USS Review Working Group
11.30am – 1.00pm, Monday 29 October 2018
Venue Meeting Room 3 Wellington Square

Agenda

1. Apologies for absence and welcome
2. Conflicts of interest declarations
3. Minutes of previous meeting – 25 September 2018
4. Matters arising from the minutes
5. Update on information to Council on USS matters (confidential paper)
6. Update on Employer Consultation (paper)
7. Recent comments and update on valuation (paper)
8. Communication update (oral)
9. Any other business.

Date of next meeting – Tuesday 27 November 2018, 10.00am to 11.30am, Meeting Room 4, Radcliffe Humanities building

Invitees:
Professor Richard Hobbs (Chair)
Mr Charles Alexander
Professor Gordon Clark
Sir Andrew Dilnot
Professor Danny Dorling
Mr Julian Duxfield
Professor Fabian Essler
Professor Cecile Fabre
Mr Charles Harman
Professor Sam Howison
Professor Jane Humphries
Mr Jaya John John
Mr Giles Kerr

Apologies:

Professor Sam Howison

In attendance:
Ms Jan Killick
Mr Stephen Rouse
Mr Russell Powles, Aon
Ms Judith Finch, Conference of Colleges
Prof Anne Trefethen, Pro-Vice-Chancellor, People and GLAM

Flavour of University members' consultation responses to 12 October 2018

Q1. Removal of the match

1. It appears that the removal of the match, is a disincentive to save.
2. The employer can use 1% saving to go towards their additional cost in employer contributions.
3. Cost more to administer the small amount in Investment builder for those under the threshold.

Q2. Contributions above the salary threshold

1. Contributions above threshold does not affect the majority of members.
2. Don't understand it and USS don't explain it clear enough
3. Additional costs should be those above threshold.

Q3. Contributions shared 35:65 between members and employers respectively

1. Happy with split
2. Various suggestions to split 32:68 33:67 20:80
3. Employer pay a higher percentage or provide increase in salary in line with cost of living.
4. Have the option to invest are contributions elsewhere.

Q4. Increased contributions under the cost sharing rule

1. I would prefer an increase rather than the removal of the defined benefit scheme.
2. Extra costs for those above threshold
3. Increases should be April 2019, April 2020 and April 2021 to fall in line with tax year.
4. Benefits should be cut first.
5. Very dramatic increases.

Q5. Any other comments

1. I don't believe the scheme is in deficit.
2. USS/ UUK deaf to alternative proposals
3. I'd like the option to withdraw.
4. Employees below threshold cannot afford increases, unless salaries increase by 5%
5. Unaffordable for many.
6. Employers should be looking out for us and not treating us n an offhand and dismissive manner.
7. I agree an increase is needed to safeguard DB but majority to be paid by employer
8. Less take home pay in exchange for more savings in a system that is unsustainable.
9. If you are wrong in your assumptions and there is a surplus who keeps the money.
10. No support for early career researchers.
11. UUK determined to debase our pensions.
12. We need to move to total DC.

USS pension consultation meeting with the Oxford UCU

Notes of the meeting held on Friday 14 September 2018

Present:

Julian Duxfield, Director of Human Resources
Jan Killick, Head of Pensions
Terry Hoad (UCU)
Jaya John John (UCU)

Apologies:

Bruce Shakespeare (UCU)

1. JD welcomed TH and JJJ. He explained that the purpose of the meeting was to meet with Oxford UCU as part of the Employer consultation on proposed changes to USS. He outlined the consultation process that would run to 2 November. Oxford UCU, USS members at the University, and prospective members had received a leaflet at the start of the consultation. Feedback from individuals could be submitted via the online consultation portal (and other ways). All online responses from employees at the c350 participating employers would be viewed by the USS Trustee and the response from Oxford employees could be viewed by three nominated staff. JD said the intention was to prepare a high-level summary of the University employee responses ahead of the 7 November deadline. He proposed sharing this for comment by Oxford UCU. Four consultation presentations specifically covering the proposed changes were being held.
2. TH noted that he was retired and so a little removed from the impact of the proposed changes that could current staff would feel. He commented on the report from the Joint Expert Panel (JEP) issued the day before. The report suggested a significant reduction in the rate of increase of contributions was possible. UCU had said that the outcome of the JEP should be known before any consultation took place and the timing of the consultation was unfortunate.
3. JD said he held similar views and that it was confusing to hold the consultation in parallel with the JEP work. Although he understood that the USS Trustee had a duty to complete the 2017 valuation. The next step was to see the response from the USS Trustee to the report and what if any benefits and contribution changes would be put forward to the Joint Negotiating Committee (JNC).
4. JK noted that the Pensions Regulator (PR) would also need to consider the report and any changes to the valuation assumptions and approach. The PR would continue to take a keen interest in the USS valuation as USS was such a large scheme.
5. TH was concerned that members would be hard hit by the proposed contribution increases, particularly as pay increases had not kept pace with inflation in recent years. He asked that the University feedback this point to the employers' representative, UUK. JD agreed that the University's response would include its disappointment that Rule 76.4 (and so the consultation) had been triggered.
6. JJJ asked if the University's VC would follow the examples of other universities' VCs, including Glasgow and Loughborough, in issuing statements about the valuation. JD said that would be the VC's decision and she would need to bear in mind the relationship with other Russell Group universities. The University's review working group would look at the JEP's recommendations and give a response to UUK on its

consultation on the report findings. JJJ noted that the JEP report highlighted the sensitivity to the long-term return assumptions.

7. TH said that the dispute earlier in the year had been successful with a move away from the damaging proposals on benefits, with the employers and USS Trustee being excessively risk adverse. JD said that Oxford in many matters outside of pensions was generally more risk averse when compared with other institutions. Sustainable financial decisions were needed and a 1% of pensionable salary increase in employer's contributions would be £4 million p.a.. He hoped that the solution would be longer-term and could avoid a review of pension arrangements every three years. TH said it was important that employees understood why Oxford couldn't afford to pay more and what the money would be used for. JD said at this stage the University would need to wait to see what happens and then determine how some inevitable increase in employer contributions would be met through re-allocation of resources. It was important to be part of the collective scheme and affordability considerations were not the same for all institutions.
8. TH reiterated that the proposed changes were another degradation of benefits, with less take-home pay for staff, making the profession less attractive and asked for JD's views. JD said he did not know about the national position, but at Oxford there was no evidence of widespread staff recruitment and retention issues, except in some specific posts. JJJ reported that anecdotally there were issues recruiting in certain areas such as IT and finance. TH added that there were also anecdotally more issues around stress, mental health matters and individual management issues. JD agreed that it may be the position but data on individual cases was imperfect and an increase in mental health issues had been seen on the student side. The University is in the process of developing a broad-based approach to employee well-being. He would be happy to have further dialogue on this matter.
9. On pension related matters, JD asked if UCU had had any particular issues raised by staff and TH asked about the contributions to USS Investment Builder above the salary threshold. JK explained, as there were no rule changes, 8% of employee contributions went to Investment Builder regardless of the total employee rate. The balance was used to fund defined benefits in USS Retirement Income Builder.

The next meeting: 17 October 2018.

JK 20 September 2018

USS pension consultation meeting with the Oxford UCU

Unconfirmed notes of the meeting held on Thursday 17 October 2018

Present:

Julian Duxfield, Director of Human Resources
Jessica Oldershaw, Policy Officer
Peter Hill (UCU)
Philip Inglesant (UCU)
Jaya John John (UCU)

Apologies:

Bruce Shakespeare (UCU)
Jan Killick, Head of Pensions

1. JD welcomed PH, PI and JJJ. He explained that the purpose of the meeting was to meet with Oxford UCU as part of the Employer consultation on proposed changes to USS. He outlined the consultation process that would run to 2 November. The University has held four consultation fora specifically covering the proposed changes, which have been attended by circa 150 people in total. These have been held in parallel with open forums on USS which are broader in scope.

2. Feedback from individuals could be submitted via the online consultation portal (and other ways.) JD said that responses had been limited in number thus far but that it was expected that many would complete just before the deadline. JJJ said that the UCU would be contacting members in the next week to recommend that they completed the online consultation. It was agreed that it was important to encourage as many responses as possible so as to give a representative response.

3. PH asked when the University response was due, JD explained that there was a very short turnaround period from the closing date of the consultation to the response deadline of 7 November, and agreed that it would be helpful if the UCU could encourage members to respond ahead of the deadline where possible to aid a swift response.

4. PH was concerned that responses would be distilled by the University and that the response was largely qualitative. JD said that the University response will be a summary of member's responses, and that the intention is to represent the full range of views. JD said the aim was to prepare a high-level summary of the University employee responses ahead of the 7 November deadline. He proposed sharing this for comment by Oxford UCU.

5. PH noted that the current consultation is not about the JEP and that consultation assumes that the USS valuation is correct. It is possible that the current consultation may be overtaken by events. JD agreed but reiterated that it was important to encourage staff to engage with the consultation process. We do not yet know how the Trustee will respond but publicity around events means that it is expected that USS will listen carefully to the feedback and that the PR will continue to take a keen interest in the USS valuation as USS is such a large scheme.

6. PI was concerned that members would be hard hit by the proposed contribution increases. The cost of living in Oxford is high and for those on the standard pay scale particularly, a rise in pension costs is difficult to bear. JJJ added that the changes represented a shifting of goalposts and expectations for staff, particularly those late in their career. There was anecdotal evidence of recruitment difficulties in some departments and when competing for talent in international market, the generous pension is seen as an attractive part of a package, which compensates for the less competitive salaries that a career in academia is able to offer. The proposed changes risk making the profession less attractive. PH said that the University should consider other ways of meeting the costs, not just the contribution increase. JD noted the concerns raised.

7. JD expected the response from PR and Trustee to take some time. It was agreed that no further meetings would be scheduled, but that the University response would be shared for comment by the Oxford UCU before it was submitted.

JO 18 October 2018

Mr A Jarvis and Mr P Harding
Universities UK
Woburn House
20 Tavistock Square
LONDON
WC1H 9HQ

Your Ref
Our Ref BG/JMR
Date 9 October 2018

By email only

Dear Alistair and Phil

Thank you for your engagement on the issues relating to the USS valuation. I write to inform you of the recent discussions at the USS board in this regard, and in response to Phil's and Renee Predergast's recent joint communication. (This same letter has been sent to UCU leadership.)

At the meeting on 5 October, the USS board noted the JEP report, and the initial responses of the stakeholders and the JNC. In particular, the board noted that as the JEP report was commissioned by stakeholders, it is for them to determine if and how the specific issues raised by the JEP should be introduced to the formal governance structures of the Scheme. Both stakeholders are currently consulting with their constituencies on the JEP's proposals, and we expect that they will update the trustee when these processes have concluded.

To facilitate the ongoing stakeholder reflections on these issues, the USS board notes:

(i) that the proposals made by the JEP would require a willingness on behalf of stakeholders to take substantially more risk in the funding arrangements than had been recommended to the trustee through the substantial and lengthy discussions on funding risk that had led to the trustee's revised conclusions under the 2017 valuation;

(ii) that the trustee is limited in the scope of issues that can be considered at this stage of the 2017 valuation, and constrained by procedural requirements and time limitations on re-opening previous decisions (due both to being significantly beyond the statutory time period set for this process to complete, and the need to meet expectations set by the Pensions Regulator); and

(iii) should UUK agree to re-open discussions on the JEP proposals that relate to investment strategies and risk acceptance, a new consultation on these issues would be required, that would focus on the willingness to accept the various elements of the JEP proposals, and the ability to support and mitigate the increased risk.

In these circumstances, if UUK notifies the trustee before 14 November 2018 that it wished to:

- address any of the proposals made in the JEP report;
- restate their risk appetite and tolerance; or
- revisit the technical provisions underlying the 2017 valuation,

whilst we will continue with the 2017 valuation on the current basis and conclude that valuation by February 2018 (after consulting on the Schedule of Contributions and Recovery Plan), we will also commence in parallel a new valuation process dated at the most recent year end, 31 March 2018. This would allow for the most recent data, and any developments in perspectives on risk and related contingency to be addressed, as envisaged by the JEP report.

With the support of all stakeholders, the trustee would look to move quickly to consider any new views on risk appetite and associated mitigations that might be proposed and that subject to the stakeholders and the JNC reaching agreement on the issues, we would endeavour to ensure that the process could conclude in advance of the higher contribution increases envisaged under the 2017 valuation. The statutory deadline for filing a valuation dated March 2018 with tPR is 30 June 2019.

Yours sincerely

Bill Galvin
Group Chief Executive Officer

cc. Sir Andrew Cubie (by email)

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USS Briefs

A FLAWED VALUATION: THE LAYPERSON'S GUIDE TO MY FINDINGS ON USS'S 'TEST 1'

Sam Marsh, University of Sheffield

15 October 2018

A flawed valuation: the layperson's guide to my findings on USS's 'Test 1'

Sam Marsh, University of Sheffield

This is a USSbrief that belongs to the OpenUPP (Open USS Pension Panel) series.

In March 2017, I made a **series of three short videos** on USS's now infamous 'Test 1'. I hadn't fully prepared what I was going to say, but wanted to get across something that appeared to be a harmful inconsistency in how the Test was framed, and to make a suggestion for how it could be fixed. It is in that inconsistency that I found USS's '**large and demonstrable mistake**', exposed last week.

The motivation for Test 1 has always been framed in terms of ensuring a 'safe harbour' for the scheme, known as 'self-sufficiency', remains within reach in 20 years' time. Such a safe harbour is a way of mothballing the scheme, of putting it into a stable end state ready for closure. To reach this safe harbour requires a higher balance of assets than one would normally hold to back the promised benefits. Test 1, so USS claimed, was designed to make sure the gap wasn't unbreachable.

But the Test was flawed. Rather than look at the expected value of the assets at Year 20 (and how this compared with the cost of self-sufficiency), Test 1 lazily looked at a related but not identical concept, that of the expected cost of the promised benefits. The reasoning was that at Year 20, USS will ensure that the scheme will be fully funded, and this means the assets will precisely cover the benefits. But here USS made a significant oversight: the assets might not just equal the promised benefits, but exceed them. Test 1 might flag up a problem *even if one doesn't exist*.

The **figures I calculated** — now confirmed, subject to minor tweaking, by USS — showed that one would indeed be expected to find a surplus of assets at Year 20, even on their prudently adjusted assumptions. Not only that, but this surplus is expected to be substantial, and means the assets will be well within affordable reach of self-sufficiency. The 'de-risking' of assets and huge increase in costs that Test 1 mandates is not necessary to fulfil its stated purpose. If the scheme

continues unchanged, self-sufficiency remains well within reach. Not only that, but the deficit evaporates and the future service costs return to their current level.

My analysis of the crooked logic of Test 1 has been known to those at USS for over eighteen months (indeed, Bill Galvin, the Group CEO of USS, **commended me on the videos** in correspondence). I have asked for the numbers relevant to the Year 20 position repeatedly over the past year, but until last week had **been rebuffed every time**. Had USS made these calculations and kept them to themselves? Or, since Test 1 'does not require the projection of assets based on current contribution rates', had USS really not 'sought to confirm these figures', as they told me in August this year?

Either way, there are now huge questions hanging over the judgement of those at USS, who have resisted transparency over their valuation.

* * *

The author, **Dr Sam Marsh**, is president of **University of Sheffield UCU branch**, an elected national negotiator on USS pensions and a member of UCU's Superannuation Working Group. He has published other briefs addressing USS's Test 1. These comprise:

- **#USSbriefs32** 'Understanding "Test 1": a submission to the USS Joint Expert Panel'
- **#USSbriefs45** 'A talkthrough of a model of the USS valuation'
- **#USSbriefs51** 'Addendum to understanding Test 1: a submission to the USS Joint Expert Panel'
- **#USSbriefs55** 'Response to David Miles' analysis of the role of Test 1 in the USS valuation'

Discussion document for the University of Sheffield USS Working Group

Sam Marsh, Staff Representative on the group

5 October 2018 (Revised 12 October 2018)

Summary: *My calculations based on data provided by USS indicate that incomplete information on the Year 20 position may have given a skewed picture of the risk involved in maintaining the scheme in its current form. In particular, the application of Test 1 bypasses the natural question of "how will the scheme look in 20 years' time before any changes are made?", a question which has never been answered by USS. My conclusion is that the University of Sheffield should either seek urgent clarification on the figures, or press for the removal of Test 1 for this valuation (pending Phase 2 of the Joint Expert Panel), or, at the very least, call for the use of the loosest Test 1 parameters acceptable to the trustee.*

UPDATE: As of 12 October 2018, I have been provided with figures for the Year 20 asset projections from USS. I do not have permission to release the numbers, but, due to the use of slightly different cashflow data, my asset projections overstate those calculated by USS by a small amount (less than 5%). The broad conclusions remain the same.

1. Year 20 projections

The figures below are based on the prudent investment forecasts used by USS in their valuations (not best-estimates) and assume the scheme stays open in its current form (in particular, with an unchanged contribution rate), using cashflow data on expected contributions and benefit payments in Years 1-20 provided by USS, with the investment portfolio remaining in its current form. All values are adjusted for CPI inflation.

	Assets	Technical provisions liabilities	Self-sufficiency liabilities
Projected Year 20 values	£78.2bn*	£59.2bn*	£81.0bn

* My calculations based on USS cashflow data; other data as stated by USS

Notes:

A. Before the application of Test 1 and the de-risking it forces, the scheme is expected, on prudent assumptions, to find a Year 20 surplus of £19bn in real terms and a 'self-sufficiency deficit' (or 'reliance on covenant') of only £2.8bn.
B. USS have never released the above data publicly or to employers. The University of Sheffield USS Working Group asked for this information as part of the September 2017 employer consultation but were not given it.
C. As a member of the Joint Negotiating Committee, I have asked for confirmation of my calculations, but have been told that

> *"the trustee's valuation methodology does not require the projection of assets based on current contribution rates, since the assets are taken as being equal to the technical provisions at the end of the 20 year reliance horizon. We have not therefore sought to confirm these figures."*

2. Reconciling the above findings with Test 1

USS's claim that "valuation methodology does not require the projection of assets based on current contribution rates" is true, as Test 1 intervenes before such projections are made. As described in my submission to the Joint Expert Panel,

1. USS first calculate the Year 20 self-sufficiency figure of £81bn, then *fix* the value of the technical provisions liabilities at £81bn less the 'reliance on covenant' amount of £10bn.
2. In other words, the Year 20 technical provisions must, to satisfy Test 1, become £81 less £10bn, namely £71bn.
3. To achieve the increase in Year 20 technical provisions liabilities from £59.2bn to £71bn, USS must ensure that their portfolio at Year 20 is generating lower returns. This is achieved by de-risking the scheme's assets.

The effect of this de-risking is shown below, with a comparison of the projected Year 20 position based on de-risking occurring in Years 10-20 (referred to as 'September de-risking') and occurring in Years 1-20 ('November de-risking'), where again contribution rates and benefits remain at the current levels.

	Assets	Technical provisions liabilities	Self-sufficiency liabilities
Projected Year 20 values (September de-risking)	£74.6bn*	£71.0bn	£81.0bn
Projected Year 20 values (November de-risking)	£71.0bn*	£71.0bn	£81.0bn

* My calculations based on USS cashflow data; other data as stated by USS

Notes:

A. Not only is there a rise in the technical provisions liabilities, but also a fall in the expected level of the assets under both de-risking plans.
B. The scheme is at worse break-even under both scenarios: the current contribution rate is sufficient under both scenarios for the scheme to be fully funded by Year 20.
C. We have no information of how the probabilities of finding a Year 20 'self-sufficiency deficit' of any given size (£10bn, £20bn, £40bn etc) vary according the different de-risking plans.

Effect of de-risking on future service costs

The de-risking, a result of Test 1, has a significant effect on the cost of future accrual, with increased de-risking leading to higher costs. An important point to note is that the future service costs are based on the cost of providing the benefits in Year 1. As explained in the Joint Expert Panel report, the costs are expected to fall over time, and the panel recommend smoothing the costs of accrual in Years 1-6. The analysis above shows that the total rate required smoothed over Years 1-20 would be at most 26%, even under the most extreme de-risking plan proposed.

Conclusions

Yet again, we are left short of the information required to make an informed decision in this consultation. I propose some questions we could ask for urgent responses to in Appendix A. If we fail to get sufficient information in time to make an informed decision, I propose that this university

calls for the removal of Test 1 for this valuation, pending Phase 2 of the Joint Expert Panel. If the university falls short of that, then a similar effect can be achieved by calling for the use of the loosest parameters acceptable to the trustee in its application (namely a 'reliance on covenant' amount of £26bn). We have no evidence that this leads to any significant increase in risk to the university; my calculations suggest that the opposite is possible.

Appendix A

Below I propose two urgent requests for information questions that would allow this group to properly advise the university on its response to the employer consultation.

1. Please confirm the real (CPI) terms projected Year 20 assets and technical provisions liabilities under the prudent assumptions a) with no de-risking present, b) according to the September de-risking plan, c) according to the November de-risking plan. (The table below shows estimates for these values based on cashflow data provided by USS.)

	Assets	Technical provisions liabilities	Self-sufficiency liabilities
Projected Year 20 values (no de-risking)	£78.2bn*	£59.2bn*	£81.0bn
Projected Year 20 values (September de-risking)	£74.6bn*	£71.0bn	£81.0bn
Projected Year 20 values (November de-risking)	£71.0bn*	£71.0bn	£81.0bn

* Calculations based on USS cashflow data; other data as stated by USS

2. Please give an indication, preferably by completing the table below, of the probabilities of self-sufficiency deficits of various sizes or worse occurring at Year 20 under a) no de-risking of the present portfolio, b) according to the September de-risking plan, c) according to the November de-risking plan.

	£10bn	£20bn	£40bn
Probability of exceeding the stated self-sufficiency deficit at Year 20 (no de-risking de-risking)			
Probability of exceeding the stated self-sufficiency deficit at Year 20 (September de-risking)			
Probability of exceeding the stated self-sufficiency deficit at Year 20 (November de-risking)			

USS

Claims of a 'large and demonstrable error' in the valuation

Useful links

- Valuation overview
- Valuation updates
- Questions and answers
- Reference materials
- Views from USS
- Contact Us

Members may have been alerted to a blog published over the weekend claiming that analysis we provided to Dr Sam Marsh (a UCU elected JNC representative) last week has uncovered a large and demonstrable error in the most recent valuation.

There is no such error in USS's valuation. Dr Marsh's analysis is not wrong **in isolation** – but it is simply not an adequate premise on which to set the funding arrangements for the scheme.

The commentary that this analysis has generated is based on an incomplete understanding of the scheme's current funding proposals and of regulatory requirements. The fundamental issues at stake have been addressed at various stages over the course of the valuation. We have engaged extensively with both employer representatives and member representatives (via the JNC) appointed to consider these issues in depth and in context.

Firstly, it has always been clear from USS valuation discussion papers (and latterly from the Joint Expert Panel's analysis) that it is expected that the cost of pension provision in future will fall, as interest rates rise. We have been clear on that since the earliest discussions on the valuation.

In effect, Dr Marsh's approach takes the JEP's proposals to 'smooth' contributions over two valuation cycles, and extends that to 20 years. It is not surprising that when this is done, current contribution levels are (in aggregate) ultimately adequate.

However, it is important to understand what lies beneath the projections: most notably, an assumption – formed by USS and fundamental to the valuation - that interest rates will rise in the future and **sooner** than if the current forward interest rates available in the market were taken as our base case.

If that does not happen, then the scheme is less resilient to funding shocks that might emerge in the near term. Our Chief Risk Officer goes into this in a more detail in a technical note accompanying this briefing.

We only need to look at what happened in the three years between the 2014 and 2017 valuations to see how quickly underlying funding assumptions can prove to be wrong: in this short period, severe declines in gilt yields increased the potential cost of moving to a low risk portfolio (to protect the scheme from downside risk) by £13bn (from £14bn to £27bn, updated to £22bn using our 2017 assumptions).

The trustee must ensure the scheme is robust under its core assumptions, and it must also be manageable **even if interest rates do not rise**.

There are many conditions that must be met in order to present a coherent funding plan for a scheme as large and complex as USS. One is that the scheme can be in balance, and within the risk budget set by scheme sponsors, at our 'funding horizon' of 20 years. This is the focus of Dr Marsh's analysis. However the trustee must also ensure it has a credible path to this position. This path must ensure the scheme's funding position is not unduly subject to the risks of short term shocks raising the hurdle rate beyond what is credible or sustainable.

As noted above, we have provided a more technical note on these points.

There must also be a path that manages the scheme's position in the event that interest rates do not rise as anticipated – for managing 'downside' risk.

Independent expert advice on covenant confirmed that while the sector is expected to be strong in the long term, the scheme is towards the upper end of the range of the amount of risk that can be supported in the short term.

This view is shared by the scheme actuary, the schemes sponsors, and very importantly by the Pensions Regulator. Continuing to pay the same contribution rate and not moving to moderate the investment strategy would exacerbate the risk in the scheme in a manner that would not be compatible with the advice received by the trustee and could well be challenged by the regulator.

As a result, contributions must rise in the short term to manage these risks, acknowledging that the most likely – but by no means certain – path for contributions is that they fall in the future. Should this happen, there will be more options available to adjust contributions, benefits or investment strategy.

The trustee's fundamental belief is that risk is multifaceted, and requires a wide perspective, and broad tools to manage it appropriately. This approach to the valuation has been carefully constructed, and robustly built based on independent advice from our scheme actuary and covenant adviser. It has been subject to independent review by a third party actuarial firm, and by TPR. None of these reviews has suggested there is scope to take the level of risk in the funding arrangements that is proposed by recent commentary.

Subsequent claims that nothing has to change in the scheme because asset projections **in isolation** suggest current contributions are adequate understates the risk of underpaying the economic cost of pensions today: as we set out above, the recovery from any downside event could be very difficult.

As USS does not have government backing, it must be funded within the risk appetite and collective capacity of our sponsoring employers. An approach based **solely** on asset projections ignores the need for the scheme to attain a position within the risk appetite of sponsoring employers, and the time required – as a result of our size and scale and market constraints – to make adjustments to the types of assets we would need to hold to achieve this.

Legislation requires the trustee to choose prudently economic and actuarial assumptions taking account of an appropriate margin for adverse deviation, with the objective of ensuring that benefits can be paid as they fall due. It is not possible or sensible to smooth these assumptions over a twenty year period.

Finally, we can confirm that we provided all of the information and analysis that was requested by the Joint Expert Panel. Given that it ignores downside risk, the approach Dr Marsh looks to support by using asset projections alone is not an adequate approach to risk management in the context of USS. As such, it was not requested by – or provided to – the JEP or employers.

In providing the analysis requested at the JNC by Dr Marsh, which subsequently informed Professor Otsuka's blog, we clearly stated in our document the limitations of the analysis. It is not a sufficient approach to setting funding assumptions, and would not meet the requirements of the USS valuation.

Published date: 16 October 2018

A technical response to commentary on asset projections

The analysis by Dr Marsh and the blog by Dr Otsuka are both based on the erroneous premise that setting contributions which are adequate on average over 20 years is sufficient to fund the scheme.

To be clear: planning for contributions that are adequate on average over time is a **necessary condition** for an acceptable valuation, but it is emphatically *not* a **sufficient condition**. The reason for this comes down to **risk**. It is the trustee's duty to ensure that valuation is robust and can adequately withstand adverse investment outcomes that may materialise in any of the next 20 years. Risk has many dimensions, and the valuation must be acceptably robust in how it manages each of them.

Because of the trustee's belief in interest rate reversion – namely, that gilt yields *will* return to levels last seen in 2014, and *sooner* than is currently priced into the market – the required contribution rates, although initially higher than present, are expected to fall over time.

The proposal from Dr Marsh to set one average contribution rate is effectively backend-loading the task of meeting the cost of pensions accruing between now and 2037. In other words, current active members would today be accruing benefits that cost more than the contributions that are being paid. (And, on the flip-side, future members would be accruing benefits which cost less.)

The lower initial contributions that Dr Marsh's proposal would involve increase the short-term risk in the funding position at a time when the reliance on the employers' covenant is already higher than their stated risk appetite.

Let us make this last point more concrete: the reliance on the employers' covenant measured in terms of the self-sufficiency deficit at the time of the valuation was £22bn, which is **much higher** than the employers' stated long-term risk appetite of £10bn.

The trustee and the employers believe this position is manageable, given the strength of the covenant as confirmed by PwC, provided that, over time, reliance can be effectively managed towards £10bn.

However, there are potential scenarios that could put a significant strain on this. Specifically, as discussed in the Technical Provisions consultation, if interest rates do not rise as expected by 2020 this will increase short-term reliance by c.£4bn. Additionally, a 10% downward correction in asset markets would increase short-term reliance by c.£6bn. If both were to happen together the increase would amount to £10bn on top of the current level of reliance. A further analysis of value-at-risk (VaR), which takes account of the probabilities of movements in asset prices, shows that over a three-year period there is a 5% (or one in twenty) chance of a much greater increase in reliance of £26bn.

Higher contributions do not remove, but can mitigate this short-term risk. The total combined contribution increase for employers and members proposed for the current benefits is 11.4% of salary, or c.£900 million per year. In the absence of other agreed contingency arrangements which would help to manage the short-term risks, this increase is necessary. Moreover, the increase is sufficient to cover the current cost of benefits as they accrue. As a result the increase takes a meaningful step towards reducing both the current level of reliance on the employers' covenant and the associated short-term risks.

A contribution rate calculated as an average over 20 years is simply not sufficient for this purpose.

Guy Coughlan, Chief Risk Officer, USS

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