Students' Union Superannuation Scheme

Actuarial valuation as at 30 June 2022

Scheme Funding Report

Paul Hamilton FIA
Barnett Waddingham LLP

14 August 2023

1 Summary

In accordance with Section 224(1) of the Pensions Act 2004 the Trustees have asked me to prepare an actuarial valuation of the Students' Union Superannuation Scheme (the Scheme) as at 30 June 2022.

A summary of the results of the valuation is as follows:

- Using the method and assumptions agreed by the Trustees, the Scheme had assets sufficient to cover 44% of its Technical Provisions as at 30 June 2022, corresponding to a deficit of £136,645,000.
- In light of the results of this valuation, the Trustees have agreed with NUS (the "Principal Employer") that:
    - Participating unions will make deficit reduction contributions of £745,671 per month from 1 October 2023, increasing by 5% pa each subsequent 1 October to address the deficit revealed by the valuation. These contributions are expected to eliminate the shortfall in 13 years 7 months from 1 October 2023, which is by 1 May 2037.
    - These contributions include an allowance for the expenses of running the Scheme equivalent to £536,038 pa from 1 October 2023, increasing at 5% each subsequent 1 October.
    - These contributions also include an allowance for an expense reserve of £3,000,000 to cover the estimated cost of winding-up the Scheme and completion of the GMP equalisation exercise.
    - Deficit reduction contributions have been apportioned between the participating unions in line with the split of liabilities accrued, apportioned by service with each union. Participating unions have also been given the option of paying a discounted lump sum instead of their monthly contributions between 1 October 2023 and either September 2026, September 2029 or September 2032.
    - The PPF levy and related expenses will be paid by the participating unions in addition to these contributions as and when they fall due. The levy will be apportioned between participating unions based on each union's share of the liabilities accrued and their D&B PPF score.
- The Trustees' assessment of the Technical Provisions assumes the continued support of the Principal Employer and participating unions. I understand that the Trustees believe the support for the Scheme to be tending to weak and have determined the level of the Technical Provisions and the manner in which the deficit is to be corrected on this basis.
- If the Scheme had secured benefits with an insurance company using deferred and immediate annuities, I estimate it would have enough assets to cover 41% of its liabilities as at 30 June 2022, corresponding to a deficit of £154,701,000. This means that, had the Scheme wound up at the valuation date with no further funds available from the participating unions, there would not have been sufficient assets available to secure members' full benefit entitlements.
- Using the assumptions prescribed for the Section 179 valuation, the Scheme had sufficient assets to cover 60% of its liabilities in respect of the compensation that would be paid by the Pension Protection Fund. The Section 179 valuation is one of the factors that determine the levy that is paid to the Pension Protection Fund by the Scheme and the results were provided via The Pensions Regulator's "Exchange" system on 31 March 2023.

1 Summary

The next actuarial valuation should be carried out with an effective date no later than 30 June 2025 and the contributions payable by the participating unions will be reviewed as part of that valuation.

[redacted]

Paul Hamilton FIA
Barnett Waddingham LLP
14 August 2023

2 Methodology and assumptions

Actuarial valuations under the Pensions Act 2004

In accordance with Section 224(1) of the Pensions Act 2004 the Trustees have asked me to prepare an actuarial valuation of the Students' Union Superannuation Scheme (the Scheme) as at 30 June 2022.

This report summarises the results of the valuation, including the information required by Regulation 7 of the Occupational Pension Schemes (Scheme Funding) Regulations 2005 and Appendix A of TAS 300: Pensions issued by the Financial Reporting Council. This report complies with Technical Actuarial Standards issued by the Financial Reporting Council – in particular TAS 100: General Actuarial Standards and TAS 300: Pensions. These are the only TASs that apply to this work.

This report is addressed to the Trustees, but it has been written so that an informed reader can understand the financial position of the Scheme, including how it has developed since the previous valuation and how it might develop in the future. However, this report is not intended to assist any user in making decisions, and valuations required for specific purposes (e.g. employer accounting, corporate transactions and advice to individual members) should be calculated in accordance with the specific requirements for such purposes. Neither I nor Barnett Waddingham LLP accepts liability to third parties in respect of this report.

A copy of this report should be provided to the Principal Employer within seven days of the Trustees receiving it.

Membership data

A summary of the membership data used for the valuation, along with a comparison with the data used for the previous valuation, is set out in Appendix A.

I am not aware of any significant changes to the membership since the previous valuation.

Benefits

The Scheme provides pension benefits in retirement and benefits on death either before or after retirement. The benefits provided by the Scheme are set out in the Trust Deed & Rules dated 31 March 2008 and are summarised in Appendix B. This summary is intended for quick reference only and full details of the benefits are set out in the Scheme's governing documentation. I have made no allowance for discretionary benefits.

Pension increase issue

Allowance was made in the 30 June 2019 valuation for the correction of pension increases applied to benefits accrued between 1 October 1988 and 31 December 1993. Historically, these benefits had received fixed increases of 3% pa but, due to issues with amendments to the Scheme Rules, these benefits should have received 7% p.a. increases (for pension in excess of Guaranteed Minimum Pension (GMP)).

An exercise was completed while the 30 June 2019 valuation was being carried out to make any necessary back-payments to affected members and correct the level of pension in payment. Affected members were also asked to accept a compromise offer that would entitle them to lower future increases (RPI to a minimum of 3% and maximum of 7%). The impact of this exercise on the Scheme's liabilities was considered as part of the 30 June 2019 valuation.

The data held by Barnett Waddingham as administrator of the Scheme has been updated to reflect the corrected pension amounts and increases to apply. The results of the 30 June 2022 valuation therefore reflect the corrected benefits.

2 Methodology and assumptions

Pension increase exchange

Since the previous valuation, the Trustees have begun to offer deferred members the option of exchanging non-statutory pension increases for a higher initial pension (with lower increases) at the point of retirement. This option is currently only available on pension accrued before 5 April 1997 and is only available on pension accrued between October 1988 and December 1993 for members who elected to take the compromise offer.

Where a member has already elected to exchange their pension increases, the data used for the valuation fully reflects the higher pension amount (and lower increases in payment).

As discussed in my assumptions report dated 26 July 2022, I have not made any allowance for members to take this option in the future in the valuation results. This is a prudent approach as the terms of the pension increase exchange have been set to be broadly favourable to the Scheme.

I would be happy to discuss this further with the Trustees if they wish.

Bulk transfer to UMSS

On 31 March 2022, the Scheme's liabilities in respect of 105 members who had been employed by the University of Manchester Students' Union (UMSU) were transferred to the University of Manchester Superannuation Scheme (UMSS). UMSU ceased to be a participating employer in the Scheme and a transfer payment of £5,588,487 was paid from the Scheme to UMSS. This transfer value was calculated on a share of fund basis less some adjustments to reflect the change in employer covenant and certain liabilities that remained with the Scheme, which meant that – broadly speaking – the Scheme's funding level on a Technical Provisions basis was marginally improved by the transfer.

Guaranteed Minimum Pension (GMP) equalisation

I have included a reserve equivalent to 0.3% of the Scheme's liabilities to allow for GMP equalisation. This is the same allowance as was made for the 30 June 2019 actuarial valuation and was calculated on a member by member basis using a 'year by year' method known as "Method C2".

The actual cost of GMP Equalisation may be materially higher or lower than this estimate. It is difficult to accurately calculate the increase in liability before carrying out what will be a thorough and potentially complex exercise in due course. I believe this approximate estimate is appropriate for the purposes of this valuation.

Assets

I have been provided with a copy of the Trustees' audited Report and Accounts for the period ending 30 June 2022. This shows that the market value of the Scheme's assets, excluding members' Additional Voluntary Contributions (AVCs), is £106,697,000.

The Trustees' current investment strategy is set out in a Statement of Investment Principles dated September 2020. A breakdown of the actual investments held at the valuation date along with the Trustees' target asset allocation is set out in Appendix C. I have also included in Appendix C a summary of the contributions paid and the investment performance since the previous valuation.

The Trustees hold a number of historic annuity policies. These have been excluded from both the assets and the liabilities of the Scheme as the benefits are exactly matched. AVCs have also been excluded.

2 Methodology and assumptions

Funding objectives

The Trustees' funding objectives are described in a Statement of Funding Principles dated 1 August 2023, a copy of which is included in Appendix F. In summary, the Trustees have adopted the "Statutory Funding Objective", which is that the Scheme should have sufficient and appropriate assets to meet its liabilities.

The principal purpose of the valuation is therefore to examine the financial position of the Scheme at the valuation date and to agree the contributions payable to ensure that the Statutory Funding Objective is expected to be met.

Methodology used to achieve objectives

The valuation has been carried out on a "market-related" basis. This means that assets are taken into account at their market value. For comparison with the assets, a consistent measure is needed for the liabilities that are expected to arise in respect of benefits already earned at the valuation date – otherwise known as the "Technical Provisions". This is achieved by projecting the benefits that are expected to be paid to members of the Scheme as a result of:

- pensions already in payment;
- pensions arising from future retirements;
- lump sums payable to future retirees in exchange for part of their pension;
- lump sums payable following the death of a member; and
- pensions payable to eligible dependants following the death of a member.

To estimate the amount of these future benefit payments, assumptions need to be made regarding:

- how benefits will increase prior to payment;
- how pensions will increase while in payment;
- whether members will die before reaching retirement;
- how long members will live in retirement;
- whether members will have an eligible dependant on death and, if so, the age of their dependant; and
- whether members will exercise certain options, such as exchanging pension for cash at retirement.

However, the benefits are expected to be paid over a long period of time and, during that time, the assets held are expected to earn investment returns. Therefore, for comparison with the assets, the projected benefit payments are reduced to allow for the investment return that is anticipated prior to payment. This methodology is commonly referred to as "discounting" and the investment return allowed for is referred to as the "discount rate". For consistent comparison with the market value of the assets at the valuation date, the choice of discount rate reflects relevant market indicators at the valuation date.

Valuations on other bases

As part of the valuation, I am required to include an estimate of whether the Scheme would have had sufficient assets to secure benefits with an insurance company and meet the expenses associated with winding-up the Scheme. This is referred to as "the solvency estimate".

For many schemes, the solvency estimate is expected to be significantly higher than the scheme's Technical Provisions, as insurers will assess the liabilities in a cautious manner reflecting their investment strategy, reinsurance costs, capital requirements and other factors. The assumptions used for the calculation of the Technical Provisions have been set consistently with the solvency estimate to reflect the Trustees' long-term aim of securing benefits with an insurer. However, allowance has been made in the Technical Provisions for the Scheme's investments to initially achieve higher returns reflecting the current investment

2 Methodology and assumptions

strategy, before assuming investments are de-risked into a portfolio of matching assets over a period of 13 years.

The Trustees are also required under Section 179 of the Pensions Act 2004 to obtain a valuation at least every three years on a basis that is set by the Pension Protection Fund (PPF). The results of this valuation are used by the PPF to determine the levy that is paid by the Scheme to the PPF to provide compensation for members of pension schemes that are underfunded and the employer has become insolvent. Details of the Section 179 valuation were included in my report dated 27 March 2023 and these results were submitted to The Pensions Regulator on 31 March 2023.

Assumptions

The assumptions agreed by the Trustees for the purpose of the Statutory Funding Objective as at 30 June 2022, along with the assumptions used at the previous valuation, are summarised in Appendix D.

The assumptions I have used for the solvency estimate are also summarised in Appendix D. Whilst I am satisfied that these assumptions are appropriate for the purpose of the solvency estimate, and in particular that they satisfy the requirements of Regulation 7(6)(a) of the Occupational Pension Schemes (Scheme Funding) Regulations 2005, the Trustees should understand that:

- The assumptions are only intended to give a broad indication of likely annuity costs, and that an actual quotation could differ materially from this estimate.
- The expenses associated with discontinuing a pension scheme are difficult to predict and the expense assumption should not be seen as a quotation of the likely expenses involved.

3 Results

Statutory Funding Objective

Using the methodology described above and the assumptions set out in Appendix D, the results of the valuation are as follows.

Benefits already earned at the valuation date:	£000s
Deferreds	137,547
Pensioners	102,795
Expense reserve	3,000
Technical Provisions	243,342
Market value of assets	106,697
Deficit	(136,645)
Funding level	44%

It should be understood that these results indicate the expected cost of providing the Scheme benefits using the chosen method and assumptions. The actual cost of providing the benefits will depend on the Scheme's future experience. The sensitivity of the results to the key assumptions is included as Appendix E.

My certificate confirming that the calculation of the Technical Provisions has been carried out in accordance with the relevant legislation is included in Appendix F.

Contribution requirements

Details of the contributions agreed between the Trustees and the Principal Employer are set out in a formal Schedule of Contributions and Recovery Plan. These documents are included in Appendix F. My certificate confirming that the Statutory Funding Objective is expected to be met by the end of the period covered by the Schedule of Contributions is also included in Appendix F.

Reconciliation to previous valuation

The previous valuation was carried out as at 30 June 2019. The results are summarised in my report dated 21 September 2020 and show a funding level of 46% corresponding to a deficit of £140,907,000. The key factors that have influenced the funding level of the Scheme over the period are as follows:

Reconciliation of funding position	£000s
Surplus / (deficit) at previous valuation:	**(140,907)**
Interest on deficit	(5,769)
Deficit contributions	22,277
Expenses paid by Scheme	(3,241)
Expected 2022 deficit	**(127,640)**
Revaluation experience	2,187
Pension increase experience	479
Mortality experience	945

3 Results

Reconciliation of funding position	£000s
Transfer experience	228
Investment profit / (loss)	(17,943)
Change in market conditions	47,297
Change in financial assumptions	(25,536)
Changes to mortality assumptions	(12,390)
Changes to other demographic assumptions	(1,412)
Expense reserve	(3,000)
Miscellaneous	140
Surplus / (deficit) at this valuation:	**(136,645)**

Solvency estimate

The results of the valuation using the assumptions for the solvency estimate described in Appendix D are as follows:

Solvency estimate:	£000s
Deferreds	152,971
Pensioners	105,200
Expenses	3,227
Estimate of solvency liabilities	261,398
Market value of assets	106,697
Deficit	(154,701)
Funding level	41%

As at 30 June 2019 the solvency funding level was estimated to be 32%.

The Scheme would not have had sufficient assets at the valuation date, based on the assumptions, to secure full benefits with an insurance company. If the Scheme had wound up at the valuation date, the participating unions would have been obliged to make good any shortfall. However, if the participating unions were unable to do so, for example due to insolvency, the assets would have been applied to secure benefits in line with the statutory priority order that applied at the valuation date. The coverage of benefits falling into each priority class is estimated in the following table:

3 Results

Category of benefit	Coverage level
Expenses	100%
Benefits equivalent to PPF compensation	59%
Other benefits	0%

This shows that the Scheme would have had insufficient assets to secure benefits for Scheme members in line with the compensation provided by the PPF. This means that, had the Scheme wound up with no further funds available from the participating unions, it is likely that the Scheme would have entered the PPF.

Projected future results

The progression of the funding level over time is influenced by a large number of factors, including the experience of the Scheme's membership, the investment return achieved and the contributions paid.

I estimate that three years after the valuation date (i.e. at the next valuation) the funding position on a Technical Provisions basis will be 53% and on a solvency basis will be 49%. This allows for contributions to be paid as described in Appendix F and assumes that investment returns and other experience over the next three years is in line with the assumptions used for the Technical Provisions.

Section 179 valuation

The results of the Section 179 valuation were provided to the PPF via The Pensions Regulator's Exchange System on 31 March 2023. A certificate setting out the results of the Section 179 valuation using the method and assumptions prescribed by the PPF was included in my report dated 27 March 2023. Please refer to this report for further details.

4 Risks

There are many factors that affect the financial position of the Scheme which can lead to the Scheme being unable to pay members' benefits. In this section I comment on some of the factors that could have a material impact.

Employer Covenant risk

One of the greatest risks to the ability of the Scheme to pay members' benefits is that the participating unions may be unable to fund future deficits.

The Trustees' chosen assumptions and deficit recovery period reflect an objective assessment of the risk that the participating unions will not be able to support the Scheme in the future. The Trustees should monitor the strength of the participating unions over time, so that any sudden changes in their position can be mitigated.

Investment risk

Allowance is made in the assumptions for the expected long-term performance of asset classes such as equities. There is a risk that these returns will not be achieved in practice, which would result in further contributions being required.

Further, the value of the Scheme's assets may not move in line with the Scheme's liabilities – either because the Scheme invests in volatile assets whose value might fall, or because the value of the liabilities has increased due to falling interest rates and the assets are not of sufficient duration to keep up (or a combination of these).

The sensitivity of the valuation results to changes in the investment return assumptions is included in Appendix E. The Trustees should regularly review their investment strategy to ensure they understand the risks being taken and that those risks are being appropriately managed.

Inflation

In projecting the expected future benefit payments, assumptions are made regarding future price inflation. There is a risk that the actual rate of inflation will be higher than assumed which will increase the cost of providing the benefits. This would result in additional contributions being required and a deterioration in the financial position unless investment returns are similarly higher than expected.

The sensitivity of the results to the choice of inflation assumptions is included in Appendix E. The Trustees should consider the inflation risk present within the Scheme when reviewing the investment strategy.

Mortality

It is not possible to predict with certainty how long members of the Scheme will live, and if members live longer than expected, additional contributions will be required and the Scheme's financial position will deteriorate.

The sensitivity of the results to the choice of mortality assumptions is included in Appendix E. The Trustees should review their mortality assumptions at each valuation, taking into account all available evidence, to ensure they remain appropriate for the Scheme.

Member options

Certain benefit options may be exercised by members without requiring the consent of the Trustees or the participating unions, for example exchanging pension for cash at retirement, electing to exchange pension increases or taking a transfer value. Generally the terms for exercising these options should leave the Scheme no worse off as a result and may in some cases be favourable to the financial position of the Scheme. Therefore there is limited risk of further contributions being required or a deterioration of the financial position as a result of members exercising these options.

The Trustees should regularly review the transfer value basis and other actuarial factors to understand the financial implications of members exercising options and to ensure that the terms for doing so remain appropriate.

Legislative risk

Changes in legislation could increase the value of the Scheme's liabilities. The Trustees should therefore take professional advice to ensure that they are aware of any changes in legislation and the impact of these changes on the Scheme's funding position.

The Trustees receive regular updates on legislative matters from their advisers.

Climate risk

The Scheme faces potential risks from both the physical effects of climate change and the transition to a low-carbon economy. Climate risk may manifest itself through any of the other risks identified above, including investment and inflation risk, potentially causing a deterioration in the Scheme's funding position. The Task Force on Climate-related Financial Disclosures (TCFD) is a framework that aims to help companies and investors measure, manage, and report their climate-related risk exposures and opportunities in a consistent manner. Large pension schemes are already subject to TCFD requirements and the Trustees should prepare for the Scheme to come into scope in future.

The Trustees receive updates their advisers and asset managers about how climate risks are allowed for in the Scheme's investment strategy. The Trustees' policy on environmental, social and governance (ESG) issues, including climate change, is included in the Scheme's Statement of Investment Principles.

Appendix A - Summary of member data

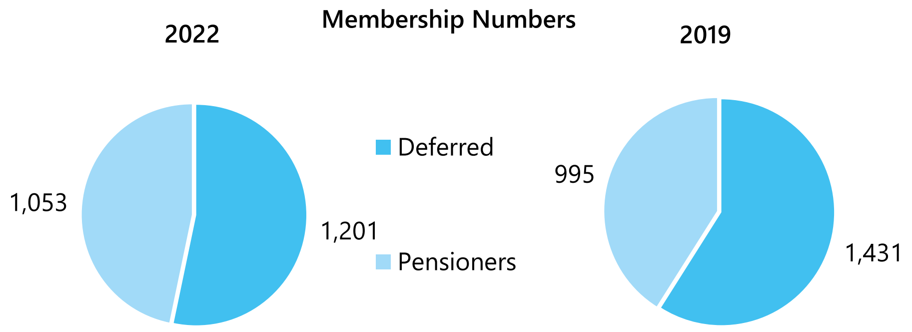
A summary of the membership data used in the valuation is as follows. The membership data from the previous valuation is also shown for comparison. All average ages are weighted by the proposed Scheme Funding liability.

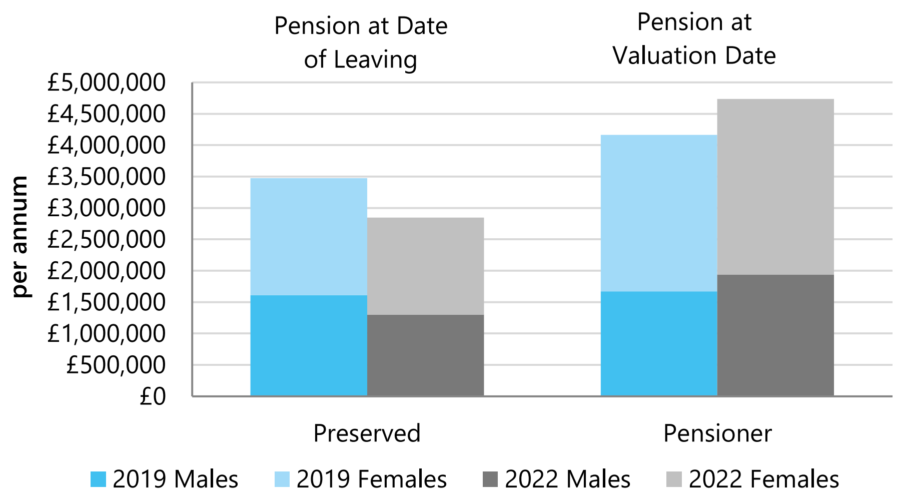
Deferred Members

	30 June 2022			30 June 2019		
	Number	Average age	Pension at Date of Leaving £000s p.a.	Number	Average age	Pension at Date of Leaving £000s p.a.
Males	461	54	1,302	546	53	1,611
Females	740	54	1,545	885	53	1,864
	1,201	54	2,847	1,431	53	3,475

Pensioner Members

	30 June 2022			30 June 2019		
	Number	Average age	Pension at Valuation Date £000s p.a.	Number	Average age	Pension at Valuation Date £000s p.a.
Males	296	70	1,942	272	68	1,671
Females	757	71	2,795	723	69	2,492
	1,053	70	4,737	995	69	4,163





Appendix B - Summary of benefits

The following is a summary of the main Scheme benefits only. Full details are set out in the Scheme's documentation, and no action should be taken based on the summary below without referring back to the formal documentation.

Pension benefits	
Normal Retirement Date:	Age 60 for males and females for benefits earned on or before 30 September 2000 and age 65 for all benefits earned thereafter
Pensionable Service:	Years and complete months of continuous service from date of joining the Scheme until the earlier of the date the pension comes into payment, death or leaving employment.
Pensionable Salary:	Basic fixed annual remuneration plus the annual average of bonuses, commissions, overtime or other fluctuating emoluments received over the previous three years (or shorter periods if applicable) and determined each 1 October
Final Pensionable Salary:	Annual average of the member's Pensionable Salary in any 36 months of Pensionable Service preceding the date of leaving Pensionable Service or death, if earlier
Pension on normal retirement:	For pension accrued prior to 1 October 2003, 1/60th x Final Pensionable Salary x Pensionable Service For pension accrued after this date, 1/60th x Revalued Pensionable Salary x Pensionable Service

Commutation of pension:	A member may receive a pension commencement lump sum at retirement
Increases in payment:	• Pension accrued before 30 September 1988; statutory increases on GMP and fixed 7% pa on excess. • Pension accrued between 1 October 1988 - 30 September 1993 (non-compromise); statutory increases on GMP and fixed 7% pa on excess. • Pension accrued between 1 October 1988 - 30 September 1993 (compromise); RPI inflation to a minimum of 3% and maximum of 7% pa on all pension. • Pension accrued between 1 October 1993 - 5 April 1997; fixed increases of 3% pa on all pension. • Pension accrued between 6 April 1997 and 30 September 2000; RPI to a minimum of 3% and maximum of 5% pa. • Pension accrued after 1 October 2000; RPI to a maximum of 5%.
Increases in deferment:	• Pension accrued before 5 April 2009 is revalued in line with statutory increases which are currently RPI up to 2010 and then in line with CPI from 2010 with a maximum of 5% pa over the whole period of deferment. • Pension accrued between 6 April 2009 and 30 September 2003 is revalued in line with statutory increases with a

Appendix B - Summary of benefits

	maximum of 2.5% pa over the whole period of deferment. • Pension accrued after this is revalued from date of leaving in line with RPI inflation to a maximum of 5% pa.

Death benefits	
Death in deferment:	A spouse's minimum contracting-out pension is payable (i.e. 50% of a member's GMP and, after 6 April 1997, reference scheme test pension).
Death after retirement:	50% of a member's pre-commutation pension at date of death.

Appendix C - Summary of assets and contributions

Assets at 30 June 2022

	£000s	Actual allocation	Target allocation
Equities	20,740	19%	17%
Diversified growth funds	23,004	22%	19%
Alternatives	23,934	23%	15%
Multi Asset Credit	13,839	13%	10%
LDI	23,722	23%	39%
Cash	33	0%	0%
Total investments	**105,272**	**100%**	**100%**
Net current assets	1,425		
Total market value of assets	**106,697**		

The actual return achieved on the Scheme's investments since the previous valuation was approximately -2.0% p.a.

Contributions since previous valuation

The previous valuation resulted in a formal Schedule of Contributions being put in place with effect from 21 September 2020. The contributions payable under this schedule can be summarised as follows.

- Contributions of £576,025 per month from 1 October 2020 until 30 September 2021, increasing by 5% on 1 October 2020.
- Contributions of £713,810 per month from 1 October 2021, increasing each subsequent 1 October by 5% or such greater amount as agreed by the Trustees and Principle Employer.
- An additional increase was applied as at 1 October 2021 to allow for the 7% pension increase issue for affected unions. The total increase varied between unions depending on the additional liabilities arising from the issue, but on average was around 18%.
- Participating unions are given the option of paying a single lump sum contribution instead of their monthly contributions from October 2020 to September 2023 which must be paid by 19 November 2020.
- All of these amounts include an allowance for expenses of administering the scheme of £400,000 per annum as at 1 October 2018, increased by 5% per annum on each subsequent 1 October. The allowance from 1 October 2021 was equivalent to £486,203.

I understand that contributions have been paid in accordance with this schedule. Over the period since the previous valuation, the actual contributions that have been paid to the Scheme were as follows:

Contributions (£000s) for the year ending:	30 June 2022	30 June 2021	30 June 2020
Deficit contribution	7,848	7,579	5,844
Contributions to meet the PPF Levy and associated expenses	681	1,094	1,128

Appendix C - Summary of assets and contributions

Special Contributions*	19	12	11

* The special contributions relate to contributions from relevant unions to cover costs of incorporation incurred over the year.

Appendix D - Summary of assumptions

	30 June 2019 Technical Provisions	30 June 2022 Technical Provisions	30 June 2022 Solvency estimate
Discount rate	Pre-retirement: Gilts curve + 2.5% pa Post-retirement: Gilts curve + 0.5% pa	Gilts curve + 1.5% pa, linearly changing over a term of 13 years to gilts curve + 0.25% pa	Pre-retirement: Gilts curve + 0.15% pa Post-retirement: Gilts curve + 0.65% pa
Price inflation (RPI)	Bank of England inflation curve	Merrill Lynch swap-implied inflation curve	Merrill Lynch swap-implied inflation curve
Price inflation (CPI) • Pre 2030 • Post 2030	 RPI inflation less 1.0% pa RPI inflation less 1.0% pa	 RPI inflation less 0.7% pa RPI inflation less 0.1% pa	 RPI inflation less 0.7% pa RPI inflation less 0.1% pa
Pension increases	Based on relevant inflation assumption allowing for any caps or collars	A model of each increase, allowing for insurers' relative pricing of different caps and collars	A model of each increase, allowing for insurers' relative pricing of different caps and collars
Mortality tables	100% of S3PXA	95% of S3PXA	95% of S3PXA
Allowance for improvements in life expectancy: Projection tables Long-term improvement rate Initial addition parameter Smoothing parameter 2020 and 2021 weight parameters	 CMI_2018 1.25% p.a. 1.00% p.a. 7.0 n/a	 CMI_2019 1.75% p.a. 1.00% p.a. 7.0 n/a	 CMI_2019 1.75% p.a. 1.00% p.a. 7.0 n/a
Proportion married at retirement	90%	85% of males 75% of females	85% of males 75% of females
Age and sex of dependant	Male members 3 years older than their female dependant, and vice versa	Male members 3 years older than their female dependant, and vice versa	Male members 3 years older than their female dependant, and vice versa
Retirement age	Earliest age at which benefits can be taken unreduced (by tranche)	Earliest age at which benefits can be taken unreduced (by tranche)	Earliest age at which benefits can be taken unreduced (by tranche)
Cash commutation	Members commute 75% of the maximum amount permitted using current commutation factors	None	None
Allowance for expenses	None	None	1.25% of liabilities
Allowance for discretionary benefits	None	None	None

Appendix D - Summary of assumptions

Allowance for GMP equalisation	0.3% of liabilities	0.3% of liabilities	0.3% of liabilities

The basis used for the solvency estimate reflects a general view of annuity pricing, based on Barnett Waddingham's research into the insurance market and taking account of the pricing that Barnett Waddingham has observed across a range of transactions. These prices will include the insurer's anticipated running costs for the future administration of the pensions. Whilst I am satisfied that these assumptions are appropriate for the purpose of the solvency estimate, and in particular that this estimate satisfies the requirements of Regulations 7(4)(b) and 7(6)(a) of the Occupational Pension Schemes (Scheme Funding) Regulations 2005, the Trustees should understand that my calculations are only intended to provide a broad indication of likely annuity costs, and that an actual quotation could differ materially from this estimate.

Assets for the solvency estimate have been taken at market value as set out in the final accounts.

The expenses associated with discontinuing a pension scheme are difficult to predict and can be significant. For the purposes of my calculations, I have made an allowance for expenses of £3,227,000, being 1.25% of the solvency liabilities, in addition to insurer expenses which are allowed for in the solvency basis assumptions. Although I believe this allowance to be a reasonable provision for the purposes of the valuation, it should not be seen as an estimate or quotation of the likely expenses involved.

Appendix E - Sensitivity analysis

The statutory funding position is sensitive to the assumptions made regarding future experience. The following table illustrates the impact on the funding position of making different assumptions at the valuation date.

	Impact on liabilities £000s	Impact on funding level %
Decrease investment returns by 0.5% p.a.	(25,856)	(4.3)
Increase investment returns by 0.5% p.a.	22,382	4.6
Increase inflation by 0.25% p.a.	(7,292)	(1.3)
Decrease inflation by 0.25% p.a.	6,935	(1.3)
Post retirement probability of death 10% lower at every age	(9,034)	(1.6)
Post retirement probability of death 10% higher at every age	7,896	1.5

Appendix F - Valuation documents

The following documents have been agreed between the Trustees and Principal Employer as part of the valuation process and are included in this appendix:

- Statement of Funding Principles, setting out the Trustees' funding objectives and the action to be taken if those objectives are not met.
- Schedule of Contributions, setting out the contributions payable to the Scheme by the participating unions from 1 October 2023 to 1 May 2037.
- Recovery Plan, setting out further details of how the funding shortfall revealed by the valuation is being addressed.

The following actuarial certificates are required as part of the valuation process and are included in this appendix:

- Certification of the calculation of the Technical Provisions, which confirms that the Technical Provisions have been calculated in accordance with the regulations and the Trustees' Statement of Funding Principles.
- Certification of the Schedule of Contributions, which confirms that the Statutory Funding Objective is expected to be met by the end of the period covered by the Schedule of Contributions.

Section 179 valuation

A certificate setting out the results of the Section 179 valuation using the method and assumptions prescribed by the PPF was included in my previous report dated 27 March 2023.

Students' Union Superannuation Scheme
Statement of Funding Principles

Status

This Statement of Funding Principles has been prepared by the Trustees of the Students' Union Superannuation Scheme (the Scheme) to satisfy the requirements of section 223 of the Pensions Act 2004, after obtaining the advice of the Scheme Actuary appointed by the Trustees.

This document has been agreed by NUS (the "Principal Employer"). This document is dated 1 August 2023 and is to be taken into account in the actuarial valuation as at the effective date of 30 June 2022 and subsequent actuarial valuations.

Policy for ensuring that the Statutory Funding Objective is met

Under the Pensions Act 2004 the Trustees must set a funding policy after negotiating with the Principal Employer which complies with the "Statutory Funding Objective" – to have "sufficient and appropriate assets" to cover the Scheme's "Technical Provisions". The Trustees have interpreted this requirement to mean that the Scheme should have a sufficient level of assets to have a reasonable chance that in the normal course of events, the assets would cover the continuing payment of benefits already in payment as well as the commitments to pay deferred pensioners' pension rights earned so far.

This will be achieved by agreeing with the Principal Employer appropriate contributions to make good any shortfall in the Scheme's assets compared to the amount required to cover the Technical Provisions over a suitable period.

In determining the level of contributions required for the Scheme, assumptions about the future experience of the Scheme will be made. Further details of the assumptions made are given below.

Funding objectives in addition to the Statutory Funding Objective

The Trustees have no other funding objectives.

Policy on discretionary increases and funding strategy

The Trustees make no allowance for discretionary increases in setting the contribution requirement, because any discretionary benefits that may be granted will be paid for separately at the time.

Frequency of valuations and circumstances for extra valuations

An actuarial valuation will, in normal circumstances, be carried out every three years or when the Trustees determine that significant events have occurred such that the existing Schedule of Contributions is no longer appropriate, having sought the advice of the Scheme Actuary and consulted the Principal Employer.

An actuarial report on developments affecting the Scheme's Technical Provisions and funding level will be obtained annually between actuarial valuations.

Commissioning an out of cycle valuation will not be necessary if agreement can be reached with the Principal Employer to revise the Schedule of Contributions in a way satisfactory to the Trustees on the advice of the Scheme Actuary.

Method and assumptions used in calculating the "Technical Provisions"

The actuarial method to be used in the calculation of the Technical Provisions is the Projected Unit Method.

The principal assumptions to be used in the calculation of the Technical Provisions are:

Inflation

By looking at the cost of investing in UK government bonds with payments linked to inflation compared to the cost of investing in UK government bonds not linked to inflation, it is possible to arrive at a figure for the average market view of future price inflation. This will then be compared to the latest Treasury targets for inflation in the UK, and other relevant information such as inflation swap pricing, when deriving the assumption to use.

Pension increases

Assumptions for future pension increases which are linked to inflation will be set with reference to the relevant inflation assumption, adjusted to take account of any minimum and maximum increases that apply.

Discount rate

The discount rate will normally be determined by the Trustees based on professional advice, taking into account relevant market indicators at the valuation date, the long-term strategic asset allocation, the liability profile of the Scheme, and the perceived strength of the Employer covenant.

As a proportion of the Scheme's assets are invested in assets which would be expected to outperform UK government bonds over the long term, an allowance may be made for this in the discount rate, depending on the perceived strength of the Employer covenant. However, if the Trustees have material concerns over the strength of the Employer covenant, the discount rate may need to be determined looking solely at the yield available on gilts and other low risk asset classes.

Retirement

Members will be assumed to retire at the earliest age at which they can take their benefit without an actuarial reduction applying, which may be different for different elements of pension.

Member options

If the Trustees consider it to be appropriate, allowance may be made for member options such as commuting pension for cash at retirement or taking early retirement.

Mortality

The rates of mortality assumed will reflect information published by Continuous Mortality Investigation Limited, a subsidiary of the Institute and Faculty of Actuaries, deemed most relevant to the membership of the Scheme, including an appropriate allowance for expected future improvements in longevity. This assumption will also reflect any available evidence relating to the actual mortality experience of the Scheme, as well as any other factors considered relevant.

Dependant details

Assumptions regarding the proportion of members with a dependant at death, and the age difference between the member and the dependant, will be set taking into account professional advice and the experience of the Scheme.

Period within which and manner in which a failure to meet the Statutory Funding Objective is rectified

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 requires additional contributions from the participating unions. These additional contributions will pay off the shortfall over an appropriate period, taking into account the union's ability to pay.

Recovery Plan contributions will usually be expressed as fixed monetary amounts. Unless the Trustees consider it appropriate in the circumstances, such deficit contributions will be equal amounts throughout the period payable on either an annual or monthly basis.

The assumptions to be used in these calculations will be those set out below for calculating the Technical Provisions but allowing for an initial additional investment return of 0.5% p.a. for 4 years until 30 June 2026 before assuming investments are linearly de-risked and investment returns are then in line with the Technical Provisions from year 13 onwards.

Arrangements for other parties to make payments to the Scheme

Payments to the Scheme may be received from any subsidiary company of the unions, in lieu of contributions otherwise due from the unions.

Directions by The Pensions Regulator as to the funding of the Scheme

No directions under section 231(2) of the Pensions Act 2004 have been made by The Pensions Regulator as to the funding of the Scheme.

Basis of Cash Equivalent Transfer Values

Members of the Scheme are entitled to transfer the value of their Scheme benefits to another pension arrangement. If this option is chosen a "cash equivalent transfer value" (CETV) is payable.

The Trustees have agreed that CETVs will normally be calculated so as to represent their best estimate of the cost of providing the benefits in the Scheme. As such the assumptions used will be similar to those used for the calculation of the Technical Provisions, but without any margins for prudence included. As the financial assumptions are market-related, they will normally be updated on a monthly basis for the purpose of calculating CETVs.

Every three years following completion of an actuarial valuation, the Trustees will consider whether to obtain advice from the Scheme Actuary on the financial position of the Scheme and its ability to pay full CETVs. The Trustees may decide, depending on the outcome of such advice, to reduce transfer values to the full amount permitted under legislation.

Surplus refund to the Employer

There are no provisions in the Trust Deed and Rules to make payments to the unions out of the funds held for the purposes of the Scheme.

Assumptions as at 30 June 2022

The assumptions used to calculate the technical provisions as at 30 June 2022 are as follows:

Discount rate	Bank of England gilt curve + 1.5% pa, linearly changing over a term of 13 years to Bank of England gilt curve + 0.25% pa
Retail Prices Index (RPI) inflation	Merrill Lynch swap-implied inflation curve
Consumer Prices Index (CPI) inflation	RPI inflation less 0.7% pa pre 2030; RPI inflation less 0.1% pa thereafter
Pension increases	A model of each increase, allowing for insurers' relative pricing of different caps and collars
Retirement	Earliest age at which benefits can be taken unreduced (by tranche)
Cash commutation	No allowance
Mortality tables	95% of the S3PA tables
Mortality improvements	CMI 2019 projections using a long-term improvement rate of 1.75% p.a. The initial addition is 1.0% p.a.
Proportion of members with a dependant at retirement or earlier death	85% of males and 75% of females
Age difference between member and dependant	Male members 3 years older than their female dependant, and vice versa
Allowance for GMP equalisation	0.3% of liabilities

These assumptions have been chosen by the Trustees in light of their long-term investment objectives and the Scheme's liability profile based on advice from the Scheme Actuary, along with their views on the strength of the employer covenant.

Dates of review of this statement

This Statement of Funding Principles will be reviewed by the Trustees and the Employer no later than 15 months after the effective date of each actuarial valuation, due every three years.

This statement has been agreed by the Trustees and the Employer

[redacted]

Signed on behalf of the Trustees of the Students' Union Superannuation Scheme

20.07.2023

Date

[redacted]

Signed on behalf of NUS

01/08/2023

Date

Students' Union Superannuation Scheme
Recovery Plan

Status

This Recovery Plan has been prepared by the Trustees of the Students' Union Superannuation Scheme (the Scheme) on DATE after obtaining the advice of the Scheme Actuary appointed by the Trustees.

Steps to be taken to ensure that the Statutory Funding Objective is met

The actuarial valuation of the Scheme as at 30 June 2022 revealed a funding shortfall (Technical Provisions minus value of assets) of £133,645,000. To eliminate this funding shortfall, the Trustees and NUS (the Principal Employer) have agreed that additional contributions will be paid to the Scheme by the participating unions as follows:

- £745,671 per month, to be paid towards the Scheme from 1 October 2023, increasing by 5% at each subsequent 1 October.
- These amounts include an allowance for the expenses of administering the Scheme of £536,038 per annum from 1 October 2023, increasing by 5% at each subsequent 1 October.
- The amounts also include an allowance for an expense reserve of £3,000,000 which is an estimate of the costs associated with winding-up the Scheme and the completion of the GMP equalisation exercise.
- These contributions are payable monthly in arrears, within 19 days of the end of each month. A participating union may, at their discretion, pay all or part of the contributions in advance. Participating unions will be given the option of paying a discounted lump sum instead of their monthly contributions between October 2023 and either September 2026, September 2029 or September 2032.

Period in which the Statutory Funding Objective should be met

The funding shortfall is expected to be eliminated in 13 years 7 months of 1 October 2023, which is by 1 May 2037.

This expectation is based on the following assumptions:

- Technical Provisions calculated according to the method and assumptions set out in the Statement of Funding Principles dated DATE; and
- the return on existing assets and the return on new contributions during the period being consistent with the calculation of the Technical Provisions as at 30 June 2022 but allowing for an initial additional investment return of 0.5% p.a. in years 1-4, linearly reducing to zero over years 5-12.

This statement has been agreed by the Trustees and Employer

[redacted]

.... 20.07.2023

.... Date

Signed on behalf of the Trustees of the Students' Union Superannuation Scheme

[redacted]

Signed on behalf of NUS

01/08/2023

.... Date

Students' Union Superannuation Scheme
Schedule of Contributions

Status

This Schedule of Contributions has been prepared by the Trustees of the Students' Union Superannuation Scheme (the Scheme), after obtaining the advice of the Scheme Actuary appointed by the Trustees.

Contributions to be paid by the Employer from 1 October 2023 to 1 May 2037

In respect of the shortfall in funding as set out in the Recovery Plan dated 1 August 2023:	Each participating employer will contribute an amount as set out in the attached Appendix 1. The amounts commencing on 1 October 2023 will be increased by 5% as at 1 October 2024 and each subsequent 1 October or such greater amount as is agreed between the Trustees and the Principal Employer. These contributions are payable monthly in arrears, within 19 days of the end of each month. A participating employer may, at their discretion, pay all or part of the contributions in advance. The Trustees have given the participating unions the option of paying a single lump sum contribution instead of their monthly contributions from October 2023 to either September 2026, September 2029 or September 2032. These lump sum contributions are set out in Appendix 2. If a participating union chooses to pay this lump sum (which they are under no obligation to do) then they will not pay any contributions set out in Appendix 1 for the period from 1 October 2023 to either 30 September 2026, 30 September 2029 or 30 September 2032, although if the results of the 2025 valuation reveal an increase in the Scheme funding deficit, the Trustees reserve the right to require an increase in contributions from October 2026 to reflect this. Participating employers taking up the offer must pay the lump sum contribution by 19 November 2023, and may at their discretion pay all or part of the lump sum contribution in advance. Any participating employer which takes up the offer and pays a lump sum by 19 November 2023 in accordance with Appendix 2 will remain liable to pay the contributions due under Appendix 1 in respect of the period after that covered by the initial lump sum.
In respect of expenses:	The amounts set out in the appendices include an allowance of £536,038 pa from 1 October 2023, increasing at 5% pa each subsequent 1 October, in respect of the ongoing administrative and operational expenses of running the Scheme. The amounts also allow for an expense reserve included in the Technical Provisions of £3,000,000.

In respect of the Pension Protection Fund levy:	The amount of the PPF levy as shown in the levy invoice, plus associated expenses,(such as fees incurred for advice on the PPF levy) will be payable in addition to the contributions set out in the appendices. Once the PPF levy has been paid by the Trustees, the amount due from each participating union will be determined by the Trustees and notified to each participating union for payment within 30 days.

This schedule has been agreed by the Trustees and the Principal Employer

[redacted]

20.07.2023

....

Date

....

Signed on behalf of the Trustees of the Students' Union Superannuation Scheme

[redacted]

01/08/2023

....

Signed on behalf of NUS

Date

Students' Union Superannuation Scheme

Certification of the Schedule of Contributions

Adequacy of rates of contributions

I certify that, in my opinion, the rates of contributions shown in this Schedule of Contributions are such that the Statutory Funding Objective can be expected to be met by the end of the period specified in the Recovery Plan dated 1 August 2023.

Adherence to Statement of Funding Principles

I hereby certify that, in my opinion, this Schedule of Contributions is consistent with the Statement of Funding Principles dated 1 August 2023.

The certification of the adequacy of the rates of contributions for the purpose of securing that the Statutory Funding Objective can be expected to be met is not a certification of their adequacy for the purpose of securing the Scheme's liabilities by the purchase of annuities, if the Scheme were to be wound up.

Signature:	[redacted]	Date:	14 August 2023
Name:	Paul Hamilton	Qualification:	Fellow of the Institute and Faculty of Actuaries
Address:	St James's House St James's Square Cheltenham Gloucestershire GL50 3PR	Employer:	Barnett Waddingham LLP

Students' Union Superannuation Scheme

Certification of the calculation of Technical Provisions

Calculation of Technical Provisions

I certify that, in my opinion, the calculation of the Scheme's Technical Provisions as at 30 June 2022 is made in accordance with regulations under section 222 of the Pensions Act 2004. The calculation uses a method and assumptions determined by the Trustees of the Scheme and set out in the Statement of Funding Principles dated 1 August 2023.

Signature:	[redacted]	Date:	14 August 2023
Name:	Paul Hamilton	Qualification:	Fellow of the Institute and Faculty of Actuaries
Address:	St James's House St James's Square Cheltenham Gloucestershire GL50 3PR	Employer:	Barnett Waddingham LLP

Appendix 1

This Schedule forms part of the Schedule of Contributions certified on 14 August 2023.

Name of Union	**Monthly Contribution until 30 September 2023**	**Monthly Contribution until 30 September 2024**	**Monthly Contribution from 1 October 2025**
REDACTED	REDACTED	REDACTED	REDACTED

Appendix 2

This schedule forms part of the Schedule of Contributions certified on 14 August 2023. If a participating employer chooses to pay this optional lump sum contribution by 2 November 2023 then no contributions under Appendix 1 are payable by that participating employer for the period from 1 October 2023 to the chosen end date.

	Optional lump sum contribution		
Name of Union	**To 30 September 2026**	**To 30 September 2029**	**To 30 September 2032**
REDACTED	REDACTED	REDACTED	REDACTED