JOHN RALFE CONSULTING

Mr Bill Galvin
Group Chief Executive Officer
USS Limited
60 Threadneedle Street
London EC2R 8HP

12th October 2018

Dear Mr Galvin

Report of the Joint Expert Panel on USS September 2018

As pension experts and economists from the UK, Australia, Canada, Cyprus, The Netherlands and the US, we are writing to you about the USS JEP Report on the 2017 Valuation. [1]

The Report makes the following crucial recommendation to USS (p59):

> **The Panel would encourage the Trustee to consider taking account of expected future investment returns in calculating contribution rates.**

In our view, *"taking account of expected future investment returns"* fundamentally misrepresents the economics of DB pensions, and understates the annual cost of new pension promises, the total liabilities from past pension promises, and any deficit payments needed.

Because DB pension promises are guaranteed, and cannot be cut back if investment returns are less than expected, we recommend that USS do **not** "take account of expected future investment returns" in the 2017 Valuation.

Instead, USS should measure the economic cost of new pension promises, the total liabilities from past pension promises, and any deficit payments needed.

[1] http://www.ussjep.org.uk/files/2018/09/report-of-the-joint-expert-panel.pdf

John Ralfe Consulting Limited
Nottingham NG2 6EU
0115 982 1911 07779 574193 JohnRalfe@JohnRalfe.com

This is not a technical matter of disagreement between different pension experts, but has real practical consequences. Getting it wrong stores-up future problems with pernicious consequences for UK Higher Education.

Our views

DB pensions are deferred pay earned as part of an employment contract. USS has a legal obligation to pay inflation-linked pensions to 420,000 individual members, funded by the 350 USS university institutions, on a joint-and-several basis.

In economic terms this is the same as a joint-and-several obligation on the USS institutions to make interest and principal payments on a series of inflation-linked bonds.

In our view the correct discount rate for USS pensions is the market discount rate for inflation-linked bonds with a similar payment date and a similar underlying obligor to USS - the joint-and-several guarantee of 350 institutions, including some rated AAA, Oxford [2] and Cambridge [3], with the additional security provided by USS's assets.

The cost, or present value, of, say, a USS £100m inflation-linked pension payment at year 20 is the same as the present value of a £100m inflation-linked bond payment at year 20, with the joint-and-several guarantee of the 350 USS institutions, secured on financial assets.

Neither the annual cost of new USS pension promises, or USS's total liabilities, are changed by changing the asset allocation. More equities don't reduce the cost, more bonds don't increase the cost.

[2] https://www.moodys.com/research/Moodys-assigns-Aaa-rating-to-University-of-Oxford-outlook-stable--PR_375521
[3] https://www.moodys.com/research/Moodys-assigns-PAaa-debt-rating-to-University-of-Cambridges-senior--PR_383907

As part of the "expected return on assets" approach, the JEP also suggests USS could delay the proposed de-risking for 10 years to reduce the annual cost of new pension promises and the value of liabilities (p55):

> Reverting to the September technical provisions, i.e. no de-risking for years 1-10, *could reduce the deficit by around £2.6bn and reduce the cost of current benefits by around 1.3%.*

Equities certainly have a higher expected long-term return than bonds. But, in our view, holding more equities for longer does not magically shrink the annual cost of new pension promises, or the total value of pension liabilities.

If liabilities can be shrunk just by holding equities, then a company could issue a £100m long-term bond, and buy, say, £80m of equities, pledged to bondholders, creating a £20m gain – a perpetual motion machine.

Taking credit for the higher expected, but unearned, return on equities, whilst ignoring the risk is double-counting, implicitly saying a £100 of equities are worth more than £100 of bonds.

The JEP suggestion that USS can reduce annual costs and deficit by holding more equities for longer, is exactly what got so many UK and US pension schemes into serious trouble.

Please feel free to ask any questions.

Yours sincerely,

Cc Alastair Jarvis, UUK
Sally Hunt, UCU
Lesley Titcomb, The Pensions Regulator
Joanne Segars, USS JEP

The letter is signed in a personal capacity and any institutional affiliation does not imply endorsement by that institution.

Full personal addresses are available on request.

1 **Lawrence Bader**
Fellow of the Society of Actuaries
Cary, NC, USA

2 **Ed Bartholomew**
former CFO, Inter-American Development Bank
Washington, DC, USA

3 **Andrew G. Biggs**
Resident Scholar
The American Enterprise Institute
Washington, DC 20036, USA

4 **Prof Zvi Bodie**
Professor Emeritus of Management
Boston University
Brookline, MA, USA

5 **Ilja A. Boelaars**
PhD Candidate, Department of Economics
University of Chicago
Chicago, IL, USA

6 **Prof Lans Bovenberg**
Scientific Advisor Network for Studies on Pensions, Aging and Retirement (Netspar)
Tilburg University
Tilburg, The Netherlands

7 **Wayne Cannon**
Fellow of the Institute of Actuaries of Australia
Upper Kedron, Queensland , Australia

8 **David R. Cantor**
Associate of the Society of Actuaries
White Plains, NY, USA

9 **Bernard H Casey**
Former university academic
Independent pension consultant
SOCialECONomicRESearch
London, TW1

10 **Jeremy Cooper**
Chairman, Retirement Income
Challenger Limited
Sydney, NSW, Australia

11 **Steve Cooper**
Stansted Mountfitchet
Essex, CM 24

12 **Georg Grodzki**
Financial analyst
London , W1

13 **Angus Hanton**
Intergenerational Foundation
19 Half Moon Lane
London, SE24 9JU

14 **Evan Inglis**
Fellow of the Society of Actuaries
Vienna, VA 22181

15 **John Kiff,**
International Monetary Fund,
700 19th Street NW,
Washington DC, 20431, USA

16 **Prof Theo Kocken**
Professor of Risk Management
VU University
Amsterdam, The Netherlands

17 **Gordon Latter**
Fellow of the Society of Actuaries
Former Chair Pension Finance Task Force
Joint Academy of Actuaries/Society of Actuaries
Minneapolis, MN, USA

18 **Prof David A. Love**
Provost and Professor of Economics
Williams College
Williamstown, MA, USA

19 **Prof David Miles, CBE**
Professor of Financial Economics
Imperial College
London, SW7 2AZ

20 **John R. Minahan, Ph.D., CFA**
Independent Consultant
Boston, MA, USA

21 **Con Michalakis**
Chief Investment Officer
Statewide Superannuation
Adelaide, SA, Australia

22 **Prof Anthony Neuberger**
Professor of Finance
Cass Business School
City University
London, EC1Y 8TZ

23 **Prof Theo Nijman**
Professor of Pension and Risk Management
Scientific Director Network for Studies on Pensions, Aging and Retirement (Netspar)
Tilburg University
Tilburg, The Netherlands

24 **Robert. C. North, Jr**
Fellow of the Society of Actuaries
Princeton, NJ, USA

25 **Prof Antoon Pelsser**
Professor of Finance and Actuarial Science
Maastricht University
Maastricht, The Netherlands

26 **Prof George G. Pennacchi**
Professor of Finance
University of Illinois
Champaign, Illinois, USA

27 **David G. Pitts**
Fellow of the Society of Actuaries
Independent Actuarial Services
Fairfield Glade
TN, USA

28 **John Ralfe**
John Ralfe Consulting
Nottingham, NG2

29 **Prof Joshua Rauh**
Director of Research, Hoover Institution
Professor of Finance, Stanford Graduate School of Business
Senior Fellow, Stanford Institute for Economic Policy Research
Stanford, CA, USA

30 **Neil Record**
Institute of Economic Affairs
2 Lord North Street
London, SW1P 3LB

31 **Michael Savage, PhD**
London, E18

32 **Allison Schrager, PhD**
LifeCycle Finance LLC
New York, NY, USA

33 **Cliff Speed**
Fellow of the Institute and Faculty of Actuaries
St Albans, AL3

34 **David Starkie**
London, SW8

35 **Sam Taylor**
Edinburgh, EH10

36 **Peter Tompkins**
Fellow of the Institute and Faculty of Actuaries
London, NW1

37 **Prof Hans Van Meerten**
Professor International Pension Law
Utrecht University
Utrecht, The Netherlands

38 **Prof Bas Werker**
Professor of Finance and Econometrics
Tilburg University
Tilburg, The Netherlands

39 **Prof Stavros Zenios**
Professor of Finance and Management Science
University of Cyprus
Nicosia, Cyprus
Senior Fellow
Financial Institutions Center
The Wharton School
University of Pennsylvania
Philadelphia, PA, USA

Appendix I Background to USS

1 USS - the pension scheme for academics and senior staff mainly in the 70 "old" pre-1992 universities - has 420,000 members – 200,000 active, 150,000 deferred and 70,000 pensioners.

It also has members from another 280 institutions, including virtually all of the post-1992 universities, and other smaller bodies, 350 in total.

2 USS is the UK's largest private sector scheme - at March 2018 it had £63.6bn assets & £74bn FRS102 liabilities, using the yield on *"high quality corporate bonds"* - an £8.4bn deficit, [4] down from £17.5bn at March 2017.

On a "buy-out" basis USS had a £63.9bn deficit at March 2017. [5]

3 It has a "Last Man Standing" legal structure, so each institution is liable for all of USS's liabilities on a joint-and-several basis - if an institution goes bust its liabilities are picked-up by remaining institutions.

4 USS is still open to new members and provides an CPI inflation-linked DB pension of 1/75th of salary, plus 3/75th cash lump sum, on a career average basis, up to a salary of around £57,000. For salaries above this it provides a DC pension, applying to around 20 per cent of active members.

5 Employees currently pay 8 per cent of salary and employers 15.9 per cent – 23.9 per cent in total - for the annual cost of new pension promises. Employers also pay 2.1 per cent of salary as deficit contributions, making their total contribution 18 per cent of salary.

6 Under UK accounting individual universities do not have to show the FRS102 annual cost of new USS pension promises in their individual accounts, but just the (lower) total cash contribution. Since 2016 universities have been required to show part – but not the whole - of their share of their FRS102 deficit.

---

[4] https://www.uss.co.uk/~/media/document-libraries/uss/how-uss-is-run/reports-and-accounts/uss-ltd-consol-accounts-18.pdf p34

[5] https://www.uss.co.uk/~/media/document-libraries/uss/how-uss-is-run/reports-and-accounts/uss-report-accounts-2018.pdf p84

Appendix II Background to the JEP Report

1 USS pension benefits are decided by a Committee with representatives from University UK and the UCU union. USS fixes the total annual contribution required to pay for the annual cost of new pension benefits, and to meet the deficit.

2 In response to the 2017 Valuation, showing higher contributions were needed to pay for the DB benefits, UUK announced it wanted to close DB and move to DC to manage cost and risk.

3 After prolonged strikes, it was agreed to set-up a Joint Expert Panel, with representatives from UUK and UCU, to examine the 2017 Valuation.

4 The JEP model makes adjustments to the 2017 Valuation (p54 to 60).

- Delaying the proposed de-risking for 10 years, and placing greater reliance on the employer covenant.
- Allowing for higher asset outperformance.
- Smoothing the increase in contributions over 6 years.
- Using updated mortality data.

5 With these adjustments the Panel concludes that a total of 29.18 per cent of salary (p60) is required from employees and employers to cover the annual cost of new pension promises and to plug the deficit, requiring a modest increase for employees from the current 8 per cent, and for employers from 18 per cent (15.9 per cent regular and 2.1 per cent deficit).

6 The Panel suggests this modest increase in contributions is manageable for both employees and employers, so the current USS DB benefits can remain unchanged.

John Ralfe Consulting Limited
Nottingham NG2 6EU
0115 982 1911 07779 574193 JohnRalfe@JohnRalfe.com