | 1.6% |
| | | £30k | 1/165 | 1/145 | 1.7% |
| **3** | 16% | £40k | 1/115 | 1/100 | 2.1% |
| | | £30k | 1/110 | 1/95 | 2.2% |

The Scenario 2 examples similarly make difficult reading. Ultimately benefit design is a matter for the JNC, and we offer the following comments:

- Moving the DC contribution rate from 20% to 12% will mean that members earning over the salary threshold (of £30,000 or £40,000) will pay contributions of 9.6% and will only receive an employer contribution of 2.4% on pay above the threshold. This will make the scheme materially less attractive to higher earners.

### Comment

The USS Trustee knows that the contributions for Scenario 1 are unaffordable, so it has reached the conclusion that without covenant support the scheme must close.

- Employers will pay 21.1% on earnings above the salary threshold, of which 2.4% would go to employees' DC pension funds, and the rest would subsidise the DB benefits and recovery plan. Since some employers pay more on average than others, this will lead to more substantial cross-subsidies between individual employers, undermining the mutuality of the scheme.
- The accrual rates are reduced substantially. The best rate illustrated is 1/145. This is almost exactly half of the current rate of 1/75. It is important to note that the USS provides a pension and a lump sum (where the accrual rate is 3x the pension accrual rate), so the accrual rates are not directly comparable to many other pension schemes; but 1/145 is clearly a low accrual rate even allowing for the cash accrual on top.
- For a member earning the current threshold of c.£60,000, they would find their DB benefits on the first £30,000 reduced by half; and they would only receive employer contributions of 2.4% on the remaining £30,000; and additionally, a 2.5% cap would apply to CPI linked benefit increases.

The illustrations provided for Scenario 2 are likely to be unimplementable.

For Scenario 3, our comments are:

- Assuming CPI increases are capped at 2.5%, then this gives 1/95ths accrual with a £30,000 threshold, (or 1/100ths with a £40,000 threshold). The DC contribution rate is moved to 16%, otherwise the accrual rates would look materially worse (around 1/110ths for both thresholds).
- For a member earning £60,000, the accrual rate would reduce by over a fifth on the first £30,000 of earnings. And for earnings between £30,000 and £60,000, they would receive an effective employer DC contribution of 6.4%. We are concerned that the resulting benefits would fail basic "value for money" tests by many employees, and therefore lead to opt-outs.
- Similarly, employers with a greater proportion of higher earners would face increased cross-subsidy issues (as well as disgruntled employees).

The USS Trustee's position is that they determine the cost of current benefits, and then it is over to the JNC to decide what to do. While it is difficult to take issue with the factual accuracy of the position, even with Scenario 3, our concern is that the benefit structures illustrated would lead to industrial dispute, and/or mass opt-outs.

## Possible alternative – £40,000 DB salary threshold, 1/85 accrual, CPI capped at 2.5%, and 20% DC

Here are two potential approaches that could lead to the above benefits being achievable:

**Impact of changing assumptions**

| Pre-retirement discount rate | Accrual rate | Future service contributions | Deficit contributions | Total contributions | Recovery plan length |
|---|---|---|---|---|---|
| Gilts+2.75% | 1/85 | 25.3% | 5.4% | 30.7% | c.18 years |
| Gilts+3% | 1/85 | 24.5% | 6.2% | 30.7% | c.15 years |

Source: Figures estimated by Aon based on data supplied by the USS Trustee

These figures are approximate and there are further options within the ranges shown, i.e. a discount rate between gilts+2.75% and gilts+3% coupled with a recovery plan length of between 15 and 18 years. In each case we assumed asset outperformance remains at 0.5% p.a. (albeit above a slightly higher average discount rate).

The USS Trustee has decided that it is not appropriate to give its views on how the assumptions might change – until the stakeholders provide concrete packages of covenant support, benefit reform, and contributions.

With the UUK covenant support proposal including a 20-year rolling moratorium, we note that the TPR letter implied that a longer recovery plan may be possible but that stakeholders should not expect a one-for-one correspondence between extending the moratorium and extending the recovery plan. In the latest USS Trustee response (Additional covenant support scenarios), our interpretation is that the Trustee may favour amending the discount rate rather than the recovery plan. We also understand that the USS Trustee may prefer to have a lower bound of 6% on the deficit contributions, since this is the rate due to apply from 1 October 2021, and the deficit is higher at 31 March 2020 than at the 2018 valuation and the 2017 valuation (when the 6% contribution was originally set, based on a deficit at the time of £7.5Bn).

If an 1/85 accrual were adopted, a £40,000 threshold, and a 2.5% cap on CPI linked benefits, then this would have the following consequences: For our example member earning £60,000, their DB accrual rate would be reduced by around 11.8% on the first £40,000 of earnings. And for earnings between £40,000 and £60,000, they would receive an effective employer DC contribution of 10.4% (along with 9.6% of employee contributions), which is an above-median employer contribution for a DC scheme.

If instead of reducing the accrual rate, it was maintained at 1/75, then a £30,000 salary threshold could be provided with a contribution rate of 30.7%. This can be done with a discount rate of Gilts+3% p.a. and an 18-year recovery plan; although this gives deficit contributions of about 4.7%, below the 6% due to apply from 1 October 2021.

The trade-offs between the accrual rate, salary threshold, 2.5% cap, and DC rate are ultimately a matter for the JNC – and therefore employers, and members and their representatives. Other changes may be also considered by the JNC.

### Value for money?

While the example here shows a material change to benefits, the resulting package does at least offer more obvious “value for money” for employers and members (compared with the examples provided by the USS Trustee).

It is for the JNC to determine what benefit reform is appropriate, and views on value for money are of course subjective.

## Future proofing

All else being equal, the more prudent the USS Trustee is in setting the actuarial assumptions, the more likely it is that the benefits are sustainable at future valuations. In any event, with prudent assumptions, there is a better than evens chance of benefits being sustainable at the next valuation. The sustainability could be improved if the USS Trustee were to adopt the smoothing mechanisms suggested earlier (which address cross-subsidies across generations). It would also help if the USS Trustee were more transparent about how the funding position is updated over time, so that stakeholders can be confident that prudence will not be increased at future valuations.

# 3b Benefits – Conditional Indexation

We now consider an alternative design that leads potentially to members receiving unchanged (or even higher benefits), provided good investment returns are achieved. However, because the design is quite unusual, it may take too long to implement to help resolve the 2020 valuation.

## Introduction to Conditional Indexation

Currently benefits for active and deferred members are increased by CPI up to retirement, and pensions in payment are also increased by CPI. A “soft cap” of 5% applies, meaning full increases are given up to 5%. Where CPI exceeds 5%, one-half of the excess above 5% is given with an upper ceiling of 10%.

With conditional indexation, there would be no change to past service benefits. For new benefits, the following changes would be made:

- Benefits for active and deferred members would not receive guaranteed increases up to retirement as currently, but instead would receive increases dependant on investment returns. The actual increase could be higher or lower than at present (and would not reduce once granted).
- Benefits for pensions in payment could be subject to a 2.5% p.a. cap, making increases above 2.5% also conditional on future investment returns.

## USS Trustee illustrations

The USS Trustee has provided illustrations of what benefits could be provided under this structure.

| Scenario | DC contribution rate above threshold | Salary Threshold | Indicative accrual rate (based on no pre-retirement indexation and indexation capped at 2.5% post retirement) |
|---|---|---|---|
| **2** | 12% | £40k | 1/110 |
| | | £30k | 1/105 |
| **3** | 16% | £40k | 1/75 |
| | | £30k | 1/70 |

Under Scenario 3, the scheme could maintain its current accrual rate but at the expense of bringing the salary threshold down to £40,000 and the total DC contributions above the threshold down to 16%.

## What might be feasible under alternative path

With guaranteed increases reduced, the amount of guaranteed DB benefits is reduced compared with the current benefits. This leads to the potential to adopt less conservative assumptions for a Conditional Indexation (CI) approach, for the same reasons as section 3a.

As before, we do not have any information from the USS Trustee on what it would accept.

We estimate the current threshold, accrual rate and DC contribution rate could be maintained if the USS Trustee were to accept a pre-retirement discount rate of Gilts+2.75% p.a., and deficit contributions of c.7.5% over a recovery plan length of 15 years, all else being equal.

## Implementation points

The current hybrid structure is not particularly simple. However, there is no doubt that it would be much easier to amend this than put in place a CI structure. We explain why below.

The main issues to address would include:

- **How conditional increases are decided.** The increases could be defined to be within a range (of 0% to say CPI+2% p.a). There may be a tension here between the employers and members requiring an objective and transparent approach, and the USS Trustee wanting to apply judgement. The practical issues are trust, and concerns about the trustee "spending" positive investment returns on increased prudence or investment de-risking.
- **Frequency of increases.** This should be an annual process, but means then that additional checks are needed by the Scheme Actuary on top of the usual three yearly valuation.
- **Uniformity or backfilling.** If a nil increase is given in one year, then the missing increase could effectively be "made good" at a broad level by paying more than CPI in future years if investment performance allows. This would be simpler than trying to "back-fill" missing increases.
- **Annual allowance.** Some members may receive an annual allowance tax charge if a high increase is given in a particular year. This should not be material for most members particularly if the maximum increase is capped, and there is no backfilling.
- **Past vs future.** An element of investment return from existing assets could be used to help pay for conditional increases. Our starting suggestion is to follow a similar approach to the Royal Mail CDC scheme where an increase is granted provided that the scheme is predicted to be able to meet that level of increases for all future years on CI benefits accrued; subject here to a check that the increase does not put the recovery plan behind track. This would mean that the investment returns on assets accumulated for existing benefits would be used first to meet the assumed investment performance in the recovery plan, before being available for benefit increases for CI. An alternative approach would be to

sectionalise the scheme for past and future; with the dual discount rate structure providing a blue-print for how existing benefits are funded as this section matures.

- **Automatic enrolment.** There is a practical issue with whether the benefit design meets automatic enrolment requirements. There are potential solutions to this, but it is another technical issue to work through.
- **Implementation** – comprising member communications, administration and other processes. There would be a material amount of work to consult on this benefit design with employees, to put the structure in place, and to maintain the structure over time.

Along with UUK, we have met with a delegation from the USS Executive and the Scheme Actuary to discuss each of these issues. This was a constructive discussion, and the USS Trustee seems keen to make a structure like this work if it is what the stakeholders want. One of the main barriers is timing. At this stage, it is not clear how long it would take to implement CI. An amended hybrid structure might therefore be needed for a temporary period while the CI structure is implemented, unless the USS Trustee is prepared to continue to offer current benefits for 30.7% for a short period until a CI structure can be put in place.

## Market practice

Conditional indexations schemes do exist, but they are rare. Aon is aware of two schemes it advises that adopt conditional indexation before retirement.

One of these cases is a very small subsection of a much larger scheme. Partly for expedience, full inflation increases have always been given, and it does not make a good case study.

For the second case, increases are given only at the employer's discretion. In practice, no increases were provided for around ten years (until 2020) with the employer preferring to ensure the scheme could de-risk and remain in surplus. This also does not make a good case study, as employer discretion would not work in a scheme where the USS Trustee has a unilateral contribution rule, or where benefit reform is a matter for the JNC.

We are aware that the Scheme Actuary's firm also has one case study. In addition, UCU's actuaries designed a similar solution for Royal Mail (the "Wage in Retirement", although Royal Mail adopted a CDC scheme design which is currently not possible for multi-employer schemes like the USS).

## Conditional indexation vs Hybrid

Ultimately, it is the views of the employers, members and their representatives that matter. However, as a starter for ten, we set out high level views on the advantages and disadvantages of introducing CI compared amending the hybrid scheme.

**Advantages of CI**

- May feel like less of a change from a member perspective if the accrual rate and salary threshold can be unaltered.
- Members have possibility of similar or increased benefits compared with status quo, and if it transpires that the USS Trustee is being overly prudent in its assumption choices and good investment returns emerge.
- Potentially reduces the need to redesign the scheme in future, as the scheme will move over time to have an increasing proportion of benefits that are CI in nature (rather than choose a hybrid structure at the edge of the USS Trustee and TPR's comfort level, and find this needs to be revisited again at future valuations).

**Disadvantages of CI**

- If increases are not given, then this could lead to tension and possibly to increased opt-outs. In particular parties may expect that positive experience must come through over longer periods, but this may not happen in practice.
- The stakeholders would be introducing CI at a point at which the scheme is assessed as having a record deficit. The USS Trustee will be focused on addressing this, and it may not be possible to agree to an objective mechanism to ensure that the wider stakeholders believe that conditional increases will actually be granted.
- Approach is less well-known, and will inevitably be more complex to implement.
- Some members may prefer an increased DC component through the Hybrid – where they may benefit more clearly from good investment returns on growth assets, rather than rely on the USS Trustee to pay higher benefits when investments perform well.

### Next steps

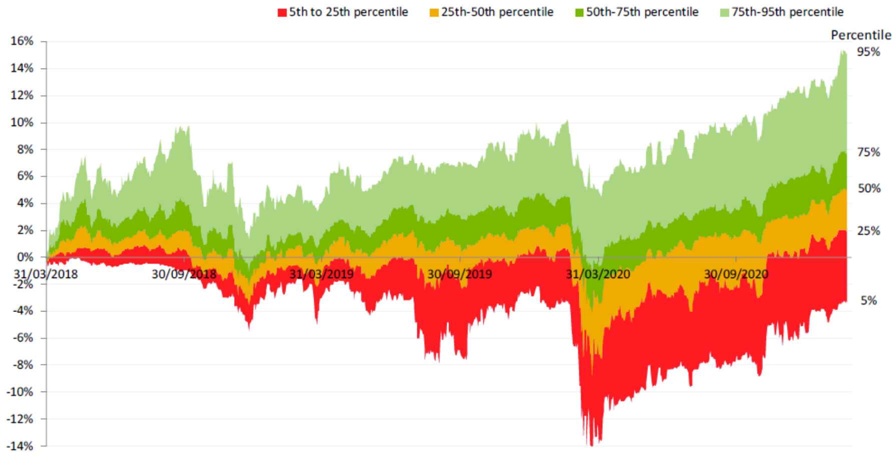
It is important for UUK to be given a steer from employers on whether this approach is worth investigating further.

It will be a lot of work for the stakeholders to turn the concept into an approach that can be implemented. This should only be undertaken if there is a realistic prospect that this will be the favoured approach.

# 4. Experience post valuation date

Generally, for UK pension schemes, 31 March 2020 was a poor date to carry out a valuation compared with market conditions at 31 March 2018. However, the position has since improved for most schemes.

This is illustrated in the chart below, which shows how the funding position of schemes set up on Aon's Risk Analyzer (a web-based daily monitoring tool) has developed since 31 March 2018 up until 28 February 2021.




If we stop the clock at 31 March 2020, it is interesting to note that the average funding level was around 3% lower than at 31 March 2018. The USS funding level fell by around 14% on this measure, so broadly in line with the poorest 5%. This is not necessarily cause for concern as the scheme has a long-term investment strategy commensurate with an open scheme with a strong covenant, and one would expect the position to be more volatile. Volatility is not a problem, as long as the USS trustee does not react as if it were running a closed scheme.

Schemes that performed less well over the two years to 31 March 2020 tended to have a low level of interest rate and inflation hedging. But, typically, these schemes have seen their fortunes rebound since then.

At 28 February 2021, the average scheme was around 5% better funded than at 31 March 2018, and the poorest 5% showed a fall of 3% or more. If the scheme had performed in line with the upper quartile, then it would now have a surplus which could be used to ameliorate the increased cost of future benefits.

Please note that these figures cover the funding positions of several hundred schemes with different investment strategies, covenant strengths and maturities, that employ a variety of approaches to updating actuarial assumptions, and have a range of deficit contributions payable.

### Poor date for valuation

Given the exceptional circumstances at 31 March 2020, there is a danger that too much can be read into the conclusions of a valuation at that date.

The intention of showing this chart is to provide market context for how the last three years have been for other UK schemes, and to show that 31 March 2020 was a particularly bad date. We comment further in the appendix.

## Improvement in funding position after valuation date

If the funding position has improved following the valuation date, then the USS Trustee can allow directly for this, as the Scheme Actuary can certify the Schedule of Contributions at either the valuation date, or at date of signing. However, if date of signing is used, then the stakeholders run the risk of conditions worsening between the JNC making a decision, a consultation with employees taking place, and the Schedule ultimately being signed.

This can be addressed as follows.

- The USS Trustee can allow for a portion of the improvement (for example 50%). This would lead to a “buffer” being maintained to give a good chance that benefits would not need to be revisited at the end of the process.
- An additional valuation could be carried out as at 31 March 2021, with a short-lived Schedule of Contributions applying for the 2020 valuation that is expected to be superseded quickly, like the 2017/2018 pairing of valuations.
- The USS Trustee could holistically take less prudence in the approach to reflect the known improvement in the position.

Some care is needed to avoid accusations of double counting, as the USS Trustee may wish to review its asset outperformance assumption in the recovery plan, if allowance for actual outperformance is made. However, this can be addressed by looking at the margin between the prudent discount rate and best estimate return at a more recent date, and if there is still a comparable gap, then future asset outperformance can be justified in the same way as at the valuation date.

## Updating the USS’s funding position – Aon estimate

It is normal market practice, particularly at the larger end of the UK market, for pension schemes to have daily updates available on the funding position over the internet and through a mobile phone app. This requires the valuation approach to be codified, meaning there should be a predefined way of working out how the financial assumptions update based on changes in market conditions.

While there may always be extreme circumstances that may require a specific adjustment to the assumptions at a given date, generally, having a well-understood approach increases trust among the stakeholders. It also makes it easier to manage the investment strategy against the funding target.

The approach suggested by the JEP was to adopt a post-retirement discount rate equal to the self-sufficiency discount rate. And the JEP suggested that the pre-retirement discount rate be set as a constant margin relative to CPI. UUK supported this approach. As a reminder, the JEP saw merit in this "CPI+" approach for reasons threefold:

• "*aligning the discount rate more closely to the growth in assets for this part of the portfolio*

• *aligning it more closely to the growth in the liabilities of the Scheme, and*

• *making it considerably easier for Stakeholders to understand."*

We believe the third point is particularly important against a backdrop of concerns that the USS Trustee is using the valuation as a means to secure unprecedented covenant support from employers, due we understand to Trinity College Cambridge exercising its right to leave the scheme, even though few other employers can afford the exit costs.

We have estimated the Scenario 3 funding position as at 28 February 2021 using the approach outlined by the JEP. We estimate that:

- The funding position under Scenario 3 would improve by about £10Bn, so from a deficit of £14.9Bn to a deficit of about £5Bn at 28 February 2021.
- The future service rate would be broadly unchanged compared with the position at 31 March 2020.

The figures would clearly be better if the prudence were also relaxed.

Notes: We assume that the post-retirement discount rate reverts to Gilts+0.75% p.a. for self-sufficiency (on the basis that an exception was made to increase the discount rate to Gilts+1% p.a. as at 31 March 2020); updated the pre-retirement discount rate relative to CPI; and used a slightly increased CPI assumption of 2.3% p.a. (updating the 2020 assumption in line with the change in Aon's best estimate views between 31 March 2020 and 28 February 2021).

### Important note

These figures are approximate, and it is likely that the USS Trustee will update the figures in a different way to that recommended by the JEP.

## USS approach to updating the funding position

UUK had asked the USS Trustee to explain how the updates of the funding position at 30 June, 30 September and 31 December 2020 have been carried out (approach used to derive assumptions, assumptions, and results); along with providing an updated assessment e.g. at 28 February 2021.

The USS Trustee's response (see part a) is a qualitative description of the factors considered, and makes no attempt to set out the assumptions adopted or results. We also do not yet have an update that can be shared from USS as at 28 February 2021.

The USS Trustee does not favour using the JEP suggestion of adopting a CPI+ pre-retirement discount rate (see here). The USS Trustee argues that: *"the major challenge in using a fixed spread over CPI for discounting pre-retirement liabilities is that the assets that are notionally held for these liabilities will, as we move through time and as economic conditions change, effectively be valued reflecting a changing spread over CPI. If the spread over CPI used for valuing the liabilities does not also change then this creates a mismatch."*

Our view is that this challenge is surmountable, for example as part of the investment consultation, the Trustee could consider a notional pre-retirement asset portfolio that targets CPI plus a fixed margin (where the fixed margin is higher than used for the discount rate).

We also believe that transparency would provide greater trust, and this is of more benefit to the stakeholders than having a discount rate that might be theoretically superior but known only to the USS Trustee.

The USS Trustee's technical response also seems to conflate how a discount rate is presented at a particular date, with how it is updated over time. In its 17 March note on using Gilts+ and CPI+ discount rates, the USS Trustee extols the virtue of presenting pre-retirement discount rates relative to gilts. We view this as an unwelcome change in position compared with the 2018 valuation consultation, where the USS Trustee stated: *"The Trustee considers that measuring discount rates relative to CPI is the most appropriate approach, as the scheme's liabilities for the main part are explicitly linked to CPI. By contrast, the Pensions Regulator prefers measuring discount rates relative to gilt yields."*

Of course, given the USS Trustee's unilateral contribution rule, it can in practice update the funding position as it sees fit. But we believe it would be in the USS Trustee's interests to explain clearly how it determines the final discount rate based on the packages put forward by the JNC, and to demystify the funding updates so that stakeholders are not reliant on Trustee judgement being exercised to know the funding level.

More positively, in her 29 March 2021 letter, the USS Trustee chair states that *"The board will also consider the funding position at 31 March 2021 in detail when it meets in May. This is ahead of when we expect UUK to have concluded their consultation with employers and finalise their proposals".* It is therefore possible that material new information may come to light sometime next month on this topic, and ahead of detailed JNC discussions on what benefit reform may be needed.

### Update to follow

In providing an update at 31 March 2021, we encourage the USS Trustee to embrace any market improvements following the valuation date, to help mitigate the impact of this valuation on employers and members.

# Next steps

This report should be read alongside the UUK consultation document.

If you have any questions on the Aon report, please raise them with UUK, or ask them on the upcoming webinars.

# Appendix – Further information

# USS briefing: Prudence in the 2020 valuation

This is a somewhat technical note from the USS Trustee.

## March 2020 consultation

In the original March 2020 consultation, the Trustee noted that *"the confidence levels shown were higher than those adopted at the 2018 valuation. Given the volatility and uncertainty in outlook based on market conditions at the valuation date, it is difficult to draw any firm conclusions from this analysis."*

The USS commented that using the same (67$^{th}$) confidence interval at the 2018 valuation this *"would result in pre-retirement discount rates of gilts+4.5% and gilts+3.4% for strategies of 55% and 40% growth assets respectively. The post-retirement discount rate would be gilts+1.2%. However, these rates fall outside the range we are prepared to accept for the valuation based on advice from the Scheme Actuary, taking into account our views of the employer covenant, the factors outlined above, and the proposed RMF [IRM] risk metrics."*

## Comments on Trustee's latest materials

The Trustee focuses on the question of how the prudence in the approach compares with the 2018 valuation.

The Trustee explanation relies on defining five separate "lenses", or ways of looking at prudence. There are a number of "sub-lenses", meaning that ten prudence measures are advanced in total.

**Lens 1 (Confidence level compared with last valuation)**

Lens 1a is essentially what was set out in the March consultation, and shows the USS Trustee adopting a higher confidence level compared with the previous valuation. The figures are not comparable as different investment strategies are assumed, however we understand that a more direct comparison using the 31 March 2018 valuation approach and a 67$^{th}$ percentile discount rate would have given a lower answer than the proposed technical provisions, so the overall message seems correct.

Lens 1b is the LCP version of 1a. This is described as *"approximate analysis"*, so limited reliance can be placed on the conclusion, and no details are given on what is assumed. The information is only provided for the 2020 valuation, rendering the information useless for comparing prudence to the previous valuation. It is reasonable for the Scheme Actuary to carry out their own sense check on prudence based on their assumptions, but we question why this information is provided since the margin for error could mean that the figures are misleading.

Lens 1c is in our view misleading. It is obvious that allowing for investment returns in the Recovery Plan will lead to lower contributions than if one did not. So, in isolation, we would agree that this is less prudent. However:

- Using a higher percentile rather than 67th percentile means stakeholders keep paying contributions until the scheme hits a higher technical provisions target, so it is inherently more prudent in the long-term even if you do allow for outperformance.
- If one uses the c.82nd percentile return for the pre-retirement discount rate, and the 67$^{th}$ percentile return on assets in the Recovery Plan, then based on USS's figures, this would lead to around 0.6% - 0.9% p.a. outperformance in the Recovery Plan. This is higher than the outperformance assumed of 0.5% for Scenario 3, so suggests a more prudent approach overall.

Lens 1d is the LCP version of 1c, again described as approximate and carried out only at a single date. Our comments from 1b and 1c apply.

**Lens 2 (Ratio of TP to best estimate liabilities)**

We agree that lens 2 provides a view on prudence – in essence it is a less sophisticated version of lens 1a. However, it is not clear what underlying investment strategies have been assumed for the comparisons. In particular if the dual discount rate approach assumes a different investment strategy is applied in practice, then the figures are not comparable.

**Lens 3 (Comparing TP and SS liabilities)**

Lens 3 is also a typical way of considering prudence for a closed scheme. USS quote that the ratio of TP/SS was 80% in 2018 (67.3/84.5) and 81% in 2020 (66.5/101.5). Therefore, there is here a slight increase in prudence. They also argue that prudence has increased because the SS-TP margin has increased (from 17.2 to 18.9). The equivalent pound figure was not provided for lens 2, perhaps because it showed a decrease.

The self-sufficiency target is predominantly a gilts-based measure. For an open scheme, with a strong covenant, and a long-term growth-oriented investment strategy, we would expect the valuation approach to vary relative to gilts over time. At the valuation date, we would anticipate a higher margin relative to gilts to reflect poor market conditions at this point. This suggests that the USS Trustee may not have adequately adjusted for unusual market conditions.

**Lens 4 Asset outperformance**

While not relevant for the prudence in the technical provisions, in isolation, it is welcomed that the USS Trustee is being more flexible with the recovery plan for the 2020 valuation.

**Lens 5 (TP – SS) / Affordable Risk Capacity**

USS have TP-SS increasing slightly and Affordable Risk Capacity decreasing slightly so prudence is reducing. This statistic is sensitive to the Affordable Risk Capacity, which is a fairly arbitrary calculation.

# Justification for 31 March 2020 valuation

The USS Trustee sets out why it is carrying out a 31 March 2020 valuation.

## March 2020 consultation

According to the USS briefing, the two original drivers for carrying out a 2020 valuation (rather than waiting until 2021) were:

- TPR's concern that the 2018 valuation did not adequately cover the economic backdrop at the time.
- UUK and UCU's concern that the 2018 valuation did not adequately take on board JEP's suggestions.

A 31 March 2020 valuation therefore gave a chance for these to be considered more fully prior to the contribution increases due to come in from October 2021. (The timescale for agreeing an actuarial valuation is normally 15 months). We cannot comment on the first of these drivers, but we recognise the second driver in respect of UUK.

In the event, the 2020 valuation date has coincided with the worst of the Covid-19 pandemic, in terms of market conditions. Given the exceptional circumstances at that time, there is a danger that too much can be read into the conclusions of a valuation at that date and we would caution against making decisions based predominantly on them. Nonetheless, we do acknowledge that at least in respect of the post-retirement discount rate, the USS Trustee has recognised this to some extent by proposing a discount rate based on gilt yields plus 1% (rather than the normal long-term target of gilts plus 0.75%).

However, this still brings us back to the original drivers for the 2020 valuation. We do not believe that it is impossible to agree an actuarial valuation as at March 2020 – however, a more balanced approach would be required, recognising more fully what has happened since and the extreme conditions that existed at that date. Nevertheless, it may be easier to make decisions based on March 2021 conditions. TPR has provided its views to all the parties but these can be considered equally based on 2021 market conditions.

We believe that not all of JEP's suggestions have been considered adequately in the 2020 valuation (in particular, the pre-retirement discount rate). However, perhaps these can be considered better in more normal conditions, which we are hoping will apply around March 2021. This does not necessarily mean that the 2020 valuation should be abandoned, and a 2021 valuation considered instead. As mentioned, there are mechanisms available to take account of March 2021 conditions (at which point TPR and JEP suggestions can be considered better) in the 2020 valuation.

This still leaves the issue of the contribution increases due from October 2021. These were set out in the Schedule of Contributions signed off as part of the 2018 valuation even if the expectation was that these would be consulted on as part of the 2020 valuation before coming into force.

A change in the Schedule of Contributions would be required to avoid the contributions increase at October 2021. It was expected that this would be considered as part of the 2020 valuation, which would be agreed before October 2021. The timescale for this is now looking unrealistic based on the current 2020 valuation proposals. However, it remains possible to change the Schedule of Contributions based on the 2018 valuation. One of the drivers for the increase in October 2021 was that it gave time for the 2020 valuation to be completed – however, at the time the pandemic and the difficult conditions in March 2020 were not forecast. So, it would seem reasonable to us to delay this by a few months if needed to allow enough time for discussions to take place.

## Advice framework

This document, and the work relating to it, complies with 'Technical Actuarial Standard 100: Principles for Technical Actuarial Work' ('TAS 100') and 'Technical Actuarial Standard 300: Pensions' ('TAS 300').

The compliance is on the basis that Universities UK (UUK) is the addressee and the only user and that the document is only to be used for the purposes of UUK's consultation with employers on the 31 March 2020 valuation. If you intend to make any other decisions after reviewing this document, please let us know and we will consider what further information we need to provide to help you make those decisions.

The document has been prepared under the terms of the Agreement between Universities UK and Aon Solutions UK Limited on the understanding that it is solely for the benefit of the addressee.

We have also given permission for this presentation to be shared by UUK with the participating employers of the USS on a non-reliance basis.

We have estimated certain liability and contribution figures in the report where stated. The figures we have provided are illustrative and based on broad brush approximations. It is possible that more accurate calculations carried out by USS and their advisers (who have access to individual member data) would be different to those shown. In particular:

- We have made some basic assumptions relating to the duration of the liabilities using sensitivities in the Scheme Actuary's Rule 76.1 report.
- For the alternative benefit structures considered, we have adjusted the future service rates approximately. In doing so we have used the benefit illustrations provided by USS and adjusted approximately to extrapolate to different salary thresholds and accrual rates and to allow for alternative discount rates.
- Our recovery plan calculations are based on simplified projections of the assets and liabilities over the recovery period.

We have used information from the following sources:

- Deficit and future service rate figures contained in the Scheme Actuary's Rule 76.1 report.
- The latest USS consultation materials published on 3 March 2021.
- Benefit modelling illustrations provided by USS on 29 March 2021.
- Supplementary information contained in USS's 2020 Technical Provisions consultation and the 2018 valuation report.


John Coulthard
Partner
john.coulthard@aon.com

Andrew Claringbold
Principal Consultant
andrew.claringbold@aon.com

Joanna Davies
Senior Consultant
joanna.davies@aon.com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