HEALTH WEALTH CAREER

SCHEME FUNDING REPORT OF THE ACTUARIAL VALUATION

UNIVERSITIES SUPERANNUATION SCHEME

AS AT 31 MARCH 2018

MAKE TOMORROW, TODAY

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1
INTRODUCTION

This report is addressed to the Trustee of the Universities Superannuation Scheme ("the Trustee") and is provided to meet the requirements of Section 224(2)(a) of the Pensions Act 2004. It describes the factors considered by the Trustee when carrying out the actuarial valuation as at 31 March 2018, and the decisions reached as a result.

The purpose of the actuarial valuation is for the Trustee to determine:

- The amount of money required to be held within the Scheme in respect of the benefits built up by members at the valuation date (the "liabilities"), and compare this against the funds held by the Scheme (the "assets").
- An appropriate plan for making up the shortfall if the Scheme has less assets than liabilities.
- The contributions needed to cover the benefits that active members will build up in the future and other costs incurred in running the Scheme.

SIGNATURE		DATE OF SIGNING	16 September 2019
SCHEME ACTUARY	Ali Tayyebi	QUALIFICATION	Fellow of the Institute and Faculty of Actuaries

This report has been prepared in accordance with Technical Actuarial Standards TAS 100: Principles for Technical Actuarial Work and TAS 300: Pensions which are issued by the Financial Reporting Council. The calculations referred to in the report use methods and assumptions appropriate for reviewing the financial position of the Scheme and determining a contribution rate for the future. Mercer does not accept liability to any third party in respect of this report; nor do we accept liability to the Trustee if the information provided in this report is used for any purpose other than that stated. The report may be disclosed to members and others who have a statutory right to see it. It may also be disclosed to any participating employer and, if the Trustee and Mercer consent, it may be disclosed to other third parties.

2
KEY RESULTS

PAST SERVICE FUNDING POSITION: TECHNICAL PROVISIONS

The table below compares the assets and liabilities of the Scheme at 31 March 2018. Figures are also shown for the last formal actuarial valuation as at 31 March 2017 for comparison.

	£ billions	
	31 March 2018	31 March 2017
Total assets	**63.7**	**60.0**
Liabilities:		
Active members	*31.0*	*32.1*
Deferred pensioners	*9.7*	*8.8*
Pensioners	*26.6*	*26.6*
Total liabilities	**67.3**	**67.5**
Past service surplus / (shortfall)	**(3.6)**	**(7.5)**
Funding level	**95%**	**89%**

The Scheme contains a defined contribution section (Investment Builder) which at 31 March 2018 held assets of £0.8bn that are invested separately to the DB section. These assets exactly match the value of the liabilities they cover and both have been excluded from the table above.

The assets and liabilities of the Supplementary Scheme are included in the figures above.

The table shows that at 31 March 2018 there was a shortfall of £3.6bn. An alternative way of expressing the position is that the Scheme's assets were sufficient to cover 95% of its liabilities – this percentage is known as the funding level of the Scheme.

At the previous valuation at 31 March 2017 the shortfall was £7.5bn, equivalent to a funding level of 89%. The key reasons for the changes between the two valuations are considered in Section 3.

The liability value at 31 March 2018 shown in the table above is known as the Scheme's "technical provisions". The technical provisions are calculated using assumptions that the Trustee has determined are appropriate, based on the Trustee's assessment of the strength of the Employer covenant, having obtained advice from me as Scheme Actuary and having consulted with UUK on behalf of the employers over the approach. Throughout this report "Employers" means all employers who have a liability held within the Scheme.

Further details of the assumptions determined by the Trustee for calculating the technical provisions as at 31 March 2018 are set out in the Statement of Funding Principles which has been consulted upon with UUK on behalf of the employers and is repeated in Appendix A.

RISK AND PRUDENCE

The Trustee is required by law to set assumptions for its main funding measure, the technical provisions, prudently to allow for a margin of adverse experience relative to best estimate assumptions, i.e. the technical provisions need to represent a position more cautious than a best estimate.

In setting the technical provisions the Trustee also considers the reliance that a given level of technical provisions places on participating employers, being the difference between the level of assets being targeted if the Scheme is fully funded on the technical provisions basis and the assets required to move the Scheme to a low-risk, 'self-sufficient' portfolio – one that would have a low probability of requiring any further employer contributions in respect of benefits earned up to that point in time.

In reaching decisions on the appropriate level of the technical provisions and contributions, the Trustee therefore also considered the value of the liabilities on a 'best estimate' basis and 'self-sufficiency basis' and the results on these bases at 31 March 2018 are set out below:

	£ billions		
	Best estimate	**Technical Provisions**	**Self-Sufficiency**
Total assets	**63.7**	**63.7**	**63.7**
Total liabilities*	**54.3****	**67.3**	**84.5**
Past service surplus / (shortfall)	**9.4**	**(3.6)**	**(20.8)**
Funding level	**117%**	**95%**	**75%**

**All these liability calculations use the same mortality assumptions as the technical provisions basis. If the best estimate mortality was used then this would reduce the best estimate liabilities by around 0.5% or £0.3bn*

***As of January 2020 this figure is a corrected figure (which the original version of this report quoted as £53.3bn) with knock on impacts for the surplus and funding level immediately below it. This correction does not impact any other figures in the original version.*

CORRECTING THE TECHNICAL PROVISIONS SHORTFALL

The Trustee has determined that in order to correct the shortfall of £3.6bn the Employers should make deficit contributions of 2.0% of total salaries from 1 October 2019 until 30 September 2021, at which point the rate will increase to 6.0%. Contributions towards the accrual of future service benefits including contributions to the DC section would be in addition to this.

If deficit contributions are payable at this level from 1 October 2019 (including the allowance for the increase to 6.0% from 1 October 2021) and if experience is borne out in line with assumptions made for the recovery plan, this would be expected to correct the deficit by 31 March 2028. If experience is in line with the Trustee's best estimate assumptions the deficit will be cleared sooner.

FUTURE SERVICE CONTRIBUTIONS

The valuation also looked at the contributions required for the benefits that will be built up over the year after the valuation date (but allowing for the move to a Normal Pension Age of 66) based on the assumptions determined by the Trustee as set out in Appendix A.

The table below gives a breakdown of the future service cost at 31 March 2018 on the Trustee's assumptions and also shows the cost at 31 March 2017 for comparison.

	% of total salaries p.a. (allowing for DB salary threshold and DC section)	
	31 March 2018	**31 March 2017**
Total normal cost of DB pension benefits (including life assurance)	26.3	28.1
Allowance for DB expenses	0.4	0.4
Total cost of DC benefits*	2.0	2.1
Total future service contribution rate for DB and DC benefits	28.7	30.6

**allowing for the removal of the 1% employer DC match with effect from 1 April 2019.*

In addition to the cost of future benefit accrual the Scheme incurs costs related to ongoing administration and levies such as the PPF levy. A provision for this is included by adding 0.4% of pensionable salary within the total contribution rate shown above. Investment expenses have been allowed for implicitly in determining the discount rate.

If the assumptions underlying the technical provisions are borne out, the cost of future benefit accrual would be expected to reduce over time. It is anticipated that the contributions towards future benefit accrual would be reviewed following each future actuarial valuation.

CONTRIBUTIONS

Active members pay contributions to the Scheme as a condition of membership. They are deducted from the future service rate to calculate the Employer's future service contribution rate.

Active members as at 31 March 2018 pay contributions to the Scheme as a condition of membership, at the rate of 8% of Pensionable Salary. In addition, it has been determined that changes in contributions payable (including deficit recovery) from current levels will be split between employers and members as shown below:-

	% OF PENSIONABLE SALARIES			
	Up to 31 March 2019	**1 April 2019 to 30 September 2019**	**1 October 2019 to 30 September 2021**	**30 September 2021 onwards**
Total employer contributions	18.0	19.5	21.1	23.7
Total employee contributions	8.0	8.8	9.6	11.0
Total contributions (DB and DC)	**26.0**	**28.3**	**30.7**	**34.7**

The total employer contributions include a provision for:

- the cost of the future accrual of DB benefits (net of member contributions to the DB Section);
- contributions towards the correction of the deficit in the DB section;
- non-investment related administrative expenses and PPF levies (at an assumed level of 0.4% of total Salaries); and
- the employer contributions towards DC benefits and provision for certain investment management costs relating to the DC section, subject to review if those investment management costs exceed 0.1% of total Salaries.

3
EXPERIENCE SINCE LAST VALUATION

SUMMARY OF KEY CHANGES OVER THE INTER-VALUATION PERIOD

The most recent formal actuarial valuation was carried out with an effective date of 31 March 2017. As part of the conclusion of that valuation, certain changes were made to benefits and anticipated contributions. The key changes were:

- Removal of the 1% employer DC match with effect from 1 April 2019;
- A phased increase in employee contributions from 8% to 11.4% over the period up to 1 April 2020;
- A phased increase in employer contributions from 18% to 24.2% over the period up to 1 April 2020.

SUMMARY OF EXPERIENCE OVER THE INTER-VALUATION PERIOD

Pensions in payment were increased as guaranteed under the Scheme as follows (other than Guaranteed Minimum Pension (GMP) amounts with limited increases):

- April 2018 3.0%

Over the year since the 2017 valuation, the investment return on the Scheme's assets was 6.2%.

The table summarises the contributions paid over the year since the 2017 valuation. These figures are from the audited accounts and are in line with the rates agreed as part of the 2014 valuation (the rates certified as part of that valuation were applicable to the valuation date). The figures below include contributions in to the defined benefit section, defined contribution section, section 75 debt, Main AVC section, Money Purchase AVCs and supplementary section

DATE	EMPLOYERS' CONTRIBUTIONS	MEMBERS' CONTRIBUTIONS
1 April 2017 to 31 March 2018	£1.9bn (including £0.5bn of salary sacrifice)	£0.3bn

REASONS FOR THE CHANGE IN FUNDING POSITION SINCE THE LAST ACTUARIAL VALUATION

The shortfall at the last valuation date was £7.5bn. The table below sets out the main reasons for the reduction in the shortfall between 31 March 2017 and 31 March 2018.

Shortfall at 31 March 2017	**£7.5bn**
Expected interest on shortfall	0.2
Higher than expected investment returns	-2.2
Employers' contributions over the inter-valuation period	0.4
Change in underlying financial conditions	-1.8
Change in demographic assumptions - mortality	-0.5
Shortfall at 31 March 2018	**£3.6bn**

4 PROJECTED FUTURE FUNDING LEVEL AND VOLATILITY

PROJECTED FUNDING POSITION AT 2021 ACTUARIAL VALUATION

The Trustee has decided that in order to correct the shortfall of £3.6bn the Employers should make deficit contributions of 2.0% of members' total pensionable salaries from 1 October 2019, increasing to 6.0% from 1 October 2021. If the assumptions are borne out in line with those underlying the recovery plan this would be expected to correct the shortfall by 31 March 2028.

The next actuarial valuation is due to take place with an effective date no later than 31 March 2021 (although the Trustee has indicated its intention to carry out a valuation as at 31 March 2020). If experience up to 31 March 2021 is in line with the recovery plan assumptions, and contributions are in line with those detailed in section 2, the shortfall at 31 March 2021 would be £3.9bn, equivalent to a funding level of 95%.

MATERIAL RISKS FACED BY THE SCHEME

The Scheme is subject to some potentially material risks that are, to an extent, outside the Trustee's control, but could affect the funding level. Any material worsening of the funding level will mean more contributions are needed (either at an increased rate or at the same rate over a longer period) to be able to provide the benefits built up in the Scheme – unless experience acts in other ways to improve the funding level. Examples of such risks, and how the Trustee manages them, are:

- If the Employers become unable to pay contributions or to make good deficits in the future, the Scheme's assets will be lower than expected and the funding level will be worse than expected. The Trustee regularly monitors the financial strength of the Employers.

- If future investment returns on assets are lower than assumed in the valuation, the Scheme's assets will be lower, and the funding level worse, than expected. The Trustee has a process in place to monitor investment and manager performance regularly, and they review the Scheme's investment strategy alongside each actuarial valuation. They have taken the following action to mitigate (but not fully remove) the risk:

  – The technical provisions assumptions make a provision for a gradual reduction in investment risk over a 20-year period

- If markets move such that the liability values increase by more (or decrease by less) than the assets, the funding level against the technical provisions and on the wind-up basis (see section 5) will be worse than expected. In order to mitigate this risk the Trustee regularly monitors the funding level within the Scheme and considers whether any action should be taken in advance of the next formal actuarial valuation.

- If improvements in life expectancy are greater than assumed, the cost of benefits will increase because members are living longer than expected. This will mean the funding level will be worse than expected. The Trustee regularly reviews the Scheme's experience and ensures that the assumptions they make about members' life expectancy take the most recent information available into account.

- If members make decisions about their options, which increase the Scheme's liabilities, the funding level will be worse than expected. The Trustee regularly reviews the Scheme's experience to ensure that their treatment of member options remains appropriate.

SENSITIVITY OF FUNDING POSITION TO CHANGES IN KEY ASSUMPTIONS

The value placed on the Scheme's liabilities is critically dependent on the assumptions used to carry out the calculations. If future experience differs from the assumptions the Trustee has used after consulting with the Employers, then the future funding level could be different from that described above.

To illustrate how sensitive the funding level is to alternative assumptions or to experience being different from assumed, the table below shows how the valuation results at 31 March 2018 would have differed given illustrative changes in some of the individual key assumptions in isolation (for this illustration it is assumed there is no corresponding change in asset values (first three items) or change in assumptions use for calculating the liabilities (last item)).

	Change in Shortfall as at 31 March 2018 (£bn)
Technical provisions discount rate + 0.1%	-1.2
RPI – CPI spread + 0.1%	-0.7
Life expectancy is higher than assumed *	+1.6
Asset values fall by 10%	+6.4

**Assumes member life expectancy is consistent with someone one year younger than their current age (i.e. a 60 year old is observed to have the life expectancy of someone aged 59)*

5
WIND-UP POSITION

If the Employers were to become insolvent or decide not to support the Scheme, the Trustee could decide to wind up the Scheme and seek to secure the benefits built up with an insurance company or a panel of insurance companies. Insurance companies use different assumptions to the Trustee's technical provisions when calculating the value of the Scheme's liabilities and the price they would charge to provide the benefits.

The table below shows an estimate of the funding level of the Scheme at 31 March 2018 assuming all benefits were bought out with an insurer. The wind-up position at 31 March 2017 is also shown for comparison. The wind-up position is shown for information only, and does not mean that the Trustee or Employers are considering winding up the Scheme.

	£ billions	
	31 March 2018	**31 March 2017**
Total assets	**63.7**	**60.0**
Liabilities:		
Active members	*60.4*	*69.6*
Deferred pensioners	*19.3*	*20.2*
Pensioners	*32.5*	*32.5*
Expenses	*1.6*	*1.6*
Total liabilities	**113.8**	**123.9**
Past service surplus / (shortfall)	**(50.1)**	**(63.9)**
Funding level	**56%**	**48%**

As the table shows, the Scheme would have had an estimated shortfall of £50.1bn if it had been wound up at 31 March 2018. This means that, on average, members could only expect to receive 56% of the benefits earned to 31 March 2018 (although the percentage coverage would differ between members depending on age and when their benefit was earned).

The assets of the defined contribution section have been excluded as they exactly match the value of the liabilities they cover and would be used to buy-out the defined contribution benefits. In practice, if the Scheme was wound up due to the Employers becoming insolvent, the members may be eligible for compensation from the Pension Protection Fund (PPF) if the Scheme's assets were less than needed to buy that compensation from an insurance company. If this was the case, members could receive a higher proportion of the benefits they have earned to date. Further details of the compensation payable from the PPF are given in Appendix E. On the PPF's S179 basis, the shortfall in the Scheme at 31 March 2018 was £19.7bn equal to a funding level of 76%.

If the assumed wind-up basis remains unchanged from its position at 31 March 2018 and if the asset experience is in line with the technical provisions assumptions, and contributions are paid in line with the current schedule of contributions with the revised contributions detailed in section 2 coming into payment from 1 October 2019, the shortfall at 31 March 2021 on a wind-up basis would be approximately £59bn, equivalent to a funding level of 54%.

APPENDICES

A
ASSUMPTIONS

HOW ARE THE BENFITS VALUED

In order to calculate the liabilities, the Trustee needs to make assumptions about various factors that affect the cost of the benefits provided by the Scheme. The assumptions used in this investigation were determined by the Trustee, having obtained advice from me as Scheme Actuary and after consultation with UUK on behalf of the Employers.

The table below explains the key assumptions being made in the valuation.

ASSUMPTION	WHY IT IS IMPORTANT AND HOW IT IMPACTS ON THE LIABILITIES
Discount rate	The majority of benefits in a pension scheme are paid many years in the future. In the period before the benefits are paid, the Trustee invest the funds held by the scheme with the aim of achieving a return on those funds. When calculating how much money is needed now to make these benefit payments, it is appropriate to make allowance for the investment return that is expected to be earned on these funds, making due allowance for a margin of prudence and any planned evolution of the investment strategy over time. This is known as "discounting". The higher the investment return achieved, the less money will have been needed to be set aside now to pay for benefits. The calculation approach reflects this by placing a lower value on the liabilities if the "discount rate" is higher (and vice versa).
Inflation	Pensions in payment typically increase in line with price inflation, subject to a cap in certain circumstances. A higher inflation assumption will, all other things being equal, lead to a higher value being placed on the liabilities.
Life expectancy	Pensions are paid while the member (and potentially their spouse or partner) is alive. The longer people live, the greater is the cost of providing a pension. Allowing for longer life expectancy therefore increases the liabilities.

The liabilities of the Scheme are calculated projecting forward all of the future benefit cash flows and discounting them back to the effective date of the valuation, using these assumptions. For example, the liability for a single pensioner is calculated by estimating the amount of each pension payment they will receive in the future, multiplying by the probability that the member will still be alive by the date of each payment, and then discounting each payment back to the effective date of the valuation, and then summing up all of these discounted amounts. The liabilities for the whole Scheme are calculated by summing the liabilities for each of the individual members.

FUNDING OBJECTIVE AND INVESTMENT STRATEGY

The assumptions for the technical provisions have been selected by the Trustee to reflect its funding objective, after consulting with UUK on behalf of the Employers. The Trustee's stated funding objective (reflecting consultations with UUK on behalf of the Employers) is to reach a position where the assets are sufficient to fully cover the technical provisions by 31 March 2028. Further details are available in the Scheme's Statement of Funding Principles.

The Trustee's current investment strategy is set out in Appendix C and further details are available in the Scheme's Statement of Investment Principles.

PART 1: SUMMARY OF KEY TECHNICAL PROVISIONS ASSUMPTIONS AT THE 2017 AND 2018 VALUATION

The tables below summarise the key assumptions used in the calculation of the technical provisions and those used for the 31 March 2017 actuarial valuation.

Financial assumptions

FINANCIAL ASSUMPTIONS	31 March 2018	31 March 2017
Market derived price inflation	In line with the difference between the Fixed Interest & Index-Linked yield curves	
Inflation Risk Premium (IRP)	0.3% p.a.	0.3% p.a.
Price inflation (RPI)	Market derived price inflation less IRP	
RPI / CPI gap	1.0% p.a.	1.0% p.a.
Price inflation (CPI)	RPI less RPI / CPI gap	
Pension increases in payment	CPI assumption (for both pre and post 2011 benefits)	
Discount rate:	Years 1-10: CPI +0.14% reducing linearly to CPI -0.73% Years 11-20: CPI +2.52% reducing linearly to CPI +1.55% by year 21 Years 21+: CPI +1.55%	Years 1-10: CPI -0.53% reducing linearly to CPI -1.32% Years 11-20: CPI +2.56% reducing linearly to CPI +1.7% by year 21 Years 21+: CPI +1.7%

Demographic assumptions

	31 March 2018	31 March 2017
Mortality – base table	Pre-retirement: 71% of AMC00 (duration 0) for males and 112% of AFC00 (duration 0) for females	
	Post-retirement: 97.6% of SAPS S1NMA "light" for males and 102.7% of RFV00 for females	Post retirement: 96.5% of SAPS S1NMA "light" for males and 101.3% of RFV00 for females
Mortality – future improvements:	CMI_2017 with a smoothing parameter of 8.5 and a long term improvement rate of 1.8% pa for males and 1.6% pa for females	CMI_2016 with a smoothing parameter of 8.5 and a long term improvement rate of 1.8% pa for males and 1.6% pa for females
Commutation	No allowance	

The mortality assumptions used for the 31 March 2018 valuation result in the following life expectancies. This information may be useful to the Trustee when completing the annual scheme return.

	Cohort	Period
Life expectancy for a male aged 65 now	24.4	22.5
Life expectancy at 65 for a male aged 45 now	26.3	n/a
Life expectancy for a female aged 65 now	25.9	24.0
Life expectancy at 65 for a female aged 45 now	27.7	n/a

PART 2: STATEMENT OF FUNDING PRINCIPLES FROM THE 2018 VALUATION

ACTUARIAL VALUATION AS AT 31 MARCH 2018
STATEMENT OF FUNDING PRINCIPLES

Universities Superannuation Scheme (the scheme)

This statement of funding principles (SFP) sets out the policies of the trustee board of the Universities Superannuation Scheme (the trustee) for securing that the statutory funding objective is met.

It has been prepared by the trustee to satisfy the requirements of section 223 of the Pensions Act 2004, after obtaining the advice of Ali Tayyebi, the scheme actuary appointed under s47 of the Pensions Act 1995. It reflects the guiding principles on risk management adopted by the trustee as set out in its published funding principles and tests. It has been taken into account in the actuarial valuation as at the effective date of 31 March 2018. The SFP will be reviewed and, if necessary, revised, before being taken into account at subsequent valuations under Part 3 of the Pensions Act 2004.

In accordance with legislation and the scheme rules, the trustee has consulted with Universities UK over the content of this statement of funding principles.

The statutory funding objective

The statutory funding objective is that the scheme has sufficient and appropriate assets to meet the amount required, on actuarial calculation, to make provision for the scheme's liabilities (the technical provisions).

Calculation of the technical provisions

The principal method and assumptions to be used in the calculation of the technical provisions are set out in the notes to this appendix.

The general principles adopted by the trustee are that the assumptions used, taken as a whole, will be chosen sufficiently prudently for pensions and benefits already in payment to continue to be paid, and to reflect the commitments which will arise from members' accrued pension rights. The basis will include appropriate margins to allow for the possibility of events turning out worse than expected and will only be adopted after considering how it compares with the assumptions used to assess the scheme's solvency position.

However, the trustee does not intend for the method and assumptions to remove completely the risk that the technical provisions could be insufficient to provide benefits in the future.

As part of its process for choosing the assumptions and determining the size of the margins to include, the trustee will take into account its objective assessment of the employer covenant and the level of risk present in the investment strategy of the scheme.

Self-sufficiency basis

The principles of risk management adopted by the trustee mean that the trustee will have regard to the *self-sufficiency* basis when setting the technical provisions basis. In particular, the trustee takes into account the projected difference between the *self-sufficiency* basis and the technical provisions basis over time in order to ensure that it is within a range which is considered acceptable. This means that the choice of the discount rate may be impacted by the level of future benefit accrual as the latter will affect the projected quantum of liabilities over time. In the shorter term, the trustee considers the level of any shortfall between the assets held and the self-sufficiency liabilities, as a key risk measure.

The differences between the assumptions used for this basis and the technical provisions assumptions are highlighted in the notes to this appendix.

Policy on discretionary increases and funding strategy

No allowance has been included in the assumptions for paying discretionary benefits or making increases to benefits that are not guaranteed under the scheme rules.

There are no funding objectives provided for in the rules of the scheme or which the trustee has adopted in addition to the Statutory Funding Objective.

Rectifying a failure to meet the statutory funding objective

If the assets of the scheme are less than the technical provisions at the effective date of any actuarial valuation, a recovery plan will be put in place, which may require additional contributions from the employers (and potentially the members) to meet the shortfall. The trustee has agreed that any such funding shortfalls should be met over an appropriate period and tailored to both Scheme and Employer circumstances.

Additional contributions will be expressed as a percentage of pensionable payroll.

In determining the actual recovery period at any particular valuation, the trustee will take into account the following factors:

- The size of the funding shortfall and the scheme's current asset and liability structure;
- The trustee's future investment strategy, as set out it the Statement of Investment Principles;
- The trustee's objective assessment of the financial covenant of the employer.

Based on the principles and assuming the assumptions are borne out in practice, the shortfall calculated at the 31 March 2018 valuation will be met by 31 March 2028 which is 10 years from the effective date of the valuation. The assumptions to be used in these calculations are set out in the notes to the appendix below.

Calculating the normal cost of the scheme

Contributions required to meet the cost of benefits accruing by members after the valuation date will be calculated using the method and assumptions set out in the notes to the appendix.

Contributions payable to the scheme

The contributions payable to the scheme by members and employers, including those to meet the cost of new benefits accruing as well as any other contributions the trustee may require, will be set out in the Schedule of Contributions following each valuation.

Arrangements for other parties to make payments to the scheme

There is no provision except in specific, limited circumstances in the scheme rules to allow someone other than the employers or a scheme member to make contributions to the scheme.

Policy on reduction of cash equivalent transfer values (CETVs)

At each valuation, the trustee will ask the actuary to report on the extent to which assets are sufficient to provide CETVs for all members. If the assets are insufficient to provide 100% of benefits on that basis, so that payment of full CETVs would adversely affect the security of the remaining members' benefits, and the employers are unable or unwilling to provide additional funds, the trustee will consider reducing CETVs as permitted under legislation.

If, at any other time, the trustee is of the opinion that payment of CETVs at a previously agreed level could adversely affect the security of the remaining members' benefits, the trustee will commission a report from the actuary and will use the above criteria to decide whether, and to what extent, CETVs should be reduced.

Payments to the employer

There is no provision in the scheme rules for employers to request a refund of the excess assets over the cost of buying out benefits of all beneficiaries with an insurance company, when the scheme is not being wound up.

GMP Equalisation

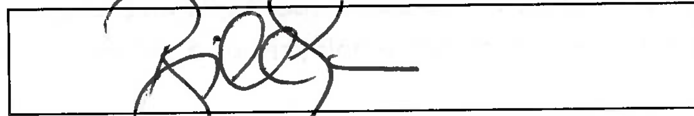
As a result of the court case ruling in respect of the Lloyds Banking Group Pension Schemes, Schemes are required to equalise Guaranteed Minimum Pensions accrued between 17 May 1990 and 5 April 1997. There is no explicit allowance for this in the 2018 actuarial valuation and any additional funding costs required to uplift benefits will be met by either the Scheme's assets or future contributions from the Employer, although it is expected that these will be immaterial in the context of the scheme as a whole.

Frequency of valuations and circumstances for extra valuations

Subsequent valuations will in normal circumstances be carried out every three years, the next being due on 31 March 2021, however it is the trustee's intention to undertake a valuation of the Scheme as at 31 March 2020. In intervening years an actuarial report will be produced.

The trustee will monitor the funding level on a regular basis between valuations in order to determine what action, if any, it needs to take. If the trustee decides that it is appropriate, it may commission a full actuarial valuation, when after considering the actuary's advice, it is of the opinion that it is necessary to do so and is an effective use of its resources.

This statement of funding principles, revised from 16 September 2019 has been agreed by the trustee of the USS after obtaining advice from the scheme actuary.

Signed on behalf of the Trustee of the USS	
Name	Bill Galvin
Position	Group Chief Executive Officer
Revised and effective from date	16 September 2019

Notes to Statement of Funding Principles

Method and assumptions used in calculating the technical provisions

Summary of decisions made as to method and key assumptions used for calculating technical provisions as at 31 March 2018

The method used was the Projected Unit method.

Principal actuarial assumptions for Technical Provisions as at 31 March 2018	
Market derived price inflation	In line with difference between Fixed Interest and Index-Linked yield curves
Inflation risk premium	0.3% pa
Price inflation – Retail Prices Index	Market derived price inflation less Inflation risk premium
RPI / CPI gap	1.0% pa
Price inflation – Consumer Prices Index	RPI assumption less RPI / CPI gap
Discount rate *	Years 1-10: CPI + 0.14% reducing linearly to CPI – 0.73% Years 11-21: CPI + 2.52% reducing linearly to CPI + 1.55% by year 21 Years 21 +: CPI + 1.55%
Pension increases in payment	CPI assumption (for both pre and post 2011 benefits)
Mortality base table	Pre-retirement: 71% of AMC00 (duration 0) for males and 112% of AFC00 (duration 0) for females Post retirement: 97.6% of SAPS S1NMA "light" for males and 102.7% of RFV00 for females
Future improvements to mortality	CMI_2017 with a smoothing parameter of 8.5 and a long term improvement rate of 1.8% pa for males and 1.6% pa for females

*** Based on the position used if no contingent support is available**

The derivation of these key assumptions and an explanation of the other assumptions to be used in the calculation of the technical provisions are set out below.

Method

The actuarial method to be used in the calculation of the technical provisions is the Projected Unit method with a one-year control period.

Financial assumptions

The financial assumptions shall be determined using a 'yield curve approach', with different assumptions applying at different points in time, reflecting the term structure of financial instruments. The particular approach to be used in determining each of the financial assumptions is set out below.

Inflation (RPI)

The assumption for the rate of increase in the Retail Prices Index (RPI) will be taken as a term structure derived from the investment market's expectation for inflation as indicated by the difference between an estimate of the yields available on conventional and index-linked UK Government bonds appropriate to the date of each future cash flow (extrapolated for cashflows beyond the longest available gilts), as advised by the Scheme Actuary. An adjustment may be made to the assumption to reflect market views that the prices of index-linked gilts include a 'risk premium' to reflect, for example, future inflation uncertainty. This adjustment may be limited by the existing or prospective level of inflation hedging targeted by the scheme. For the 31 March 2018 valuation, the inflation risk premium is set to be 0.3% pa.

For the self-sufficiency basis the inflation risk premium is assumed to be nil.

Inflation (CPI)

The assumption for the rate of increase in the Consumer Prices Index (CPI) will be derived from the RPI inflation assumption with an appropriate adjustment to recognise the difference between expectations of future RPI increases and future CPI increases. The adjustment will be reviewed at each valuation; at the 31 March 2018 valuation the adjustment was a deduction of 1.0% pa.

For the self-sufficiency basis the adjustment to expected RPI is a deduction of 0.8% pa.

Investment return

The assumed expected investment return for the DB section of the scheme is a best estimate that follows a term structure because:

1. The expected returns on each component asset class vary through time according to two periods: A period during which gilt yields revert from the valuation date until 31 March 2028 followed by an equilibrium period from 1 April 2028 onwards.
2. The investment portfolio is progressively de-risked over 20 years following the valuation.

These expected investment returns are listed for each year following the valuation date in the summary Table below.

Discount rate

The discount rate for liabilities is a prudent forecast investment return developed from the 33rd centile of the distribution of investment returns. This provides a 67% confidence that the discount rate will at least be achieved. From this calculation the discount rate is CPI +0.14% pa in year 1 decreasing linearly to CPI –0.73% in year 10, then CPI + 2.52% pa in year 11 reducing linearly to CPI +1.55% pa over the following 10 years and assumed to stay at CPI +1.55% pa beyond that point. This approach therefore includes the provision for gradual investment de-risking to take place as discussed above.

If, following a review of the investment strategy and any consequential changes to the Statement of Investment Principles after completion of the valuation, or due to a change in the Trustee's view on the outlook for future returns, the assumed rate of best estimate investment return and / or the prudent discount rate in excess of the CPI assumption may also change at subsequent funding updates.

For the "Self-sufficiency" basis the discount rate assumes a term structure derived from the yield of fixed interest gilts appropriate to the date of each future cash flow (extrapolated for cash flows beyond the longest available gilts) with a margin of 0.75% pa added to the fixed interest gilt yield. .

Pension increases

Increases to pensions are assumed to be in line with the CPI inflation assumption described above. In particular, at the 31 March 2018 valuation no adjustment has been made for the fact that pension increases are subject to a minimum of zero, and on benefits accrued after 30 September 2011 do not fully reflect inflation once CPI exceeds 5% pa.

Summary

The table below shows the technical provisions and discount rate and CPI assumptions as at 31 March 2018, determined in line with the above approach. The values shown at year 50 are assumed to stay constant after that point.

Term	Investment return (Best estimate) *(forward)*	Discount rate for Technical Provisions *(forward)*	CPI *(forward)*	Term	Investment return (Best estimate) *(forward)*	Discount rate for Technical Provisions *(forward)*	CPI *(forward)*
1	3.33%	1.83%	1.69%	26	4.41%	3.43%	1.88%
2	3.11%	1.62%	1.58%	27	4.28%	3.30%	1.75%
3	2.95%	1.47%	1.53%	28	4.16%	3.18%	1.63%
4	2.88%	1.41%	1.56%	29	4.05%	3.07%	1.52%
5	2.86%	1.41%	1.66%	30	3.94%	2.96%	1.41%
6	2.89%	1.45%	1.79%	31	3.84%	2.86%	1.31%
7	2.94%	1.51%	1.95%	32	3.76%	2.78%	1.23%
8	3.00%	1.58%	2.11%	33	3.70%	2.72%	1.17%
9	3.05%	1.63%	2.27%	34	3.66%	2.68%	1.13%
10	3.07%	1.67%	2.40%	35	3.64%	2.66%	1.11%
11	6.01%	5.02%	2.50%	36	3.64%	2.66%	1.11%
12	5.98%	4.99%	2.57%	37	3.65%	2.67%	1.12%
13	5.92%	4.94%	2.61%	38	3.69%	2.71%	1.16%
14	5.84%	4.85%	2.62%	39	3.73%	2.75%	1.20%
15	5.74%	4.75%	2.62%	40	3.80%	2.82%	1.27%
16	5.62%	4.64%	2.60%	41	3.87%	2.89%	1.34%
17	5.49%	4.51%	2.57%	42	3.96%	2.98%	1.43%
18	5.36%	4.37%	2.53%	43	4.06%	3.08%	1.53%
19	5.21%	4.22%	2.48%	44	4.16%	3.18%	1.63%
20	5.05%	4.07%	2.42%	45	4.28%	3.30%	1.75%
21	4.89%	3.91%	2.36%	46	4.40%	3.42%	1.87%
22	4.82%	3.84%	2.29%	47	4.53%	3.55%	2.00%
23	4.73%	3.75%	2.20%	48	4.67%	3.69%	2.14%
24	4.63%	3.65%	2.10%	49	4.80%	3.82%	2.27%
25	4.52%	3.54%	1.99%	50	4.94%	3.96%	2.41%

Demographic assumptions

Mortality

The mortality assumptions are based on scheme-specific experience analysis, expressed as liability-equivalent adjustments to standard tables published by the Continuous Mortality Investigation (CMI), making allowance for future improvements in longevity. The mortality tables are as follows:

Pre-retirement

AxC00 (duration 0) tables taking 71% for males and 112% for females, and improvements using CMI_2017 with a smoothing parameter of 8.5, and long term rates of 1.8% pa for males and 1.6% pa for females.

Post-retirement

- Males: S1NMA "Light" with 97.6% weighting and improvements using CMI_2017 [1.8%] with smoothing parameter 8.5

- Females: RFV00* with 102.7% weighting and improvements using CMI_2017 [1.6%] with smoothing parameter 8.5
  **At ages below 50, the RFV00 table will be extended by blending into the RFC00 table*

Early retirement

The allowance for early retirements will reflect emerging experience of retirements as monitored at each actuarial valuation and any adjustment for future expectations which is considered appropriate. For the 31 March 2018 valuation it has been assumed that ex-final salary active members will retire in line with the following decrement table (with all others assumed to retire at 65). Benefits relating to service accrued prior to 1 October 2011 are assumed to be paid with no reduction, and an allowance has been made for benefits accrued after 30 September 2011 to be reduced from the payable age of 65.

Age	% leaving per annum
60	30
61	10
62	15
63	15
64	20

All other members of the scheme are assumed to retire at 65 and allowance is built in for the appropriate adjustment to each relevant tranche of benefit applicable to members in line with the benefit age or associated Contractual Pension Age.

Ill health retirement

A small proportion of the active members will be assumed to retire owing to ill health. As an example of the rates assumed at the valuation with effective date 31 March 2018, the following is an extract from the decrement table used:

	% leaving per annum	% leaving per annum
Age	Males	Females
35	0.01	0.01
45	0.04	0.05
55	0.14	0.25

Withdrawals

This assumption relates to those members who leave the scheme with an entitlement to a deferred pension. It has been assumed that active members will leave the scheme at the following sample rates:

Age	% leaving per annum
25	18.28
35	9.11
45	5.38

Commutation

No allowance has been made for the option that members have to commute part of their pension at retirement in return for an additional lump sum (or indeed exchange part of their additional lump sum for pension) on the basis that the overall effect of these options is not expected to be material to the scheme.

Proportion of beneficiary pensions payable and age difference

It has been assumed that a proportion of members will have an eligible beneficiary at the time of retirement or earlier death based on the following:

Males:
All: 109% of the ONS 2008 table for males

Females:
Non-pensioners: 84% of ONS 2008 table for females
Pensioners: 68% up to and including age 59, 56% at 60 to 64 and 73% of ONS 2008 over age 64

Sample rates as shown in the table below.

	% spouse / partner		
Age	Male	Female pre retirement	Female post retirement
45	69.8	54.6	68.0
55	77.4	58.8	68.0
65	83.9	57.1	49.6
75	79.6	n/a	35.0
85	61.0	n/a	14.6

The surviving beneficiary of male members is assumed to be four years younger, on average, than the deceased scheme member, and the beneficiary of female members two years older.

Expenses

Expenses including PPF Levies are met by the fund. A provision for this is included by adding 0.4% of salary to the total contribution rate. This addition is reassessed at each valuation. The future level of the PPF levy in particular is very uncertain. Investment expenses have been allowed for implicitly in determining the discount rates.

Assumptions used in calculating contributions payable under the recovery plan

The contributions payable under the recovery plan will be calculated using the same assumptions as those used to calculate the technical provisions, with the exception of the following during the period of the recovery plan:

Investment return on existing assets and future contributions

The Trustee has determined that it will not allow for additional investment returns in the recovery plan for the 31 March 2018 valuation.

Salary increases

The growth in the aggregate payroll of the scheme's membership, used in the recovery plan, is assumed to be CPI + 2% pa. Because of the methodology used for the valuation it is not necessary to specify assumptions for individual members' pay growth

Method and assumptions used in calculating the cost of future accrual

The cost of future accrual was calculated using the same assumptions as those used to calculate the technical provisions, with the exception of retirement age. From October 2020, new benefits being accrued will have a retirement age of 66, in line with the change to State Pension Age. This change has been allowed for from the outset when calculating the cost of future accrual, with a small corresponding impact on the deficit recovery contributions resulting from the underpayment of the service cost in the period prior to that.

The salary threshold has been assumed to increase in line with the CPI assumption.

PART 3: OTHER ASSUMPTIONS USED WITHIN THIS REPORT THAT ARE NOT CONTAINED IN THE DRAFT STATEMENT OF FUNDING PRINCIPLES

Best estimate Assumptions at 31 March 2018

Investment return (Discount Rate)	Years 1-10: CPI +1.64% reducing linearly to CPI +0.67% Years 11-20: CPI +3.51% reducing linearly to CPI +2.53% by year 21 Years 21 +: CPI + 2.53%

Mortality base table	Post retirement: 99.6% of SAPS S1NMA “light” for males and 104.7% of RFV00 for females

Assumptions used to calculate the wind-up position

The wind-up position looks at the Scheme’s funding on the assumption that it had been discontinued on the valuation date and the benefits bought out with an insurance company. In doing this, it is assumed that no further benefits accrue, no further contributions are paid and active members are entitled to benefits on the basis they had left service on the valuation date. There is no allowance for any discretionary benefits being paid in the future.

The wind-up position has been estimated using Mercer’s experience of recent buyout quotations and our understanding of the factors affecting this market.

Detailed analysis of the reserves that would need to be held by an insurance company has not been carried out. Consideration has been given to the market terms for the financial instruments in which insurance companies would be expected to invest. An approximate allowance has been made for the reserves an insurance company would maintain to cover the risks involved and the statutory reserving requirements. The results are, therefore, only a guide to the wind-up position and should not be taken as a quotation. Market changes, both in interest rates and in supply and demand for buyout business, mean that if a buyout ultimately proceeds, actual quotations may differ.

The wind-up funding level is only an estimate since it is not based on an actual quotation. The true position could only be established by completing a buyout.

The tables below set out the assumptions used to assess the funding level in the event of the Scheme being wound up. The assumptions used at 31 March 2017 are also shown for comparison.

KEY FINANCIAL ASSUMPTIONS	31 March 2018	31 March 2017
Discount rate:		
Non-pensioners pre-retirement	1.5% p.a.	1.1% p.a.

Non-pensioners post-retirement	1.8% p.a.	1.5% p.a.
Pensioners	1.9% p.a.	1.8% p.a.
Revaluation in deferment	2.8% p.a.	3.2% p.a.
Non-GMP Pension increases:		
Non pensioners pre 2011	3.5% p.a.	3.5% p.a.
Non pensioners post 2011	3.4% p.a.	3.4% p.a.
Pensioners pre 2011	3.0% p.a.	3.2% p.a.
Pensioners post 2011	2.95% p.a.	3.15% p.a.
Expense allowance		
Wind up (% of liabilities)	3% up to £50m 2% between £50m and £100m 1% over £100m	3% up to £50m 2% between £50m and £100m 1% over £100m
Benefit installation/payment	Per non pensioner member: £1,000 Per pensioner (age dependent): Under 60 £900 60 to 70 £800 70 to 80 £600 80 or over £500	Per non pensioner member: £1,000 Per pensioner (age dependent): Under 60 £900 60 to 70 £800 70 to 80 £600 80 or over £500

KEY DEMOGRAPHIC ASSUMPTIONS	31 March 2018	31 March 2017
Mortality – base table	Males: 97.6% of S1NMA "light" tables Females: 102.7% of RFV00 tables (below age 50, the table is extended by blending to the RFC00 table)	Males: 96.5% of S1NMA "light" tables Females: 101.3% of RFV00 tables (below age 50, the table is extended by blending to the RFC00 table)
Mortality – future improvements:	CMI_2017 with a long term rate of 2.0% p.a. (males) / 1.5% p.a. (females) and a smoothing parameter of 8.5	CMI_2016 with a long term rate of 2.0% p.a. (males) / 1.5% p.a. (females) and a smoothing parameter of 8.5

For the 31 March 2018 position other demographic assumptions are taken to be the same as the technical provisions assumptions as these are based on analysis of actual Scheme data.

As the Trustee's current investment policy includes investment in different assets than would typically be held by an insurer, the wind-up position on a given date may be significantly different from the position estimated at the valuation date.

Assumptions used to calculate the PPF S179 position

The assumptions used to calculate the PPF S179 liabilities are prescribed by the PPF and these, together with a fuller breakdown of the results, were set out in my letter of 18 June 2019 to the Trustee.

B
SUMMARY MEMBERSHIP DATA

The membership data used within this investigation is summarised in the table, with figures at 2017 valuation shown for comparison. Data in relation to members of the Scheme were supplied by the Trustee. The accuracy of the data provided has been relied on. While reasonableness checks on the data have been carried out at an aggregate level, they do not guarantee the completeness or the accuracy of the data and we understand that the USS executive performed reasonableness checks prior to sending any member data to Mercer. The results of these data checks and subsequent amendments made to the raw data as a result were documented and provided to Mercer. Mercer does not accept any liability in respect of its advice where it has relied on data that is incomplete or inaccurate.

	31 March 2018	31 March 2017
Active members		
Number	190,047	186,245
Total Uncapped Salaries (£m p.a.)	8,205	7,945
Average Uncapped Salary (£ p.a.)	43,173	42,659
Average age	44.0	43.8
Deferred pensioners		
Number	162,537	147,950
Total deferred pensions at valuation date (£m p.a.)	379	335
Average deferred pension (£ p.a.)	2,331	2,266
Average age	45.1	45.0
Pensioners including dependants		
Number*	83,967	80,761
Total pensions payable (£m p.a.)	1,482	1,400
Average pension (£ p.a.)	17,655	17,339
Average age	72.0	71.8

*Excludes children in receipt a pension (1,042 in 2017, 1,060 at 2018)

Note – we have excluded active members with zero salaries and deferred / pensioner members with zero pensions from the above data.

C
ASSETS

The market value of the Scheme's assets attributable to the DB Scheme was £63.7bn on the valuation date. The Trustee's investment strategy is to proportion the Scheme's assets by asset class as shown in the table below. The actual distribution of assets will vary over time due to changes in financial markets. The table also shows the distribution of assets at the valuation date.

31 March 2018	*Reference portfolio*	Implemented portfolio	Actual Market Value of implemented portfolio
	%	%	£bn
Equities (split as below)	**62.5%**	**44.1%**	**28.1**
UK	15.6%	10.0%	6.4
Europe Ex-UK	6.9%	5.5%	3.5
North America	25.2%	13.7%	8.7
Pacific inc Japan	5.4%	5.1%	3.2
Emerging Markets	9.4%	9.8%	6.2
Credit	**10.0%**	**8.1%**	**5.2**
Nominal Bonds	**0.0%**	**13.7%**	**8.7**
Liability Hedging Gilts	**25.0%**	**11.9%**	**7.6**
Commodity Sensitive	**0.0%**	**1.0%**	**0.6**
Absolute Return	**0.0%**	**3.0%**	**1.9**
Private Markets (split as below)	**7.5%**	**23.7%**	**15.1**
Inflation Linked Debt/equity	0.0%	7.4%	4.7
Private Debt/Equity	0.0%	8.5%	5.4
Special Situations	0.0%	2.4%	1.5
Property	7.5%	5.4%	3.4
Cash*	**-5.0%**	**-5.5%**	**-3.5**
Total Fund	**100.0%**	**100.0%**	**63.7**

The Scheme contains a defined contribution section (USS investment builder) which at 31 March 2018 held assets of £0.8bn and the Trustee also holds additional voluntary contributions (AVCs). These are both invested separately. All money purchase assets have been excluded from the market value shown as they exactly match the value of the benefits they cover.

The details of the assets at the valuation date and the financial transactions during the inter-valuation period have been obtained from the audited accounts for the Scheme.

D
BENEFIT SUMMARY

The benefits valued within this investigation are as set out in the benefit summary provided to the Trustee dated 11 January 2019. This broadly reflects the benefits communicated to members via membership booklets, announcements and correspondence outlining special terms where applicable.

An overview of the benefits valued is therefore:

- For Final Salary section members – accrued entitlement up to 31 March 2016 has been calculated using pensionable salary and pensionable service immediately prior to this date. From that date these accrued benefits revalue in line with increases in official pensions which for the purposes of this valuation is assumed to be in line with CPI, subject to a cap where applicable.
- For non-Final Salary section members – accrued entitlement is on a CARE basis, and so from the point of accrual revalues in line with increases in official pensions which for the purposes of this valuation is assumed to be in line with CPI.
- Defined benefit accrual after 1 April 2016, and all future accrual, is on a CARE basis for all members, with a pension accrual of 1/75th – and a cash lump sum of 3/75^{ths} - of salary for each year of service.
- From 1 October 2016 defined benefit accrual is based on salary up to a threshold only. The threshold was £55,550 for 2017/18.
- Member contributions were 8% of salary at the valuation date. At the date of signing, member contributions were 8.8% of salary and were at that date due to increase to 11.4% of salary as outlined in section 3.
- From 1 October 2016 a new defined contribution benefit was introduced for salary in excess of the salary threshold. Total contributions of 20% of salary above the salary threshold (including member contributions of 8% of salary above the salary threshold) are made to the defined contribution section.
- Members can opt to pay additional contributions into defined contribution section of which the first 1% of salary is to be matched by the Employer, although (as a consequence of the results of the 2017 Valuation) the matching facility was removed from 1 April 2019.

Except where stated in this report, no allowance has been made for any discretionary benefits.

The benefits that will emerge from AVCs paid by members and DC benefits have been excluded from the valuation, as have the corresponding assets, since the value of these liabilities is exactly matched by these assets.

As at the valuation date there was no consensus or legislative guidance as to what adjustments have to be made to scheme benefits to correct inequalities arising from differences in GMP pensions between men and women for ongoing schemes that are not in the PPF. For this reason the valuation makes no allowance for removal of these inequalities.

On 26 October 2018 the High Court ruling on the Lloyds GMP equalisation case was handed down confirming that GMP equalisation is a legal requirement. I have estimated that the impact on the Scheme is not likely to be material and will be quantified as part of future actuarial valuations.

E
SUMMARY OF PPF BENEFITS

If the Scheme winds up when the Employers are insolvent, its members may be eligible for compensation from the Pension Protection Fund. Normally, a scheme's assets and liabilities would only transfer to the PPF if the assets were insufficient to buy out the benefits provided by the PPF. The compensation that the PPF could provide would be broadly 100% of the pension in payment for members over pension age and 90% of a capped amount of the pension built up for members under pension age. Under the current PPF provisions:

- Pensions in payment will be increased annually, at the lower of 2.5% and the change in the Consumer Price Index (CPI), in respect of service after 5 April 1997 only. Pensions accrued before April 1997 are not increased.

- Benefits in deferment are revalued in line with the scheme's rules for any period between the member's exit and the scheme's entry into the PPF. With limited exceptions, revaluation between the entry date and the member's normal pension age will be in line with increases in the CPI subject to a maximum of 5% per annum compounded over the revaluation period in respect of service pre-6 April 2009, and CPI subject to a maximum of 2.5% per annum for service post-5 April 2009.

- With limited exceptions, spouses' pensions will be 50% of members' PPF compensation.

- The pensions of members aged less than their scheme's normal pension age when the scheme enters the PPF will be capped. The cap depends on the member's age when the pension is paid and is increased from time to time. For example, in 2017/18 the cap is £38,506 at age 65 – so, the maximum amount of compensation for members retiring at their normal pension age of 65 will be 90% of this, £34,655 per annum.

- The PPF does not cover defined contribution benefits and these would be bought out separately with an insurer.

A separate valuation on the PPF's prescribed Section 179 basis has been carried out as at 31 March 2018 and submitted on TPR's Exchange system as required.

F
CERTIFICATE OF TECHNICAL PROVISIONS

Name of the Scheme	Universities Superannuation Scheme

Calculation of technical provisions

I certify that, in my opinion, the calculation of the Scheme's technical provisions as at 31 March 2018 is made in accordance with regulations under section 222 of the Pensions Act 2004. The calculation uses a method and assumptions determined by the Trustee of the Scheme and set out in the statement of funding principles dated 16 September 2019.

Signature	
Name	Ali Tayyebi
Date of signing	16 September 2019
Name of employer	Mercer Limited
Address	Four Brindley place, Birmingham B1 2JQ
Qualification	Fellow of the Institute and Faculty of Actuaries

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