The University Of Sheffield.

USS Valuation Working Group
Outputs & recommendations for input to USS consultation on valuation methodology March 2017

Date: 7 March 2017
From: Ian Wright, Associate Director of HR
To: Professor Sir Keith Burnett, President & Vice-Chancellor

For consideration.

Executive Summary

1. The USS Valuation Working Group was convened to consider the initial assessment of technical methodology and inputs for the USS 2017 valuation. The purpose of the group was to collectively inform a unified University response to the 2017 Valuation that is knowledge-based and representative of both members and the University.
2. The USS consultation seeks opinions on various parameters affecting the valuation, but view of the Group is that it is the model on which these parameters will be applied that needs discussion most, and in particular USS' "Test 1".
3. The other key variable which the Group wishes to challenge strongly is the discount rate being too closely linked to a "Gilts +" approach. Our recommendation would be that the use of a "Best Estimate –" approach would better reflect the asset class portfolio of USS with a measure of prudence applied.
4. Background reading is provided in the appendices to this document.
5. This report is intended to inform the University's formal response to the USS consultation, taking advantage of the considered opinions of a range of internal stakeholders. The University's final response will be determined by the President & Vice-Chancellor.
6. The Group acknowledges that, along with other employers, the University will need to (i) determine and articulate its preferred balance between taking on more risk in the future and a desire to better control exposure to risk and (ii) the limits of its willingness to fund benefits by way of potentially further increased employer contributions.

1. Areas of consultation

- The USS trustee has to re-calibrate its method and inputs to the 2017 valuation. There are three major questions the trustee is looking to answer (taken from the USS technical document):
  - How much risk can the sponsoring employers afford to run? This is assessed by the level of extra contributions over and above the agreed funding level that employers could, if absolutely necessary (*in extremis*), afford to pay into the scheme. [Note; from the University's perspective this is not necessarily what it would be happy or could afford to pay.];

- What view does the trustee take on the expected future returns from the assets the scheme holds now and into the future, allowing for any adjustments to the assets held to stay within the boundaries of the risk envelope noted in question one?;
- What degree of confidence does the trustee feel is appropriate to apply to the combined view of future investment returns, and future employer contributions, to set a margin for prudence in the overall assessment?

- It is acknowledged by the Group that these key questions will be for the sponsoring employers to respond to. The Group is keen that its views are considered by the University in formulating its response to the consultation and so offers its views in relation to the three key areas highlighted later in this paper.
- The trustee is approaching the 2017 valuation from first principles to set all the inputs from a fresh look at markets and sector data. The method proposed is materially no different to 2014 though certain refinements to the process are being applied building on the experience gained. The actual inputs to the assumptions will be different but the underlying logic is consistent.
- The detailed technical consultation document is attached to this report as appendix 3.
- The USS trustees are inviting employer comments on the trustee's initial assessment of the methodology and inputs, particularly the key drivers and the direction of travel sponsoring employers wish to take, utilising the strength of the sector to underwrite pension promises:
  a) The approach to determining the maximum reliance which can be placed on the **employer covenant** in future when funding the scheme, and in particular the inputs that are used to determine the reliance. The trustee has assessed that contingent contributions, paid by employers over a time horizon of 20-40 years from now, of 7% of pensionable pay (being the difference between 25% maximum contribution deemed affordable (as opposed to the employers' willingness to pay) without deleterious impact on the employer's sustainability and the regular contribution of 18%), consistent with the 2014 view is still reasonable. Note; this is deemed to be an *in extremis* eventuality.
  b) The view on expected **investment returns** from assets (now and in the future), and in particular whether employers prefer to rely on the current market view for long term interest rates, or whether they consider that long term interest rates will revert to higher levels than markets currently predict;
  c) The degree of confidence required that the assumed pension costs will prove a reliable forecast, and how much risk the employers prefer to take within the limit of the maximum risk possible. Specifically, is the risk appetite different for funding benefits accrued by members to date versus the benefits the sector wishes to promise in future?
  - The USS trustees have proposed revised wording for its "**Test 1**" as follows:
    "Test 1 aims to ensure that the scheme's promised benefits can always be funded, with a high degree of confidence using a low risk investment portfolio from within a level of future contributions which could be credibly paid in extremis from the sector's operating cash flows. Thus the security of the promised pension payments is ensured by providing the sector or the trustee with an option to reduce the level of risk taken in providing pensions without the need to sell or mortgage assets to fund the scheme. The test is applied over a suitable control period, projecting forward the agreed benefit levels. It takes a low-risk portfolio of assets as its reference point for "self-sufficiency" consistent with the aim of giving a high confidence that the scheme's planned funding plus future contingent contributions in extremis would provide the accrued benefits in full."

- The USS trustees seek views on whether this re-articulation of Test 1 provides greater clarity of how the covenant assessment identifies the level of contingent contributions being available to support the scheme's funding in extremis.

2. Working Group Input/Response

The Working Group comprises stakeholders from different perspectives – the employer (HR and Finance), trade unions and wider staff group. Despite this there is a shared objective in relation to pension provision at the University. That is to ensure the best possible benefits for members available in a long-term sustainable fashion and in a manner that is affordable for both members and the employer. It is with this shared aim in mind that the following points are made.

The Group wishes to provide views on what it considers to be the three key areas as outlined below.

Test 1

The Group's primary concern lies with the underlying model (Test 1) on which the parameters will be applied, rather than the parameters itself. Test 1 steers the fund towards being "self-sufficient" at the end of a 20-year period (the covenant horizon). Self-sufficiency here means that the fund would be able to pay all liabilities accrued out of its assets alone with a very high degree of certainty of there being no shortfall caused by unexpected future market conditions (cf. section 4.4.4. from USS 2017 document – see appendix 3). Under this assumption the scheme could exist independently of employers provided no new benefits were accrued.

Acknowledging that there are a number of differing actuarial views, and that those not engaged by USS will have only partial knowledge of the data on which to base their analysis, First Actuarial have prepared a report on behalf of UCU which indicates cash flows of the scheme to be positive, i.e., benefit payments projected to be paid to members being less than ongoing member contributions plus asset income over the foreseeable time horizon. If this is the case, the only scenario we envisage in which Test 1 is relevant is one in which the pension fund closes, and stops receiving contributions from members and hence funds its liabilities solely from employers contributions, the income of assets and their sales. This is a scenario which, given the reported strength of the employer covenant, appears unlikely.

Furthermore, to increase the probability of reaching this concept of self-sufficiency, Test 1 forces the scheme be de-risked, i.e., moving from the current investment portfolio consisting mainly of equity to one consisting mostly of gilts. There is not a single 20-year period in the last 100 years in which gilts outperformed equity, and in most such 20-year periods equity outperformed gilts by a large margin. Thus a de-risking strategy would almost certainly lead to very substantial reductions of returns. Hence the need for increased employer (and possibly member) contributions to achieve the same level of funding. However, in an open scheme with a long term horizon and good covenant, the important thing is the ability to produce income or available asset growth to support any gap between incoming contributions and outgoing benefits.

If Test 1 is to remain then the Group would support its application to be in the loosest possible terms acceptable to the trustee, which would minimise its impact. The group would also welcome more modelling on what a "self-sufficiency" strategy may look like particularly in reference to a more diverse range of asset portfolios, as this could positively affect the discount rate assumption for a self-sufficiency valuation, with potential knock-on effects for Test 1 (see below).

Employer Covenant

The Group's view was that the overall strength of the sector should allow for a significant reliance horizon. The length of the reliance horizon however in relation to the parameters of Test 1 is somewhat arbitrary given the position outlined above.

As outlined in section 2.2 of the USS paper (see appendix 3), "a scheme where there is a significant covenant can afford to take more investment risk in the pursuit of higher returns and can target a lower level of assets held by the scheme to meet future benefits".

That said, the University's willingness to pay additional contributions of up to 25% was questioned (that being the rate required for the scheme to convert to self-sufficiency should it choose to do so). Such levels of contributions would have a significant impact on the University's ability to fund other strategic growth aims. Though the Group would ideally like to see the scheme underwritten to prevent a reduction in benefits offered, it was acknowledged that the University's desire to direct its resources towards areas which support its overall financial sustainability may make such levels of contributions unrealistic. Therefore there needs to be a balancing of risk and prudence however, the Group's view was that the approach proposed by USS, in particular its focus on self-sufficiency is over-prudent.

Discount Rate

The USS trustee appears to continue to favour the "Gilts+" methodology to determine the discount rate. Whilst this does meet the need for prudence, the Group's position would be that it is an unrealistic assessment of the potential returns to be expected, even allowing for prudence, given the asset classes in which USS is primarily invested with no significant drivers to change this investment strategy (see note above re Test 1). In the view of the Group, it would make more sense to use an alternative estimate, for example "Best Estimate-": this is an estimate of the actual USS investment portfolio with a 50/50 chance of achieving a particular return minus an allowance for prudence.

The Group would like to see more analysis by USS of the historical performance of its assets (in absolute terms, and compared to gilts) over a reasonable timeframe and to use this to inform the level of discount rate that may be appropriate (using the "Best Estimate –" approach).

As an alternative the Group would support exploration of the impact of different levels of discount rates for both the technical provisions and self-sufficiency valuations to illustrate the impact these assumptions are having; not only "Gilts + 0.5%" and "Gilts + 0.75%" as outlined in the USS paper.

Given the current economic conditions the Group were mindful of the potential far reaching impacts of making important and difficult decisions when interest rates are at an unprecedented low level. As we are now seeing inflation measures rising it is reasonable to assume that interest rates too will rise (therefore impacting on equity and gilt returns) and so a longer term view on the health of the scheme would be preferred. That said, it is acknowledged that what will happen to interest rates in the future is impossible to predict with a strong sense of certainty.

3. Conclusions

Most of the material coming from USS concerns very technical details. While these may be important, they are far less significant than the aim of "self-sufficiency" and the resulting "de-risking" which Test 1 appears to steer towards.

In the interests of achieving the best possible benefits for members available in a long-term sustainable fashion and in a manner that is affordable for both members and the employers, there will need to be some degree of compromise. It is also recognised that there is a statutory obligation (as overseen by the Pensions Regulator) to build in a level of prudence into the valuation methodology.

The Group's view is that the proposals as outlined by USS present a more flexible approach than at the 2014 valuation, which is welcomed. However, the Group would advocate the re-consideration of the basic premise and suitability of Test 1 and to allow for a more realistic assessment of the discount rate, built around a "Best-Estimate –" approach.

This more balanced view of the level of prudence to apply should then be reflected in the determination of the other variables which will determine the outcome of the valuation.

The Group acknowledges that, along with other employers, the University will need to determine and articulate its preferred balance between taking on more risk in the future and a desire to better control exposure to risk in its response to the consultation.

The Group would welcome further exploration of a range of approaches to consider, with the risk consequences of different options demonstrated in terms of future contribution levels and/or potential benefit changes (if any).

4. Next steps

This report will be shared with the President & Vice-Chancellor for consideration in determining the University's formal response to the USS valuation consultation process which is due to be submitted by 17 March 2017.

Appendix 1: Working Group Membership & Remit

Name	Role
Ian Wright	Associate Director of HR
Suzanne Duke	Reward Manager
Robert Hebblethwaite	Assistant Director of Finance
Sam Marsh	University Teacher , School of Maths & Statistics, and UCU Communications Officer
Matthew Malek	Lecturer – Experimental Particle Physics, Dept of Physics & Astronomy and UCU Pensions Officer
Mark Bryan	Reader, Dept of Economics
Moty Katzman	Reader, School of Maths & Statistics

Purpose and Remit of Group

A consultative group whose remit is to collectively inform a unified University response to the 2017 Valuation that is both knowledge-based and representative of both members and the University.

Terms of Reference

- To review employer consultations as part of the 2017 valuation.
- To use its expertise to conduct an overview and evaluation of the valuation that is in scope of any employer consultation and will help inform a University response.
- To provide a collective view that is representative of scheme members but also considers and represents the short and long-term interests of the University.
- The group will input into and help inform the University response to any consultation as part of the 2017 Valuation, but will not determine the final response.
- Any final response will sit with the President and Vice-Chancellor (or their chosen nominee)
- The group will meet as required to provide timely consideration and responses to the USS 2017 Valuation consultation requirements.

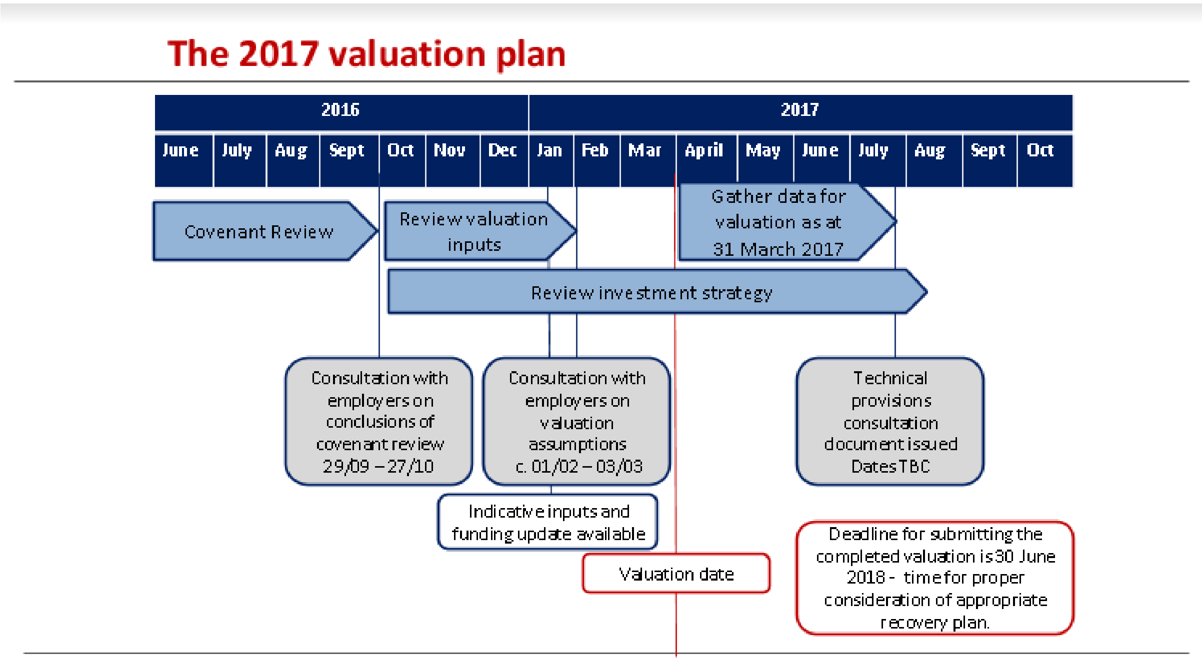
Appendix 2:
Purpose of Valuation:

- To establish whether the assets held by the scheme are sufficient to cover the benefits promised to members (as of the valuation date), given the employers' covenant.
- To determine the level of contributions required from employers and members to meet future benefits and clear any past service deficit.

There are four main elements to the valuation methodology:

1. Review of the employers' covenant
2. Analysis of the scheme at the end of the covenant horizon and at the valuation date
3. Setting a risk budget to maintain scheme risk within the covenant parameters;
4. Incorporating prudence.

Timeline



1. **Covenant Review (establishes the capacity of employers to collectively support the scheme and therefore inform the trustee's consideration of risk they can take)**

UUK Town hall Event attended in September 2016

USS issued a Summary of Initial Conclusions for Consultation with Sponsoring Employers on 29 September and invited further comments on this through consultation events held in October. Their initial response was:

- The covenant is highly robust
- The covenant strength is rated strong
- The covenant horizon is at least 30 years
- Given some notice, employers have the ability to increase contributions should it be necessary for them to do so (most employers could afford an increase of 21%, possibly up to 25%).

University responded to UUK survey in October. Survey designed to:

- To help inform the development of an employer position ahead of the USS valuation in 2017
- To support the development of a long-term pension strategy for the higher education sector by the Employer's Pension Forum (EPF)

UUK issued response to initial conclusions from covenant review on 29 November. Their response challenged some of USS's conclusions.

USS published a response to the questions posed by the Valuation Discussion Forum (VDF)* on 29 November including a high-level overview of the proposed approach to the methodology. The response covered the methodology that will be adopted for 2017, not the actual inputs (assumptions) that generate the valuation outputs.

(*VDF established in Sept 15 to explore and develop a shared understanding of the current approach used by the USS Trustee and to identify a framework for further discussion, whilst recognising that any changes to the valuation methodology are a decision for the USS trustee).

UCU have again engaged First Actuarial (who were highly critical of methods used in 2014 valuation) to initially provide commentary on:

- Expected future investment returns relative to CPI on different asset classes
- Setting a discount rate for a statutory valuation
- The concept of self-sufficiency and what this might mean for USS.

2. Consultation with employers around the underlying valuation assumptions (16 February – 17 March 2017)

A University working group has been set up to help inform a collective response to the next steps of the 2017 Valuation.

March 2017 – UUK expected to circulate to employers a note relating to the initial USS actuarial assumptions and inputs consultation in order to further assist and inform employers to determine their response.

Remaining Timeline

31 March 2017 – Triennial Valuation date

Late April/Early May 2017 – USS to outline the scheme's indicative funding position.

Late June/early July 2017 – USS will set out its proposed assumptions and discount rate.

Summer 2017 – UUK will begin to consult with the sector on approaches for the future design of the scheme