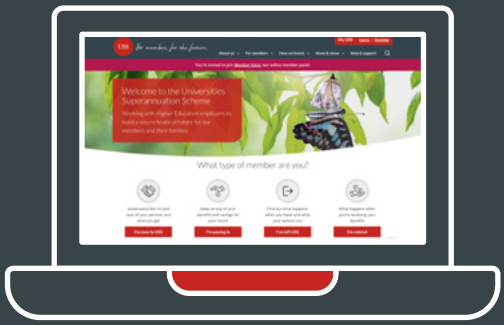
USS

For members, for the future.

Universities Superannuation Scheme

Report and Accounts
for the year ended
31 March 2023

We are the **principal pension scheme** for Universities and other Higher Education institutions in the UK.



The Annual Report and Accounts of the trustee company can be found on our website.

uss.co.uk

Front cover image: University of Glasgow (East Quadrangle)

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How we create lasting value for our members and employers.

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About USS

Our purpose

Working with Higher Education employers to build a secure financial future for our members and their families.

Our strategic priorities

Members feel financially more secure

A sustainable scheme, for the long term

USS is recognised as a competent scheme manager

Our values

Integrity

- We always do the right thing
- We put our members' interests first
- We take decisions for the long term

Collaboration

- We work towards a common goal
- We take responsibility for our own actions
- We are straight talking and respectful in our dealings with each other

Excellence

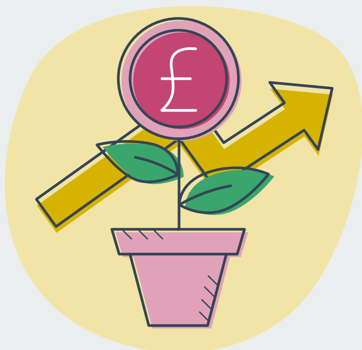
- We set high standards for ourselves and our colleagues for the benefit of our members
- We adapt and innovate to achieve the best outcome
- We bring our best selves to work, every day

Our business model

Universities Superannuation Scheme (USS) was established in 1974 as the principal pension scheme for universities and other higher education institutions in the UK.

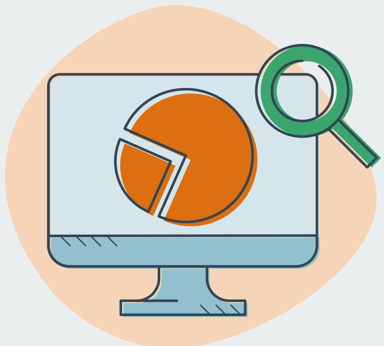
The trustee

The scheme's trustee is Universities Superannuation Scheme Limited. It is a corporate trustee which has overall responsibility for scheme management, led by a non-executive board of directors and employing a team of pension professionals in Liverpool and London. The trustee's key responsibility is to ensure that benefits promised to members are delivered in full on a timely basis.



Pension management

The trustee employs an experienced pension management team, providing member, employer and scheme funding and strategy services, who are based in the Liverpool office. This team is supported by Capita, an external pensions administration firm.



Investment management

The trustee delegates implementation of investment strategy to a wholly-owned subsidiary – USS Investment Management Limited (USSIM) – which employs a team of investment management professionals in the London office, providing in-house investment management and advisory services.

The scheme

The scheme provides two types of pension benefits: defined benefit (DB) and defined contribution (DC) and in both cases we invest payroll contributions received from our members and employers to generate funds to pay for benefits in the future.

Our pension scheme assets and membership as at 31 March 2023

Retirement Income Builder
(defined benefit)

Assets
£73.1bn

Members
c.528,000

Investment Builder
(defined contribution)

Assets
£2.2bn

Members
c.168,000

Stakeholders

Members feel financially more secure
We are committed to providing our members with the right retirement savings options, investing well on their behalf, and helping them make good decisions about their retirement.

For more information see page 12

Employers have a high quality service and a sustainable scheme
We engage with our employers informally, as well as through more formal channels, such as the Institutions Advisory Panel and annual Institutions Meeting.

For more information see page 12

Employees are valued and have the opportunity to thrive
Our employees are key to our success, so our people approach aims to foster a culture that supports diversity and inclusion, recruits, retains and develops talent and is responsive to employee needs.

For more information see page 34

Investee companies have a responsible investor who fosters long-term growth
We are a long-term, responsible investor with a primary duty to invest in the best financial interests of our members and beneficiaries so we can pay pensions long into the future. We believe that the way a company is run and overseen, and how it manages its environmental and social risks, such as its approach to climate change or health and safety, can reduce risk over time and may positively impact investment returns.

For more information see page 22

Our investments

We invest our diversified portfolio in the UK and globally. Our global Retirement Income Builder investments of £73.1bn are deployed across four main categories:

57.7%
Growth

28.8%
Credit

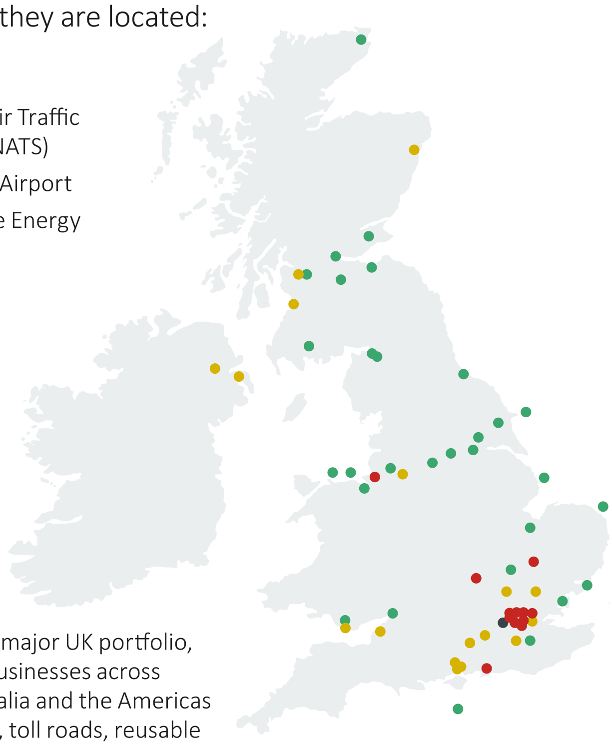
41.1%
Liability Matching

(27.6)%
Net leverage

For more information see page 18

Our key UK Private Market investments and where they are located:

- Property
- National Air Traffic Services (NATS)
- Heathrow Airport
- Renewable Energy



As well as our major UK portfolio, we invest in businesses across Europe, Australia and the Americas covering solar, toll roads, reusable pallet logistics, gas networks, woodland and a port.

Chair’s introduction

We navigated an extraordinary year of political and economic turbulence, marked by unprecedented events in financial markets and a notable improvement in the scheme’s funding position.

Dame Kate Barker
Chair of the Trustee Board

> *Against a backdrop of pressures caused by the rising cost of living, it is good to point to the prospect of an improved funding position … for the first time in more than a decade, our stakeholders should have the opportunity to consider improvements to the scheme through the 2023 valuation.*

Over the past year, we have seen major upheavals in the global economy and in the UK’s financial markets. In the UK, political turbulence briefly led to acute strain in financial markets. September’s “mini-budget” will live long in the memories of UK pension fund managers who had to respond to an unprecedented crisis in the gilt market.

In short, a period of renewed uncertainty. But I believe our Report and Accounts pays testament to how well the teams managing the scheme on behalf of members and their employers have navigated sometimes extraordinary conditions.

With falls across all major asset classes, it was a tough year for investors. The performance of USS Investment Management (USSIM) again evidences the enduring value to the scheme of having an in-house investment team. This enables the scheme to respond quickly and effectively to changing dynamics, and always with the long-term needs of the scheme in mind.

While the value of the scheme’s Retirement Income Builder fund (the defined benefit, or DB, part of the scheme) fell broadly in line with markets, the scheme navigated the Liability Driven Investment (LDI) crisis in the autumn very well. The market moves also meant that rising interest rates (a decade of decline in real interest rates broadly reversed in a matter of months) reduced the value of our estimated DB liabilities to a much greater extent than our DB investment assets fell. This has driven the notable improvement in the indicative DB funding position. As a result, the scheme is in a better position for the 2023 valuation than it has been for several valuations going back to, and including, 2011; more detail on our approach to the valuation and our progress is included on page 5.

Following the changes made to the scheme in April 2022, more members than ever before have individual Investment Builder accounts (the defined contribution, or DC, part of the scheme). While our benchmarking suggests our DC funds performed better than most, the difficult year for financial markets means people planning to retire and take a lump sum over the past year will have found the value of their DC funds reduced. However, when our DC investment adviser reviewed the main USS Growth fund against 16 UK DC master trust default growth fund returns, USSIM’s diversified portfolios performed better than almost all those peer DC funds.

This year, the Investment Committee has assessed USSIM’s performance under the first full year of the new investment balanced scorecard. Under this revised approach, performance is assessed using a range of quantitative and qualitative factors rather than having a primary focus on investment performance versus a benchmark.

The Investment Committee's assessment fed into the Remuneration Committee's decisions on pay awards in the year. Investing in USSIM's capabilities continues to be rewarded from a value-for-money perspective too; the latest independent benchmarking report shows that our investment management cost advantage in 2021 over peers of a similar size and complexity increased to £137m a year.

In March, I was very pleased to attend our first major member engagement event at a university for some years – a 'Member Day' at Durham University. Members of the Trustee Board, Group Executive and USSIM Executive gave presentations and took questions from the audience, and there was a drop-in area available for people to find out more about the scheme and ask specific questions about their pension. It was a valuable event and an example of the more direct engagement we want to have with members and individual institutions.

Perceptions of USS have inevitably been badly affected by the difficult decisions that have had to be made in recent years. These decisions were driven by economic challenges to fulfilling the trustee's primary responsibility to ensure that benefits promised to members are paid in full, and complying with applicable regulations.

Against a backdrop of pressures caused by the rising cost of living, it is good to point to the prospect of an improved funding position. This suggests that, for the first time in more than a decade, our stakeholders should have the opportunity to consider improvements to the scheme through the 2023 valuation.

We have been actively facilitating stakeholder discussions with an ambition to completing the valuation in time to implement any changes they decide to make by April 2024. Between November and March, members of the Trustee Board attended meetings of a new technical forum to discuss the key valuation assumptions with representatives of University and College Union (UCU) and Universities UK (UUK) and their advisors.

We hope that this facilitates a shared understanding of the different inputs, assumptions, evidence, and perspectives that will feed into the decisions the trustee goes on to make in establishing and confirming the funding position through the 2023 valuation. We also hope it helps stakeholders, with the trustee's assistance, to reach agreement quickly on any changes to contributions and /or benefits that can be supported by the improved funding position and achieve our shared ambition of completing the valuation under this accelerated timetable.

Consistent with this collaborative spirit, the trustee's formal response to the Pensions Regulator's (TPR) consultation on its Draft Funding Code of Practice for Defined Benefit (DB) pensions schemes in March was reinforced by a letter to TPR co-signed by the trustee, UUK and UCU.

Our response recognises that the regulatory regime needs to deal with a range of schemes, open and closed, and with varying maturities and employer support. We believe there should be greater scope in the draft Code to better reflect the scheme's distinctive characteristics: its open status, long-term horizons, and the strength and nature of the higher education sector that supports it.

There are other areas where we are working closely with our stakeholders. In particular, we remain very keen to see progress with a low-cost option for USS members that might address the relatively high rate of opt-out from the scheme, particularly among lower paid members, on grounds of affordability. We will continue to support and encourage the Joint Negotiating Committee (JNC) to move forward with its decision making in this important area.

While the Trustee Board has seen no changes in personnel over the year, the JNC has appointed a new chair, Akbar Khan, and I am pleased to welcome him to work in this important role. We are all most grateful to his predecessor, Judith Fish, for steering the committee through the challenges of the 2020 valuation, against the backdrop of the Covid pandemic.

In September, Group Chief Executive Bill Galvin announced his decision to stand down after a decade in post. Despite that decade featuring some of the most difficult economic conditions on record for private DB pension schemes, USS remains one of the relatively few still open to new members – 90% of such schemes in the UK are closed to new members. USS members today account for almost a quarter of the people in the UK who are still actively paying into a private DB scheme.

Bill has led by example and nurtured a culture of member service and professionalism that has been evidenced by independent assessments of different aspects of USS during his tenure. The most recent example of these was the Customer Service Excellence accreditation, which was achieved in October.

I would like to express my personal thanks and good wishes, and those of the Trustee Board, to Bill who will be a very hard act to follow. As you may have read, led by our Governance and Nominations Committee and its chair Ellen Kelleher, the board has appointed Carol Young as our new Group CEO. She is expected to begin at USS in September 2023. I look forward to working with Carol and have every confidence that, building on Bill's legacy, USS will thrive under her leadership.

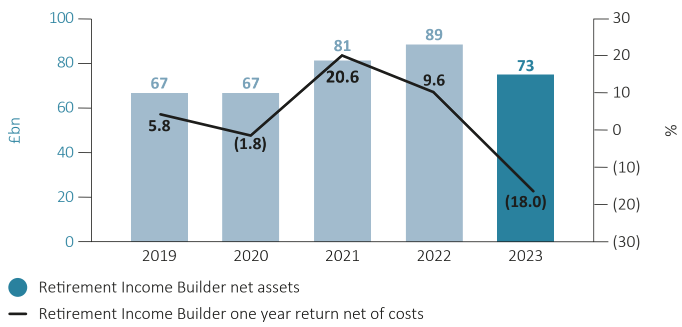
Dame Kate Barker
Chair of the Trustee Board
20 July 2023

Key facts and figures

The following data and comparatives for the year ended 31 March 2023 provide key indicators linked to our strategy.

Retirement Income Builder assets

£73.1bn Total net defined benefit investments



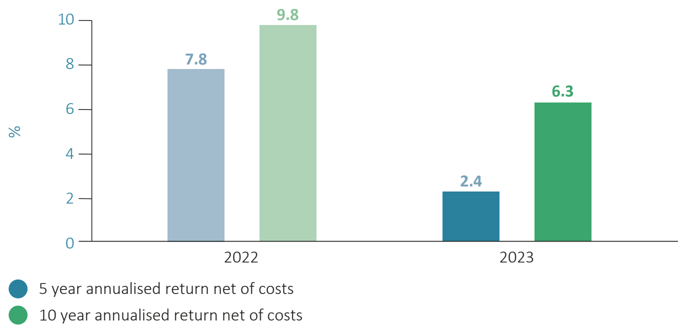
Overview

Retirement Income Builder (defined benefit) assets, which are invested across public and private markets, decreased by £15.9bn due to £16.2bn negative investment return, offset by £0.3bn net inflow from dealings with members. The decrease was exceeded by reductions in actuarial liabilities (using the monitoring basis) resulting in the improvement in funding ratio noted below.

For further information see Investment matters section on page 19 for more on Retirement Income Builder performance.

Retirement Income Builder return

2.4% five year annualised return



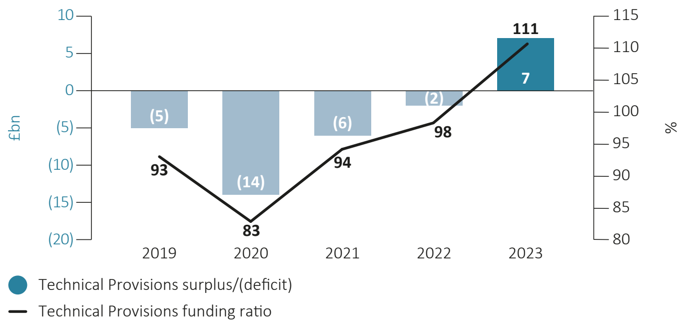
Overview

Retirement Income Builder five year annualised return has reduced this year in difficult market conditions.

For further information see Investment matters section on page 19 for more on Retirement Income Builder investment performance.

Funding ratio

111% Funding ratio (Technical Provisions method)



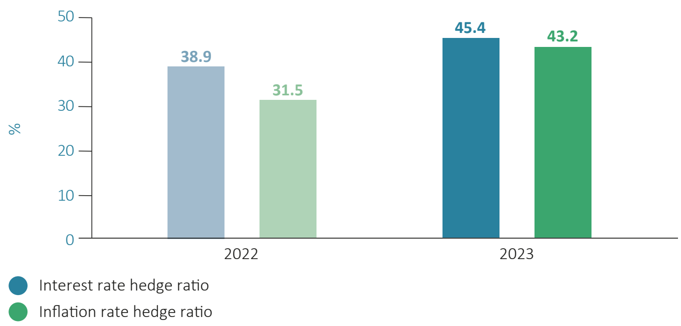
Overview

The funding ratio compares the Retirement Income Builder's assets with the actuarial liabilities (using the 2020 valuation monitoring basis for years 2020 to 2023 and the 2018 valuation monitoring basis for 2019).

For further information see Report on Actuarial liabilities section on page 26 for more on the funding ratio.

Hedge ratios

+6.5%, +11.7% point increase in interest rate and inflation hedge ratios



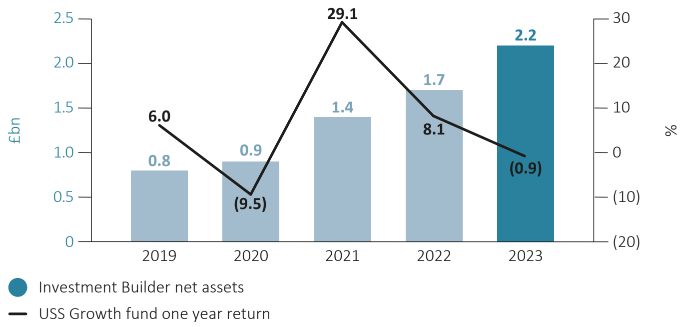
Overview

Interest rate and inflation risks are the most significant financial risks to the scheme's liabilities and funding ratio. Hedge ratios increased in the year reducing the impact of these risks in the future.

For further information see Investment matters section on page 20 for more on the hedge ratios.

Investment Builder assets

£2.2bn Total net defined contribution investments (excl. legacy AVCs)



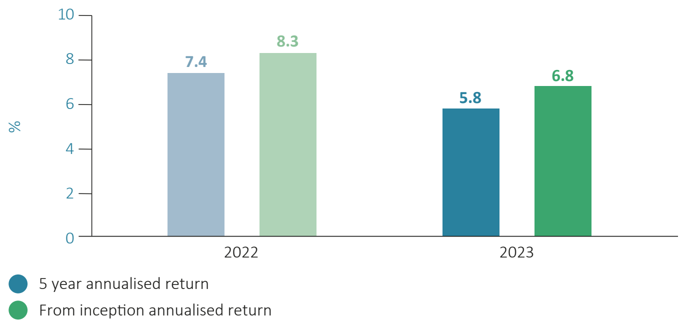
Overview

It was a challenging market for defined contribution (DC) investments with negative returns across asset classes. For USS, net DC £0.6bn inflows from dealings with members were partially offset by (£0.1bn) negative investment returns. However, the USS Growth fund (59% of total Investment Builder assets) performed better than almost all other peer diversified portfolio DC funds.

For further information see Investment matters section on page 21.

Investment Builder return (USS Growth fund)

5.8% five year annualised return



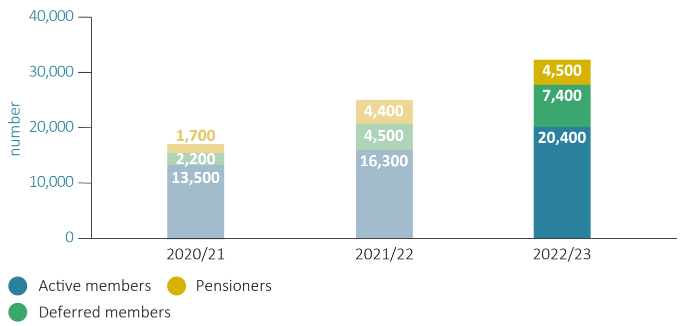
Overview

Investment Builder five year and from inception annualised returns for the USS Growth fund have reduced this year in difficult market conditions.

For further information see Investment matters section on page 21 for more on Investment Builder investment performance.

Improved digital engagement

32k members accessing My USS each month



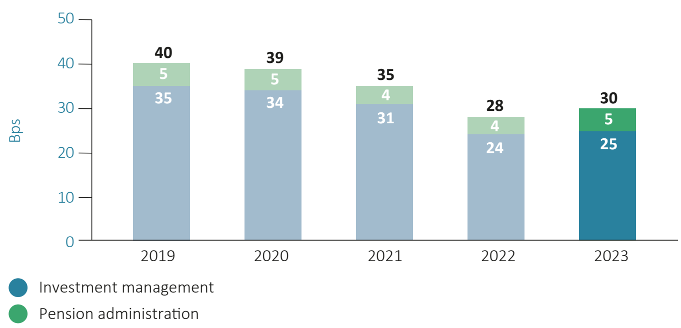
Overview

Since we re-launched My USS in 2020, average monthly usage has consistently increased and was up by 28% this year to over 32,000 as we moved more information online, including annual member statements.

For further information see Pension services section on page 14 for more on our members.

Scheme management cost ratios

30 basis points



Overview

Total scheme costs, expressed as a proportion of scheme assets, in basis points (bps), rose marginally as a result of market falls reducing asset values. Costs are calculated on a basis consistent with that used by CEM Benchmarking. USS costs were 13 bps lower than the peer benchmark in the most recent survey (2021), the equivalent of a £117m p.a. saving. 2022 figures have been updated to reflect those included in the CEM final report.

For further information see CFO Update section on page 55 for more on how we manage our costs.

Group Chief Executive Officer's overview of performance

The past twelve months have seen quite profound developments geopolitically, economically, and socially that have had material implications for pension provision – but key indicators suggest USS ended the year in a better funding position than has been the case for some time.

Bill Galvin
Group Chief
Executive Officer

We hope the 2023 valuation outcome will demonstrate that there is not a one-way track in trustee decisions.

Perhaps the most significant development over 2022/23 for USS was a reversal in the decades-long trend of declining interest rates; a change fuelled by the inflationary pressures catalysed by global events. Uncertainty about the likely strength and length of these challenges resulted in significant volatility in key market indicators and asset prices. There remain very different views on the likely forward path of rates and inflation. As usual with pensions, this will mean different things to those in different positions.

Asset values have fallen in the year; many asset classes have not yet recovered to pre-Covid values. Members with Investment Builder (DC) assets in particular will have seen these effects on their pot values. The same economic drivers have reduced the present value attributed to defined benefit (DB) pension promises. Members looking to transfer their DB pensions, or seeking to commute DB income to cash may also see lower absolute values than they anticipated.

However, these same factors mean the scheme ended the year in a much better implied funding position than it has been for some time. With the emergence of a potential surplus and reduced contribution rate, the Joint Negotiating Committee (JNC) has been able – for the first time in more than a decade – to consider improving the benefits offered by the scheme and/or lowering the contributions paid by members and employers.

Following guidance on likely contribution requirements in February, University and College Union (UCU) and Universities UK (UUK) jointly committed to prioritise improvement of benefits to pre-April 2022 levels (for accrual from 1 April 2024), subject to confirmation of pricing from the trustee and completing the required consultations.

The changes introduced in April last year following the 2020 valuation were difficult for all involved. Increasing employer and active member contribution levels, introducing the greatly enhanced employer covenant support, and (most difficult of all) the changes to future benefits did, however, demonstrate the scheme's governance structure can respond to challenging situations, even though the choices may be unpalatable.

If the 2020 valuation represented a significant real-life 'stress test' for the scheme's solvency position, the mechanisms that saw the scheme through those challenges should give confidence that it can navigate difficult times. This should also, in my view, bolster the ability and confidence to reverse some of the steps taken in 2022, where the 2023 valuation outcome allows.

Through all the change and challenge of the past year, some things remained constant. I am pleased we maintained our high standards of service, with very good turnaround times on key processes driving positive member feedback (see page 14). Additionally, we continued to improve the decision support we offer – launching new modellers for contributions and tax calculations enabling members to do more online than ever before. We also continued to develop a more bespoke approach to communicating with members, aligning our updates with where they are in their journey to retirement.

Following the April 2022 benefit changes, the number of members with individual Investment Builder accounts increased – from over 96,000 to nearly 168,000. We dedicated significant resource to supporting members through this, holding webinars and providing information and guidance covering the choices available.

These efforts (and others) were recognised when we achieved the Customer Service Excellence (CSE) quality mark.

Our employer satisfaction scores remain very high – 90% rate their relationship with USS as good or very good. This gives us confidence we are doing the right things – and doing them well.

There is, however, a disparity between the perspectives of employers and of those members who engage with the scheme's services, and the broader views of members on the decision making of the trustee. This is an important concern to us all. These views are driven, of course, by the responses to the funding challenges the scheme faced over the past decade and the associated changes to future benefits. The difference between members' views on these issues, and their views on the effectiveness of our operations and the value of our communications, is understandable.

We hope the 2023 valuation outcome will demonstrate that there is not a one-way track in trustee decisions. We will continue to work to demonstrate that all the decisions of the trustee are made in the interests of the members and beneficiaries of the scheme, and the priority the trustee needs to place on the security of the USS pension promise.

We lay out in more detail the ways in which we are working to improve our support for both members and scheme employers in the Pension services section (see page 12).

In May 2023, one of our service providers – Capita – informed us that some USS member data held on their servers had been compromised by hackers. We have engaged extensively with Capita on this regrettable issue and members have been provided with access to a leading identity protection service, free of charge. We will keep this important issue under review, in line with any investigations the Information Commissioner's Office feels necessary to pursue to inform its view on what appropriate action should follow. We continue to support members, and employers, as detailed on **uss.co.uk**.

Looking ahead, a key goal for the 2023 valuation will be to work with our stakeholders on the JNC to turn an improved funding position into a platform on which to build greater resilience and stability of funding costs and benefits into the future.

The hybrid scheme structure has provided the framework to respond to the significant increases in costs of future accrual over recent valuations. The ability to adjust the salary threshold (that sets the divide between DB and DC accrual), the nature of inflation protection and the amount of the pension promise for each pound of annual salary were critical to ensuring the DB element of the scheme remained viable through challenging economic conditions.

We are investigating, with stakeholders, innovations that could provide more (and different types of) resilience and therefore confidence that a significant DB promise is sustainable for future generations. This originates from a UUK request to explore Conditional Indexation, which could assist in dealing with market volatility, perhaps mitigating its impact on funding costs for future benefit provision. We are at an early stage and there are various policy, legal and practical issues to consider but we very much support further exploration of this area.

Turning to the scheme's investments, the disruption experienced in financial markets over the last 12 months caused difficulties for many pension schemes. In particular, the UK-specific challenges of September 2022 meant liability-driven investment strategies, which aim to reduce scheme funding volatility, were put under considerable strain. I was very pleased that our in-house investment and risk expertise stood us in good stead, and we were able, in places, to take advantage of market opportunities during this period.

Nonetheless, scheme investments delivered negative returns over the period. The impact market moves had in reducing our estimated pension liabilities significantly outweighed those on our investments. This is the main driver of an improved funding and risk position (on our monitoring basis), as well as indicatively reducing the required future service contribution rate. We discuss the updated estimated funding position in the Report on Actuarial Liabilities (see page 26).

We have continued to work diligently towards the fulfilment of our Net Zero ambition. While data in this area will tend to fluctuate, we remain on our planned trajectory to hit our interim targets. Our transparency was recognised with USS being judged by the International Corporate Governance Network to have the best stewardship disclosure of asset owners with more than £60 billion under management. We were also very proud of the positive reception for our TCFD (Task Force for Climate-related Financial Disclosures) reporting.

In the midst of a cost-of-living crisis, being able to demonstrate that we are delivering value for money for sponsoring employers and members in the way we manage the scheme is vitally important.

The single biggest driver of our operating costs is how we manage the scheme's investments. I am pleased to report that we have increased our advantage in this space; according to the latest independent analysis, our investment costs were £137m a year lower than peers of an equivalent size and scale. That is due to our strategic decision to manage more of the scheme's investments in-house via USSIM, rather than paying external managers. Around two-thirds of the scheme's assets are now managed by USSIM. While USSIM's employees are paid market rates in what is a competitive financial services market, the associated costs are less than the fees we would otherwise pay commercial third-party fund managers.

In closing, I can say it has been a great privilege to have been able to work at USS for the last 10 years serving such a vital UK sector, one that remains such a strong representative of the UK on the world stage. I very much hope that, particularly with the changed economic circumstances, the scheme can go from strength to strength with stakeholders assured of the dedicated professional team working so hard to serve them. I am delighted that, in Carol Young, USS has a very capable incoming Group CEO; I wish her and everyone else involved with USS all the very best.

Bill Galvin
Group Chief Executive Officer
20 July 2023

Group Chief Executive Officer's overview of performance

Continued

Our strategy is supported by our three strategic priorities – these are explained below.

Strategic priorities | **2022/23 highlights**

Members feel financially more secure

We provide our members with the right retirement savings options, invest well on their behalf, and help them make good decisions about their retirement.

- We achieved the Customer Service Excellence accreditation against five criteria: customer insight, culture, information and access, delivery, and timeliness and quality of service
- New and improved decision support tools: contributions and tax calculation modellers are live, with a benefits modeller to follow in 2023
- Continued to evolve our member communications tailoring them to different member circumstances such as explaining Investment Builder performance reporting to members with DC savings
- Dedicated webinars were made available to members new to the Investment Builder (with 1,613 members attending)
- Digital Annual Member Statement (AMS) produced for 99.98% of the active membership. 63% of members (target 50%) logged into My USS to view their statement

A sustainable scheme, for the long term

We ensure funding is put on a stable path and the scheme is aligned with the long-term interests of the Higher Education sector.

- Progressed work to deliver our medium-term Net Zero ambition and were awarded the best stewardship disclosure of all large pension funds globally
- Implemented new climate-tilt mandate for DC, in accordance with commitment to our members. Implemented the FX overlay for DC
- Support for stakeholder initiatives (CI and low cost), joint lobbying on DB regulatory changes, and early engagement through the Valuation Technical Forum and the wider sector on a shared objective of an accelerated 2023 valuation has improved collaboration with our main stakeholders

USS is recognised as a competent scheme manager

We visibly deliver expertise in scheme management with the right people, systems, and processes to deliver value for money for employers and members.

- Launched the DB and DC Investment Framework and balanced scorecard to improve the alignment of USSIM to the wider scheme objectives. More information on these is available on page 24
- The professional response to the gilt market turmoil ensured we were never a 'forced seller of assets' and were able to take advantage of opportunities as a 'net buyer' of gilts at favourable prices
- Pension Operations overall service level agreement (SLA) compliance of 97% on c.190,000 transactions
- CEM Benchmarking's latest assessment of our investment costs covering the year 2021 showed our costs to be an equivalent of £137m a year (39%) less expensive than peers of an equivalent size and complexity

Key performance indicators	2022/23 Result	2022/23 Target	2021/22 Result	2021/22 Target	Description
Employer positive relationship	**90%**	**85%**	**92%**	**85%**	Based on 2023 employer survey findings. The percentage of employer respondents answering 'good' or 'very good' when asked the question 'Taking everything into account, how would you rate your overall relationship with USS?' Further information can be found on pages 14 and 15.
Member communications overall rating	**41%**	**50%**	**38%**	**46%**	Based on the 2023 member perceptions survey, the percentage of respondents answering 'good' or 'very good', when asked about the quality of USS communications. Further information can be found on page 14.
My USS registrations	**63%**	**63%**	**57%**	**55%**	Proportion of active members[1] registered on My USS. More information is available on page 14.
Investment balanced scorecard assessment	**Better than Good**	**Average to Good**	**N/A**	**N/A**	The investment balanced scorecard was introduced during the year and performance against it has been assessed by the Investment Committee. More information is available on page 24.
Pension administration cost per member[2]	**£71**	**£78**	**£70**	**£74**	The pension administration cost per member calculated for the financial year on a CEM Benchmarking basis. Further information can be found on page 56.
Investment management cost[2]	**25bps**	**25bps**	**24bps**	**27bps**	Investment management cost in basis points (bps) as a proportion of average assets under management. Further information can be found on page 55.
% of internal audit findings remediated[3]	**97%**	**100%**	**92%**	**100%**	Percentage of significant audit findings remediated within the agreed time frame.
% of material breaches remediated	**100%**	**100%**	**100%**	**100%**	Percentage of material breaches remediated within the agreed time frame.
Employee engagement	**7.7/10**	**7.6/10**	**7.6/10**	**7.5/10**	Based on 2022 employee engagement survey results. The number of USS employees who agree or strongly agree with relevant survey statements. Further information can be found on page 34.

Notes

1 Active member is a member who is paying into USS.

2 These cost KPIs are calculated on a management accounting basis which differs to the calculation and breakout of scheme expenses included in the fund account. The management basis does not include statutory adjustments, for example, it includes pension deficit recovery charges as they become payable rather than based on provision movements following finalisation of the scheme valuation. The investment management cost KPI is stated as a proportion of total assets under management.

3 The 3% of internal audit findings not remediated within the agreed time frame relates to one medium priority finding which required an action from a 3rd party supplier. A delay in their action resulted in the time frame being moved back one month.

Pension services

We aim to provide our members with a strong customer experience and relevant communication so they feel informed and financially secure.

Helen McEwan
Chief Pensions Officer

90%
of employers rated their relationship with USS positively, with 53% saying their relationship is very good, up from 42% last year.

Members' overall satisfaction with the service we provide has increased from the beginning of the financial year to the end of the year
33% to 42%

Delivering excellent service

97%
of member cases completed within target

82%
of members joining USS were satisfied with the experience

9/10
members calling USS rate the phone service as good or very good.

Through close work with our employers and a keen focus on delivering a seamless member experience, we have met all our service level targets throughout the year, while also making improvements across core employer and member processes.

A high level of engagement from our members saw increased member interactions with the scheme in the year, from general enquiries through to retirement quotation requests. The Pensions Operations team dealt with 190,681 cases, the highest number ever received, up 4.2% on 2021/22.

Key performance measures were maintained, with the team completing 97% of cases within competitively set internal timescales.

All retirement and death benefit payments were settled on time, and our teams regularly received positive feedback, with nine out of ten members rating the phone service as good or excellent. These combined efforts went towards the Pensions Operations team achieving accreditation under the Customer Service Excellence standard.

"The assistance and compassion that has been given has been really heart-warming – you are human and caring in your work.

We have focussed on further improving our service, delivering a streamlined member experience using digital channels, and invested in developing new tools and resources for both members and employers.

Maintained excellent service levels

with our Pensions Operations team also being accredited under the Customer Service Excellence standard

Implemented online distribution of key statutory communications

like the Annual Member Statement (AMS), to give a more streamlined experience

Invested in developing new online tools

such as the contribution & tax calculation modeller to support members in managing their USS pension and planning for the future

Developed the guidance calls and webinars

improving support we offer members and introduced a new Understanding DC webinar to support members new to the Investment Builder

Proactively supported employers

assisting their day-to-day administration of the scheme and delivered several virtual employer training courses

Our dedicated Client Engagement team has continued to provide day-to-day support to employers. 97% of employers consistently achieved their processing targets in key areas, such as having fully reconciled contributions data for all members by the 19th day of each month.

88% of our employers say that we provide them with the tools they need to administer the scheme, an improvement of nine percentage points compared with last year.

> *Professional and very approachable staff, clear communications. Regular updates provided.*

Our goal has been not just to deliver a good service, but to improve the experience for both members and employers as they interact with the scheme. The digital distribution of key statutory communications and enhancements like the new automated telephone system menu, which enables members to get through to the right team at the touch of a button, have played key roles in service improvement. This has resulted in a more personalised and responsive service for members and contributed to a reduction in workload for our employer partners.

Communications to our employers and members are designed to be timely and engaging, based on underlying narrative principles that help us to produce content that is simple, clear, and easy to understand. Our approach aims to provide the right communication at the right time, supporting members to make confident decisions about their pension wherever they are in their journey, and to enable employers to administer the scheme effectively and also provide additional support to members.

Engaging and effective communications

60,000

My USS member logins in October and November (a record) following the annual member statement email

90%

of employers rate our communications as good or very good

For employers, our primary communications tool is our monthly Employer Update, which contains information designed to support them with operational processes and keep them up to date with improvements and changes, as well as acting as a link to valuable resources and training. We have made changes to the look and feel of this communication to help employers find the information they need quickly. We have also revamped the content to bring it in line with our member communications, for both consistency and ease of understanding. This has resulted in a 95% good/very good rating (up from 90%) for the Employer Update – our highest score yet. Outside of the monthly Employer Update we provided additional emails, where required, to keep employers abreast of any fast-moving or important changes, such as the government's Spring Budget, which had pension tax implications.

> *From an employer perspective, the communication and help on hand is brilliant. The portal is easy to navigate. Pension technical terms are explained simply and not too much jargon.*

Pension services
Continued

For members, our communications strategy was designed to support them in making key pension decisions while building their knowledge of pension basics. A particular area of focus was supporting the many members new to the Investment Builder, the defined contribution (DC) part of USS, following changes to the scheme in April 2022. This involved updating our website to provide more content relating to key DC features and running email campaigns on topics that included Hybrid Pension Basics and Understanding Investments. We also delivered a series of Understanding DC webinars to help members get to grips with this part of the scheme. The webinars were attended by 1,613 members, and 87% reported a better understanding of the flexible options they have with the Investment Builder.

Member ratings of the ease of understanding USS communications have improved, with 41% now rating them good or very good, an improvement from 36% this time last year, but this is still an area which needs more focus.

We have also been working on a segmented approach to member communications, using data to identify groups with different wants and needs, and creating a personalised communications approach designed to deliver the right message to the right member at the right time. The segmented approach is one that is evolving, and 2023/24 will see a roll-out of these tailored communications.

Digital service

The digital version of the Annual Member Statement (AMS) was rolled out this year. A personalised email pointed members to My USS, where they could log in to view their up-to-date benefits and download their statement. The online statement acted as a significant driver of My USS registrations with a 6% increase in total active members registering for My USS during the campaign period and record use of My USS in the months following, with 34,000 active member logins in October and 38,000 in November.

An improved digital experience

Members registered for our online portal, My USS:

63%
(2022 – 57%) of active members

51%
(2022 – 31%) of deferred members

74%
(2022 – 70%) of pensioners

c.32k
(2022 – c.25k) members typically access My USS each month

82%
of members expressing a view agreed it was easy to access their digital 2022 AMS on My USS

81%
of employers rate the overall quality of the employer portal as good or very good

Providing a smooth online experience has been another area of focus. For members, over the last year we have moved communications that traditionally were printed, such as the Annual Member Statement (AMS) and Summary Funding Statement (SFS), to digital channels. This has helped drive member engagement with our website and has led to an increase in My USS registrations and usage.

We have recently moved the New Joiner process online too, with new members receiving automatically generated emails once they join the scheme. These emails are even more closely aligned to their pension journey, and signpost members to information designed to help them get to grips with pension basics.

As part of this process, we have also refreshed My USS with an improved document management area and a new notification panel to bring members' attention to important information and highlight key actions they could take.

Providing an easy online experience for employers is equally important, and we regularly review and assess the look, feel and content of our Employer Portal. This year we have made a number of updates to the portal, including improvements to the forms, guidance and advice page, and the interface templates and information page.

Providing support where it is needed

92%
of members thought our guidance webinars were relevant

89%
of employers rate the quality of support we provide as good or very good

100%
of employers attending our training programme agreed the content would be useful in their day-to-day work

In May this year, one of our service providers – Capita – informed us that some USS member data held on their servers had been compromised by hackers. We have engaged extensively with Capita on this regrettable issue. We wrote to all members and their employers about this; members have been provided access to a leading identity protection service (free of charge) and we set up a dedicated hub of information and advice on **uss.co.uk**. We continue to keep this issue under review.

For our employers, our key focus is providing them with day-to-day support via our Client Engagement team, who are always on hand to help. Our annual attestation framework continues to provide employers with greater clarity on how the scheme works and a better understanding of their key responsibilities, helping them manage their participation more effectively. Employers' rating of the overall quality of support we provide remained high with 89% rating it as good or very good.

As part of our formal employer training plan, we delivered 12 virtual training courses to 139 delegates, conducted 33 employer portal run-through sessions and held 49 employer catch-up meetings. Employer awareness of available support is high, with 88% of employers stating they are clear on the nature and content of the training offered. 100% of employers surveyed who attended a training course agreed that it met their goals and would be useful in their day-to-day work.

Providing timely and thoughtful support is key to helping members navigate their pensions journey. We have continued to provide free member webinars, which have covered a range of topics such as About USS, Pension Tax and Planning for Retirement. Member feedback has been positive, with 92% of members who attended rating the webinars as relevant.

> *The support provided by the Client Engagement team is second to none. Always helpful in providing advice and support.*

Many members have complex decisions to make about how they use their USS benefits, and in November 2020 we launched our one-on-one guidance call service. Members can choose to have a guidance call with a pension professional to discuss the retirement options available to them, taking account of their USS pensions and any other provision for the future that they might have alongside it. These calls continue to have a considerable impact for members using the service: before the guidance call 37% of members said they did not feel confident about making an informed decision with their USS pension, reducing to just 6% of members after the call.

Ensuring members have easy-to-use tools to support informed decision making is an essential strand of the member support we provide. We have developed a new contributions & tax modeller to help members understand how much they pay, how much their employer pays and how much they save in tax by making contributions. This calculator is located on the public website, to help new and prospective members, and there is also a version in My USS, aimed at existing members, with advanced modelling options around Annual Allowance usage and links to further support. Since its launch, 49,945 members have used this calculator as part of their pension journey with us.

Ensuring we pay members their correct benefits is also at the heart of the work we do. To this end, we recently undertook a detailed exercise to review historic Scheme Rules and relevant legislation that have applied to deferred members over time. This was performed to assure ourselves that administration practice is aligned with the intention of those Scheme Rules and relevant legislation through time. This identified some historic issues in relation to iterations of the Scheme Rules that applied at different points prior to October 2011. While the issues affect a relatively small proportion of our members, we are currently working to identify those affected and will be contacting them in due course. We have informed the Pensions Regulator of these issues and we are also engaging with UCU and UUK in relation to them.

What members and employers think

We have continued to seek feedback from employers through daily contact with scheme administrators, and through more formal channels, such as the Institutions' Advisory Panel (IAP) and our annual Employer Perception survey. In addition, we have collaborated with employer focus groups and IAP sub-groups on specific initiatives to ensure employers' views are well represented and their needs fully understood and accommodated.

The seven-year long positive trend in overall relationship scores from employers continued in 2022.

The results from the survey demonstrated that the team's proactive approach to engagement continued to pay off, with 90% of employers rating their overall relationship with USS as good or very good, with the very good rating increasing by 11 percentage points compared to 2021.

For members, as well as our traditional feedback methods such as our quarterly survey, we have focussed on engaging with them directly to understand how we can improve their experience.

We invited our Member Voice Panel to share views on several key parts of our website including the new Benefit Calculator which is being redesigned based on previous member feedback.

We received some really constructive suggestions that will help us develop the tool further, and overall member feedback on the new design has been positive.

With the introduction of our new automated telephone system, we have also been able to measure member feedback on their calls to USS to a greater extent and we have seen positive feedback, with nine out of ten members calling USS rating the phone service as good or very good.

While the feedback from members on their interactions with the scheme is overwhelmingly positive, member ratings of their overall USS relationship do not reflect this. Dissatisfaction with the 2020 valuation is understandably still a prominent theme in members' comments.

Although still not at the level we would wish, members' ratings of their overall relationship with the scheme have improved with 30% now giving a good or very good rating in response to our quarterly survey, compared with 17% this time last year. Similarly, the proportion of members rating their overall relationship as poor has decreased from 42% to 32%.

We will continue to do what we can to improve members' relationship with USS through tailored communications and our day-to-day interactions delivering a strong and supportive customer experience.

Pension services
Continued

Membership numbers
The tables below analyse movements in the membership of the scheme during the year:

Active members	University institutions	Non-university institutions	Total
Active members as at 1 April 2022 as reported	205,667	6,639	212,306
Restatement of active members[1]	(2,618)	(50)	(2,668)
Active members as at 1 April 2022 as restated	**203,049**	**6,589**	**209,638**
New members	38,778	1,345	40,123
Rejoiners	9,461	203	9,664
Sub-total	**251,288**	**8,137**	**259,425**
Leavers and exits during the year			
– Retirements	(2,104)	(86)	(2,190)
– Retirements through incapacity	(91)	(6)	(97)
– Deaths in service	(168)	(4)	(172)
– Refunds	(543)	(50)	(593)
– Deferrals	(24,308)	(945)	(25,253)
– Retrospective withdrawal[2]	(7,609)	(282)	(7,891)
Sub-total	**(34,823)**	**(1,373)**	**(36,196)**
Active members as at 31 March 2023[3]	**216,465**	**6,764**	**223,229**

Deferred members	University institutions	Non-university institutions	Total
Deferred members as at 1 April 2021 as reported	**198,302**	**8,899**	**207,201**
Restatement of deferred members[1]	1,060	21	1,081
Deferred members as at 1 April 2021 as restated	**199,362**	**8,920**	**208,282**
New deferrals	24,308	945	25,253
Sub-total	**223,670**	**9,865**	**233,535**
Leavers during the year resulting from:			
– Rejoiners	(9,461)	(203)	(9,664)
– Transfers	(757)	(42)	(799)
– Retirements	(2,294)	(144)	(2,438)
– Deaths in deferment	(121)	(7)	(128)
Sub-total	**(12,633)**	**(396)**	**(13,029)**
Deferred members as at 31 March 2023	**211,037**	**9,469**	**220,506**

Pensioner members	University institutions	Non-university institutions	Total
Pensioner members as at 1 April 2022 as reported	**77,835**	**3,242**	**81,077**
Restatement of pensioner members[1]	717	24	741
Pensioner members as at 1 April 2022 as restated	**78,552**	**3,266**	**81,818**
New pensioners in year resulting from:			
– Retirement of active members	2,195	92	2,287
– Retirement of deferred members	2,294	144	2,438
Sub-total	**83,041**	**3,502**	**86,543**
Rejoiners / Other movements	(305)	(13)	(318)
Deaths in retirement	(1,835)	(51)	(1,886)
Pensioner members as at 31 March 2023[4]	**80,901**	**3,438**	**84,339**

Notes

1 Membership data has been restated for administrative processes completed after 31 March 2022 but with an effective date prior to that date.

2 During the year, USS was notified of 7,891 employees of participating employers who were eligible to join the scheme but elected not to do so, which equates to 16%. This represents an increase of 2,247 from 5,644 in the prior financial year.

3 Included in the active member numbers are 142,387 active members in the USS Investment Builder as at 31 March 2023.

4 At 31 March 2023, there are an additional 15,703 pensions paid in respect of the service of another person (e.g. to a surviving spouse or dependant).

Investment matters

This has been a challenging year for financial markets, with rising inflation and interest rates causing almost all asset prices to fall. Our experienced in-house investment team was able to navigate the turmoil well, with the scheme ending the year in a strong position.

Simon Pilcher
Chief Executive Officer of USSIM

> *Our aim is to ensure that members' pensions are protected for the long-term and that they can be delivered as affordably as possible.*

The decade to the end of 2021 was, broadly speaking, a period of low interest rates and low inflation – conditions which are conducive to strong investment returns. In 2022, that all changed. Supply disruptions from Covid-19 lingered and were heightened by the economic and geopolitical impact of the war in Ukraine. Inflation went up as a result and central banks raised interest rates to tackle double-digit inflation. September then saw significant turbulence in the gilt market and the volatility of the UK investment market presented new challenges. Many asset classes, including traditional safe havens like government bonds, posted market value falls of around 20% in the year.

Things have been calmer since September and the markets began to stabilise as we moved into 2023, before fresh gyrations emerged following the failure of Silicon Valley Bank.

The markets remain volatile and so tactics like horizon scanning, scenario planning, diversification and stress-testing are all critical elements of building scheme resilience. These are elements that our in-house investment team have really had to focus on this year.

We have a large, experienced, and empowered in-house investment team, which meant we were able to react quickly to these unprecedented events. We navigated the gilt market collapse well. While our investment strategy has elements of liability driven investment (LDI), we employ less leverage than many pension schemes and our assets are better diversified (with various asset classes across the globe). Liquidity was not a major problem for us, and so we were able to continue to manage the scheme for the long term. We were able to take advantage of falling prices in UK bonds during the crisis and rising interest rates have ultimately caused the scheme's funding position to improve.

Our strategic decisions, like allocations to foreign currency and private market assets, have been beneficial. The value of the pound tends to fall in times of stress and our exposure to foreign currencies has therefore been a positive. Our private market assets have been resilient and many of them provide inflation linked returns which is helpful as we need to pay pensions that are themselves linked to inflation.

You will see that we are reporting a new set of measures that are used to assess USSIM's investment performance. The investment balanced scorecard covers six important categories, which include the return on our assets, the way investment risk is managed, the value our in-house investment teams can add by actively managing our assets, and our Responsible Investment approach and Net Zero ambition. This aims to align the goals and assessment of USSIM to the overall needs of the scheme and its members in a broader and more considered manner than our previous approaches. You can read about this on page 24.

On the topic of our Responsible Investment approach, exercising the right to vote is a fundamental part of being a steward of the companies in which we invest. It is one of the most effective tools we have for holding companies accountable, encouraging good governance, and driving improvements. We launched our new Stewardship and Voting Policy, together with our supporting Voting Guidance in January 2023. This may see us vote against the reappointment of responsible directors if we believe the company is failing to manage or address an issue appropriately. You can read more about this on pages 22 and 23.

When it comes to long-term strategic decisions for the scheme, we have continued to make progress towards our Net Zero ambition. Considerable effort has been required to improve our carbon emissions data and we are on track to meet our interim targets. You can read more about this and our progress on page 22.

The successful launch of a new defined contribution (DC) programme to control currency exposures was, as far as we are aware, a first of its kind in the UK DC Master Trust market. It means USSIM can better manage currency exposure (and therefore risk) for the DC funds. While this change is behind the scenes for our members with DC pots, it is evidence that we are working to provide a leading DC product for members and continuing to innovate with their best financial interests at heart.

We have created a new Developed Markets Equities team to manage public equity mandates in-house. Their first mandate is designed to provide strong long-term returns at lower levels of risk than the wider equity market by investing in high-quality companies that have strong competitive advantages.

This is another example of us developing in-house capabilities that integrate USS's Net Zero ambition and commitment to Responsible Investment, while also being demonstrably less expensive than employing external commercial investment managers. The latest independent analysis by CEM Benchmarking (for the calendar year 2021) shows that our annual investment management costs were equivalent to £137m less than the median global peer pension fund after adjusting for scale and investment strategy. This theme of being good value for money is consistent over the long term; over the last five years, this benchmarking assessed USS as being 28% less expensive than the peer median – equivalent to a total saving of £423m over this period.

Looking ahead

While we are unable to predict the future, an important part of what USSIM does is to try to look through current events and to assess the long-term picture. We aim to come up with plausible outcomes to emerging issues, which we can then use to develop an investment strategy that should be resilient over the long term. Our aim is to ensure that members' pensions are protected for the long term and that they can be delivered as affordably as possible.

We think that the outlook for equities is moderate when compared to historic performance, while government bonds are set to deliver better returns over the long term, now that yields have risen. Investments from the private markets are a good fit for schemes like USS as we are able to provide long-term, patient capital. These investments are typically less susceptible to the swings we often see in public markets, and it is possible to find investments that provide inflation-linked returns. Given the exposure we have to UK inflation and interest rates through the pension promises we make to our members, we are keen to make investments that will match this exposure, especially those that may offer returns ahead of low-risk government bonds. Consequently, we see UK infrastructure assets and other long-term investments (especially those that can benefit from the transition to Net Zero) as a good fit for the scheme.

Ultimately, we must build a portfolio that is as resilient as it can be – we must have a balanced and diversified portfolio that provides the cashflow we need to pay pensions now, and the long-term growth investments that will deliver the attractive returns needed to pay pensions long into the future.

With the 2023 valuation ahead of us, we are engaging with our stakeholders to determine the appropriate investment strategy for the long-term needs of the sector.

Case study: Engagement with banks

Banks are among the largest providers of finance to new and expanding fossil fuel projects. This includes coal, oil and gas exploration and production, as well as the associated infrastructure such as pipelines. Although banks may only lend money for a short period of time, the infrastructure this money enables will last decades and will arguably generate a demand for fossil fuels into the future. USS is supporting the banking engagement initiative led by the Institutional Investors Group on Climate Change (IIGCC). We are also actively supporting the University of Cambridge endowment fund in its efforts to encourage four UK-listed banks to align with the Paris Agreement, and collaborative engagements that address climate transition at several Asian-listed banks. We will also independently engage with other banks where we have investments or commercial relationships, and will also consider voting against individual directors where a bank has not publicly disclosed its climate transition plans.

Performance of the Retirement Income Builder

The Retirement Income Builder is the defined benefit (DB) part of USS. It promises members an income for life plus a one-off cash lump sum at retirement.

As I mentioned above, the 12-month period to 31 March 2023 saw high volatility in investment returns and a huge shift in market dynamics. This has ultimately impacted the value of the fund, which has as at 31 March 2023, fallen to £73.1bn due to the decline in market value in most asset classes. However, the estimated value of USS's liabilities (the amount we need to pay out in pensions in the future) has fallen by materially more than the assets, which means our funding position has ultimately improved; this is discussed further in the Report on Actuarial liabilities (see page 26).

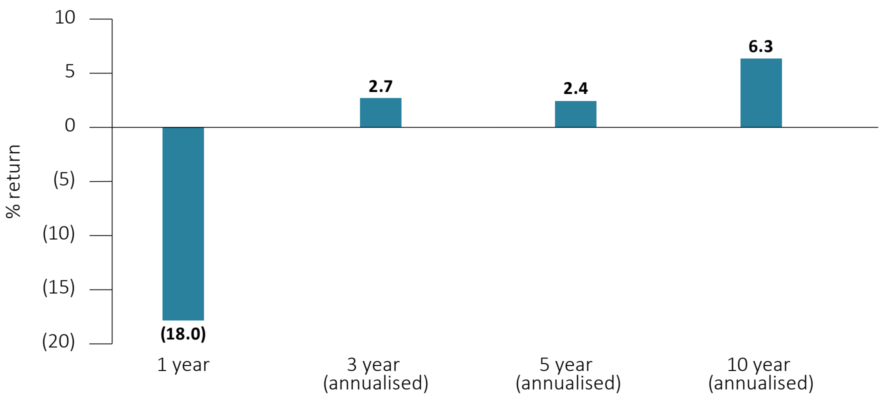
Investment matters
continued

The following table sets out the approximate distribution of Retirement Income Builder (DB) assets (the implemented portfolio) as at 31 March 2023.

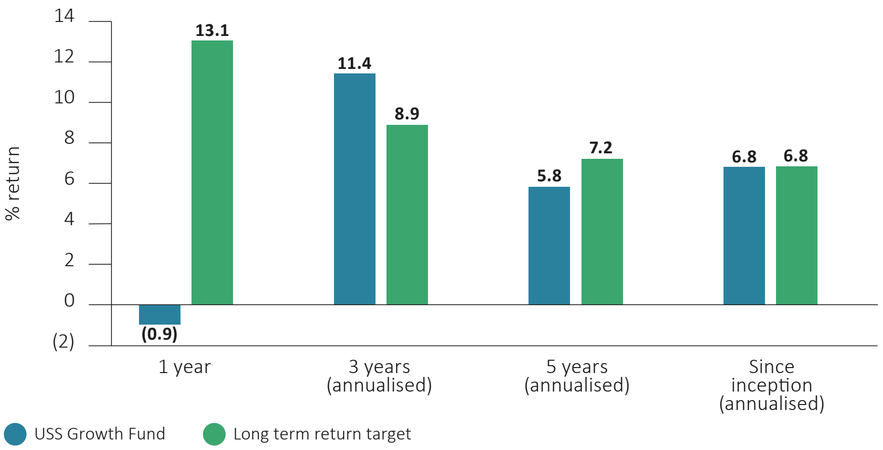
	Implemented Portfolio %	VIS %	Difference %
Growth	**57.7**	**60.0**	**(2.3)**
– Public Equities	30.8	54.0	
– Commodities	0.9		
– Private Growth	9.2		
– Infrastructure	11.4		
– Real Estate	5.4	6.0	
Credit	**28.8**	**25.0**	**3.8**
– Public Credit	17.3	25.0	
– Private Credit	11.5		
Liability Matching	**41.1**		
Net leverage	**(27.6)**		
Total	**100.0**		

Hedge ratios	Implemented Portfolio %	VIS %	Difference %
Rates hedge ratio	45.4	40.0	5.4
Inflation hedge ratio	43.2	40.0	3.2

Retirement Income Builder performance



Investment Builder performance (USS Growth fund)



As noted above, we are now reporting against a new set of success measures, having moved away from a singular focus on outperformance relative to a reference portfolio. The investment balanced scorecards (one for each of the DB part and the DC part) encompass a broader set of objectives. These reflect the complex needs of the scheme and link back to the scheme's risk appetite as set by the Trustee Board. We also look at how we deliver returns that should be ahead of the return of the Liability Proxy over the long term. The Liability Proxy is updated annually and reflects the estimated present day value of the future liabilities (using current market UK gilt prices).

The Valuation Investment Strategy (VIS) is a high-level theoretical investment strategy for the DB part of the scheme that was developed for the most recent actuarial valuation. It is adjusted from time to time to retain consistency with the Integrated Risk Management Framework (IRMF) and the trustee's risk appetite. It is expected to broadly deliver appropriate long-term returns at an acceptable level of risk, but it does not define the actual assets in which USSIM may invest. The VIS has three broad components (or building blocks): an allocation to growth assets, an allocation to credit assets, and indicative hedge ratios for the (interest rate and inflation) risks in the scheme's liabilities. It has been used as a reference for expected return requirements and as one of several comparators for performance assessment since 1 July 2022. The implemented portfolio can differ from the VIS (within limits), as USSIM finds opportunities in the financial markets to add value and improve risk-adjusted returns. The implemented portfolio operates within the same risk and return envelope as the VIS. It is monitored and controlled by USSIM and overseen by the Investment Committee.

The Investment Committee assessed the performance of USSIM over the calendar year 2022 to have been 'Better than Good' overall (looking across both the DB and DC parts). The committee called out USSIM's positive handling of the turbulence seen in the gilt market, strong active management, the excellent performance of our private market assets, strong investment advice, the improved funding position, and the way risk was managed overall. You can read more about USSIM's performance against the new investment balanced scorecard later in this report.

Although the market value of the scheme's investments fell in the financial year, the scheme significantly outperformed the Liability Proxy (by 8.4% per annum) over the five years to March 2023 and has outperformed the Liability Proxy over 10 years (by 5.5% per annum). This recent improvement has been largely driven by changes in the market and rising interest rates.

Performance of the Investment Builder

The Investment Builder is the DC part of USS. It offers members the option to manage their own investments in the Let Me Do It Option, or to have their investments managed for them in the Do It For Me Option.

In the Do It For Me Option, members can choose from two lifestyle options, the USS Default Lifestyle Option and the USS Ethical Lifestyle Option. In these options, members savings are invested in a mix of investment types that evolve as they approach retirement. Members who are more than 10 years from the Target Retirement Age and are in the Do It For Me Option are fully invested in the USS Growth Fund, which can offer higher returns but at a higher expected risk. Then as they get closer to the Target Retirement Age, they move into funds that are expected to have lower levels of investment risk. As at 31 March 2023, the majority of DC assets were invested in the USS Growth Fund (£1.3bn).

In January 2023, we moved the USS Growth Fund from a market comparator benchmark to a long-term return target (LTRT), which targets inflation +3% each year. This change was made to allow members to see how their Investment Builder savings are performing relative to inflation over the long-term. The chart on the page opposite shows performance against this LTRT over various time periods. Recent turbulent investment markets against a backdrop of high inflation have meant that the one year performance of the fund is lower than the LTRT. However, looking over a longer time horizon, the fund return since inception is in line with the target.

In the Let Me Do It Option, members have the choice of 10 funds where they can actively make investment decisions. These options include multi-asset funds, developed market equities, emerging market equities, ethical equities, bonds, cash, and Sharia funds.

Like the Retirement Income Builder, returns for the Investment Builder funds over the 12 months to 31 March 2023 were buffeted by markets that were particularly volatile. In summary, the Investment Committee awarded USSIM an investment balanced scorecard rating of 'Average to Good' for the Investment Builder.

It was noted that 2022 was not an easy year for DC investments across the industry, with returns that were negative across the board, and very high inflation-related targets. However, when our DC investment advisor reviewed the USS Growth fund which comprises the growth phase of the USS Default Lifestyle Option against 16 UK DC master trust default growth fund returns, USSIM's diversified portfolios performed better than almost all those peer DC funds. This outperformance over the year was driven, primarily, by the strategy's allocation to private market assets. Therefore, 'Average to Good' was deemed an appropriate balanced scorecard assessment for USSIM's performance in this context. You can read more about USSIM's performance against the new investment balanced scorecard later in this report (page 24).

The following table sets out the performance of funds within the Investment Builder against a LTRT or benchmark.

	1 year		5 years	
Investment Builder performance	Fund %	LTRT/ Benchmark %	Fund %	LTRT/ Benchmark %
Growth Fund	(0.9)	13.1	5.8	7.2
Moderate Growth Fund	(2.6)	12.1	4.5	6.2
Cautious Growth Fund	(4.9)	11.6	2.8	5.7
Liquidity Fund	2.3	2.3	0.8	0.7
Global Equity Fund	(0.4)	(0.2)	10.5	10.2
Emerging Markets Equity Fund	(6.1)	(4.9)	2.4	2.1
UK Equity Fund	3.2	2.4	4.5	5.3
Ethical Equity Fund	(4.7)	(1.0)	11.7	11.1
Bond Fund	(5.7)	(5.1)	0.3	0.7
Sharia Fund	(2.7)	(2.9)	15.1	15.2
Ethical Growth Fund	(5.7)	13.1	7.9	7.2
Ethical Moderate Growth Fund	(6.9)	12.1	5.4	6.2
Ethical Cautious Growth Fund	(7.9)	11.6	3.5	5.7
Ethical Liquidity Fund	2.3	2.3	0.8	0.7

Investment matters

continued

Our journey to Net Zero

We announced our Net Zero ambition in May 2021. In February 2022, we set up our Net Zero programme to ensure focus and delivery across the business. To date, we have announced our interim targets, introduced a new climate tilt to a large slice of our equity investments, and introduced a £500m Sustainable Growth mandate. This mandate will invest globally in growing, private businesses with proven business models supporting energy transition or greenhouse gas mitigation. These investments are held through third party global funds that have demonstrable track records of scaling such businesses.

We have improved both our carbon emissions data and the methodology we use to calculate this, in order to build a solid foundation on which to move forward. We have restated our 2019 and 2021 carbon intensities based on the improved data and methodology. These have fallen by 3% and 13% respectively from the numbers reported in our 2022 Task Force on Climate-related Financial Disclosures (TCFD) report, and we have readjusted our targets for 2025 and 2030 as a result.

This means we are slightly ahead of a straight-line path from our revised baseline in 2019 (see chart below). We are on track to meet our interim targets of a 25% reduction by 2025. This is a developing area for all investors and the data and metrics will evolve over time, which may mean measured progress might fluctuate. A more detailed description of the methodology improvements we have implemented are available in our TCFD report **uss.co.uk/how-we-invest/responsible-investment**.

We have also integrated climate and carbon considerations into our investment decision-making processes. For example, our Global Emerging Markets team is building carbon exposures and company responses to the challenges of the transition into their financial modelling. They have also implemented an engagement plan for their largest carbon emitters.

The new Developed Markets Equities team is integrating environmental, social and governance (ESG) financial factors (especially climate) into valuation models and investment processes from day one and will also be driving engagement.

The Private Markets team assess the exposure of investments to climate change before they are bought. They have also focused on improving carbon data quality and coverage and have invested £1.2bn in a new Renewables Investment strategy that will run alongside the new Sustainable Growth mandate.

And finally, the Fixed Income, Treasury and Trading team now have a process where they build the climate policy commitments made by countries into their emerging market debt model.

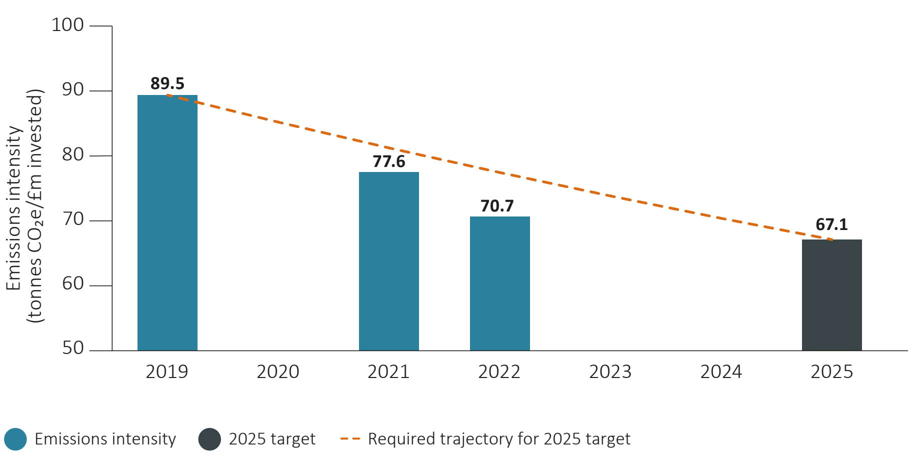
Our approach to Net Zero

We believe that a low carbon world is likely to be a world that will be more financially stable. That is why reaching Net Zero is particularly important from a financial perspective for USS. We continue to make decisions that are in the best financial interest of our members, believing that better run companies and those businesses that are aligned with a path to Net Zero will achieve better returns over the long term. Backing these businesses will, we believe, enable us to pay our members' pensions long into the future.

We will focus on encouraging the businesses in which we invest to transition to Net Zero, rather than simply divesting from them.

As a long-term investor, we have a responsibility to actively engage with companies we invest in to drive positive change in order to achieve the best financial outcomes for the scheme and our members. We must therefore encourage the assets and markets in which we invest to make this transition. However, companies that either resist or are unable to prepare for a low carbon world, to which many governments have committed, may ultimately need to be avoided as they are likely to prove to be poor investments.

Trajectory to our 2025 target



Society cannot divest its way to Net Zero and neither can we. There needs to be a transition to a low-carbon future which involves governments, individuals and companies fundamentally shifting their way of operating. This will require an enormous amount of commitment and capital investment, and we are determined to play our part in this.

For more information on our latest progress and our next steps, read our 2023 TCFD report at **uss.co.uk/how-we-invest/responsible-investment**.

Responsible Investment

USS is a long-term, responsible investor with a primary duty to invest in the best financial interests of our members and beneficiaries so we can pay pensions long into the future. We believe that the way a company is run and overseen, and how it manages its environmental and social risks, such as its approach to climate change or health and safety, will impact the long-term financial returns it will make.

That is why we consider the financial impact of ESG issues when we make investments. More specifically, we integrate financial ESG factors into our investment decisions and engage with companies in which we invest to encourage positive change.

Our latest Stewardship Code Report **uss.co.uk/-/media/project/ussmainsite/files/how-we-invest/uss-stewardship-code-report-2023.pdf**, published in June 2023, sets out how we have delivered against the Financial Reporting Council's 12 Stewardship Principles and put responsible investment into practice by:

1. Integrating ESG factors into our investment decisions across asset classes
2. Using our influence as a major institutional investor to promote good ESG practices through engaging, voting and applying stewardship
3. Working with policymakers and regulators to ensure the concerns of long-term asset owners and investors are clearly communicated

The report combines an update of our principle-by-principle approach with details of new case studies and examples of other initiatives we have undertaken over the past year. Key highlights include:

- Making progress on our Net Zero ambition and publishing our first mandatory TCFD Report
- Engaging with banks to align with the Paris Agreement
- Implementing a new Stewardship and Voting Policy
- Working with University of Cambridge on systemic risks

We were delighted to receive the International Corporate Governance Network's (ICGN) Global Stewardship Disclosure Award 2022 (for asset owners above £60bn) for our full range of disclosures, particularly our Stewardship Code Report, TCFD Report and our web content. This demonstrates our commitment to Responsible Investment, our important work in this area, and our approach to transparency. We were also proud to have been highlighted as an exemplar by the Financial Reporting Council in their stewardship reporting review for the way in which we set clear expectations and our ability to influence external investment managers to take this issue more seriously.

Finally, we looked at how we could address systemic risks through collaboration and participated in discussions led by the University of Cambridge on how asset owners can best work together to address the systemic risks we all face. The Cambridge Initiative will be a partnership between asset owners, academic institutions (including the University of Cambridge) and other stakeholders to collaborate in identifying and addressing systemic risks. We are at an early stage of the project but look forward to further developments in the year ahead.

Our voting

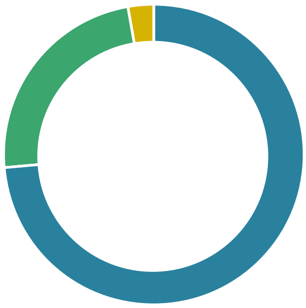
Exercising our shareholder right to vote is a fundamental part of being a steward of the companies in which we invest. It is one of the most effective tools we have for holding companies to account, encouraging good governance, and driving improvements.

We launched our new Stewardship and Voting Policy together with the supporting Voting Guidance in January 2023. This will see us increasingly voting so as to hold individual directors accountable, where possible and appropriate. We will do this where, among other things, a company has not disclosed its climate transition plan, does not meet our diversity expectations, or where executive pay does not align with company performance.

This approach is a change from voting more generally against a company's Annual Report and Accounts and allows us to hold individual directors accountable. Research suggests taking such an approach to voting is more likely to drive change, which is why it is now at the forefront of our voting policy.

In 2022/23, we voted on 28,538 resolutions at 2,144 meetings. We voted against management at least once at 73.5% of meetings. Abstaining or voting against management are not decisions we take lightly, but we do consistently vote against management where we feel the company is not serving our best interests as a shareholder or our members' best financial interests. Our voting numbers are shown in the pie chart.

USS global votes
April 2022 – March 2023



For (with management)	**73.7%**
Against	**23.6%**
Abstain	**2.7%**

There was a significant increase in shareholder climate resolutions and management Say on Climate votes in 2022. We voted at 34 management Say on Climate votes, which give shareholders the opportunity to support or reject a company's climate transition plan or support their progress. We supported 71% of these, as the plans met our key climate criteria or positive progress had been made.

We also supported 72% of shareholder climate change proposals throughout the year. These proposals cover a broader climate remit, from asking for improvements to climate transition plans – like more ambitious carbon reduction targets – to further disclosure on their funded lobbying groups whose objectives do not align with their own.

You can find more on how we have voted, including detail on some of our significant votes, in our Implementation Statement later in this report. We also publish a list of our voting records on our website **uss.co.uk/how-we-invest/responsible-investment/how-we-vote**.

Investment balanced scorecard

The trustee has introduced the investment balanced scorecard as a holistic way of assessing USSIM's investment and advisory performance across DB and DC.

There is a scorecard for both defined benefit (DB) and defined contribution (DC). Each one uses the same six categories, but different metrics are used in the DB and DC versions of the scorecard.

Its purpose is to take a balanced view of performance against the backdrop of USSIM's investment objectives and the interests of the scheme's members and employers.

It reflects the trustee's belief that USSIM's investment performance should not be assessed one-dimensionally using performance versus a benchmark.

Instead, the assessment should include a range of factors including other quantitative risk and return metrics, as well as qualitative inputs.

For example, in the Investment Return category for DB, we include the return of DB assets versus a range of different return targets and the progression of the funding level.

In the Portfolio Resilience category for DB, we assess how cash, collateral and counterparty risks have been managed – the importance of this was particularly highlighted by the "mini-budget LDI crisis" of September 2022.

And in the Responsible Investment category, for both DB and DC, the scorecard provides a framework for integrating financially relevant Environmental, Social and Governance (ESG) factors into our governance. This includes the setting of USSIM's mandate and assessment of its performance against that mandate, in particular in relation to our Net Zero ambition and the extent to which USSIM has integrated ESG factors into its investment decision-making. While these issues have always been important in the assessment of USSIM performance, they are now factored in, in a more systematic way under the investment balanced scorecard approach.

We show the metrics used in the DB version of the scorecard below. The scorecard has six categories. Within each category various quantitative and qualitative metrics are used to help the Investment Committee (IC) assess how USSIM has performed.

1 Investment return

a. Realised return
i. Versus required return
ii. Versus expected returns

b. Funding measures
i. Probability of Technical Provisions full-funding
ii. Evolution of Technical Provisions funding level
iii. Evolution of Self-Sufficiency funding level

2 Investment risk

a. Deficit risk
i. A projection of the scheme's affordability
ii. Self-sufficiency liability hedge ratios
iii. Asset liability volatility and Value at Risk 95

b. Long-term hedging attributes
i. The contribution from longer-term inflation sensitive assets

3 Active management

a. Asset allocation
i. Return versus market comparators

b. Public markets
i. Return over benchmarks
ii. Information ratio
iii. Number of mandates to have outperformed

c. Private markets
i. Return over benchmarks
ii. Quality and quantity of matching assets originated
iii. Number of mandates to have outperformed

4 Portfolio resilience

a. Liquidity
i. The probability of running out of cash
ii. The probability of running out of collateral

b. Counterparty risk
i. The probability of losing 0.5% of scheme NAV from a counterparty default

5 Responsible Investment

a. Net Zero ambition
i. An assessment of how USSIM is delivering versus the scheme's Net Zero ambition

b. ESG integration
i. An assessment of how USSIM is integrating ESG factors (including reporting and stewardship)

6 Investment advice

a. IC assessment of USSIM advice
i. The annual IC advice survey
ii. A qualitative assessment by the IC

The output from the scorecard is rated on a scale of Very Good, Good, Average, Poor and Very Poor.

The metrics in the balanced scorecard are either calculated by, or, in a few cases, overseen by, the independent risk and performance function under the Chief Risk Officer who also provides input to the Investment Committee (IC) in the discussion to assess USSIM's performance.

Approach to assessing USSIM
Each year USSIM's performance will be assessed by the trustee's Investment Committee with input from USSIM, trustee executives and external advisors from Mercer (for DB) and LCP (for DC). The review considers all aspects of USSIM's investment performance during the year including progress against the metrics included within the scorecard against the background of market conditions and any changing trustee requirements in the period.

The scheme investment performance period is the calendar year ended 31 December. In this the first year of such an assessment, while the DB investment performance was reviewed against the finalised scorecard, the DC investment performance was assessed on an interim basis pending approval of the final DC scorecard. Both parts will be assessed consistently in future.

Assessment by the Investment Committee
The Committee viewed the following areas to be particularly strong:

- Handling of the LDI crisis (under the 'Portfolio resilience' box in the DB scorecard)
- Adding significantly and opportunistically to the scheme's DB interest and inflation hedge ratios.
- 'Investment return' element generally, particularly DB returns relative to comparators, and scheme funding improvements. While the latter was materially assisted by gilt yields changes, USSIM managed these impacts well
- Strong 'Active management' and performance in the Private Markets portfolio in particular, as well as the Dynamic Asset Allocation mandate
- Exceptional Investment advice to the trustee over the year, in particular around the design of the new Investment Framework.

With respect to Responsible Investment (RI), the committee noted that USSIM had embedded financially relevant ESG factors into portfolio management processes and decision making, made significant inroads into the scheme's Net Zero ambition, and was recognised as a leader in terms of RI reporting. Looking forward, the committee would like the scheme to be a leader in ESG and it agreed to work with USSIM and fellow asset owners in this space over the coming year.

In relation to DC, while it was a difficult year for such investments, USSIM's diversified portfolios performed well in comparison to peers.

Taking all these elements into account, the Committee awarded USSIM an overall score of 'Better than Good' for performance across the DB and DC investment balanced scorecards.

Russell Picot
Chair of the Investment Committee
20 July 2023

“

Balanced scorecards are consistent with systems thinking in moving towards a model of integrated thinking that is stronger than the classic 'management by objectives' model and 'objectives and key results' model, with more attention given to overall goals, context and behavioural alignment ... USS practice is leading edge in developing the balanced scorecard.

Roger Urwin FIA FSIP
Global Head of Investment Content, Investment Consulting, Willis Towers Watson

- Roger Urwin was engaged by the Trustee to independently review the suitability of the balanced scorecard approach.

Report on actuarial liabilities

Actuarial valuations: how we protect the promises made to members.

Overview

As trustee, we must regularly carry out an actuarial valuation of the scheme's funding. A valuation establishes whether, at the valuation date, we believe the scheme has sufficient assets to be able to pay pensions to which members are entitled, and determines the required contributions needed to fund future benefits. We last completed a valuation as at 31 March 2020 and we are currently carrying out a valuation as at 31 March 2023 which we expect to complete next year.

The 2020 valuation, completed in September 2021, revealed the need for higher contributions to fund the existing pension benefits and the Joint Negotiating Committee (JNC) recommended revised future service benefits and contributions in response. These changes were implemented from 1 April 2022 following consultation with members.

Market conditions have changed substantially since the 2020 valuation; over the past year in particular there has been a substantial increase in the real return available on government bonds. Given the changes in market conditions, it is likely that the 2023 valuation will show a markedly better outcome compared with the 2020 valuation. This is expected to include an improved funding position and lower contribution requirements. The JNC will have a role under the scheme's cost-sharing arrangements to determine the response to any change in contribution requirements.

To commence the formal valuation process, the trustee consults Universities UK (UUK), on behalf of employers, on its proposed methodology and assumptions. The consultation on the 2023 valuation launched on 17 July and is planned to run to 15 September. This is an earlier start date than for recent USS valuations but means stakeholders, via the JNC, can aim to improve benefits and reduce contributions at the earliest opportunity, from 1 April 2024. Some of these changes would first be subject to a consultation, planned for the autumn, between employers and affected employees (and their representatives).

Additional covenant support measures

A package of measures to protect the strength of the covenant was introduced at the 2020 valuation. These measures, which remain in force, include limitations on employer exits without trustee approval, a debt monitoring framework and pari passu ('equal footing') rights for the scheme should employers grant security over their assets to third parties. These protect the strength of the employers' covenant supporting the scheme's ongoing capacity to take funding and investment risk.

Methodology and assumptions

At every actuarial valuation we review all the underlying assumptions relating to the scheme's defined benefit section (Retirement Income Builder).

The 2020 actuarial valuation used a dual discount rate approach. This notionally allows for a lower-risk investment strategy for assets which back pensions that are being paid, and a higher-risk return seeking strategy for assets which back pensions prior to members' retirement. Assuming the scheme remains stable and the covenant support from employers remains strong (including the support measures outlined earlier), this means that the overall actual investment strategy can remain more consistent over time than was allowed for in previous valuations, while still giving sufficient security to members' benefits. Moving to a dual discount rate approach was one of the Joint Expert Panel's (JEP) main recommendations. Subject to the outcome of the consultation with UUK, the dual discount rate approach is expected to be used for the 2023 valuation.

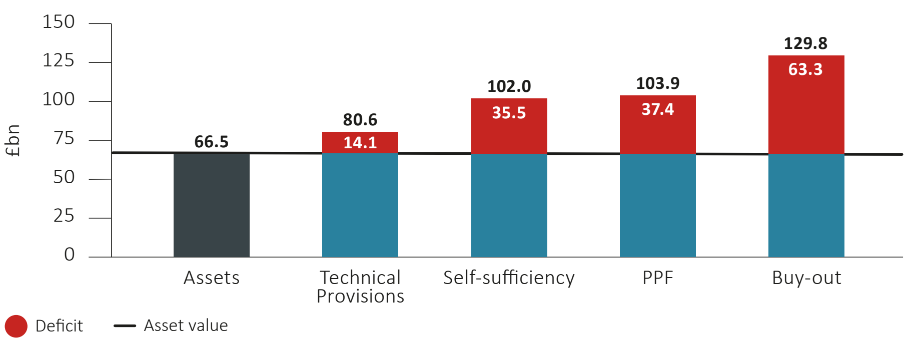
Based on advice from the Scheme Actuary, we expressed the discount rates relative to gilts, which are fixed interest bonds issued by the UK Government, whereas the 2017 and 2018 valuation discount rates were expressed relative to the Consumer Price Index (CPI) measure of inflation. However, the discount rates are informed by our analysis of expected returns of all asset classes relative to CPI.

More information on the final set of assumptions for the 2020 valuation is shown on page 31. Developments in respect of the 2023 valuation can be found on our website **uss.co.uk/about-us/valuation-and-funding/2023-valuation**.

The trustee updated its Financial Management Plan (FMP) as part of the 2020 valuation and has developed a framework for monitoring the scheme based on this.

In the chart to the left, we show the results of the valuation as at 31 March 2020, across a range of approaches. These results reflect different levels of certainty of being able to provide the benefits promised to members.

USS Defined Benefit deficits at 31 March 2020 under differing funding measures



The 'buy-out' value is effectively the cost of buying near certainty of all earned benefits being paid – it represents the estimated cost of paying for an insurer to provide the benefits. The 'PPF' value is an indication of the level of assets which the Pension Protection Fund would require to provide benefits at the reduced level of compensation the PPF grants in the event of the scheme being discontinued due to employer insolvency. These are measures which the trustee has to consider as part of a valuation, but there are no plans for the scheme to be discontinued or for a buy-out with an insurance company.

The 'self-sufficiency' value reflects the value of assets required to pay, with a high probability, all the benefits members have built up so far, using a low-risk investment strategy without any further contributions. It is intended to give at least a 95% chance of being enough to be able to meet all the benefits as they fall due while continuing to demonstrate a high level of solvency.

The 'technical provisions' is the value of assets we seek to hold given our investment strategy, and the support provided by the covenant of the employers. As explained above, this support allows us to take both funding and investment risk now and well into the future (allowing lower contributions to be paid than would otherwise be required). As required by legislation, in determining the technical provisions we take a prudent view of the investment return we expect to achieve.

A more detailed explanation is set out below in 'How we measure the financial position of the Retirement Income Builder'.

The USS benefit structure

Members build up benefits in the Retirement Income Builder based on their salary, up to a threshold, on a Career Revalued Basis; this means benefits which accrue based on their salary at the time are revalued each year thereafter based on inflation subject to certain limits. Above this salary threshold, defined contribution (DC) savings are built up in the Investment Builder. These DC savings are funded by 8% and 12% of salary above the threshold being paid into the Investment Builder by active members and employers, respectively. The balance of contributions made are paid into the Retirement Income Builder.

The salary threshold is £41,004 from 1 April 2023, based on the benefit structure agreed as part of the 2020 valuation (increased from £40,000 in the 2022/23 year). This threshold is adjusted each year in line with the CPI measure of inflation (subject to a maximum of 2.5%), and is subject to review in 2025, unless reconsidered by the JNC as part of the 2023 valuation. Benefits being built up are revalued using CPI subject to certain limits.

Total contributions as a percentage of pensionable earnings each year arising from the 2020 valuation are laid out in the table below.

Contributions from sponsoring employers and from scheme members into the Retirement Income Builder, together with the investment returns earned, are used to pay the defined benefits to members and/or their eligible dependants and to pay the costs of operating the scheme.

Total contributions as a percentage of pensionable earnings each year

	Member	Employer
Contributions to 30 September 2021	9.6%	21.1%
1 October 2021 to 31 March 2022	9.8%	21.4%
1 April 2022 to 31 March 2024	9.8%	21.6%
1 April 2024 onwards	9.8%	21.4%

Revised contributions rates are expected from the 2023 valuation, and we are aiming to introduce these from 1 April 2024.

For more information on the scheme's benefits please refer to the USS website at **uss.co.uk/for-members**

How we measure the financial position of the Retirement Income Builder

The main way we measure the financial position of the Retirement Income Builder is by comparing the current level of its assets with our estimate of the current value of its liabilities. We determine the current value of the assets at a particular point in time, using their market value at that date. In estimating the current value of the liabilities there are inherent uncertainties. These uncertainties include the future rate of return on investments, the future level of inflation, the length of time a pension might be paid for, and the possibility that a survivor's benefit might be paid. We use estimates or 'assumptions' of these factors. We then determine the value of the liabilities by calculating the amount of assets that would be required today in order to meet, in full and without additional contributions, the benefits members have already earned up to the date of the valuation. We aim to fund the scheme with an appropriate level of certainty, and to ensure that the reliance on employers is at an acceptable level over time.

More detail on the trustee's approach to funding the scheme is available in the Financial Management Plan document **uss.co.uk/about-us/valuation-and-funding/our-valuations**.

At every actuarial valuation we review all of the underlying assumptions relating to the Retirement Income Builder. We then consult UUK, on behalf of employers, to obtain their view of our proposed assumptions and methodologies. Our technical provisions assumptions for the 2020 valuation, following consultation with UUK and allowing for the covenant support provided by the employers and benefit changes implemented, are shown on page 31. We expect to consult UUK on the 2023 valuation in the second half of 2023.

Report on actuarial liabilities
Continued

Funding position based on the 2020 monitoring approach

The table to the right summarises the funding position of the scheme on the 2020 monitoring basis using the approach described below. It shows that, on this basis, the scheme is now estimated to have a surplus of £7.0bn, compared with a deficit of £14.1bn as at 31 March 2020.

How the funding position has changed since the 31 March 2020 valuation

As part of our overall monitoring of the Financial Management Plan, we regularly monitor the funding position under several approaches. These include funding positions under both technical provisions and self-sufficiency measures. Self-sufficiency provides a baseline against which the level of risk in funding the scheme and the level of reliance on the sponsoring employers can be measured. These updated funding positions do not involve the same detailed review of all the underlying assumptions that is carried out in full valuations.

We have allowed for expected changes in membership since 2020 (but not for actual changes) and updated the analysis for changes to market conditions and investment return expectations.

At 31 March 2023, based on updating the 2020 valuation results on an approximate basis using our monitoring approach, the funding level is 111%.

The chart to the right details the underlying drivers of the change in the scheme's funding position since the 2020 valuation using this monitoring approach.

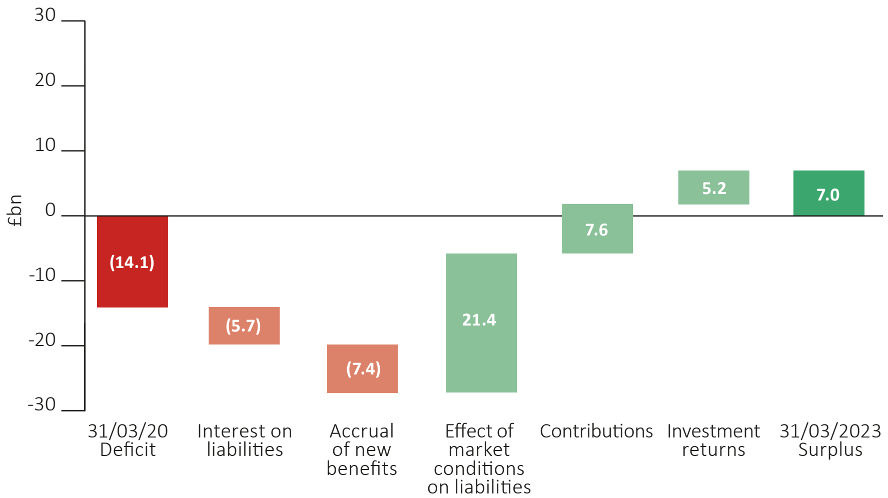
Funding position based on the 2020 monitoring approach

As at 31 March £bn	Actuarial valuation 2020	Funding update 2021	Funding update 2022[1]	Funding update 2023
Value of net assets	66.5	80.6	88.9	**73.1**
Value placed on liabilities	80.6	86.2	91.0	**66.1**
(Deficit)/surplus	(14.1)	(5.6)	(2.1)	**7.0**
Funding ratio	83%	94%	98%	**111%**

Note

1 The liability and deficit value have been restated slightly since the 2022 accounts, which provided figures based on the FMP monitoring basis, to allow for a more detailed review undertaken with Scheme Actuary advice that resulted in a change in the post-retirement discount rate. This change also applies to the self-sufficiency discount rate, so there is a corresponding effect on the self-sufficiency liabilities and deficit, shown on page 30.

Change in funding position since 2020 valuation (monitoring approach)



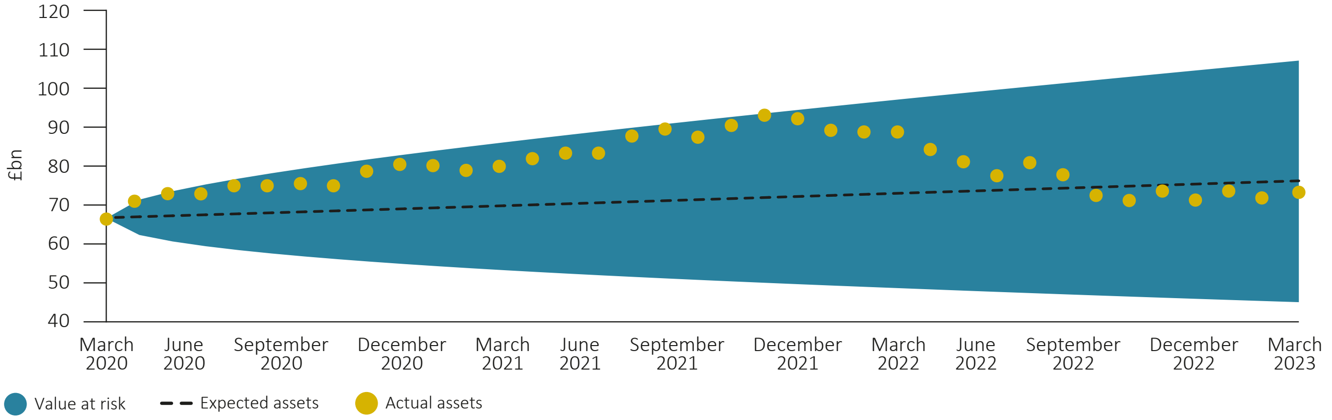
Over the year to 31 March 2023, there were significant changes in market conditions, resulting in a fall in asset values and an increase in return expectations as real gilt yields rose. This has resulted in an estimated surplus developing over the course of the year, as the fall in liabilities outweighed the fall in asset values.

The monitoring incorporates an update to the CPI inflation assumption since December 2020 to allow for the impact on market views following the government announcement that Retail Price Index (RPI) is to be aligned with CPI including owner occupiers' housing costs (CPIH) from 2030. Furthermore, in response to higher observed inflation, an allowance has been made in the monitoring of liabilities since March 2022 for known changes in CPI since the previous pension increase.

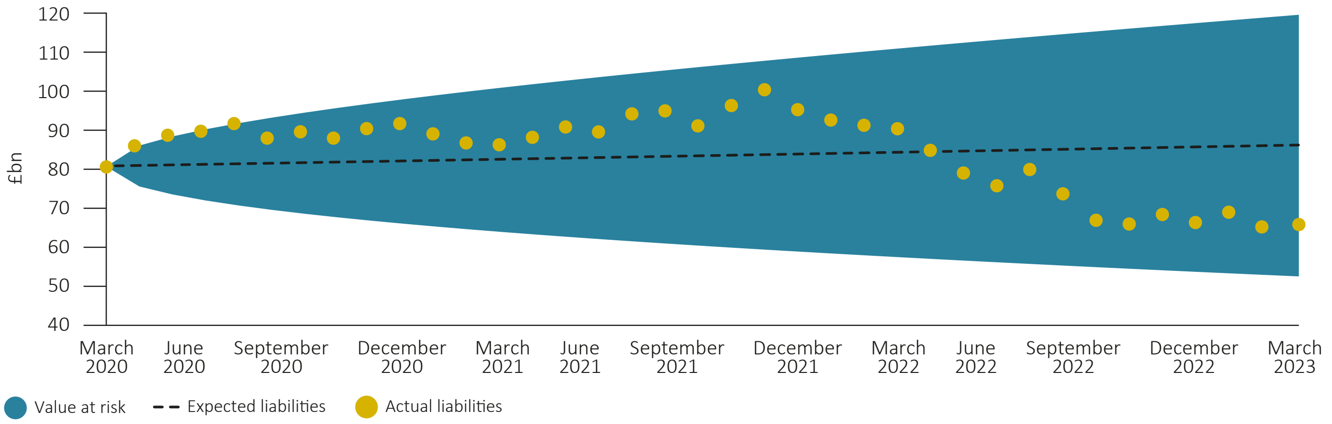
The assumptions to be used in the 2023 valuation are being considered by the trustee based on advice from the Scheme Actuary and will be subject to consultation with UUK on behalf of the scheme employers.

You can find reports and other information on the 2020 valuation at **uss.co.uk/about-us/valuation-and-funding/our-valuations**

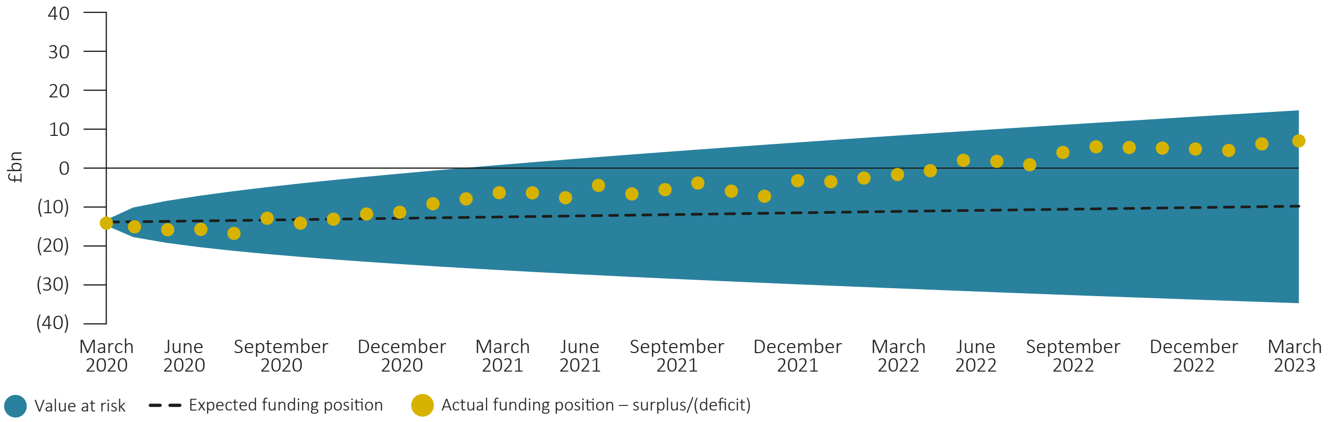
Asset progression since 2020 valuation



Liabilities progression since 2020 valuation



Funding position progression since 2020 valuation



The graphs above show the development of the value of the Retirement Income Builder assets and liabilities, based on the monitoring approach, since 31 March 2020. The black dashed line reflects the expected central path of assets and liabilities at the time of the valuation. The blue area represents the range of outcomes around those central paths that had a 5% likelihood of being exceeded at each boundary (as implied by modelled levels of market volatility). Each of the dots corresponds to the actual scheme assets and the monitoring approach estimate of the liabilities and resulting funding position at the end of each month.

Report on actuarial liabilities

Continued

Other approaches

As mentioned earlier, the value placed on the scheme's liabilities can be measured on a number of different bases, including technical provisions, buy-out, and self-sufficiency.

The table to the right summarises the scheme's position on a self-sufficiency basis. The self-sufficiency liability is the value of assets we would need to hold in order to have a greater than 95% chance that all the benefits members have earned to date can be paid when due while demonstrating a high level of solvency without any further contributions. This is the funding level we would need to achieve in the absence of further support from employers. Self-sufficiency is assessed using return assumptions on the portfolio of assets that would achieve this level of security, using a discount rate reflecting this portfolio and with a different inflation assumption to that adopted in the technical provisions.

The 2020 valuation did not target self-sufficiency, but the distance from self-sufficiency was considered as part of the trustee's Integrated Risk Management Framework, such that the ability to secure the benefits promised to members at that point is, credibly and demonstrably, within the means of employers to fund. More details can be found in the Statement of Funding Principles on **uss.co.uk**.

As at 31 March 2020, the Scheme Actuary estimated the cost on a buy-out basis as £129.8bn. As a result, the deficit on this basis was £63.3bn. A buy-out basis normally gives the highest view of the liabilities.

Although not required, we also produced figures under the FRS 102 accounting approach which uses a discount rate based on corporate bond yields. We did this because such figures are a required disclosure for many UK entities, so it is a recognised method of measurement across different pension schemes. Using this approach, as at 31 March 2023, produces liabilities of £71.1bn and a surplus of £2.0bn. This is based on a discount rate of 4.6% and a pension increase assumption of 3.0% with all other assumptions unchanged from those stated on page 31. This approach is not used to inform our decisions.

As at 31 March £bn	Self-sufficiency 2020	Self-sufficiency 2021	Self-sufficiency 2022	Self-sufficiency 2023
Value of assets	66.5	80.6	88.9	**73.1**
Self-sufficiency liabilities	102.0	111.5	116.7	**77.5**
Deficit	(35.5)	(30.9)	(27.8)	**(4.4)**
Funding ratio	65%	72%	76%	**94%**

The Trustee Board's funding plan

Our overarching funding principle is that the maximum amount of funding and solvency risk within the scheme should be proportionate to the amount of financial support available from the scheme's sponsoring employers. Specifically, the reliance being placed on the employers should not be greater than what they are willing and able to support. We consider this as part of the Integrated Risk Management Framework which feeds into the Financial Management Plan.

You can find details of our investment approach in the Statement of Investment Principles; this is available online at **uss.co.uk/how-we-invest/our-principles-and-approach**.

The recovery plan in the 2020 actuarial valuation requires employers to make additional contributions towards repairing the deficit. These contributions are 6.2% of salaries from 1 April 2022 to 31 March 2024, increasing to 6.3% from 1 April 2024 to 30 April 2038. This recovery plan was set so as to recover the deficit that existed at 31 March 2020 over a period slightly over 18 years from the 2020 valuation date. We determined this plan following extensive work with our advisers on the ability of the scheme's sponsoring employers to financially support the scheme – the 'covenant'.

The conclusion from that work was that there was good visibility of the ongoing strength of the covenant over the next 30 years (with the new covenant support measures in place), but the position became less clear after that. However, the self-sufficiency deficit showed that the risk the scheme was carrying in the short term was close to the limit that employers could bear.

The recovery plan also allows for additional investment returns of 0.5% a year for 18 years. When we determined the parameters for the recovery plan (in particular the extension of the recovery plan from 2028, and the allowance for these additional investment returns), we took into account the specific conditions as at 31 March 2020. Future recovery plans will depend on the financial conditions and outlook at that point of time. The 2023 valuation is not expected to reveal a deficit, as such no recovery plan will be required (and hence deficit recovery contributions would not be payable from the date that the contributions change).

Pension Protection Fund

The Government established the Pension Protection Fund (PPF) in 2005 to provide benefits in the event that a scheme's sponsoring employer (or employers) becomes insolvent without there being sufficient funds available in the scheme to meet promised benefits.

USS is recognised by the PPF as a multi-employer scheme with a joint or shared liability. This joint liability is based on the 'last-man standing' concept. This means that it would only become eligible to enter the PPF in the extremely unlikely event that the vast majority (if not all) of the scheme's employers were to become insolvent. If such circumstances were ever to occur, the PPF would take over the payment of pension benefits to members. However, the benefits received might be less than the full benefits earned within USS.

The precise amount that the PPF would pay to each member would depend on the member's age, the period over which the benefits were earned and the total value of benefits. At the 2020 valuation date, the scheme's 'section 179' valuation position, used in determining the PPF levy payable by the scheme, showed a deficit of £37.4bn.

Further information about the PPF is available at www.ppf.co.uk or you can write to Pension Protection Fund, PO Box 254, Wymondham, NR18 8DN.

Principal actuarial assumptions

The following table shows the assumptions used for technical provisions in the 2020 actuarial valuation, and how these have been updated since then to produce the figures shown earlier. These funding updates, reflected above in the 'Funding position based on the 2020 monitoring approach' section, reflect broad changes in market conditions and expected investment returns. The contributions payable to the scheme are determined based on the full actuarial valuations, with the funding updates used for monitoring purposes.

All these assumptions will be reviewed as part of the 2023 valuation.

The 2020 valuation uses full yield curves in the assumptions, rather than averages. The full year-on-year figures in the 2020 valuation assumptions are available in the documents shown on our website here: **uss.co.uk/about-us/valuation-and-funding/our-valuations**.

Principal actuarial assumptions	31 March 2020 valuation – technical provisions
Market derived price inflation[1]	Term dependent rates in line with the difference between the Fixed Interest and Index Linked yield curves
Inflation risk premium	0.00% p.a.
Price inflation – Retail Price Index (RPI)[1]	Term dependent rates based on market derived price inflation less Inflation risk premium
RPI/Consumer Prices Index (CPI) gap	1.10% p.a. to 2030, reducing linearly by 0.10% p.a. to a long-term difference of 0.10% p.a. from 2040
Price inflation – Consumer Prices Index[1]	Term dependent rates based on RPI assumption less RPI/CPI gap (Results in single equivalent average of 2.1%)
Discount rate	Fixed interest gilt yield curve plus: Pre-retirement: 2.75% p.a. Post-retirement 1.00% p.a.
Pension increases (all subject to a floor of 0%)	Current pension increases (for both pre- and post-2011 benefits): CPI assumption + 5bps Increases capped at 2.50% CPI assumption – 35bps
Mortality base table	101% of S2PMA 'light' for males and 95% of S3PFA for females
Future improvements to mortality	CMI 2019 with a smoothing parameter of 7.5, and initial addition of 0.50% p.a. and a long-term improvement rate of 1.80% p.a. for males and 1.60% p.a. for females

1 These values have been updated for funding updates in subsequent years in line with the table above.

As at 31 March	2021 funding update	2022 funding update	2023 funding update
Discount rate spread over fixed interest gilt yield			
Pre-retirement	2.45%	2.45%	**1.8%**
Post-retirement	0.55%	0.55%	**0.61%**
Average CPI assumption[1]	2.50%	3.0%	**3.1%**
Pension increase assumption			
Pre-2022 benefit pension increases	CPI + 3bps	CPI + 2bps	CPI + 2bps
Increases capped at 2.5% p.a.	CPI – 55bps	CPI – 82bps	CPI – 62bps

1 In practice full yield curves for gilts and inflation have been used in the calculations. The derivation of the CPI assumption has varied over time as described previously. The 2023 average assumption includes allowance for the CPI on which the 1 April 2023 pension increase is based

Actuarial certificate of technical provisions

Actuary's certification of the calculation of technical provisions

Universities Superannuation Scheme

This certificate is provided for the purpose of Section 225(1) of the Pensions Act 2004 and Regulation 7(4)(a) of the Occupational Pension Schemes (Scheme Funding) Regulations 2005

Name of 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 2020 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 30 September 2021.

Signature: DocuSigned by: 7A1910D328A648F... .... Date: 30 September 2021

Name: *Aaron Punwani*
Appointed Scheme Actuary
Fellow of the Institute and Faculty of Actuaries

Address: Lane Clark & Peacock LLP
95 Wigmore Street
London
W1U 1DQ

Actuarial certificate of schedule of contributions

Actuary's certification of schedule of contributions

Universities Superannuation Scheme

This certificate is provided for the purpose of Section 227(5) of the Pensions Act 2004 and Regulation 10(6) of the Occupational Pension Schemes (Scheme Funding) Regulations 2005

Name of scheme: **Universities Superannuation Scheme**

Adequacy of rates of contributions

1. I certify that, in my opinion, the rates of contributions shown in this schedule of contributions are such that the statutory funding objective could have been expected on 31 March 2020 to be met by the end of the period specified in the recovery plan dated 28 March 2022.

Adherence to statement of funding principles

2. I hereby certify that, in my opinion, this schedule of contributions is consistent with the Statement of Funding Principles dated 28 March 2022.

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: .... Date: 28 March 2022

Name: *Aaron Punwani*
Appointed Scheme Actuary
Fellow of the Institute and Faculty of Actuaries

Address: Lane Clark & Peacock LLP
95 Wigmore Street
London
W1U 1DQ

About Lane Clark & Peacock LLP

Our people approach

We work to attract, retain and reward the best talent in a motivated workforce that consistently delivers the service and support our stakeholders expect.

Achievements this year

Senior appointments

Appointment of new Group Chief Executive Officer plus senior hires in Finance, Risk and Equities

Health and well-being

Focus on financial well-being including the signposting of various related resources to employees

Equity, diversity and inclusion (EDI)

Launched employee networks for gender, ethnicity, ability and social mobility

Upskilling management

Enhanced training to advance managers' skills and capabilities, with a focus on risk and people

Hybrid working

Embedding hybrid working into our culture and providing hybrid L&D solutions

USS engagement survey
65% of staff participated:

7.7/10
Overall engagement

8.6/10
"People from all backgrounds are treated fairly at USS."

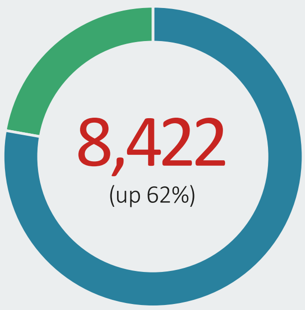
8.6/10
"I understand how my work supports the team's goals."

Mandatory e-learning completion rates

100%

- Risk
- Compliance
- Legal
- EDI for all staff
- Lead Inclusively
- Hire Inclusively

Total training hours delivered



Non-Mandatory	6,566
Mandatory	1,856

People priorities

- Management capability
- Health and well-being of our employees
- Senior leadership succession planning
- Talent retention
- Embedding hybrid working
- Ongoing staff development in professional and operational excellence
- Equity, diversity and inclusion progress

Against the post-pandemic backdrop of an ongoing difficult economic environment, we continued to invest in our people, focusing on creating an engaging and inclusive workplace that retains top talent to enable us to deliver our objectives.

The well-being and positive motivation of our employees is a top priority. We continued to embed our hybrid working framework, which looks to balance the delivery requirements of USS with the work-life balance needs of our employees: an initiative important to our EDI strategy.

This year, due to the cost-of-living crisis, financial well-being became a key focus. Alongside targeted remuneration interventions we provided access to various resources providing assistance to support our employees.

At the same time, we focused on helping our managers lead their teams effectively in a hybrid working environment.

Talent cycle
Our talent management and succession planning strategies are embedded at all levels to ensure we have strong successors for many of our critical roles. Long-term investment in succession is motivational, develops loyalty to our purpose and provides value for money. Our 'Developing Potential' training course further supports the development of future leaders and high potential employees.

Resourcing

Hiring the best talent to deliver the best service remains a strategic imperative. Our resourcing partners are also integral to the success of our EDI plans and work in close partnership with hiring managers to ensure the plans are delivered.

In a very competitive post-pandemic recruitment market, communicating our unique employee value proposition was an important part in attracting talented new staff. Despite the challenging context, we successfully recruited candidates aligned to our purpose and values and continue to receive positive feedback from candidates on their experience of the process.

USS employee engagement

We continue to see strong employee engagement across the business.

Participation in our last pulse engagement survey was at 65%. The overall engagement score was 7.7/10 which is close to the industry benchmark. Scores relating to our key areas of focus showed significant increases this year particularly in hybrid working, autonomy and workload. Our ability to provide a high-quality service depends on a motivated and engaged workforce, and we were pleased to see our employees scored highly on their understanding of how their roles support team goals (8.6/10).

Culture and Values

The Human Resources, Risk and Compliance teams have jointly designed a USS Culture Framework to ensure robust and ongoing support and monitoring of our culture and values. It considers industry-leading practice and is a bespoke framework for USS, based on our USS Values. Measurement is ongoing and internally reported annually in October.

> *USS is a great business to work for; one that values its purpose, puts its members first and supports its employees.*

Learning and Development

Demand for learning has been unprecedented post lock down. The number of courses delivered is up 131% year-on-year, with a 62% increase in training hours. The L&D offering includes core programmes, business specific needs, professional & regulatory external qualifications, EDI, talent development and apprenticeships.

Equity, Diversity and Inclusion

We are committed to continually promoting diversity in all its forms at USS, and progress on EDI forms part of our strategic objectives. Our EDI programme is actively supporting our goal to build an inclusive and supportive environment where everyone feels able to be themselves at work, creating a more effective and positive working experience.

We collaborate across the organisation and the work is endorsed and supported by the Trustee Board, senior executives and the HR team.

During the past year we have formed employee affinity groups focusing on gender, ethnicity, neurodiversity and social mobility. These networks have been active both in supporting colleagues and generating progressive ideas to advance the programme.

Our EDI actions focus on three main areas: attracting and recruiting diverse talent; creating an inclusive culture through our working practices, and developing diverse talent and EDI awareness through education and development.

We continue to look at ways to enhance inclusion in our recruitment practices. As well as anonymised CVs, this year we have launched a candidate pack to support neurodivergent candidates, broadened our equal opportunities statement and included particular emphasis on flexible working in role adverts.

In my 12 year career at USS, I have benefited from continuous development and support, including mentoring, training on leading member-focused teams and attending our Developing Potential programme, a pivotal opportunity in my development to learn how we can demonstrate our core values and behaviours in practice.

I started in the Finance team, going from there into the Pensions Business and in June 2022 was appointed Operations Manager within Pensions Operations, leading over 40 colleagues in six teams.

I feel very fortunate to have been provided the opportunity to develop at USS and endeavour to use this to maintain high quality service to our members.

David Powell
Operations Manager
Pensions Operations

Early talent is an important part of our EDI strategy. Our third internship programme runs in summer 2023, having carried out another successful programme in 2022. Interns joined us from a range of socio-economic and ethnic minority backgrounds. Recruitment was facilitated by both Up Reach and SEO London. We have also recruited our first two apprentices in Pensions Operations and have 15 existing employees studying apprenticeships.

Risk management

Our robust approach to risk management protects the scheme's investments and operations and aims to help members feel more financially secure.

In conducting our business, we manage a wide range of risks that could affect our objectives including our duty to ensure that the benefits promised to members are delivered in full, and on a timely basis.

For the Retirement Income Builder, this means ensuring there are sufficient funds available to provide members with their promised retirement income.

For the Investment Builder, it means having an appropriate range of investment fund options available, along with an effective investment process, to enable members to manage their investment selections in line with their risk appetite.

Risk framework

We operate a three lines of defence approach to risk management (see below), which is embedded in the organisation through the operation of a comprehensive risk management framework.

Our risk framework includes a dedicated Group Risk function and risk governance arrangements, policies and processes. The framework aims to ensure that risks are effectively identified, managed, monitored and reported across the business.

The Group Risk function is independent of USS first line businesses, and its head, the Chief Risk Officer, reports directly to the Group Chief Executive Officer.

The team are responsible for ensuring the risk frameworks are in place for the first line management of risks and for overseeing that management. They also provide independent risk and performance metrics for the investments, used for management of the scheme and for the investment balanced scorecard assessment.

Risks are identified on an ongoing basis, as part of both business-as-usual and business change activities. Consideration is also given to emerging risks. Risks are measured regularly using Key Risk Indicators (KRIs) and reviewed by business management and the Group Risk team before being reported to the relevant risk governance and oversight committees.

Risks are managed by control, transfer, hedging or avoidance. Risk monitoring and reporting is implemented through several tools, including investment risk reports, risk and control registers, event logs and assurance activities.

Assurance activities have been developed collaboratively by each of the three lines of defence, to provide an indication of the health of the control environment in relation to key business processes. Additionally, risks are monitored through the delivery of a risk-based assurance programme undertaken by the Compliance and Internal Audit functions.

Risk appetite

Taking on too much or too little risk could result in a failure to deliver our strategic priorities. At the core of our approach to risk management is our risk appetite; this is articulated in our risk appetite statements which describe the types and levels of risk we are prepared to accept.

They, along with related KRI metrics, set risk-taking boundaries and enable consistently risk-aware decision making.

Risk governance

As the ultimate owner of all risks, the Trustee Board has overall responsibility for risk management across the group. It sets risk appetite and must satisfy itself that the risk management framework has been implemented effectively. It delegates responsibility for this implementation to executive management, which ensures that responsibilities for risk management are clearly articulated, clearly applied, and consistent with the three lines of defence model. Risk management is overseen by executive and non-executive risk committees, ensuring that risk management processes are effective, and that risk is appropriately assessed against appetite.

The USS three lines of defence risk management approach

1st

USS business units

- Risk identification and ownership
- Risk management
- Operation of control

2nd

USS functions of group risk, legal and compliance

- Risk oversight
- Challenge to first line
- Maintenance of the risk framework

3rd

USS internal audit function

- Independent review
- Risk assurance
- Challenge to first and second line

Principal risks

We maintain a register of the risks faced by the business as well as their potential impact and how we mitigate them.

We have identified the scheme's principal risks based on their potential to threaten the trustee's ability to deliver its strategic priorities. These risks can arise from internal or external factors and can adversely impact the scheme's funding, investments, operations and reputation. The tables below set out those principal risks, their potential impact and the mitigation in place and represent a high-level summary of the scheme's risk registers.

- Members feel financially more secure
- A sustainable scheme, for the long term
- USS is recognised as a competent scheme manager

Our three strategic priorities which can be identified in strategy, KPIs and risk categories. For further information see page 10.

Description	Impact	Control/Mitigation	Strategic Priority
Funding risk			
The risk that USS holds inadequate assets to cover the accrued pension benefits.	This may lead to the requirement to substantially increase contributions, amend investment strategy and/or reduce future benefits.	• Implementation of a comprehensive Financial Management Plan (FMP) as part of each actuarial valuation, incorporating the acknowledged strength of the employers' covenant, the appropriate contribution rate and investment strategy • A dedicated funding strategy and actuarial team focused on funding of the Retirement Income Builder • Provision of expert investment advice from the Scheme Actuary and the scheme's principal investment manager and adviser • Regular monitoring of the funding level, employers' covenant strength, contribution adequacy and liability in the context of the FMP • Regular analysis of the sources of changes in both the liability and the deficit and of the impact of this on the required employer contribution rate • Strengthening of the covenant by the implementation of a moratorium on institutions leaving the scheme and pari passu rules on future institutional debt issuance	A sustainable scheme, for the long term; USS is recognised as a competent scheme manager
Scheme strategy and stakeholder			
The risk that institutions, members or their representative bodies no longer view USS as their preferred service provider for retirement benefits.	Members choose not to participate in USS, missing out on the scheme's benefits. Employers, or their representative bodies, may no longer view USS as the right provider to build a secure financial future for their employees and their families.	• Regular meetings with agendas relevant to the attendees are held with employers, member representatives and employer representatives, including both Universities UK (UUK) and Universities and College Union (UCU). The engagement is ongoing but is more frequent during actuarial valuations • Working closely with the scheme's stakeholders, including the Joint Negotiating Council (JNC), who are responsible for agreeing member benefits and meeting their needs • Engagement with stakeholders on low-cost options and conditional indexation to ensure the continued suitability of USS benefits for the sector • Invite regular feedback from members and employers through surveys, advisory panels and online member voice panel, to understand their priorities and needs • Communications to employers and members explaining the benefits of USS, including emails, videos, webinars and blogs	A sustainable scheme, for the long term; USS is recognised as a competent scheme manager

Principal risks
Continued

Description	Impact	Control/Mitigation	Strategic Priority
Climate change risk			
The risk of material financial impact from climate change, driven by transition risk where asset values are impacted by economic transition in response to climate change, and by physical risk of damage to assets from extreme climate and weather events.	This could lead to loss of value of assets from transition to a low-carbon economy or from actual or potential physical damage, especially where we are long-term holders of those assets.	• USS has an ambition to achieve Net Zero for carbon by 2050 with interim targets for 2025 and 2030 • Integration of climate risk into our Governance and Risk Management processes with oversight at the Trustee Board level • Integration of climate risk into investment decision-making process • Regular scenario analysis and modelling to help identify and quantify the systemic impact of climate change on the real economy and markets • USSIM Net Zero Steering Committee and Net Zero Working Groups to monitor and implement change at asset class level • Stewardship of high carbon exposed equity assets, engaging both directly and in collaboration, to ensure climate risk in all forms is being appropriately managed • Dedicated in-house Responsible Investment (RI) team with specialist expertise to support investment teams and trustee	
Service delivery risk			
The risk that transaction errors may occur in the processing of data due to faults in the process caused by inadequate design; poor operating procedures; errors in the input of data upon which the process operates by customer, third party or employee.	This may lead to poor or incorrect outcomes for our members or beneficiaries and the potential for increased costs and reputational damage.	• Service standards are defined and tracked on an ongoing basis • Review and reporting of performance across all administration teams • Comprehensive workload management reporting on current and forecasted volumes • Controls are documented and tested on a periodic basis, control results are included in monthly reporting • Data is subject to system validation processes • All service staff receive extensive training on a regular basis to ensure consistency and maintain high service standards	
Supplier performance failure risk			
The risk that a supplier fails to properly perform a business-critical contracted service.	This could result in a failure to perform business-critical activities on a timely basis, failure to obtain value for money for the scheme or performance of the service in a manner that is not in the scheme's best interest.	• Dedicated procurement function with responsibility (together with the Group General Counsel) for controlling supplier onboarding, supplier selection (i.e. through either direct Procurement involvement or oversight) and ongoing monitoring of critical suppliers' financial standing and performance. Appropriate remedial actions and/or commercial compensatory actions, and ultimately replacement of non-performing suppliers should value for money not be received • Appropriate relationship management structures are in place with critical suppliers, supported by service level agreements, management information provision and incident escalation and resolution protocols • Ensure that the critical suppliers have appropriate Business Continuity Plans (BCPs), RTOs (Recovery Time Objective) and RPOs (Recovery Point Objective) in place that align to business criticality • Review and oversight of supplier data security for key suppliers who have access to USS personal data	

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Our three strategic priorities which can be identified in strategy, KPIs and risk categories. For further information see page 10.

Description	Impact	Control/Mitigation	Strategic Priority
Investment performance risk			
The risk that investment returns are below the required return over the medium to long term (5+ years), leading to the scheme funding ratio being below acceptable minimum levels for DB, or member investment return targets not being met for the DC portfolios.	This could result in a significant increase in the deficit of the Retirement Income Builder, leading to a potential requirement to increase contributions, amend investment strategy and/or reduce future benefits. Lower growth in the size of members' Investment Builder funds is also a potential consequence, leading to lower than expected values being available to members on retirement.	• A documented, structured and effective investment process, run by experienced investment professionals, incorporating robust controls and diligent oversight • Retirement Income Builder: the investment portfolio is diversified across various investment types and risk factors. It is managed relative to a long-term investment strategy designed to fulfil the goals of the USS FMP • Investment Builder: the Let Me Do It fund range was chosen to provide members with an appropriate range of risk and return expectations. The Default Lifestyle Option progressively reduces investment risk exposure over the 10 years before expected retirement to provide greater certainty around outcomes • Investment Risk Appetite is captured via Trustee Risk Appetite Statements (RASs) developed for the Investment Framework and measured by KRIs. • The RASs and KRIs are reviewed annually by the Investment Committee, and USSIM is regularly assessed for its adherence to them by the Investment Risk function • Use of the investment balanced scorecard process (see page 24) to assess investment performance against multiple criteria over various investment horizons	
People risk			
The risk of an absence of sufficient, competent and engaged staff to operate key process elements necessary for the organisation to do business in a manner that aligns with the USS core values of Integrity, Collaboration and Excellence.	This may lead to an inability to provide the necessary capacity and skills to achieve successful delivery of the scheme's strategic priorities, leading to poor investment performance, increased incidence of operational error and failure, and ultimately result in reputational damage with key stakeholders.	• Focused recruitment and onboarding processes; talent management and succession planning; training and development programmes • Clear objectives set for all staff, linked to the USS strategic priorities; regular staff performance and remuneration reviews with reference to appropriate external benchmarks coupled with incentive programmes to reward and retain the most talented individuals • Regular employee engagement reviews • Employee health and well-being programme to promote a healthy and productive working environment for staff • Equity, Diversity and Inclusion (EDI) strategy and targets to address diversity challenges including improving diversity at senior levels	

Principal risks
Continued

Description	Impact	Control/Mitigation	Strategic Priority
Legal and Regulatory risk			
Breaching Risk – Risk that the activities of USS personnel breach an applicable UK legal or regulatory obligation/ requirement or the Scheme Rules. **Awareness Risk** – Risk that USS fails to have necessary awareness of applicable UK legal or regulatory obligations or requirements.	This could lead to potential for member detriment as a result of activities of USS being non-compliant with applicable UK legal or regulatory obligation/requirements or the Scheme Rules. Potential for change to impact the scheme's product and service offering gives rise to additional costs and leads to operational complexity. Failure to respond to such changes in an appropriate and timely manner could lead to fines, compensation costs and censure, as well as damage to stakeholder relationships and reputation.	• Group General Counsel (GGC) leads the process to monitor legal and regulatory change. Updates are flagged to the relevant business areas • Change management is applied by relevant business areas for the implementation of necessary changes • Key changes are communicated by specific updates to relevant business heads, compliance and legal training, advisory work and monitoring activity	
Resilience, technology and change risk			
Risk that the ability of USS to provide important business services is compromised as a result of: • disruption to IT or facilities infrastructure • inadequacy of technology arrangements • changes to business capabilities and processes not being delivered reliably	Physical and infrastructural disruption could lead to adverse impact on operational capacity and controls. Disruption could result in deterioration of the value of the scheme's assets, adversely impacting our funding and liquidity position and asset valuation uncertainty in the short term.	• Full remote working capability for all teams, to allow continuity of key processes and physical isolation of employees • Business continuity management governance framework in place, with defined continuity plans and IT Disaster recovery in place • Resilient data centre hosting arrangements in place providing high availability for key systems • Well-being programme in place to support employees • Monitoring of supplier viability through the supplier framework	

- Members feel financially more secure
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Our three strategic priorities which can be identified in strategy, KPIs and risk categories. For further information see page 10.

Description	Impact	Control/Mitigation	Strategic Priority
Information security and privacy risk			
The risk that the confidentiality, integrity and availability of the data that we hold and manage is not maintained.	Breach of applicable data protection legislation, potential for regulatory censure or fine, damage to stakeholder relationships and reputation. Potential for monetary loss and remediation costs.	• A dedicated information security team whose head is the USS Data Protection Officer • Implementation of appropriate information security and data protection framework and processes • Implementation of appropriate cyber risk controls • Delivery of regular education and awareness training to employees, including phishing campaigns • Ongoing maintenance of the international information security accreditation, ISO 27001 • Achievement of Government-backed Cyber Essentials Plus accreditation • Implementation of processes designed to maintain compliance with General Data Protection Regulations (GDPR) • Mandatory compliance with information security team requirements as a condition of supplier onboarding with ongoing oversight through the appropriate relationship management structures • Oversight of key suppliers and their information security and privacy risks for the work they carry out on behalf of USS	

Governance

High quality governance and decision making are critical to success.

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Newcastle University

Governance

High quality governance and decision making are critical to success.

The right decisions need to be made by the right people in a timely manner within requisite controls, reporting, review, oversight and regulatory compliance arrangements.

The scheme's trustee is Universities Superannuation Scheme Limited (the trustee). It has overall responsibility for scheme management and administration, led by a non-executive board of directors, and employs a team of pension professionals in Liverpool and London. The trustee is regulated by The Pensions Regulator (TPR) and must ensure that benefits promised to members are paid in full on a timely basis.

The Trustee Board provides monitoring and oversight of USS's operations, ensuring competent and prudent management, sound planning, proper procedures for the maintenance of adequate systems of internal control, and for compliance with statutory and regulatory obligations. This includes overall oversight of the administration of the scheme (including investment of the scheme's assets) to ensure that: (i) the scheme is adequately funded; (ii) benefits are paid when they fall due; (iii) the scheme is effectively administered in line with objectives; and (iv) the scheme and its administration continue to meet the needs of the UK higher education sector.

While the Trustee Board retains overall oversight of the USS group, day to day management of the trustee in accordance with the approved business plan and budget has been vested by the Trustee Board in the Group CEO (GCEO), who allocates specific responsibilities to the senior members of his team.

The trustee delegates implementation of its investment strategy to a wholly-owned subsidiary – USS Investment Management Limited (USSIM) – which provides in-house investment management and advisory services to the trustee. USSIM manages between 60% and 70% of the scheme's investments in-house and appoints and oversees external investment managers to manage the rest. USSIM is authorised and regulated by the Financial Conduct Authority.

The USSIM board of directors is responsible for the overall leadership, long-term strategy and oversight of USSIM (including oversight of day-to-day management and values and culture); and the delivery of services as agreed with the trustee.

To achieve effective leadership and discharge their duties successfully, the Trustee Board must have an appropriate balance of knowledge, skills and experience. Recruitment, ongoing training and development and performance management processes are in place to achieve this. You can read about the skills and expertise of the Trustee Board members on pages 45 to 47.

The Trustee Board is supported by five specialist standing committees:

- Audit and Risk Committee (Group Audit and Risk)
- Governance and Nominations Committee (GNC)
- Investment Committee (Investment)
- Pensions Committee (Pensions)
- Remuneration Committee (Remco).

The Trustee Board and committee structure is set out on the next page. There are two other key committees linked to the scheme:

- Joint Negotiating Committee (JNC)
- Advisory Committee

The JNC and Advisory Committee are constituted, empowered and governed by the Scheme Rules, not the Trustee Board. While entirely separate to, and distinct from, the trustee, they play an important part in the governance of the scheme.

The JNC comprises representatives of the scheme's stakeholders, Universities UK (UUK) and the University and College Union (UCU) and is chaired by an independent Chair appointed by the JNC. The purpose of the JNC is to ensure that vital decisions, such as changes to the Scheme Rules and the way in which the costs associated with benefit changes should be shared between employers and members, are made with the input of stakeholders beyond those who are board directors, and that no one body has sole control and unchecked authority in these areas.

The Trustee Board and JNC work in partnership to ensure that the decision-making process is efficient, fair and balanced. The JNC plays a key role in the context of scheme funding. If, following an actuarial valuation of the scheme, the trustee determines that the cost sharing provisions under the Scheme Rules are triggered, the JNC has the power to decide how the cost of the contribution increases or decreases should be shared between employers and members and/or whether there should be a change to future scheme benefits.

By invitation of the JNC, typically two trustee directors attend and observe each JNC meeting to allow for greater levels of engagement between the JNC and Trustee Board members.

The Advisory Committee is the primary body for managing complaints and the dispute resolution process. The Trustee Board is responsible for seeking and acting upon the advice of the Advisory Committee as appropriate and in line with the Scheme Rules. The Advisory Committee advises the Trustee Board on any matters on which it requires advice, including: the exercise of its powers and discretions (except for any matter falling within the jurisdiction of the investment committee); matters of difficulty in the interpretation or application of the Scheme Rules; and any complaints received from members. The Advisory Committee comprises three representatives from UUK and three representatives from UCU. The members of the Advisory Committee appoint its Chair and two trustee directors attend its meetings.

More information about the activities and membership of the Trustee Board, its committees, the JNC and the Advisory Committee is set out on the following pages and in the Governance Supplement provided on the USS website at **uss.co.uk/about-us**.

Division of responsibility between the Trustee Board and executive

As explained earlier in this report, the Trustee Board has delegated day-to-day management of the USS group to the GCEO, supported by the Group Executive Team. The allocation of roles and responsibilities is set out in the terms of reference of the Trustee Board and the Group Executive Team (GET).

Trustee Board composition

The Trustee Board consists of 12 non-executive directors comprising:

- four directors nominated by UUK
- three directors nominated by UCU (one of whom is a pensioner member)
- five independent directors

The composition and diversity of experience of the directors promotes an effective and balanced Trustee Board and helps to ensure that the directors collectively have the key competencies and knowledge required to manage and oversee the scheme. This includes competencies in, and knowledge of, pensions, investments, actuarial matters, the Higher Education (HE) sector, audit and financial management and communications. The trustee works with UUK and UCU to ensure that the Trustee Board includes directors with a good understanding of the views of both employers and members.

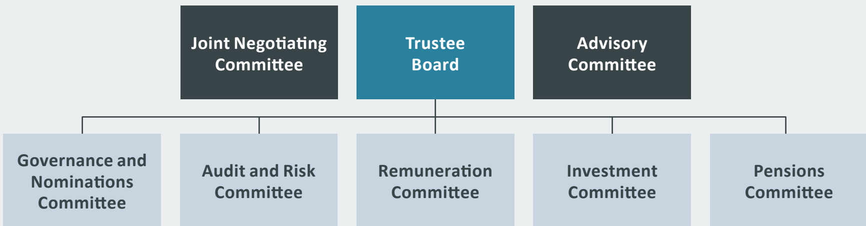
The trustee is committed to improving the diversity of its board. During the financial year, the trustee continued to pursue Equity, Diversity and Inclusion (EDI) initiatives to promote diversity on the Trustee and USSIM Boards. Diversity includes, but is not limited to, gender, social and ethnic background, cognitive and personal strengths.

As at 31 March 2023, the Trustee Board maintained the gender representation target of not less than 33% male or female. It remains committed to achieving its ethnic representation target of at least one director from an ethnic minority background by 2025. The trustee will continue to keep EDI high on its agenda over the coming year.

Maintaining and improving key competencies, knowledge and diversity remains vitally important for the Trustee Board. During the financial year, the Trustee Board has continued to focus on succession planning. This will respond appropriately to the scheduled turnover of directors in the coming years and will ensure that the collective competencies and experience of the Trustee Board and the GET continue to be appropriate for the scheme. In addition, the Trustee Board has carried out (via its Governance and Nominations Committee) the recruitment exercise for a new GCEO when Bill Galvin steps down in September 2023 after a decade in the role.

The Trustee Board regularly reviews its succession plans to ensure the appropriate balance of continuity and refreshed membership is achieved going forward. Director recruitment exercises are undertaken by reference to a skills matrix which captures the core skills required for running a pension scheme of the size and complexity of USS. This provides a framework for the trustee's consideration of key skills and competencies for director roles, and for the evaluation of potential candidates for those roles. A summary of the skills of the serving trustee directors can be found in the table below.

Trustee Board and committee structure



The JNC and Advisory Committee are constituted, empowered and governed by Scheme Rules, not the Trustee Board

Board Competencies	No. of directors 2022/23
Experience in university governance and leadership	7
Senior/substantial experience of HE leadership and understanding of the economics of the HE sector	7
DB/DC pension industry experience	12
Senior corporate governance expertise/board management knowledge	12
Industrial relations	6
Pensions administration and member engagement	7
Communication, media and stakeholder engagement	12
Control, compliance and risk management	9
IT, security and digital development	5
Supplier/contract management	9
Senior management experience	11
Actuarial	4
Audit, accounting and financial management expertise	9
Investment	8
Ethical, Social and Environmental	8
Legal	3
HR and remuneration	11
Strategy development	10

Members of the Trustee Board

Dame Kate Barker

G I

- Independent appointee
- Chair of the Trustee Board
- Appointed April 2020 (Chair of the Trustee Board since 1 September 2020)

Dame Kate has been Chair of the Trustee Board of the British Coal Staff Superannuation Scheme since 2014, and a pension trustee for the Yorkshire Building Society from 2015 to 2019. Dame Kate was a governor at Anglia Ruskin University from 2000 to 2010, including Chair of Governors from 2007 to 2010, and served on the Council of Oxford University from 2017 to 2020. Dame Kate is also a Church Commissioner at the Church of England.

Russell Picot

A I

- Independent appointee
- Deputy Chair and Senior Director
- Appointed February 2021

Russell joined USS after more than 20 years with HSBC, latterly as Group Chief Accounting Officer. Russell was appointed as a trustee of the HSBC Bank UK pension scheme in 2000 and has been Chair of the Trustee Board since 2017. Russell was formerly a trustee on the DC Master Trust LifeSight and has held roles with several accounting bodies and is Special Adviser to the Task Force on Climate-related Financial Disclosures.

Andrew Brown

I R

- UCU appointee
- Appointed August 2020

Prior to joining the Trustee Board in August 2020, Andrew was CEO and Secretary of the Church Commissioners for England. Andrew is Chair of William Leech Investments and Foundation Trusts, and a trustee of Trust for London and the Jane Cart Trust.

Andrew has previously been Chair of the CMS Pension Trust. In January 2020, Andrew was awarded an OBE for services to the Church.

Professor Sir Paul Curran

G

- UUK appointee
- Appointed September 2020

Professor Sir Paul Curran is Professor Emeritus of City, University of London, where he had been President for over a decade, and has also held the roles of Deputy Vice-Chancellor of the University of Southampton and Vice-Chancellor of the University of Bournemouth. Prior to this, Sir Paul held academic appointments at the Universities of Reading, Sheffield and Swansea and was a senior research scientist with NASA in California. Sir Paul was Chair of the Universities and Colleges Employers Association, National Review Body on Doctors' & Dentists' Remuneration and The Conversation UK. He is Chair of the MS Society, NHS National Joint Registry and NERC Advisory Committee on Scientific Leadership.

Gary Dixon

A R

- UUK appointee
- Appointed April 2019

Gary trained as a Chartered Accountant with PwC after graduating in 1987 from the University of Leicester in Physics with Astrophysics. In 1994 Gary joined the banking and pensions focused financial services group, Pointon York, and was subsequently appointed Group CFO. Gary has recently held non-executive director positions at the Church of England's Investment Trustee company, CBF Funds Trustee Limited and the Government's Vehicle Certification Agency. He is a NED and Audit Committee Chair at Trading 212 UK Limited. Gary is a Fellow of the ICAEW and holds an MBA from Warwick Business School.

He is the Chair of Council at the University of Leicester having served as a Lay Member of Council since 2009.

Marian D'Auria

P

- Independent appointee
- Appointed September 2021

Marian is currently Global Head of Risk & Sustainability at GFG Alliance. Prior to joining GFG, Marian was a Managing Director at Redington and before that led Deloitte's Trustee Advisory team in London. Marian has over 20 years' experience advising trustees and corporate clients in the UK pensions market in both the public and private sectors. Marian's experience covers risk management, sustainability, trusteeship and governance, scheme actuarial work, corporate advisory and investment consulting.

Key to Committee membership

- Chair
- Senior Director
- USSIM Director
- (A) Audit and Risk Committee
- (G) Governance and Nominations Committee
- (I) Investment Committee
- (P) Pensions Committee
- (R) Remuneration Committee

Ellen Kelleher

(G) (P)

- Independent appointee
- Appointed November 2021

Ellen has over 30 years' experience in the pensions industry and is currently Chief Pension Officer at Trafalgar House Pension Trust. Prior to joining Trafalgar, Ellen was Chief Operating Officer of the HSBC Bank (UK) Pension Scheme until March 2021 and was responsible for leading the management and administration of the scheme, directing operations, formulating and implementing policies and managing adviser relationships on behalf of the Trustee Board.

Dr Alain Kerneis

(I) (R)

- Independent appointee
- A director of USSIM
- Appointed January 2022

Alain is an investment and governance specialist with over 20 years of experience in managing portfolios on behalf of pension schemes, and in mitigating market, operational and regulatory risks. Since transitioning from an executive career, Alain has built a diverse portfolio of non-executive director and investment advisory roles in the pension, private wealth and retail markets.

Professor Sir Anton Muscatelli

(I)

- UUK appointee
- Appointed April 2015

Professor Sir Anton became Principal and Vice-Chancellor of the University of Glasgow in October 2009. Professor Sir Anton studied at the University of Glasgow, graduating with an MA in Political Economy and with a PhD in Economics. Professor Sir Anton is Chair of the Trustees of the Royal Economic Society and was Chair of the Russell Group from 2017 to 2020.

Helen Shay

(A)

- UCU appointee
- Appointed September 2020
- Pensioner member

Helen has worked in the Higher Education sector previously as in-house counsel at the University of York as well as undertaking work for the College (now University) of Law. Helen also has commercial experience through work for the Financial Ombudsman Service, Skipton Building Society and Next plc. Helen has also been a Board member of the Association of University Legal Practitioners. Helen is also a member of the USS Rules Group.

Will Spinks

(P) (R)

- UUK appointee
- Appointed September 2018

Will has worked in Higher Education since 2007, initially as the first Chief Operating Officer at Loughborough University and subsequently as the Registrar, Secretary, Chief Operating Officer at the University of Manchester, a position which he retired from in 2018.

Dr David Watts

(G) (P)

- UCU appointee
- Appointed March 2021

David is a social scientist and historian and has worked for the University of Aberdeen since 2007, from 2018 in the Rowett Institute, which sits within the School of Medicine, Medical Sciences and Nutrition. David was a local pensions representative for the UCU from 2015 to 2021 and, in 2017, was elected as the first academic trade union nominee to the Court (the University of Aberdeen's governing body).

David was a trustee of the University from 2017 to 2020 and served on its Policy and Resources Committee.

Governance
Continued

Trustee Board key activities 2022/2023

There continued to be a significant volume of activity carried out by the Trustee Board during 2022/23, particularly in connection with the commencement of preparations for the triennial actuarial valuation as at 31 March 2023 (the ‘2023 valuation’). More information is set out below.

Board activities

Topic	Activity
Scheme valuation related activity	• Oversaw preparations for the 2023 valuation • Approved the Board’s decision-making principles for the 2023 valuation • Oversaw covenant-related planning/preparation for the valuation and the draft scope of work for each of the HE sector adviser and the covenant adviser • Approved the creation of a Valuation Technical Forum to facilitate discussion between the trustee and stakeholders in relation to some of the technical aspects of the 2023 valuation
Scheme Funding	• Approved amendments to Financial Management Plan (FMP) including the FMP Monitoring & Action Framework (M&A Framework)
Regulatory	• Engaged with The Pensions Regulator (TPR) around the 2020 and 2023 valuations and as part of its ongoing supervision of USS, both as a Master Trust and as part of TPR’s one-to-one supervision for defined benefit (DB) schemes • Monitored current legal and regulatory matters and oversaw the executive’s approach to ensuring compliance with these developments • Approved the 2022 Task Force for Climate related Financial Disclosures (TCFD) Report • Monitored and oversaw the executive’s response to DWP’s draft Occupational Pension Schemes (Funding and Investment Strategy and Amendment) Regulations 2023 and TPR’s DB Funding Code Consultation
Pensions operations	• Oversaw pensions administration during the year, including key service levels and turnaround times for services to members and employers • Oversaw engagement with members and employers • Received and discussed the outcomes of the member and employer perception surveys and the development of key metrics to define how the trustee measures member perception and satisfaction
Strategy	• Oversaw the development and implementation of changes to the design of the USSIM performance-related employee remuneration, including the design of long-term incentive plans (as approved by the Remuneration Committee) • Approved the group three-year plan, annual plan and budget • Monitored the launch of new online modellers to allow members to review contributions to USS, tax savings and employer contributions • Oversaw Segmentation and Channel Shift initiatives which aim to enhance member experience by moving key communications online and developing digital channels of communication
Investment	• Approved, following recommendation by the Investment Committee, the Investment Key Risk Indicators and the DB and DC Investment Frameworks (including investment balanced scorecards) which allow USSIM to manage the scheme’s assets within the Trustee Board’s risk appetite • Reviewed and approved amendments to the investment management advisory agreement with USSIM, including the incorporation of the DB and DC Investment Frameworks • Approved updates to the scheme’s DC Default Statement of Investment Principles (SIP) and Investment Beliefs following consultation with employers • Reviewed and approved changes to the USS Ethical Guidelines to reflect ongoing developments in the market for ethical investment products and to reflect member requirements • Reviewed and approved revisions to the scheme’s voting policy as part of the scheme’s Responsible Investment programme • Received and discussed updates on compliance with and activities undertaken in accordance with the Trustee Board’s Responsible Investment policies • Approved proposed metrics and interim targets required to implement the trustee’s Net Zero ambition • Approved the Valuation Investment Strategy (VIS) for the DB section of the scheme • In relation to the Accelerated Yearly Actuarial review (AYR), approved: – Investment related assumptions that fed into the AYR – The scheme’s Self Sufficiency Discount Rate and Transition Risk investment assumptions – The covenant related assumptions and assessment of the scheme’s covenant • Monitored the executive’s ongoing response to the challenges experienced in the index-linked UK government bond market, and steps taken to mitigate and manage related risks and issues following the “mini-budget” of September 2022

Topic	Activity
Financial reporting and controls	• Approved the financial statements for the scheme and the trustee company for the year ended 31 March 2022, on recommendation from the Group Audit & Risk Committee • Reviewed annual statements on the effectiveness of internal controls from the Group Audit & Risk Committee, GCEO and head of internal audit • Reviewed the executive's activities to ensure that the financial control environment was adequately robust
Master Trust	• Approved and oversaw the implementation of the DC business plan for the financial year 2022/2023 • Oversaw the Value for Members assessment for 2022/2023 • Approved the scheme's 2022 supervisory return, Master Trust Audit Assurance Framework (AAF) report and the updated Continuity Strategy
Risk management and internal controls	• Approved a revised Risk Governance Policy and the associated risk management framework which included updates to the trustee's risk appetite statements setting out the board's expectations for risk management at USS, and key risk performance indicators, measures and targets against which performance across the group is monitored and assessed • Regularly reviewed the enterprise risk report encompassing all key risks impacting upon the delivery of the scheme's strategic objectives • Considered the adequacy of the scheme's internal control and risk management framework, based on assurance provided by the Group Audit and Risk Committee on each of the three lines of defence • Reviewed performance reports from all key business areas on a quarterly basis • Monitored the executive's phishing campaigns to ensure employees remain vigilant against the ever-developing threat of cyber-attacks and IT security breaches
Performance and general oversight	• Received and discussed reports from all standing Trustee Board committees which had met in the reporting period • Reviewed performance reports from all key business areas on a quarterly basis • Oversaw the defence of ongoing litigation claims against USS
Corporate governance	• Reviewed the group corporate governance framework which includes the terms of reference for the Trustee Board, its standing committees and the Group Executive Team • Reviewed and approved two director reappointments to the Trustee Board • Approved the appointment of the Company Secretary to the Trustee Board • Led (via the GNC) succession planning and the recruitment exercise for the GCEO role • Approved amendments to the Trustee Board code of conduct; whistleblowing policy, whistleblowing procedure and investigation procedure; and conflicts of interest policy • Evaluated the board's effectiveness and adopted proposals for enhancing its effectiveness further
Leadership	• Discussed the outcomes of the USS employee engagement survey and the Group Executive Team's response • Received and discussed updates on initiatives being undertaken by the executive to increase diversity and inclusion • Reviewed and approved a new USS Culture Framework designed to allow the trustee to assess key areas of USS's culture aligned with the trustee's values
Stakeholder	• Supported the JNC in its decision making by overseeing the executive's detailed analysis of UCU and UUK benefit reform proposals, including contribution requirements and impact on the scheme covenant • Engaged directly with UUK and UCU and their actuarial advisers and oversaw the executive's engagement with each of them • Attended and participated in meetings with the JNC • Monitored support of various stakeholder initiatives, such as the exploration of conditional indexation and low-cost benefit structures • Oversaw member and employer communications activity in the year, and the approach to corporate affairs more generally • Oversaw the executive's response to the cost-of-living crisis, providing employees with appropriate support by implementing a number of financial well-being and support initiatives • Received and discussed updates on ongoing initiatives being undertaken by the executive to enhance employee experience, including: (i) to champion USS's D&I Networks; (ii) to support neurodiversity at USS; and (iii) to develop USS's volunteering activity in the local community • Oversaw the executive's approach in achieving a customer service excellence accreditation (CSE) following an external assessment • Oversaw the executive's approach to allow USS to make TPR's pledge on pension scams, designed to help protect members from making poor decisions and increase awareness of potential dangers • Oversaw executive engagement with the Royal National Institute of Blind People (RNIB) to conduct accessibility audits that assess the quality of the USS website

Governance
Continued

Trustee Board meeting and committee attendance

The Trustee Board met nine times during the year. A summary of the Trustee Board activity during the year is outlined on pages 48 to 49. An overview of attendance at meetings of the Trustee Board and its specialist standing committees is provided below.

Meetings held in the year	Trustee Board	Investment	Pensions	Audit and Risk	Remuneration	Governance and Nominations
Total number of meetings held in the year	**9**	**7**	**8**	**6**	**6**	**6**
Trustee Board members						
Dame Kate Barker[(i)]	9	7				6
Mr Russell Picot	9	7		6		
Mr Andrew Brown	9	6			5	
Professor Sir Paul Curran	9					5
Mr Gary Dixon	9			6	5	
Mrs Marian D'Auria	8		8			
Ms Ellen Kelleher[(ii)]	9		7			6
Dr Alain Kerneis	9	7			6	
Professor Sir Anton Muscatelli	8	7				
Mr Will Spinks	9		8		6	
Ms Helen Shay	9			6		
Dr David Watts	9		8			6
Committee members						
Mr Tony Owens				6		
Mr Bill Galvin			8			6
Mrs Helen McEwan			8			

Notes
(i) Dame Kate Barker stepped down as Chair of the GNC on 30 September 2022.
(ii) Ms Ellen Kelleher was appointed as Chair of the GNC on 1 October 2022.

Remuneration report

We focus on aligning pay with performance to ensure the right mix of skills to deliver our long-term priorities and value for money for members.

Our remuneration framework is designed to ensure USS has access to those with the right mix of skills to deliver our long-term priorities and value for money for members.

We hire individuals with relevant expertise and experience, and we seek to pay them at market rates commensurate with the value they bring to the scheme.

Paying for performance is key to our remuneration and incentive policy, which means rewarding contribution that is aligned to the needs of employers and members in a cost-effective manner.

Investment management professionals represent the largest proportion of the compensation paid, in particular receiving 91% of the variable incentive paid in the year. The direct costs associated with employing an in-house team of highly skilled investment professionals in an extremely competitive market are much lower than the fees charged by external managers for similar services.

We give more details of our approach to managing costs and how they compare against peer benchmarks in the Chief Financial Officer's update on page 55 with more details shown in the Value for Money section of our website **uss.co.uk/-/media/Project/USSMainSite/Files/About us/Report and Accounts/Value for money.pdf**.

Our total compensation approach includes the following key elements which are benchmarked against market levels annually:

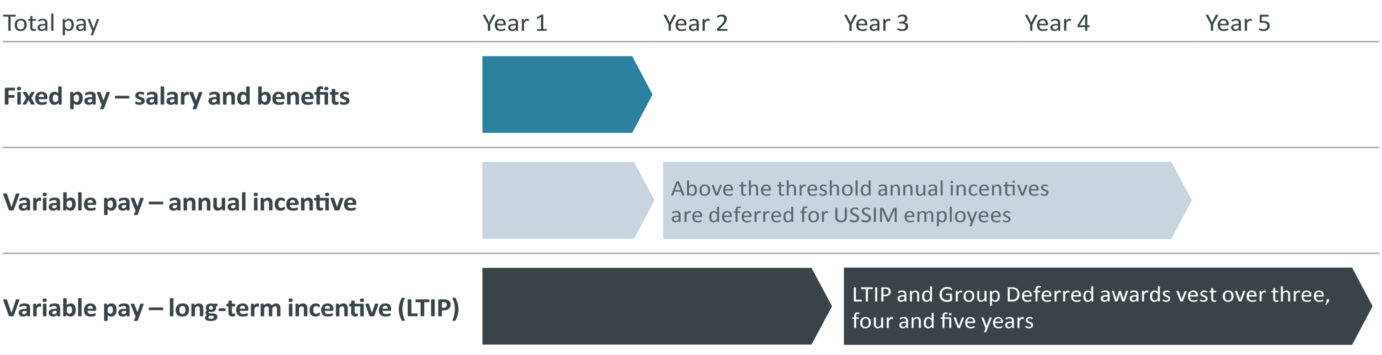
- Base salary, which is designed to attract and retain high-performing individuals
- Annual incentives, aimed at motivating and rewarding high performance, aligned to USS values. In the investment management function, where incentives exceed a £50,000 threshold, payment is partially deferred, being paid in equal proportions over each of the three years following award. For investment management professionals, the annual incentive includes an element that is linked to performance against an investment balanced scorecard assessment and an element related to delivery of strategic objectives and behavioural aspects. The scorecard includes a rolling five-year investment return metric among other measures aligned with calendar year scheme performance periods
- Long-term incentive plans (LTIPs) and Group Deferred Bonuses, available to a limited population, are designed to incentivise delivery of scheme performance over the long term and to encourage retention of key personnel
- All employees are eligible to join the USS pension scheme which aligns the employee's own personal objectives with the purpose of the scheme
- Trustee Board directors and other non-executives receive only the agreed fee for their role

£137m

Having an in-house investment management team enabled our investment management costs to be the equivalent of £137m per year lower than the peer median according to the most recent analysis by CEM Benchmarking (for the calendar year 2021).

For non-investment staff in the pensions team or providing group-wide support and governance, incentives are based on delivery of agreed objectives and on performance against behavioural standards. Independent benchmarking is performed by third party advisers.

Remuneration structure



Note:
For USSIM bonus awards made from March 2023, any deferred portion will be paid equally over the following three years rather than 100% of the deferral being paid after three years as was previously the case. This will increase bonus cash payments for a transition period covering the years ending 31 March 2024 and 2025. For USSIM LTIP awards made from March 2023, vesting for all recipients will be after three years rather than previous LTIP award vesting schedules of 50% after four years and 50% after five years. Payment will be made at vesting other than for USSIM executive directors where payment will be made after an additional two year holding period. Also from March 2023, Group LTIP awards will be discontinued in favour of Group Deferred Bonuses which will vest and be paid either in full after three years or, for the Group Executive Team, 50% after four years and 50% after five years. These changes will result in increased cash payments for a transition period covering the years ending 31 March 2026 and 2027. These changes aim to provide greater incentives alignment to the external market and, as a consequence, support members' interests by attracting and retaining key talent within the organisation. These changes in the timing of the pay-outs will not impact the total amounts awarded.

Remuneration report
Continued

Benchmarking and oversight of compensation
Given the importance of attracting and retaining high calibre employees in a competitive market, we offer fair and competitive salaries compared with peers. Salaries aim to reflect the individual's experience, responsibility and contribution and their role within USS.

Annual benchmarking is performed on total compensation. This both minimises the disruption caused by employee turnover and any potential negative impact on employee engagement. At the same time, compensation benchmarking is vital to ensure we deliver value for money to employers and members. We use two external benchmarking agencies: one for investment management and support services, and another aimed at pensions services roles and their support functions.

The Remuneration Committee oversees USS remuneration arrangements ensuring that they promote the recruitment, motivation and retention of high calibre employees, within a competitive market, to support the delivery of the trustee's long-term strategic objectives for the scheme and support the purpose, values and culture of USS. On behalf of the Trustee Board, the committee considers and approves both aggregate and individual senior employee remuneration including long-term incentive plans for USS staff.

	For the year ended 31 March 2023 £m			
Remuneration	High earners (excluding A and B)	Group Executive (A)	Trustee Board (B)	Total key management personnel (A+B)
Fixed pay – salary, fees and benefits	25.4	2.9	0.7	3.6
Variable pay – annual incentive	20.2	1.6	–	1.6
Variable pay – LTIPs	8.7	0.6	–	0.6
Total remuneration paid	**54.3**	**5.1**	**0.7**	**5.8**

	For the year ended 31 March 2022 £m			
Remuneration	High earners (excluding A and B)	Group Executive (A)	Trustee Board (B)	Total key management personnel (A+B)
Fixed pay – salary, fees and benefits	22.2	2.6	0.7	3.3
Variable pay – annual incentive	18.6	1.3	–	1.3
Variable pay – LTIPs	9.6	0.2	–	0.2
Total remuneration paid	**50.4**	**4.1**	**0.7**	**4.8**

Remuneration in 2022/23
The total remuneration paid includes payments in respect of incentive amounts deferred from previous years and prior year LTIP awards paid out in the year. The compensation reference period for investment managers is based on the calendar year to 31 December 2022 and amounts paid in the year to 31 March 2023 are based on performance up to that date. For the performance year ended 31 December 2022 the performance under the investment balanced scorecard was assessed by the Investment Committee as 'Better than Good'. Please see page 24 for further details of the investment balance scorecard assessment.

This assessment, coupled with strong performance in the Private Markets mandate and an 8% year-on-year increase in investment management headcount, drove the growth in paid remuneration shown in the tables above and on page 53. The expansion of our investment management team has resulted in increased remuneration costs as we move to managing more of our assets internally and increase the sophistication of our approach including in relation to hedging of scheme liability risks. With the development of our internal capabilities, the latest assessment completed by CEM Benchmarking indicates that our cost advantage over peers has grown as explained on page 55.

Remuneration paid banding
We remain committed to open reporting of the total remuneration of the Group Executive, Trustee Board and high earners (those whose base salary plus incentives and non-pension benefits paid in the year exceed £100,000 including any such members of the Group Executive and Trustee Board); our remuneration disclosure therefore goes beyond what legislation requires. The table opposite shows total remuneration (base salary plus any incentives and non-pension benefits) paid in the year for high earners. Approximately 80% of these high earners are investment management professionals.

For the year ended 31 March, amounts paid	Number of individuals 2023	2022
£100,001 to £150,000	74	63
£150,001 to £200,000	47	40
£200,001 to £250,000	24	22
£250,001 to £500,000	42	37
£500,001 to £750,000	10	14
£750,001 to £1,000,000	10	5
£1,000,001 to £1,250,000	3	2
£1,250,001 to £1,500,000	1	2
£1,500,001 to £1,750,000	–	1
£1,750,001 to £2,000,000	–	–
£2,000,001 to £2,250,000	–	–
£2,250,001 to £2,500,000	1	1
Total	**212**	**187**

Remuneration for Mr Galvin, Group Chief Executive Officer

The table below shows total remuneration (base salary plus any incentives and non-pension benefits) paid in the year to Mr Galvin.

For the year ended 31 March, amounts paid	2023 £'000	2022 £'000
Fixed pay – salary and benefits	528	529
Variable pay – LTIP	262	108
Total remuneration paid	**790**	**637**

Mr Galvin's fixed pay includes payments in lieu of pension contributions in the year of £47,000 (2022: £47,153). His accrued Retirement Income Builder pension at 31 March 2023 was £19,386 (2022: £18,026) and the accrued lump sum, including Investment Builder pension was £68,385 (2022: £64,328). These accrued pension benefits relate to amounts earned in respect of services to the scheme and exclude transfers from other schemes. No pension contributions to the scheme were made in the current or previous financial year. Deficit recovery contributions into the scheme were made in the year of £29,610 (2022: £19,535).

Mr Galvin has been granted deferred compensation awards in current and previous years which are due to vest in future.

Remuneration ratio: CEO to Median Paid Employee

The remuneration ratio of the CEO relative to the median paid employee in USS is 14.7:1 (2022: 14.5:1).

Compensation for loss of office

The aggregate amount of compensation payable for loss of office to employees during the year was £0.5m (2022: £0.5m) of which £0.3m (2022: £0.3m) was payable to employees whose remuneration exceeded £100,000 during the year.

Trustee Board

Total Trustee Board director fees are shown in the table on page 52 together with the comparison to 2021/22.

Directors are remunerated on a basis which is approved by the Joint Negotiating Committee and is in accordance with the contribution which they make to the work of the trustee and their legal responsibilities.

The Remuneration committee report provides a summary of the oversight and governance of the compensation awards and can be found within the Governance Report on our website at **uss.co.uk/about-us/report-and-accounts**.

The number of directors who are members of the Retirement Income Builder	2023	2022
As at 31 March (100% of those eligible)	**6**	6

Trustee Board directors do not earn pension benefits from their role on the board, however, they may be a member of the scheme through employment outside their trustee role.

Remuneration report
Continued

Incentive payments
There are three types of incentive payments:

	Annual incentive	Investment LTIP[1]	Group LTIP[1] & Deferred Bonus
Main features and objectives	• To drive strategic change and individual delivery of the business plan • To recognise and reward individual contributions to USS priorities • Individual contribution is calibrated annually	• Restricted to a minority of roles in the USSIM subsidiary • Value at vesting depends on scheme or, where applicable, private markets investment performance • Promotes performance and retention of key personnel	• To support the recruitment, reward and retention of senior staff key to the delivery of strategic objectives • Restricted to those not in receipt of an Investment LTIP • Promotes performance and retention of key personnel
Performance conditions	For investment managers: • Scheme performance[2] over five years, to include the investment balanced scorecard assessment, and mandate performance (where applicable) over five years • Qualitative measures aligned to USS values and delivery of strategic objectives For other employees: • Qualitative measures aligned to USS values and delivery of strategic objectives	• Scheme performance[2] over multiple years, to include the investment balanced scorecard assessment • Specific investment performance measures[2] for USSIM Private Markets employees over multiple years • Retention element included	• All qualitative – not linked to scheme performance • Reflects achievement of personal objectives • Promotes objectivity of senior management within the second and third lines of defence
Service conditions	• Must be in employment and not serving notice at date of award • For deferrals, must be in employment and not serving notice at the date of payment	• Must be in employment and not serving notice at date of award and through to vesting although 'good leaver' provisions may apply • LTIPs vest in tranches, the earliest being three years and the latest being five years after award	• Must be in employment and not serving notice at date of award and through to vesting although 'good leaver' provisions may apply • LTIPs and Group Deferred Bonuses vest after either three, four or five years
Deferred element	• Incentives above threshold for USSIM employees are deferred over three years as follows: – 30% over £50,000 – 40% over £200,000 – 50% over £400,000 • Where the deferred element is calculated as less than £5,000, this is paid immediately	• As a long-term plan, the payment is deferred until vesting conditions are fulfilled. For USSIM executive directors, for three year vesting LTIPs, payment is deferred until five years after award	• As a long-term plan, the payment is deferred until vesting conditions are fulfilled

Notes
1 Long-term incentive plans.
2 Consistent with previous years, scheme performance is assessed over calendar year periods allowing payments to be made at the financial year end.

Chief Financial Officer's update

Ensuring we manage the scheme's finances efficiently is an essential part of our strategic priorities, and we monitor our performance using a range of KPIs and regular reporting and forecasting.

Dominic Gibb
Chief Financial Officer

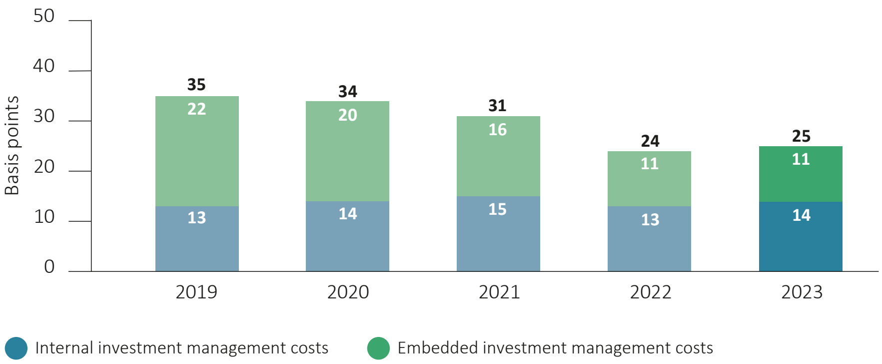
> *Delivering value for money is a key focus for the scheme and our performance in this area is reviewed in depth by the Trustee Board on an annual basis.*

Value for Money

Delivering value for money is a key focus for the scheme and our performance in this area is reviewed in depth by the Trustee Board on an annual basis.

We use a variety of approaches including professional procurement and supplier management, annual cost savings targets supported by initiatives managed across the business, and benchmarking. As well as compensation benchmarking laid out in the Remuneration report on page 51, we undertake a range of other cost and value benchmarking activities each year as part of our value for money framework.

Investment management cost ratios



Note: 2022 has been restated following receipt of finalised embedded fee data.

CEM Benchmarking, an independent pension scheme benchmarking specialist, carries out some of this benchmarking, looking at our investment management and pension management costs and service levels against our peers on an annual basis. Participants' reported costs are adjusted to harmonise cost treatments and provide like-for-like comparisons.

In relation to investment management, the analysis uses ratios of cost as a proportion of asset values (normalised for asset mix).

Our investment management costs as a proportion of scheme assets, moved even further below the peer cost benchmark in the most recent survey (calendar year 2021) where USS was 16 basis points, equivalent to £137m a year, below peers.

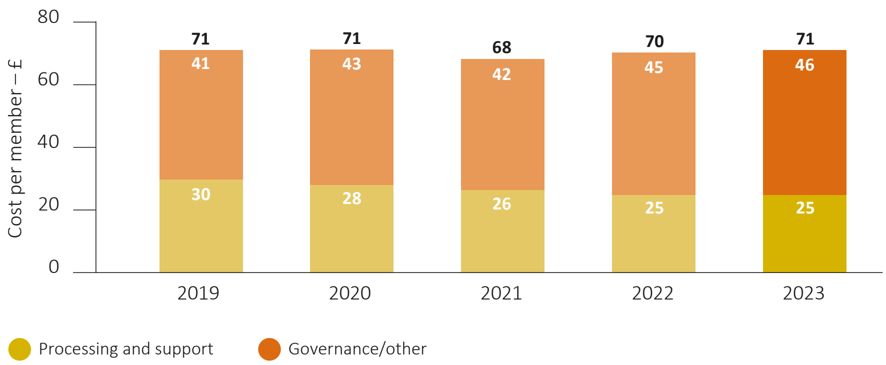
Chief Financial Officer's update
Continued

Our investment management cost advantage versus peer median is partly driven by our in-house capabilities which deliver better value to our members.

Using skilled and experienced internal resource to deliver an active approach to managing the scheme's assets saves material cost compared to outsourcing, given market pricing levels, particularly in private assets and in emerging markets. In these areas we in-source more than peers and, having done so, spend less to manage those assets internally than peers.

> *The most recent survey (2021), showed that on a total cost basis USS was approximately £117m a year less expensive than the peer benchmark.*

Pension administration cost per member



The CEM Benchmarking Pension Administration survey evidenced that we are broadly in line with our peers in core employer and member processing activities. The most recent survey, (for the year to 31 March 2022), showed that these core processing costs were £25 per member for USS compared to a peer benchmark of £22.

Our multi-employer, hybrid benefit and governance structure is not typical of the peer group. The increased complexity of USS relative to peers results in higher support costs, and an overall cost per member of £70, relative to a peer benchmark of £36, equivalent to £20m a year above peers.

We are assessed as providing member and employer service levels that are above peer benchmarks.

While acknowledging the differences to peer schemes required to run our multi-employer, hybrid benefit and governance structure, we continue to work to improve our cost effectiveness while developing our service levels.

Our cost advantage in investment management is significantly greater than the additional costs incurred in pension administration.

CEM Benchmarking also provide a peer comparison for the total costs of running the scheme. In the most recent survey (calendar 2021) it showed that on a total cost basis, USS was 13 basis points, equivalent to approximately £117m a year, less expensive than the peer benchmark, which is an improvement in our cost advantage of £34m a year since the previous survey.

Further information on how USS delivers value for money, including more on our in-sourcing/out-sourcing decisions, our investment performance and quality of pension services can be found on our website **uss.co.uk/-/media/Project/USSMainSite/Files/About us/Report and Accounts/Value for money.pdf**.

Cost management

We manage total costs which comprise scheme expenses included in the financial statements together with embedded costs deducted within scheme investment returns. Around 84% of scheme costs relate to the investment management of our £76bn fund. The remaining 16% relate to pension management costs incurred in the delivery of services to employers and members.

The table below shows that total costs of running the scheme have decreased by 9% (£26m) compared to the prior year. The reduction was driven by elevated charges in the prior year in relation to the pension deficit recovery provision arising on completion of the 2020 valuation. Excluding the impact of the prior year pension deficit recovery liability charge, pension management costs have increased by £1m, while total investment management costs, including embedded fees, have increased by £6m.

Looking at expense categories, personnel costs (excluding group functions) remained relatively unchanged year on year with increases in wages and salaries due to headcount growth and salary inflation being largely offset by reduced employee incentives and other charges.

A revised approach to annual incentives and long-term incentive plans (LTIPs) was introduced in the year alongside the implementation of the new investment balanced scorecard. Under the new arrangements we anticipate that incentive charges in the financial statements will be less volatile than has been the case previously but may increase for a transition period as a result of revised LTIP vesting arrangements introduced this year.

More information including analysis of remuneration paid in the year is shown in the Remuneration report on page 51. For an explanation of the investment balanced scorecard assessment please see page 24.

In invoiced investment management expenses, increases in information services costs, professional fees, and custodial fees were more than offset by a £4m reduction in external manager fees as we continued to strengthen our in-house management capability where appropriate.

Other invoiced expenses rose by £1m as irrecoverable VAT expense and people-related costs increased, partially offset by reduced professional fees as the 2020 valuation completed.

Personnel costs for group functions increased by £2m due to wage and salary inflation and increased incentives charges.

Non-personnel costs for group functions increased £3m due to £1m increased irrecoverable VAT expense and £1m relating to unwinding of the discount on the pension deficit provision, with general inflationary impacts driving the remaining increase.

Embedded investment management costs increased by £1m as private equity fund management fees increased as the scheme refreshed some of its commitments offset by falls in hedge funds fees due to market performance.

	Pension management		Investment management		Total	
Costs £m	**2023**	**2022**	**2023**	**2022**	**2023**	**2022**
Personnel costs (excluding group functions)	12	13	72	70	84	83
Invoiced investment management expenses – including performance and custody fees	–	–	31	32	31	32
Other invoiced expenses (excluding group functions)	13	14	5	3	18	17
Personnel costs (group functions)	9	8	8	7	17	15
Non-personnel costs (group functions)	9	7	10	9	19	16
Reported scheme expenses before pension deficit provision charges	**43**	**42**	**126**	**121**	**169**	**163**
Pension deficit provision (credit)/charge	(1)	6	(1)	25	(2)	31
Reported scheme expenses	**42**	**48**	**125**	**146**	**167**	**194**
Embedded investment management costs	–	–	92	91	92	91
Total costs of running the scheme	**42**	**48**	**217**	**237**	**259**	**285**

2022 comparatives have been re-categorised to show costs on a consistent basis to the current year; total reported scheme expenses remain as previously stated.

Current year embedded fees are based on estimated positions. The 2022 figure has been updated from £95m (as presented last year) to £91m based on the final amounts provided by investment managers.

Financial statements

Dedicated USS professionals delivering to high standards.

Contents

Audited financial statements consisting of the fund account, statement of net assets and notes.

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61 Independent auditor's report
64 Fund account
65 Statement of net assets
66 Notes to the financial statements

The Oastler Building – University of Huddersfield

Statement of trustee's responsibilities

The financial statements, which are prepared in accordance with UK Generally Accepted Accounting Practice, including the Financial Reporting Standard applicable in the UK (FRS 102) are the responsibility of the trustee. Pension scheme regulations require, and the trustee is responsible for ensuring, that those financial statements:

- show a true and fair view of the financial transactions of the scheme during the scheme year and of the amount and disposition at the end of the scheme year of its assets and liabilities, other than liabilities to pay pensions and benefits after the end of the scheme year; and
- contain the information specified in Regulation 3A of the Occupational Pension Schemes (Requirement to obtain Audited Accounts and a Statement from the Auditor) Regulations 1996, including making a statement whether the financial statements have been prepared in accordance with the relevant financial reporting framework applicable to occupational pension schemes.

In discharging the above responsibilities, the trustee is responsible for selecting suitable accounting policies, to be applied consistently, making any estimates and judgements on a prudent and reasonable basis, and for the preparation of the financial statements on a going concern basis unless it is inappropriate to presume that the scheme will not be wound up.

The trustee is also responsible for making available certain other information about the scheme in the form of an annual report.

The trustee also has a general responsibility for ensuring that adequate accounting records are kept and for taking such steps as are reasonably open to it to safeguard the assets of the scheme and to prevent and detect fraud and other irregularities, including the maintenance of an appropriate system of internal control.

The trustee is responsible under pensions legislation for preparing, maintaining and from time to time reviewing and if necessary revising a schedule of contributions showing the rates of contributions payable towards the scheme by or on behalf of the employers and the active members of the scheme and the dates on or before which such contributions are to be paid. The trustee is also responsible for keeping records in respect of contributions received in respect of any active member of the scheme and for adopting risk-based processes to monitor whether contributions are made to the scheme by the employers in accordance with the schedule of contributions. Where breaches of the schedule occur, the trustee is required by the Pensions Acts 1995 and 2004 to consider making reports to The Pensions Regulator and the members.

Signed on behalf of the trustee on 20 July 2023.

Dame Kate Barker
Chair

Independent auditor's report to the trustee of Universities Superannuation Scheme

Opinion[1]

We have audited the financial statements of the Universities Superannuation Scheme for the year ended 31 March 2023 which comprise the Fund Account, the Statement of Net Assets available for benefits and the related Notes 1 to 20, including a summary of significant accounting policies. The financial reporting framework that has been applied in their preparation is applicable law and United Kingdom Accounting Standards, including FRS 102 'The Financial Reporting Standard applicable in the UK and Republic of Ireland' (United Kingdom Generally Accepted Accounting Practice).

In our opinion, the financial statements:

- give a true and fair view of the financial transactions of the scheme during the year ended 31 March 2023, and of the amount and disposition at that date of its assets and liabilities, other than liabilities to pay pensions and benefits after the end of the year
- have been properly prepared in accordance with United Kingdom Generally Accepted Accounting Practice and
- contain the information specified in Regulation 3A of the Occupational Pension Schemes (Requirement to obtain Audited Accounts and a Statement from the Auditor) Regulations 1996, made under the Pensions Act 1995

Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (UK) (ISAs (UK)) and applicable law. Our responsibilities under those standards are further described in the Auditor's responsibilities for the audit of the financial statements section of our report. We are independent of the scheme in accordance with the ethical requirements that are relevant to our audit of the financial statements in the UK, including the FRC's Ethical Standard, and we have fulfilled our other ethical responsibilities in accordance with these requirements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Conclusions relating to going concern

In auditing the financial statements, we have concluded that the trustee's use of the going concern basis of accounting in the preparation of the financial statements is appropriate.

Based on the work we have performed, we have not identified any material uncertainties relating to events or conditions that, individually or collectively, may cast significant doubt on the scheme's ability to continue as a going concern for a period of 12 months from when the scheme's annual accounts are authorised for issue.

Our responsibilities and the responsibilities of the trustee with respect to going concern are described in the relevant sections of this report. However, because not all future events or conditions can be predicted, this statement is not a guarantee as to the scheme's ability to continue as a going concern.

Other information

The other information comprises the information included in the Annual Report and Accounts, other than the financial statements and our auditor's report thereon. The trustee is responsible for the other information contained within the Annual Report and Accounts.

Our opinion on the financial statements does not cover the other information and, except to the extent otherwise explicitly stated in this report, we do not express any form of assurance conclusion thereon.

Our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the course of the audit or otherwise appears to be materially misstated. If we identify such material inconsistencies or apparent material misstatements, we are required to determine whether this gives rise to a material misstatement in the financial statements themselves. If, based on the work we have performed, we conclude that there is a material misstatement of the other information, we are required to report that fact.

We have nothing to report in this regard.

Note

1 The maintenance and integrity of the Universities Superannuation Scheme website is the responsibility of the trustee; the work carried out by the auditors does not involve consideration of these matters and, accordingly, the auditors accept no responsibility for any changes that may have occurred to the financial statements since they were initially presented on the website. Legislation in the United Kingdom governing the preparation and dissemination of financial statements may differ from legislation in other jurisdictions.

Independent auditor's report to the trustee of Universities Superannuation Scheme

Continued

Responsibilities of the trustee

As explained more fully in the trustee's responsibilities statement set out on page 60, the trustee is responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view, and for such internal control as the trustee determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements the trustee is responsible for assessing the scheme's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the trustee either intends to wind up the scheme or to cease operations, or has no realistic alternative but to do so.

Auditor's responsibilities for the audit of the financial statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs (UK) will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

Explanation as to what extent the audit was considered capable of detecting irregularities, including fraud

Irregularities, including fraud, are instances of non-compliance with laws and regulations. We design procedures in line with our responsibilities, outlined above, to detect irregularities, including fraud. The risk of not detecting a material misstatement due to fraud is higher than the risk of not detecting one resulting from error, as fraud may involve deliberate concealment by, for example, forgery or intentional misrepresentations, or through collusion. The extent to which our procedures are capable of detecting irregularities, including fraud is detailed below. However, the primary responsibility for the prevention and detection of fraud rests with the trustee.

Our approach was as follows:

- We obtained an understanding of the legal and regulatory frameworks that are applicable to the scheme and determined that the most significant related to pensions legislation and the financial reporting framework. These are the Pensions Act 1995 and 2004 (and regulations made thereunder), FRS 102 'The Financial Reporting Standard applicable in the UK and Republic of Ireland' and the Statement of Recommended Practice (Financial Reports of Pension Schemes). We considered the extent to which a material misstatement of the financial statements might arise as a result of non-compliance.
- We understood how the scheme is complying with these legal and regulatory frameworks by making enquiries of management, including the Group General Counsel, Chief Financial Officer, Deputy Chief Financial Officer, Head of Compliance, Head of Internal Audit and also the Trustee Board directors including the Chair of the Group Audit and Risk Committee. We corroborated our enquiries through our review of board minutes, papers provided to the Group Audit and Risk Committee and correspondence with regulatory bodies.
- We assessed the susceptibility of the scheme's financial statements to material misstatement, including how fraud might occur by meeting with the Trustee Board directors and management to understand where they considered there was susceptibility to fraud. We considered the key risks impacting the financial statements and documented the controls that the scheme has established to address risks identified, or controls that otherwise seek to prevent, deter or detect fraud. We considered the financial reporting risk arising from the potential for management override of controls and the valuation of illiquid assets to be a significant risk. Whilst we have assessed that this override risk is mitigated by the segregation of duties that exists within the scheme, we have performed specific procedures to gain assurance that the risk associated is adequately mitigated. Our audit procedures included verifying cash balances and investment balances to independent confirmations, testing manual journals on a sample basis and also those journals where there is an increased risk of override, and an assessment of segregation of duties. These procedures were designed to provide reasonable assurance that the financial statements were free from fraud or error.
- Based on this understanding we designed our audit procedures to identify non-compliance with such laws and regulations. Our procedures involved making enquiries of the Trustee Board directors for their awareness of any non-compliance of laws or regulations, inspecting correspondence with the Pensions Regulator, review of board minutes, journal entry testing, with a focus on manual journals and journals indicating large or unusual transactions based on our understanding of the scheme, enquiries of senior management and focused substantive testing.
- The scheme is required to comply with UK pensions regulations. As such, we have considered the experience and expertise of the engagement team to ensure that the team had an appropriate understanding of the relevant pensions regulations to assess the control environment and consider compliance of the scheme with these regulations as part of our audit procedures.

A further description of our responsibilities for the audit of the financial statements is located on the Financial Reporting Council's website at https://www.frc.org.uk/auditorsresponsibilities. This description forms part of our auditor's report.

Use of our report

This report is made solely to the scheme's trustee, as a body, in accordance with the Pensions Act 1995 and Regulations made thereunder. Our audit work has been undertaken so that we might state to the scheme's trustee those matters we are required to state to them in an auditor's report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the scheme's trustee as a body, for our audit work, for this report, or for the opinions we have formed.

Ernst & Young LLP
Statutory Auditor
London
20 July 2023

Fund account for the year ended 31 March 2023

Contributions and benefits

	Note	Defined benefit £m	Defined contribution £m	2023 £m	Defined benefit £m	Defined contribution £m	2022 £m
Employer contributions receivable	2	2,474	500	2,974	2,546	154	2,700
Employee contributions receivable	2	112	146	258	124	121	245
Total contributions		**2,586**	**646**	**3,232**	**2,670**	**275**	**2,945**
Transfers in		–	12	12	–	13	13
Total additions		**2,586**	**658**	**3,244**	**2,670**	**288**	**2,958**
Benefits payable	3	(2,169)	(52)	(2,221)	(2,056)	(48)	(2,104)
Payments to and on account of leavers	4	(44)	(5)	(49)	(69)	(5)	(74)
Administrative expenses	5	(39)	(3)	(42)	(45)	(3)	(48)
Total withdrawals		**(2,252)**	**(60)**	**(2,312)**	**(2,170)**	**(56)**	**(2,226)**
Net additions from dealings with members		**334**	**598**	**932**	**500**	**232**	**732**

Return on investments

	Note	Defined benefit £m	Defined contribution £m	2023 £m	Defined benefit £m	Defined contribution £m	2022 £m
Investment income	6	1,640	35	1,675	1,585	9	1,594
Taxation		(33)	–	(33)	(79)	–	(79)
Change in market value of net investments	7	(17,665)	(93)	(17,758)	6,372	112	6,484
Investment management expenses	5	(121)	(4)	(125)	(142)	(4)	(146)
Net return on investments		**(16,179)**	**(62)**	**(16,241)**	**7,736**	**117**	**7,853**
Net (decrease) / increase in the fund during the year		**(15,845)**	**536**	**(15,309)**	**8,236**	**349**	**8,585**
Net assets of the scheme at the start of the year		**88,962**	**1,872**	**90,834**	**80,726**	**1,523**	**82,249**
Net assets of the scheme at the end of the year		**73,117**	**2,408**	**75,525**	**88,962**	**1,872**	**90,834**

Statement of net assets available for benefits as at 31 March 2023

	Note	Defined benefit £m	Defined contribution £m	2023 £m	Defined benefit £m	Defined contribution £m	2022 £m
Investment assets							
Equities	7	19,659	1,033	20,692	28,094	879	28,973
Bonds	7	34,835	314	35,149	41,844	145	41,989
Pooled investment vehicles	8	14,375	873	15,248	17,490	777	18,267
Derivatives	9	2,051	4	2,055	1,732	–	1,732
Property	7	2,645	57	2,702	3,268	40	3,308
Cash and cash equivalents	7	2,440	28	2,468	2,805	14	2,819
Other investment balances	10	2,383	10	2,393	1,391	2	1,393
Finance leases	11	575	13	588	–	–	–
		78,963	**2,332**	**81,295**	**96,624**	**1,857**	**98,481**
Investment liabilities							
Derivatives	9	(2,753)	(2)	(2,755)	(2,073)	–	(2,073)
Other investment balances	10	(3,130)	(5)	(3,135)	(5,616)	(2)	(5,618)
		(5,883)	**(7)**	**(5,890)**	**(7,689)**	**(2)**	**(7,691)**
Total net investments		**73,080**	**2,325**	**75,405**	**88,935**	**1,855**	**90,790**
Current assets	16	**268**	**94**	**362**	**258**	**25**	**283**
Current liabilities	17	**(231)**	**(11)**	**(242)**	**(231)**	**(8)**	**(239)**
Net assets of the scheme at 31 March		**73,117**	**2,408**	**75,525**	**88,962**	**1,872**	**90,834**

The financial statements summarise the transactions of the scheme and deal with the net assets at the disposal of the trustee. They do not take account of obligations to pay pensions and benefits which fall due after the end of the scheme year. The actuarial position of the scheme, which does take account of such obligations, is dealt with in the report on actuarial liabilities on page 26 and should be read in conjunction with this report.

The financial statements on pages 64 to 87 were approved by the trustee, Universities Superannuation Scheme Limited, on 20 July 2023 and were signed on its behalf by:

Dame Kate Barker
Chair

The notes on pages 66 to 87 form part of these financial statements.

Notes to the financial statements for the year ended 31 March 2023

1 Basis of preparation and significant accounting policies

This section describes the significant accounting policies of the scheme that relate to the financial statements and notes as a whole. If an accounting policy relates to a specific item, the applicable accounting policy is contained within the relevant note. These policies have been consistently applied to all years presented unless otherwise stated.

(a) Basis of preparation

The financial statements have been prepared in accordance with the Occupational Pension Schemes (Requirement to obtain Audited Accounts and a Statement from the Auditor) Regulations 1996, Financial Reporting Standard 102 (FRS 102) – The Financial Reporting Standard applicable in the UK and Republic of Ireland issued by the Financial Reporting Council and the guidance set out in the Statement of Recommended Practice (2018) (the SORP).

Universities Superannuation Scheme is a registered Pension Scheme under Chapter 2 of Part 4 of the Finance Act 2004 and is therefore not normally liable to income tax on income from investments directly held, nor to capital gains tax arising from the disposal of such investments.

Going Concern

The financial statements are prepared on the going concern basis, as the trustee considers the scheme to be operationally resilient. In making this assessment, the trustee has reviewed the principal risks and uncertainties facing the scheme as set out on pages 37 to 41 and has concluded that these risks do not cast significant doubt on the scheme's ability to continue as a going concern. The trustee has also reviewed the cash flow forecasts of the scheme, for a period of 12 months from the date of signing these financial statements and in doing so has considered the impact of the war in Ukraine, high inflation and other economic factors which have brought about a period of market uncertainty. There have been no material operational incidents or losses post year end.

(b) Treatment of subsidiary undertakings

The trustee company, Universities Superannuation Scheme Limited, owns the share capital of a number of investment holding companies to aid the efficient administration of the scheme's investment portfolio. In accordance with FRS 102 and the SORP, the trustee is not required to prepare consolidated accounts which include these entities and has chosen not to do so because the companies are held for investment purposes and not as operating subsidiaries. Assets and liabilities held within such companies are included in the appropriate lines in the statement of net assets and an analysis of these net assets is shown in Note 14.

Details of these companies may be obtained by writing to the Company Secretary of Universities Superannuation Scheme Limited, Mr M Burt, at Royal Liver Building, Liverpool L3 1PY.

(c) Foreign currency translation

The scheme's functional and presentation currency is pounds sterling. Foreign currency investments and related assets and liabilities are translated into sterling at the rate of exchange on the date of the transaction and subsequently at the rates of exchange at the year end. Exchange differences arising from translation are included in the fund account within the change in market value of investments. Foreign currency income and expenditure is translated at exchange rates prevailing on the appropriate dates, which are usually the transaction dates.

(d) Judgements and key sources of estimation uncertainty

In preparing these financial statements, the trustee is required to make judgements, estimates and assumptions that affect the application of accounting policies and the reported amounts of assets, liabilities, income and expenses. Actual results may differ from these estimates. Estimates and underlying assumptions are reviewed on an ongoing basis.

i) Critical judgements in applying the scheme's accounting policies

Finance leases: The trustee determines at lease commencement whether each lease is a finance lease or an operating lease. To classify each lease, the trustee makes an overall assessment of whether the lease transfers substantially all of the risks and rewards of ownership of the underlying asset to the lessee. If this is the case, the lease is a finance lease. If it is not, it is an operating lease. As part of this assessment, the trustee considers the substance of the lease terms including whether the lease transfers ownership to the lessee at the end of the lease term or whether there is an option for the lessee to purchase the asset at a nominal value. Further information is contained in note 11.

ii) Key sources of estimation uncertainty

Measurement of fair values: The scheme holds its investment assets either at fair value or, in the case of the finance leases, the net present value of the net investment in the lease. For unquoted equities and bonds, valuation techniques such as discounted cash flow models are used in determining fair value.

One of the key assumptions in determining fair value using the discounted cash flow technique is the discount rate. Others may include assumptions relating to macroeconomic forecasts, debt financing and growth and profitability aspects of the asset. The discount rate(s) are derived by taking into account a number of factors including, among others, the underlying nature of the asset, relative risk of the industry to which the asset relates compared to the wider equity market and the assessed level of uncertainty in the cash flows.

The market approach is often used as a cross-check and compares the valuation to metrics derived from either or both of comparable publicly traded assets and transactions in comparable assets.

The judgements are applied by valuation experts and there is significant estimation uncertainty underpinning the assumptions used in both the discounted cash flow approach and market approach cross-check. The trustee has considered the uncertainty in cash flows and the assumptions made and determine these to be the best estimates as at valuation date, when calculating fair value.

Finance leases: The scheme holds finance leases at the net present value of the net investment in the lease, discounted at the rate implicit within the lease terms. To calculate the net investment in the lease, the trustee assumes an inflationary increase for each lease payment over the life of the lease term. This inflationary increase is based on Bank of England data.

2 Contributions receivable

Accounting for contributions receivable
Contributions represent the amounts returned by the participating employers as being those due to the scheme under the Schedule of Contributions for the year of account and include contributions in respect of deficit funding.

The responsibility for ensuring the accuracy of contributions rests with institutions which, under the terms of the trust deed regulating Universities Superannuation Scheme, are ultimately responsible for ensuring the solvency of the scheme.

Retirement augmentation receipts and benefits payable are accounted for in the period in which they fall due under the agreement under which they are payable.

Employer Section 75 debt contributions are accounted for when a reasonable estimate of the amount receivable can be determined.

	Defined benefit £m	Defined contribution £m	2023 £m	Defined benefit £m	Defined contribution £m	2022 £m
Employer contributions						
Employer contributions	1,808	309	2,117	1,834	95	1,929
Employer salary sacrifice contributions	622	191	813	707	59	766
S75 debt	43	–	43	4	–	4
Augmentation	1	–	1	1	–	1
	2,474	**500**	**2,974**	**2,546**	**154**	**2,700**
Employee contributions						
Members’ basic contributions	67	15	82	73	5	78
Main section AVCs	19	131	150	21	116	137
Supplementary section	26	–	26	30	–	30
	112	**146**	**258**	**124**	**121**	**245**
	2,586	**646**	**3,232**	**2,670**	**275**	**2,945**

Under the current deficit funding plan, from 1 April 2022 up to 31 March 2024 contributions will be 6.2% of total salaries, increasing to 6.3% from 1 April 2024 up to 30 April 2038.

Main section AVCs represent additional contributions made into the Investment Builder which provides defined contribution benefits from the scheme. Contributions from members who commenced additional contributions on or after October 2016 are paid into main section AVCs.

Notes to the financial statements for the year ended 31 March 2023

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3 Benefits payable

Accounting for benefits payable

Pensions in payment are accounted for in the period to which they relate. The principal scheme benefits are provided under the main section.

The supplementary section, which is funded by a contribution of 0.35% (2022: 0.35%) of salary from the members, provides additional benefits payable when a member retires on the grounds of ill health or incapacity or dies in service.

Where members can choose whether to take their retirement benefits as a full pension or as a lump sum with reduced pension, retirement benefits are accounted for on an accruals basis from whichever is the later of the retirement date and the date the scheme is advised of the member's choice. Other benefits are accounted for on the date of retirement or death as appropriate.

Opt-outs are accounted for when the scheme is notified of the opt-out.

Where the trustee agrees or is required to settle tax liabilities on behalf of a member (such as where lifetime or annual allowances are exceeded) with a consequent reduction in that member's benefits receivable from the scheme, any taxation due is accounted for on the same basis as the event giving rise to the tax liability and shown separately within benefits.

	Defined benefit £m	Defined contribution £m	2023 £m	Defined benefit £m	Defined contribution £m	2022 £m
Main section						
Pensions	1,776	–	1,776	1,687	(8)	1,679
Lump sums on or after retirement	355	49	404	333	54	387
Lump sums on death in service	19	1	20	18	1	19
Taxation where lifetime and annual allowance exceeded	–	2	2	–	1	1
	2,150	**52**	**2,202**	**2,038**	**48**	**2,086**
Supplementary section						
Pensions	17	–	17	16	–	16
Lump sums on death in service	2	–	2	2	–	2
	19	–	**19**	**18**	**–**	**18**
	2,169	**52**	**2,221**	**2,056**	**48**	**2,104**

Taxation arising on benefits paid is in respect of members whose benefits have exceeded the lifetime or annual allowance and who elected to take lower benefits from the scheme in exchange for the scheme settling their tax liability.

4 Payments to and on account of leavers

Accounting for transfers to and from the scheme
Transfers to and from the scheme are accounted for when member liability is accepted or discharged, which is normally when the transfer amount is received or paid.

	Defined benefit £m	Defined contribution £m	2023 £m	Defined benefit £m	Defined contribution £m	2022 £m
Individual transfers out to other schemes	43	5	48	68	5	73
Refunds of contributions in respect of non-vested leavers	1	–	1	1	–	1
	44	**5**	**49**	**69**	**5**	**74**

5 Administrative and investment management expenses

Accounting for administrative and investment management expenses
Administrative and investment management expenses represent the costs incurred by the trustee company in managing and administering the scheme. These costs are recharged to the scheme in accordance with its rules and recognised in the scheme accounts on an accruals basis.

	2023			2022		
Defined benefit	Administrative expenses £m	Investment management expenses £m	Total £m	Administrative expenses £m	Investment management expenses £m	Total £m
Personnel costs						
Wages and salaries	14	31	45	13	26	39
Employee incentives	3	32	35	2	36	38
Pension costs	1	5	6	8	30	38
Social security costs	2	8	10	2	9	11
Other	–	1	1	–	–	–
Total personnel costs	**20**	**77**	**97**	**25**	**101**	**126**
Other costs incurred in managing and administering the scheme						
Professional fees	6	12	18	8	10	18
Invoiced external manager fees	–	7	7	–	10	10
Securities research fees	–	2	2	–	2	2
Information services costs	2	11	13	2	9	11
Group premises costs	1	3	4	1	3	4
Recruitment, training and welfare	1	2	3	1	2	3
Pension Protection Fund levies	5	–	5	4	–	4
Other costs	4	7	11	4	5	9
Total other costs	**19**	**44**	**63**	**20**	**41**	**61**
Total defined benefit costs	**39**	**121**	**160**	**45**	**142**	**187**
Total defined contribution costs	**3**	**4**	**7**	**3**	**4**	**7**
Total scheme expenses	**42**	**125**	**167**	**48**	**146**	**194**

Notes to the financial statements for the year ended 31 March 2023

Continued

5 Administrative and investment management expenses continued

Administrative expenses are incurred by the trustee company in managing and administering the scheme and, in accordance with the trust deed, are chargeable to the scheme. Investment management expenses comprise all costs directly attributable to the scheme's investment activities, including the operating costs of USS Investment Management Limited and the costs of management and agency services rendered by third parties.

USS operates a hybrid scheme and therefore administrative and investment expenses are incurred, recorded and controlled as a whole. The split between defined benefit and defined contribution is calculated with reference to the Master Trust DC business plan as submitted to TPR for the current and prior year.

In pension costs there was a charge of £31m recognised in 2022 representing USS's share of the pension deficit recovery contributions as defined in the 31 March 2020 actuarial valuation and related deficit recovery agreement.

The aggregate amount of compensation payable for loss of office to employees during the year was £0.5m (2022: £0.5m) of which £0.3m (2022: £0.3m) was payable to employees whose remuneration exceeded £100,000 during the year.

Investment management expenses and administrative expenses differ from the investment management and pension administration cost KPIs, as the KPIs do not include annual statutory adjustments such as the movements in the pension deficit recovery provision.

6 Investment income

Accounting for investment income

Investment income is brought into account on the following bases:

- Dividends, tax and interest from investments, on the date that the scheme becomes entitled to the income
- Interest on cash deposits and bonds, as it accrues
- Property rental income, on a straight-line basis over the period of the lease
- Finance leases, based on a pattern reflecting a constant periodic rate of return on the net investment in the lease over the period of the lease

	Defined benefit £m	Defined contribution £m	2023 £m	Defined benefit £m	Defined contribution £m	2022 £m
Dividends from equities	543	20	563	599	5	604
Net property income	108	2	110	110	1	111
Income from pooled investment vehicles	325	2	327	262	1	263
Income from bonds	644	11	655	605	2	607
Interest on cash deposits	77	–	77	1	–	1
Expenses from derivatives	(55)	–	(55)	–	–	–
Other (expenses)/income	(21)	–	(21)	8	–	8
Income from finance leases	19	–	19	–	–	–
	1,640	**35**	**1,675**	**1,585**	**9**	**1,594**

Income from property is net of property-related expenses of £12m (2022: £10m).

Investment income from overseas investments may be subject to deduction of local withholding taxes under relevant domestic law. Where double taxation treaties exist between the UK and the country in which the income arises, the tax withheld may be reduced to a lesser rate or to zero by the operation of the relevant treaty. Final withholding taxes suffered, after applying any beneficial treaty rates, are disclosed on the face of the fund account as taxation.

7 Investments reconciliation

Accounting for investments
Investments are included in the statement of net assets at fair value at the year end as follows:

(i) Quoted equities and bonds – Quoted equities and bonds in active markets are stated at closing prices; these prices may be last traded prices or bid market prices depending on the convention of the stock exchange on which they are quoted

(ii) Fixed interest securities – Interest is excluded from the market value of fixed interest securities and is included within investment income receivable. However, in some global markets, the market value of the fixed income security includes the accrued interest and there will not be any separate interest accruals on these securities

(iii) Unquoted equities and bonds – Unquoted equities and bonds are stated at fair value as estimated by the trustee using appropriate valuation techniques, for example discounted cash flow models. Direct investments are valued by independent valuation experts or a qualified internal team of valuation experts

(iv) Pooled investment vehicles – Pooled investment vehicles are stated at unit prices or values as advised by the fund administrator based on the fair value of the underlying assets

(v) Derivatives – Derivative contracts are recognised initially and are subsequently measured at fair value

(vi) Property – Property is stated at fair value as at the year end date and determined by independent professional valuers who are members of the Royal Institute of Chartered Surveyors. Any gains or losses. arising from a change in fair value are recognised in the return on investments

(vii) Finance leases – Leases are stated as the present value of the minimum lease payments, discounted at the interest rate implicit within the lease

The change in market value of investments during the year comprises all increases and decreases in the market value of investments held at any time during the year, including profits and losses realised on sales of investments during the year.

The changes in the market value of investments are shown below:

	Note	Market value Mar 2022 £m	Purchases at cost and derivative payments £m	Proceeds of sales and derivative receipts £m	Changes in value during the year £m	Market value Mar 2023 £m
Defined benefit						
Equities		28,094	4,103	(11,078)	(1,460)	19,659
Bonds		41,844	18,049	(13,992)	(11,066)	34,835
Pooled investment vehicles	8	17,490	2,530	(5,995)	350	14,375
Derivatives	9	(341)	11,696	(7,665)	(4,392)	(702)
Property		3,268	58	(59)	(622)	2,645
		90,355	**36,436**	**(38,789)**	**(17,190)**	**70,812**
Cash and cash equivalents		2,805			18	2,440
Other investment balances (net)	10	(4,225)			(493)	(747)
Finance leases	11	–				575
		88,935			**(17,665)**	**73,080**

Notes to the financial statements for the year ended 31 March 2023
Continued

7 Investments reconciliation continued

	Note	Market value Mar 2022 £m	Purchases at cost and derivative payments £m	Proceeds of sales and derivative receipts £m	Changes in value during the year £m	Market value Mar 2023 £m
Defined contribution						
Equities		879	310	(117)	(39)	1,033
Bonds		145	404	(206)	(29)	314
Pooled investment vehicles	8	777	418	(313)	(9)	873
Derivatives	9	–	12	(11)	1	2
Property		40	26	–	(9)	57
		1,841	**1,170**	**(647)**	**(85)**	**2,279**
Cash and cash equivalents		14			(8)	28
Other investment balances (net)	10	–			–	5
Finance leases	11	–				13
		1,855			**(93)**	**2,325**

At 31 March 2023, the scheme's approach to valuation was substantially consistent with its normal process and valuation policy. There is a Fair Value Committee to review the valuation policies, processes and their application to individual investments. The trustee has satisfied itself as to the methodology used, the discount rates and other key assumptions applied in the valuations reported at the year end date.

Included in the amount for derivatives are realised and unrealised losses of £1,735m (2022: £908m) from forward currency contracts, which are used to hedge the currency risk relating to overseas investments (see Note 9). These are offset by gains in the values of the corresponding overseas assets.

At the year end, within other investment balances, amounts payable under repurchase agreements amounted to £2,088m (2022: £5,079m). At the year end £2,131m (2022: £4,998m) of bonds reported in scheme assets are held by counterparties under repurchase agreements.

Investments purchased by the scheme in respect of the defined contribution section are allocated to provide benefits to the individuals on whose behalf the corresponding contributions were paid. Accordingly, these assets do not form a common pool of assets available for members generally. Members each receive an annual statement confirming the contributions paid on their behalf and the value of their money purchase rights. All investment assets under the DC section are designated to members.

Defined contribution investments include legacy money purchase AVC investments with Prudential Assurance Company Limited of £174m (2022: £184m). These assets are specifically allocated to secure extra benefits for those members who have made these additional voluntary contributions.

Transaction costs

Accounting for transaction costs
Transaction costs are included in the cost of purchases and deducted from sale proceeds. Direct transaction costs include costs charged to the scheme such as advisory fees, commissions and stamp duty. In addition to the direct transaction costs disclosed below, indirect costs are incurred through the bid-offer spread on investments.

Transaction costs analysed by main asset class and type of cost are as follows:

	Fees and taxes £m	Commission £m	Mar 2023 £m	Fees and taxes £m	Commission £m	Mar 2022 £m
Defined benefit						
Equities	9	4	13	11	4	15
Bonds	1	–	1	5	–	5
Pooled investment vehicles	2	–	2	2	–	2
Property	–	–	–	10	–	10
Finance leases	20	–	20	–	–	–
	32	**4**	**36**	**28**	**4**	**32**

The defined contribution element of transaction costs is not separately disclosed on the basis of materiality.

8 Pooled investment vehicles

Accounting for pooled investment vehicles
Equities held by unit trusts and managed funds are stated at latest available bid price or single price, as advised by the fund manager, based on the market valuation of the underlying assets.

Private equity funds are stated at the latest available cash flow adjusted valuations prepared in accordance with International Private Equity and Venture Capital (IPEV) Guidelines.

Hedge funds are stated at fair value based on prices determined by the independent administrator of each respective investment manager.

The scheme's pooled investment vehicles at the year end comprised:

	Defined benefit £m	Defined contribution £m	2023 £m	Defined benefit £m	Defined contribution £m	2022 £m
Equities	1,294	222	1,516	4,133	196	4,329
Hedge funds	363	–	363	387	–	387
Private equity	10,231	21	10,252	9,971	11	9,982
Property	1,930	31	1,961	1,922	14	1,936
Bonds	557	302	859	1,077	284	1,361
Cash	–	123	123	–	88	88
Legacy AVCs	–	174	174	–	184	184
Total pooled investment vehicles	**14,375**	**873**	**15,248**	**17,490**	**777**	**18,267**

Notes to the financial statements for the year ended 31 March 2023

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9 Derivatives

Accounting for derivative contracts

Derivatives are classified as assets when their fair value is positive or as liabilities when their fair value is negative. Derivatives with an initial purchase price are reported as purchases. Those that do not have an initial purchase price but require a deposit, such as initial margin to be placed with the broker, are recorded at nil cost on purchase. Derivatives comprise the following types of contracts which are either exchange-traded or over-the-counter (OTC).

At the year end, the scheme recognised the following derivatives:

	Note	Defined benefit £m	Defined contribution £m	2023 £m	Defined benefit £m	Defined contribution £m	2022 £m
Assets							
Options	9(a)	235	–	235	599	–	599
Futures contracts	9(b)	118	–	118	125	–	125
Swaps	9(c)	1,261	–	1,261	704	–	704
Forward foreign exchange contracts	9(d)	437	4	441	304	–	304
		2,051	**4**	**2,055**	**1,732**	**–**	**1,732**
Liabilities							
Options	9(a)	(60)	–	(60)	(177)	–	(177)
Futures contracts	9(b)	(26)	–	(26)	(61)	–	(61)
Swaps	9(c)	(2,488)	–	(2,488)	(1,089)	–	(1,089)
Forward foreign exchange contracts	9(d)	(179)	(2)	(181)	(746)	–	(746)
		(2,753)	**(2)**	**(2,755)**	**(2,073)**	**–**	**(2,073)**
Net (liability)/asset	7, 12	**(702)**	**2**	**(700)**	**(341)**	**–**	**(341)**

Objectives and policies

The trustee has authorised the use of derivatives by the investment managers in accordance with the investment guidelines for each mandate. Investment in derivative instruments is only permitted for the purposes of:

- contributing to a reduction of risks
- facilitating efficient portfolio management (including the reduction of cost or the generation of additional capital or income with an acceptable level of risk)

Processes and controls are in place to ensure risk exposures, including to individual counterparties, are maintained within acceptable levels.

The main objectives for the use of derivatives are summarised as follows:

(i) Protection

Derivatives may be used as part of the permitted instrument types available to managers to protect (or enhance) active returns, for example, through the use of options and credit default swaps.

(ii) Modify exposure to asset classes

Derivatives are bought or sold to allow the scheme to change its exposure to a particular market or asset class more quickly than by holding the underlying physical assets. They may also be easier to trade than conventional stocks, particularly in large amounts.

(iii) Hedging

Forward currency contracts are used to partially hedge the currency risk relating to overseas investments. This aims to achieve a better match between the fund's assets and the base currency of its future liabilities. Derivatives may also be used for the purpose of hedging risk exposures affecting future scheme liabilities, for example, through the use of inflation and interest rate swaps.

(iv) Replication

Derivatives are used where liquidity or funding for generating a relevant investment exposure is perceived to be more efficient in derivatives, rather than the underlying physical assets.

Derivative contracts outstanding at year end
A summary of the scheme's outstanding derivative contracts at the year end is set out below. The valuations are based on the unrealised fair values of the various investments as at 31 March 2023. Derivatives relating to defined contribution are not separately disclosed on the basis of materiality, the total value at year end being less than £5m.

a) Options (OTC)

Accounting for options
Options are recognised at the fair value as determined by the exchange price for closing out the option as at the year end. Collateral payments and receipts are reported as broker balances and are not included within realised gains or losses reported within change in market value.

The economic exposure is represented by the notional principal value of stock purchased under the contract on an absolute basis.

Defined benefit	Expires within	Notional principal £m	Asset £m	Liability £m
Type of option				
Index	1 year	**244**	**235**	**(60)**

b) Futures contracts (exchange traded)

Accounting for futures contracts
Open futures contracts are recognised in the statement of the net assets at their fair value, which is the unrealised profit or loss at the current bid or offer market quoted price of the contract, as determined by the closing exchange price as at the year end.

Amounts included in the change in market value represent realised gains or losses on closed futures contracts and the unrealised gains or losses on open futures contracts.

The economic exposure is represented by the notional principal value of stock purchased under the contract on an absolute basis.

Defined benefit	Expires within	Notional principal £m	Asset £m	Liability £m
Type of future				
Equities	1 year	3,108	104	(3)
Commodity	1 year	3	–	–
Bonds	1 year	4,173	14	(22)
Currency	1 year	43	–	(1)
		7,327	**118**	**(26)**

Notes to the financial statements for the year ended 31 March 2023

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9 Derivatives continued

c) Swaps (OTC)

Accounting for swaps

Swaps (OTC) are recognised at fair value, which is the current value of future expected net cash flows arising from the swap, taking into account the time value of money.

Net receipts and payments are reported within change in market value. Realised gains and losses on closed contracts and unrealised gains and losses on open contracts are included within change in market value.

The notional principal amount is used for the calculation of cash flow only.

Defined benefit	Expires within	Nature of swap	Notional principal £m	Asset £m	Liability £m
Credit default	6 years	Index	125	2	(2)
	6 years	Single	574	11	(6)
Interest rate	47 years	Fixed vs floating	14,706	825	(2,248)
Total return	9 years	Equity	1,951	61	–
	9 years	Commodity	1,182	6	(11)
	1 year	Bond	276	9	(183)
Inflation linked	9 years	HICPXT	211	35	–
	50 years	RPI	4,115	312	(38)
			23,140	**1,261**	**(2,488)**

d) Forward foreign exchange contracts (OTC)

Accounting for forward foreign exchange contracts

Forward foreign exchange contracts outstanding at the year end are stated at fair value, which is determined as the gain or loss that would arise if each outstanding contract was matched at the year end with an equal and opposite contract at that date.

Defined benefit

Currency bought	Currency sold	Notional principal £m	Asset £m	Liability £m
GBP	USD	8,175	196	–
GBP	HKD	1,317	76	–
GBP	Other	3,602	45	(3)
USD	GBP	870	–	(6)
JPY	GBP	3,833	–	(101)
Other	USD	4,368	92	(7)
Other	Other	6,988	28	(62)
		29,153	**437**	**(179)**

Other currency relates to a number of smaller contracts in denominations not disclosed above. All of the above contracts settle within one year.

At the end of the year the scheme held collateral of £349m (2022: £581m) and pledged collateral of £371m (2022: £864m) in the form of cash and government bonds in respect of OTC derivatives.

10 Other investment balances

Accounting for other investment balances

Repurchase agreements (repos) – the scheme continues to recognise and value securities that are delivered out as collateral under repurchase agreements and includes them in the financial statements. The cash received is recognised as an asset and the obligation to pay it back is recognised as a payable.

Margin balances with the brokers represent the amounts outstanding in respect of the initial margin and any variation margin due to or from the broker.

During the normal course of business, the scheme enters into derivative transactions which are reflected in the scheme financial statements. As a consequence of the clearing arrangements in respect of these transactions, certain charges have been granted by Universities Superannuation Scheme Limited. No liability is expected to arise as a result of these charges.

	Defined benefit £m	Defined contribution £m	2023 £m	Defined benefit £m	Defined contribution £m	2022 £m
Assets						
Amount due from stockbrokers	54	1	55	30	–	30
Dividends and accrued interest	247	7	254	252	2	254
Margin balances	2,055	2	2,057	1,101	–	1,101
Other	27	–	27	8	–	8
	2,383	**10**	**2,393**	**1,391**	**2**	**1,393**
Liabilities						
Amount due to stockbrokers	(127)	(3)	(130)	(97)	(2)	(99)
Margin balances	(861)	(1)	(862)	(413)	–	(413)
Repurchase agreements	(2,089)	–	(2,089)	(5,079)	–	(5,079)
Accrued interest	(16)	–	(16)	(7)	–	(7)
Other	(37)	(1)	(38)	(20)	–	(20)
	(3,130)	**(5)**	**(3,135)**	**(5,616)**	**(2)**	**(5,618)**
Other investment balances (net)	**(747)**	**5**	**(742)**	**(4,225)**	**–**	**(4,225)**

Notes to the financial statements for the year ended 31 March 2023

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11 Finance leases

Accounting for finance leases

On initial recognition, a finance lease will be held at the present value of the net investment in the lease; the net investment in the lease is the aggregate of minimum lease payments and residual value at end of lease. On subsequent measurement, changes to the net investment in the lease are recognised in the return on investments immediately.

Lease payments receivable due in	Defined benefit £m	Defined contribution £m	2023 £m	Defined benefit £m	Defined contribution £m	2022 £m
Less than 1 year	18	–	18	–	–	–
1 year to 5 years	97	2	99	–	–	–
Greater than 5 years	6,740	157	6,897	–	–	–
Total undiscounted lease payments receivable	**6,855**	**159**	**7,014**	**–**	**–**	**–**
Unearned finance income	(6,280)	(146)	(6,426)	–	–	–
Net investment in leases	**575**	**13**	**588**	**–**	**–**	**–**

Unearned finance income is the undiscounted value of lease payments over the term of the lease. As lease payments vary with inflation, these payments will fluctuate over the lease term and therefore the unearned finance income will fluctuate over time.

12 Fair value determination

Fair value is the price that would be received to sell an asset or the price paid to transfer a liability in an orderly transaction between market participants at the measurement date.

The fair value of financial instruments has been estimated using the following fair value hierarchy:

Category 1: The unadjusted quoted price in an active market for identical assets or liabilities that the entity can access at the measurement date.

Category 2: Valuation using directly or indirectly observable inputs other than those included in category 1. Those with quoted prices for similar instrument in active markets or quoted prices for identical or similar instrument in inactive markets.

Category 3: Valuation where one or more significant inputs are unobservable market data (in other words, where market data is unavailable).

		2023 category			
Defined benefit	**Note**	**1 £m**	**2 £m**	**3 £m**	**Total £m**
Equities	7	12,627	–	7,032	19,659
Bonds	7	–	29,391	5,444	34,835
Pooled investment vehicles	7, 8	250	1,136	12,989	14,375
Derivatives	7, 9	267	(969)	–	(702)
Property	7	–	–	2,645	2,645
Cash and cash equivalents	7	2,440	–	–	2,440
Other investment balances	7, 10	(747)	–	–	(747)
Finance leases	7, 11	–	–	575	575
		14,837	**29,558**	**28,685**	**73,080**

		2022 category			
Defined benefit	**Note**	**1 £m**	**2 £m**	**3 £m**	**Total £m**
Equities	7	20,809	–	7,285	28,094
Bonds	7	–	36,954	4,890	41,844
Pooled investment vehicles	7, 8	344	2,190	14,956	17,490
Derivatives	7, 9	499	(828)	(12)	(341)
Property	7	–	–	3,268	3,268
Cash and cash equivalents	7	2,805	–	–	2,805
Other investment balances	7, 10	(4,225)	–	–	(4,225)
		20,232	**38,316**	**30,387**	**88,935**

Notes to the financial statements for the year ended 31 March 2023

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12 Fair value determination continued

Defined contribution	Note	2023 category 1 £m	2 £m	3 £m	Total £m
Equities	7	913	–	120	1,033
Bonds	7	–	232	82	314
Pooled investment vehicles	7, 8	3	818	52	873
Derivatives	7, 9	–	2	–	2
Property	7	–	–	57	57
Cash and cash equivalents	7	28	–	–	28
Other investment balances	7, 10	5	–	–	5
Finance leases	7, 11	–	–	13	13
		949	**1,052**	**324**	**2,325**

Defined contribution	Note	2022 category 1 £m	2 £m	3 £m	Total £m
Equities	7	780	–	99	879
Bonds	7	–	73	72	145
Pooled investment vehicles	7, 8	2	751	24	777
Derivatives	7, 9	–	–	–	–
Property	7	–	–	40	40
Cash and cash equivalents	7	14	–	–	14
Other investment balances	7, 10	–	–	–	–
		796	**824**	**235**	**1,855**

13 Investment risks

Investment risks are set out below as follows:

Credit risk: This is the risk that one party to a financial instrument will cause a financial loss for the other party by failing to discharge an obligation.

Market risk: This comprises currency risk, interest rate risk and other price risk.

- **Currency risk**: This is the risk that the fair value or future cash flows of a financial asset will fluctuate because of changes in foreign exchange rates.
- **Interest rate risk:** This is the risk that the fair value or future cash flows of a financial asset will fluctuate because of changes in market interest rates.
- **Other price risk:** This is the risk that the fair value or future cash flows of a financial asset will fluctuate because of changes in market prices (other than those arising from interest rate risk or currency risk), whether those changes are caused by factors specific to the individual financial instrument or its issuer, or factors affecting all similar financial instruments traded in the market.

The trustee manages investment risks, including credit risk and market risk, within agreed risk limits which are set taking into account the scheme's strategic investment objectives. These objectives and risk limits are implemented through the holistic DB and DC investment frameworks which have been agreed with the scheme's internal manager and are overseen by the trustee.

Further information on the trustee's approach to risk management and the scheme's exposures to credit and market risks are set out below and within the Statement of Investment Principles and Implementation Statement.

Credit risk

The scheme is subject to credit risk because the scheme invests directly in bonds, OTC derivatives, has cash balances and unsettled trades, undertakes stock lending activities, leases properties and enters into repurchase agreements. The scheme also invests in pooled investment vehicles and is therefore exposed directly to credit risk in relation to the instruments it holds in the pooled investment vehicles.

	Investment grade		Non-investment grade		Unrated		Total	
Defined benefit	**2023** £m	**2022** £m	**2023** £m	**2022** £m	**2023** £m	**2022** £m	**2023** £m	**2022** £m
Direct non-collateralised								
Bonds not under repurchase or stock loan agreements	20,518	20,719	1,513	2,015	7,032	6,615	29,063	29,349
Cash	2,440	2,804	–	–	–	–	2,440	2,804
Pooled investment vehicles	–	–	–	–	14,124	17,145	14,124	17,145
Finance leases	–	–	–	–	575	–	575	–
Rent debtors	–	–	–	–	8	8	8	8
Amounts due from stockbrokers	–	–	–	–	35	26	35	26
Sub-total	**22,958**	**23,523**	**1,513**	**2,015**	**21,774**	**23,794**	**46,245**	**49,332**
Direct collateralised								
Bonds lent under repurchase agreements	2,101	5,081	–	–	–	–	2,101	5,081
Bonds lent under stock loan agreements	3,794	7,538	–	–	–	–	3,794	7,538
Equities lent under stock loan agreements	1,651	1,899	–	–	–	–	1,651	1,899
Derivatives	1,699	1,021	–	–	–	–	1,699	1,021
Sub-total	**9,245**	**15,539**	**–**	**–**	**–**	**–**	**9,245**	**15,539**
	32,203	**39,062**	**1,513**	**2,015**	**21,774**	**23,794**	**55,490**	**64,871**

	Investment grade		Non-investment grade		Unrated		Total	
Defined contribution	**2023** £m	**2022** £m	**2023** £m	**2022** £m	**2023** £m	**2022** £m	**2023** £m	**2022** £m
Direct non-collateralised								
Bonds not under repurchase or stock loan agreements	114	66	116	6	87	74	317	146
Cash	28	14	–	–	–	–	28	14
Pooled investment vehicles	–	–	–	–	871	775	871	775
Finance leases	–	–	–	–	13	–	13	–
Rent debtors	–	–	–	–	–	–	–	–
Amounts due from stockbrokers	–	–	–	–	1	–	1	–
Sub-total	**142**	**80**	**116**	**6**	**972**	**849**	**1,230**	**935**
Direct collateralised								
Bonds lent under repurchase agreements	–	–	–	–	–	–	–	–
Bonds lent under stock loan agreements	10	13	–	–	–	–	10	13
Equities lent under stock loan agreements	42	24	–	–	–	–	42	24
Derivatives	–	–	–	–	–	–	–	–
Sub-total	**52**	**37**	**–**	**–**	**–**	**–**	**52**	**–**
	194	**117**	**116**	**6**	**972**	**849**	**1,282**	**972**

Notes to the financial statements for the year ended 31 March 2023

Continued

13 Investment risks continued

Credit risk arising on bonds is managed:

- through investment in developed-market government bonds where the credit risk is minimal
- for corporate and emerging-market bonds and private credit, through individual investment mandates which set out the maximum permissible exposure to non-investment grade issuers, so as to maintain the overall credit quality of the portfolios

The use of credit default swaps has the effect of mitigating the maximum exposure to credit risk. The exposure to fixed interest credit risk mitigated through credit derivatives was £167m (2022: £181m).

Cash is held with financial institutions which are at least investment grade credit rated, with the maximum deposit limit for any one counterparty set by reference to its credit rating. Credit default swaps (CDS), spreads and rating notifications are monitored to ensure exposures remain within the approved limits. Money market liquidity funds must have a minimum AAA rating to be eligible for investment and limits are in place on the maximum allowable exposure to any single fund.

The scheme is exposed indirectly to credit risks arising on financial instruments held by the pooled investment vehicles. Indirect credit risk arises in relation to underlying investments held in pooled investment vehicles which themselves hold private market funds, hedge funds and controlled property funds (only the value of those underlying assets which are subject to credit risk is included in the note).

The DB value at the year end was: private market funds £10,231m (2022: £9,702m), hedge funds £363m (2022: £387m), listed bonds funds £557m (2022: £1,077m) and controlled property funds £23m (2022: £24m).

The DC value at the year end was: private market funds £21m (2022: £10m), DC USS Investment Builder £425m (2022: £567m) and £174m legacy AVCs (2022: £184m).

A summary of pooled investment vehicles by type of arrangement is as follows:

	Note	Defined benefit £m	Defined contribution £m	2023 £m	Defined benefit £m	Defined contribution £m	2022 £m
Unit trusts		408	8	416	440	6	446
Open ended investment companies (OEICs)		1,851	821	2,672	5,210	752	5,962
Partnership interests		11,753	44	11,797	11,453	19	11,472
Shares of limited liability partnerships		363	–	363	387	–	387
	7,8,12	**14,375**	**873**	**15,248**	**17,490**	**777**	**18,267**

Direct credit risk on pooled investment vehicles comprises the pooled funds shown in Note 8 with the exception of £251m (DB) and £2m (DC) (2022: £346m DB, £nil DC) invested in exchange traded funds which are not considered to be subject to credit risk as they are traded on an active market.

Direct credit risk arising from pooled investment vehicles is mitigated by the underlying assets of the pooled arrangements being ring-fenced from the pooled investment manager, provisions to automatically dissolve the funds in the event of insolvency of the pooled investment manager or general partner, a cap of liability to pooled funds at the level of funds committed, and diversification of investments among a number of pooled arrangements. Due diligence checks are carried out on the appointment of new pooled investment managers and on an ongoing basis thereafter.

Credit risk arises from the rents due from tenants of the scheme's investment property portfolio. This is mitigated through credit control procedures, regular review of tenant credit ratings and the use of rent deposits where appropriate.

Credit risk arising from amounts due to stockbrokers is mitigated through delivery versus payment settlement in the majority of markets.

Credit risk arising from repurchase activities is mitigated through collateral arrangements which fully collateralise the exposure.

Credit risk arising from finance leases is mitigated by holding title of the underlying property, which fully collateralises the exposure.

Credit risk arising from stock lending activities is mitigated by restricting the amount of stock that may be lent, only lending to approved borrowers who are rated investment grade, limiting the amount that can be lent to any one borrower and through collateral arrangements. Loans are fully collateralised, with daily mark to market of all loaned securities, to ensure collateral is received or returned to maintain full collateralisation. In addition, the scheme's custodians provide indemnity against losses arising from stock lending exposure to counterparties.

Credit risk arising on derivatives depends on whether the derivative is exchange-traded or OTC. OTC derivative contracts, other than those which are centrally cleared, are not guaranteed by any regulated exchange and therefore the scheme is subject to risk of failure of the counterparty. The credit risk for OTCs, including swaps and forward foreign currency contracts, is reduced by collateral arrangements (see note 9). OTCs are valued daily and counterparty exposures are fully collateralised subject to de minimis limits.

Market risk
Currency risk
The scheme is subject to currency risk because some of the scheme's investments are denominated in foreign currencies and/or comprise assets whose economic value is generated in foreign currencies. Derivative holdings are represented on a market value basis within the table below:

	Defined benefit £m	Defined contribution £m	2023 £m	Defined benefit £m	Defined contribution £m	2022 £m
Direct						
Australian Dollar	881	32	913	978	23	1,001
Brazilian Real	470	3	473	713	4	717
Canadian Dollar	281	25	306	456	22	478
Euro	6,167	158	6,325	7,332	95	7,427
Hong Kong Dollar	1,294	33	1,327	1,475	35	1,510
Indian Rupee	531	11	542	620	15	635
Indonesian Rupiah	209	2	211	394	2	396
Japanese Yen	380	71	451	1,314	58	1,372
Mexican Peso	623	3	626	631	3	634
South African Rand	436	2	438	630	5	635
South Korean Won	426	9	435	665	14	679
Swiss Franc	904	25	929	882	20	902
Taiwan New Dollar	469	10	479	774	18	792
United States Dollar	19,677	729	20,406	23,861	497	24,358
Other	1,958	44	2,002	2,881	40	2,921
	34,706	**1,157**	**35,863**	**43,606**	**851**	**44,457**
Less: Foreign currency hedging	(1,121)	–	(1,121)	(12,465)	–	(12,465)
	33,585	**1,157**	**34,742**	**31,141**	**851**	**31,992**

Indirect currency risk arises on pooled investment vehicles when the vehicle invested in is denominated in a foreign currency and/or comprise assets whose economic value is generated in foreign currency. At the year end, the market value of indirect currency risk was £10,490m in the DB section (2022: £11,961m) and £24m in the DC section (2022: £11m).

Notes to the financial statements for the year ended 31 March 2023

Continued

13 Investment risks continued

Interest rate risk

The scheme's investments are subject to interest rate risk because they include public and private credit, swaps and money market instruments. Also, investments in certain unquoted equities are valued in a way that makes them sensitive to interest rates and are, therefore, directly subject to interest rate risk. Much of this investment-related interest-rate risk provides an offsetting exposure to the interest risk which is inherent to the scheme's liabilities. This serves to mitigate the interest rate risk across the scheme as a whole.

Cash including liquidity funds are exposed to short duration interest rate risk. However, these balances have been excluded from the amounts disclosed below as the interest rate risk involved is immaterial.

	Defined benefit £m	Defined contribution £m	2023 £m	Defined benefit £m	Defined contribution £m	2022 £m
Direct						
Bonds	34,835	314	35,149	41,844	145	41,989
Equities	5,866	113	5,979	6,519	100	6,619
Derivatives	(1,034)	2	(1,032)	(984)	–	(984)
	39,667	**429**	**40,096**	**47,379**	**245**	**47,624**

Indirect interest rate risk arises on pooled investment vehicles where the vehicle invests in assets which are exposed to interest rate risk. The value as at the year end relating to pooled investment vehicles – defined benefit was £573m (2022: £1,093m) and to pooled investment vehicles – defined contribution was £425m (2022: £372m).

Other price risk

Other price risk arises principally in relation to the scheme's return-seeking portfolio, which includes directly held equities, equities held in pooled vehicles, futures, hedge funds, private equity and investment properties. Derivative values below are based on market value.

The scheme manages this exposure to overall price movements by constructing a diverse portfolio of investments across various markets.

	Defined benefit £m	Defined contribution £m	2023 £m	Defined benefit £m	Defined contribution £m	2022 £m
Direct						
Equities	19,659	1,033	20,692	28,094	879	28,973
Derivatives	332	–	332	643	–	643
Property	2,645	57	2,702	3,268	40	3,308
Pooled investment vehicles	13,818	448	14,266	16,413	406	16,819
	36,454	**1,538**	**37,992**	**48,418**	**1,325**	**49,743**

Indirect other price risk arises in relation to underlying investments held in pooled investment vehicles holding equity, private market funds, hedge funds and property funds.

The value relating to defined benefit pooled investment vehicles at the year end was: equity £1,294m (2022: £4,133m) private market funds £10,231m (2022: £9,768m), hedge funds £363m (2022: £387m), and property funds £1,930m (2022: £1,904m).

The value relating to defined contribution pooled investment vehicles at the year end was: equity £222m (2022: £3m), legacy AVC £174m (2022: £184m), private market funds £21m (2022: £10m), and property funds £31m (2022: £14m).

14 Subsidiaries controlled by Universities Superannuation Scheme

The net assets of subsidiary companies through which the scheme holds investments are summarised below.

	2023 £m	2022 £m
Equities	6,939	7,087
Bonds	4,143	3,436
Pooled investment vehicles	8,088	7,467
Property	76	80
Cash	20	18
Other investment balances	(78)	(118)
Finance leases	217	–
	19,405	**17,970**

15 Self investment

The scheme had no 'employer-related investments' at year end, as defined by relevant legislation, except equity and loan investments made in the normal course of business in certain investment holding companies. The funding of these investment vehicles, which are held for investment purposes and are not operating subsidiaries as explained on page 66, amounts to 1.45% (2022: 1.42%) of the net assets of the scheme.

16 Current assets

	Defined benefit £m	Defined contribution £m	2023 £m	Defined benefit £m	Defined contribution £m	2022 £m
Contributions receivable:						
– employer contributions	212	44	256	207	13	220
– members' basic contributions	8	1	9	8	1	9
– members' additional voluntary contributions	2	11	13	2	9	11
Other debtors	32	36	68	25	–	25
Cash at bank and in hand	14	2	16	16	2	18
	268	**94**	**362**	**258**	**25**	**283**

Contributions due at the year end have been paid to the scheme subsequent to the year end in accordance with the Schedule of Contributions.

Notes to the financial statements for the year ended 31 March 2023

Continued

17 Current liabilities

	Defined benefit £m	Defined contribution £m	2023 £m	Defined benefit £m	Defined contribution £m	2022 £m
Benefits payable	(118)	(4)	(122)	(120)	(3)	(123)
Due to trustee company	(113)	(6)	(119)	(110)	(4)	(114)
Other creditors	–	(1)	(1)	(1)	(1)	(2)
	(231)	**(11)**	**(242)**	**(231)**	**(8)**	**(239)**

18 Securities on loan

Accounting for other investment arrangements

The scheme continues to recognise securities delivered out under stock lending arrangements and as collateral under OTC derivative contracts reflecting its ongoing interest in those securities.

Securities received as collateral in respect of stock lending arrangements and derivative contracts are disclosed but not recognised as scheme assets.

The value of collateral received in respect of OTC derivative contracts reflects its fair value.

Securities have been lent to the counterparties in return for fee income earned by the scheme. Security for these loans is obtained by holding collateral in the form of cash, equities, government bonds and letters of credit.

	Defined benefit £m	Defined contribution £m	2023 £m	Defined benefit £m	Defined contribution £m	2022 £m
Value of stock on loan at 31 March						
Equities	1,651	42	1,693	1,899	24	1,923
Bonds	3,794	10	3,804	7,538	13	7,551
	5,445	**52**	**5,497**	**9,437**	**37**	**9,474**
Collateral held	**5,751**	**55**	**5,806**	**10,068**	**40**	**10,108**

19 Financial commitments

	Defined benefit £m	Defined contribution £m	2023 £m	Defined benefit £m	Defined contribution £m	2022 £m
Outstanding commitments	**4,770**	**10**	**4,780**	**5,850**	**20**	**5,870**

These represent amounts subscribed and committed that had not been drawn down at the year end and are committed for draw down in the next five years.

20 Related party transactions

Related party transactions are defined as either employer-related transactions or trustee-related transactions. There were no transactions with employers in either the current or preceding years, other than those identified as employer-related investments disclosed in Note 15. Such transactions are performed in the normal course of business and at an arm's-length.

The only trustee-related transactions in either the current or prior year relate to the day-to-day administration of the scheme by the trustee company and its subsidiary, and the membership of the scheme of certain Trustee Board members or key management personnel. The membership of those Trustee Board directors is through past or present employment with scheme employers and accordingly is in the normal course of business on an arm's length basis. Similarly, membership of key management personnel which arises on account of their employment by the trustee company, is based on the same conditions as all members and is therefore considered to be on an arm's-length basis and in the normal course of business.

Administrative and investment management expenses incurred by the trustee company are shown in note 5. All transactions are solely for the purposes of effectively administering the scheme.

Other regulatory statements

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The Marshall Building – LSE

Chair's defined contribution statement

The purpose of this statement is to explain how the trustee ensures that the scheme is governed and managed to the standard required by legislation and expected by The Pensions Regulator (TPR).

The Investment Builder, the defined contribution (DC) part of the Universities Superannuation Scheme (USS), was introduced in October 2016.

This is the seventh annual statement from the Chair of the trustee (Universities Superannuation Scheme Limited) regarding the governance of the Investment Builder and the scheme's money purchase AVC arrangement with the Prudential Assurance Company Limited.

The content of this statement is structured around the following areas:

1 **Investment design:** the default investment approach and other investment options available to members.

2 **Fund performance and governance:** providing a tailored range of investment options which provide an appropriate balance of investment performance, risk and charges.

3 **Administration:** demonstrating how core financial transactions are processed promptly and accurately.

4 **Value for members:** how costs and charges, including transaction costs, are managed, monitored and recorded, and how this provides value for money to our members.

5 **Trustee knowledge and understanding:** how the Trustee Board ensures that it has the skills and competencies required for the role it performs and how the requirements regarding non-affiliation of trustee directors are met.

6 **Member communication, engagement and representation:** how USS engages with members (and member representatives) and encourages member feedback to improve member experience.

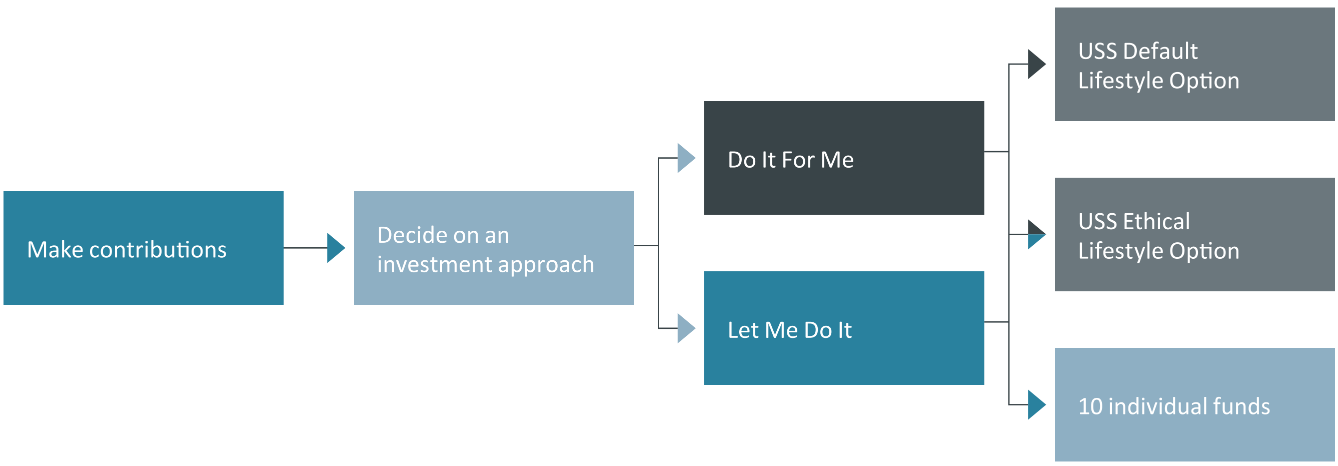
1 Investment design

The Investment Builder provides members with a choice of whether to use the default investment option designed by the trustee, to use an alternative ethical lifestyle option, to actively manage their investments themselves through a choice of self-select funds, or to use a mixture of default and self-select options for each contribution type. Members have funds in the Investment Builder if they earn above the salary threshold (£40,000 for the 2022/23 financial year), have made additional contributions, or have transferred funds into the scheme since October 2016.

The investment choices fall into two broad categories reflecting the degree of self-management that members wish to undertake:

- Do It For Me – a choice between two lifestyle options – the USS Default Lifestyle Option and the USS Ethical Lifestyle Option. Both lifestyle options automatically adjust to reduce risk as the member approaches their Target Retirement Age (TRA)
- Let Me Do It – a choice of 10 individual funds if members wish to customise their approach. These are referred to as the self-select options. These options offer a range of investment types with different levels of risk and prospective return to cater for a range of investment objectives and beliefs for members who want to make their own investment choices.

Key investment decisions available are:



Note

1 Prepared in accordance with Regulation 23 of the Occupational Pension Schemes (Scheme Administration) Regulations 1996 (as amended from time to time).

It is possible in some circumstances for a member to adopt a combination of the two options outlined above.

Members who do not make an investment choice, will be invested in the USS Default Lifestyle Option. As at 31 March 2023, 89% of the active membership were fully invested in the USS Default Lifestyle Option with a further 6% choosing a combination of the USS Default Lifestyle Option and individual funds. The remaining members were wholly invested in either the individual funds (3%) or the USS Ethical Lifestyle Option (2%).

My USS portal

By logging on to the member portal (My USS), members can manage their Investment Builder at any time:

- Changing investment choices for their existing funds and/or future contributions, including moving between the Do It For Me and Let Me Do It options
- Make or amend additional contributions
- Amending their TRA
- Update their contact details and contact preferences
- Update their Expression of Wish for death benefits

Default investment approach:
USS Default Lifestyle Option

The USS Default Lifestyle Option is designed to reflect the different investment needs of a member during their working life and as they approach their TRA. If a member has not set their own TRA, it will be set to the scheme's normal pension age (currently age 66).

Design of the USS Default Lifestyle Option

The default option was designed in advance of the Investment Builder launch, explicitly taking into account the hybrid structure and demographics of the scheme, and considering the findings of:

- A large survey with members to understand their risk appetite and investment beliefs
- Projections of member benefits and the relative role of defined benefit (DB) and defined contributions (DC) benefits at retirement
- Focus groups with members to understand their views on DC benefits and their plans for how they might use their funds at retirement

At outset
Invested in the USS Growth Fund to provide greater opportunity to generate investment returns over the longer term

10 to 5 years from Target Retirement Age
Half of funds switched progressively into the USS Moderate Growth Fund to reduce the overall level of risk

5 years or less from Target Retirement Age
Start switching funds progressively into the USS Cautious Growth Fund and the USS Liquidity Fund

At and beyond Target Retirement Age
Invested 25% in the USS Moderate Growth Fund, 50% in the USS Cautious Growth Fund and 25% in the USS Liquidity Fund

- Extensive investment strategy modelling to consider different risk and return profiles and asset allocation strategies

The conclusions from this research and a corresponding set of 'Policy Beliefs', that are reviewed and updated annually, guide the development of Investment Builder funds and are published at USS Investment Builder policy beliefs.

The suitability of the Investment Builder product is reviewed at the start of the scheme year by the trustee, which, this year, included how members responded to the new benefits structure following the scheme changes in 2022, particularly the reduction in the salary threshold (above which contributions go towards DC benefits) from £59,883 to £40,000.

- The output of the review aims to inform the pensions business and investment committee of the following:
  - Ongoing suitability of the default option
  - Range of alternative investment options
  - Decumulation options
  - Communication objectives
- We aim to address the following questions as part of the annual review:
  i. To what extent the USS Investment Builder policy beliefs are being borne out and any changes required?
  ii. What market developments are influencing DC provision and member behaviour e.g. Economic factors such as the Cost-of-Living Crisis?
  iii. Ultimately, are the requirements for the investment products (including the default option) and the engagement priorities still valid?
- This year's review had a specific focus on:
  i. The engagement, behaviour and needs of the active membership contributing to Investment Builder regularly from April 2022 due to the change in salary threshold
  ii. Wider developments that are relevant to the suitability of the DC part of the scheme, including trends in DC transfers and member responses to cost of living pressures

Chair's defined contribution statement

Continued

- This year's review also considers the principles of the new FCA Consumer Duty, as it applies to USS Investment Management Ltd, to deliver good outcomes for customers (USS members) which will be implemented by the FCA from 31 July 2023
- Overall, the review found that member behaviour and demographics continue to be in line with expectations that were set at the launch of the USS Investment Builder in 2016. Following the recent implementation of the 2022 benefit changes, and the prospect of further potential change to benefits under the forthcoming 2023 valuation, it would not be appropriate to recommend any significant changes to the existing policy beliefs at this point. Therefore, it was accepted by the trustee's Pensions Committee in November 2022 that:
  i. The requirements for the USS Default Lifestyle Option remained appropriate for the risk capacity of members and the expected use of funds at retirement
  ii. The self-select funds remained appropriate
  iii. The ethical products (managed in line with the USS Ethical Guidelines , revised in 2022) remain appropriate following a full review in 2021

The trustee carried out a regulatory review of the Default Lifestyle Option Statement of Investment Principles (SIP) and default fund performance at the start of the scheme year, taking into account that the demographic changes were materially as expected following the change in salary threshold and confirmed its original conclusions from the previous year's suitability review.

Additionally, in conjunction with a wider review and updates to the main USS SIP after the previous scheme year end, on 24 May 2022 the trustee adopted an updated version of the Default Lifestyle Option SIP incorporating stylistic and clarificatory changes and amendments to align with the trustee's updated investment beliefs.

The details of the review of the performance of the default arrangement are confirmed below under 'Fund Performance and Governance'.

The next statutory review of the USS Default Lifestyle Option will be carried out in line with legislative requirements. However, the suitability of the Investment Builder product will continue to be reviewed annually by the trustee.

A full description of the USS Default Lifestyle Option is included in the latest USS Default Lifestyle Option Statement of Investment Principles (SIP) on pages 106 to 109 (annexed to and immediately following this Chair's DC Statement). The latest SIP can also be found on the USS website.

Prudential money purchase AVCs
In addition to the funds offered in the Investment Builder, some scheme assets are managed by Prudential.

These assets relate to the money purchase AVC (MPAVC) arrangement previously in place. Prudential funds are closed to new contributions.

Members with Prudential funds can choose to transfer them into the Investment Builder or retain them in the AVC arrangement.

2 Fund performance and governance

In setting and monitoring the DC investment strategy, USS assesses the key investment risks relevant to the DC part. These risks include inflation, currency, the impact of market movements in the period prior to retirement, returns on investments relative to the investment objectives, liquidity risk, operational risk and market risk including equity, interest rate and credit risk. Risk is not considered in isolation, but in conjunction with expected investment returns and outcomes for members and within the new Investment Framework, which was in place from 2 January 2023.

The trustee has appointed USS Investment Management Limited (USSIM) as its investment manager. USSIM monitors the performance of each of the investment options offered to members within the Investment Builder in line with the new Investment Framework. USS reports periodically on the return of the DC funds relative to their targets and reviews its policies on currency hedging and liquidity on an annual basis. USS also reviews performance versus expectations, benchmarks, and peers.

It also reviews the performance of any remaining funds held under the Prudential money purchase AVC arrangement on an ongoing basis.

USSIM provides regular investment performance reports to the trustee's Investment Committee which is responsible for the oversight of the performance of the Investment Builder.

The Investment Committee provides the trustee with a report on its activities and any recommendations arising after each meeting.

In March 2023, following the annual suitability review, of the Investment Builder earlier in the year, the Investment Committee carried out an in-depth look at the ongoing suitability of the Default Lifestyle Option and SIP. At the same time, the Investment Committee reviewed the performance of the Default Lifestyle Option, including examining returns in relation to different groups of members, and concluded that the returns for all groups of members were consistent with the aims and objectives set out in the USS Default Lifestyle Option SIP. In summary, the Default Lifestyle Option seeks to generate returns in excess of inflation during the growth phase of the strategy with a degree of downside risk mitigation and to provide exposure, at retirement, to a portfolio of assets to align as much as possible with how a member is likely to use their savings at and into retirement.

The Investment Committee therefore concluded that the Default Lifestyle Option strategy and wider fund range remained appropriate and recommended that these were not changed. A similar review was also carried out in relation to other funds available in the Investment Builder and reached the same conclusion. The recommendations from these reviews were approved by the trustee prior to scheme year end.

Since their appointment in February 2020 Lane Clark & Peacock (LCP) have acted as external investment consultants to the trustee. This appointment helps to provide robust, independent challenge on all investment matters relating to members' DC benefits. This is separate from, and additional to, the investment advice that the trustee receives from USSIM as principal investment adviser to the trustee.

3 Administration

The trustee operates and reviews a suite of processes and controls designed to: (i) ensure that those who are carrying out scheme administration have the appropriate training and expertise and (ii) enable a continuous and consistent service in the event of a change of administrator personnel or administration provider, including the business continuity plan that is tested periodically.

Quality assurance is embedded in scheme procedures as the trustee recognises that delay and error in these financial transactions can cause losses to members. The financial transactions for the Investment Builder arrangement include (but are not limited to):

- Receipt, reconciliation and investment of contributions to the scheme
- Transfers of assets relating to members into and out of the scheme
- Switching of assets relating to members between different investment options within the scheme, including operation of the glidepath for the lifestyle options
- Payments from the scheme to, or in respect of, members

The trustee has considered the processes, controls and quality assurance reports and is assured that USS has processed core financial transactions promptly and accurately and, to the extent of any delays or errors, those transactions have been or will be dealt with in accordance with the scheme's remediation process to ensure members experience no material shortfall.

More detail on processes and how they operate in practice is provided below.

Strategic partnerships

The trustee has established strategic partnerships with two external suppliers to deliver different aspects of core financial transactions within the Investment Builder, namely:

- Capita: provides the pensions administration IT system for the scheme and all DC-related back-office administration services
- Northern Trust: provides the investment platform to enable contributions and assets to be invested

Working with these two partners, the trustee closely monitors end-to-end financial transactions to ensure prompt and accurate processing. This is achieved by delegation of this function to various dedicated teams, which are described in more detail below. We conduct monthly service reviews with the partners. The reviews are underpinned by comprehensive monthly stewardship and management information reports which include month by month performance against service level agreements (SLA) attributable to the processing of the core financial transactions explained earlier. Collaboration between the dedicated teams and the external partners is critical and appropriate systems and processes are in place to ensure smooth and timely communication as well as engendering opportunities for continuous improvement.

The trustee has a dedicated Supplier Relationship Manager to oversee its strategic relationship with key suppliers to the Pensions segment of the company, including Capita.

Although the day-to-day oversight remains with the dedicated teams, the Supplier Relationship Manager provides a point for escalation of any matters that the teams deem appropriate, and tracks matters through to resolution.

Core transactions

Contributions

Daily reconciliations of contributions receipts into the trustee bank account are made and DC related contributions are sent to Capita for investment the subsequent working day.

The Service Level Agreement between Capita and the trustee requires contributions to be invested by the end of the third working day following receipt or reconciliation against member records where this occurs later. Any delays in reconciliation are investigated with employers to identify thematic issues which require improvement.

Processes and controls are established across both employer and USS teams and assisted by a significant degree of process automation, provide assurance to the trustee that queries and issues are identified and addressed promptly.

A dedicated USS Client Engagement Team works with employers on a daily basis to manage contribution cycles effectively and to monitor validation matters or queries. Where validation matters are not addressed within prescribed timescales, and therefore contributions not allocated to member records, an automatic loss remedy procedure is invoked to ensure members experience no material shortfall as a result of these investment delays. Performance in this area is particularly strong with only 59 validation queries, representing 0.03% of the active membership, outside of the prescribed timescales.

The USS Pensions Operating Group and DC Product Governance Committee monitors receipt and investment of contributions on a monthly basis. Any significant matters are also reported to the trustee.

Transfers into and out of the scheme

Transfers into and out of the scheme are overseen by the USS Transfers Team. Transferred monies are sent directly to the DC bank account which is operated by Capita. To ensure out of market exposure is limited, the USS Transfers Team work closely with the Capita DC Back Office Team to identify these payments and send them for investment within two working days of receipt.

Members can transfer out their Investment Builder funds to another registered pension scheme at any time, subject to none of their funds being in payment. Members can initiate a transfer by completing a form available online, following which the scheme aims to complete its due diligence procedures and make the transfer within 15 working days (excluding any time allocated to dialogue and correspondence with the receiving scheme).

Chair's defined contribution statement

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Switching of investments

Switching of investments happens quarterly for those members with funds invested in the scheme's lifestyle options and who are within 10 years from their TRA. The switches operate in line with the scheme's glidepaths, which stipulate the gradual movement of investments from higher to lower risk funds. Automatic switches are sample checked by Capita and the USS Pension Operations team to ensure they have been completed in accordance with the glidepaths.

Members can also voluntarily switch investments between funds via a digital form on the member portal, My USS. Switches are transacted within one working day of the member's instruction. Controls are in place to ensure that voluntary switches are executed to the member's instruction and completed within expected timescales.

Members can choose to switch funds invested with the MPAVC provider (Prudential) into the Investment Builder. Once payments have been received, they are sent for investment within two days of receipt.

Payment of pensions and other amounts to members

Disinvestment of members' DC funds are completed within three working days from the point where all preparatory work for the payment to members has been completed by our Pensions Operations team.

Pension commencement lump sum (PCLS) and Uncrystallised Funds Pension Lump Sum (UFPLS) payments are made directly to members' bank accounts from the scheme. Once a payment request has been confirmed, payment of a PCLS is made on the first working day following the member's date of retirement and regular pension payments are made on the 21st of each month. UFPLS payments also go through the pension payroll, however, USS operates a daily payroll cycle for these payments to ensure that they are paid to members in the shortest time possible.

During the scheme year, one material issue arose in relation to a breach of the requirement to process core transactions promptly and accurately. This breach was in respect of an exclusion of pensioner members from quarterly lifestyle switches; limited to a very small proportion of members who had retired and commenced receipt of a pension in respect of their Retirement Income Builder (the defined benefits section of the scheme) benefits but had uncrystallised Investment Builder assets invested in the default or ethical lifestyle funds. Due to administration system design limitations, these members' assets were 'frozen' on the default glidepath at the point of retirement when they should have continued to switch along the glidepath each quarter.

A full remediation exercise was concluded, including frequent reporting to The Pensions Regulator (TPR), which saw a full system fix introduced and a comprehensive exercise completed to ensure members were not financially disadvantaged by the error in line with the scheme's DC Errors Omission Policy, with any losses being small in proportion to overall fund holdings. The breach was formally closed down in April 2023 with TPR being satisfied that remediation activities had been successful concluded.

Quality controls

The trustee ensures that core financial transactions are processed promptly and accurately by:

- Defining the timescales and associated Service Level Agreements (SLAs) both internally and with the third-party service providers (see below) that accord with The Pensions Regulator's DC Code of Practice number 13 (Governance and administration) and The Occupational Pension Schemes (Scheme Administration) Regulations 1996
- Requiring monthly reporting and assessment against the SLAs
- Designing appropriate and effective controls to mitigate the risk of inaccurate or protracted transactions, including peer review of all transactional processes
- Identifying errors or delays that have affected Investment Builder investments or core financial transactions and rectifying these in conjunction with the scheme's DC Errors & Omissions Policy
- Completing monthly reviews of the effectiveness of the controls and the timeliness of information processing, performance against SLAs and the accuracy of transactions, which are carried out by the DC administration team – the results are reported to various committees including the Pensions Executive Committee
- Coordinating quarterly assessments of risks and controls to ensure they remain appropriate and robust
- Completing monthly reconciliation exercises to ensure that unit holdings are consistent between the administration platform and the fund manager (Northern Trust)
- Carrying out regular data review exercises to ensure that the data held in relation to members' DC benefits is complete and accurate, with conditional data reviewed on a monthly basis and additional checks carried out on other data at least four times a year to ensure that fund choices, values and all key Statutory Money Purchase Illustration (SMPI) data requirements are present and correct
- Developing a DC assurance dashboard to comprehensively and frequently assess the accuracy of members' core DC data held on the administration platform and to provide an extra layer of assurance
- Leveraging assurance reviews completed by the USS Internal Audit and Compliance teams who carry out periodic risk-based audits across key processes and controls
- Commissioning an external annual audit (performed by Ernst & Young LLP) to provide external assurance that the financial statements are free from material misstatement

The trustee also routinely considers administration of the scheme on a quarterly basis. Failure to process financial transactions promptly and accurately is recognised as a risk on the risk register. Risk is considered quarterly at Trustee Board via a risk appetite dashboard and a summary of risk status from the executive. Records of any issues in this area are also kept and the need to report any failures to The Pensions Regulator, or events likely to be of interest to the regulator, is considered and documented.

Information Security

USS has multiple controls to ensure scheme members' data is secure and processed in accordance with the Data Protection Act 2018 and other data protection requirements, including:

- Senior management commitment to Information Security and Data Protection, with oversight and sign-off of key policies
- A dedicated Information Security team
- Ongoing maintenance of the international information security accreditation, ISO 27001
- Delivery of regular Information Security and Data Protection education and awareness training to employees
- Implementation of appropriate technical and organisational cyber controls

Controls also extend to oversight of key suppliers and their information security and privacy risks for the work they carry out on behalf of USS.

4 Value for members

Costs and charges

Charges and transaction costs borne by members can have a significant impact on the value of their Investment Builder funds. In recognition of this, the approach to, and appropriate level of member charges was subject to extensive discussion as part of the design of the Investment Builder and are benchmarked against a range of other DC schemes at least annually, as are the services offered by the scheme in exchange.

Typically, the majority of members who are invested in the Investment Builder do not incur any direct charges. This is because employers meet all administration costs of the scheme, which carries a notional cost of 0.20%. They also subsidise investment costs up to 0.30% on all funds resulting from normal and additional contributions.

In practice, this means the charges for nearly all of the funds offered are covered entirely by the scheme subsidy. Funds resulting from transfers into the scheme, and funds built with legacy AVCs that remain managed by Prudential, do not qualify for this subsidy and therefore incur a charge on funds under management as set out in the tables on page 97.

USS Default Lifestyle Option – notional charges

While employers meet the majority of the costs of Investment Builder on members' behalf, for transparency, estimated notional charges for the Investment Management Charges are included below to demonstrate what members would pay if they met these costs.

The trustee reviews this notional charge on an annual basis and benchmarks it against the wider industry, noting the challenges in direct cost comparisons arising from the scheme's hybrid status and the additional complexity of running such an arrangement. A review of the level of the notional charges was completed in May 2023.

The notional charging structure for the USS Default Lifestyle Option is a single notional charge of 0.50% of the member's fund value, including 0.30% for investment management charges and 0.20% in respect of pension management and other services provided by the scheme.

In the 12 months to 31 March 2023 the trustee made several changes to the underlying investment managers within the Do It For Me and Let Me Do It options. Value for members was a key consideration when these changes were being proposed and approved.

Self-select options

The trustee has considered the cost and charges of the Let Me Do It options, including the USS Ethical Lifestyle Option, and compared these to those for the USS Default Lifestyle Option. Investment cost is based on the member's total fund value for the self-select fund options, and charges (pre-subsidy) range from 0.10% to 0.30%, as shown in the tables on page 97.

Transaction costs

This section of the Chair's DC Statement reflects the latest legal requirements and the October 2022 DWP guidance in this area, which the trustee has taken into account, along with other regulatory guidance issued from time to time.

Transaction costs are the costs associated with buying and selling units within a fund. There are three components (the first two of which are one-off costs):

- Purchase costs – these are the costs of making new investments into a fund
- Selling costs – these are the costs of selling out of a fund
- Embedded costs – these costs can be explicit and therefore easily identifiable (such as taxes, levies, and broker commissions) or implicit and therefore less readily defined and may include the response of the market to a trade or the timing of a trade (market impact, opportunity cost, and delay costs)

Controls also extend to oversight of key suppliers and their information security and privacy risks for the work they carry out on behalf of USS.

There may be times when there is a negative embedded cost (in other words, a gain) shown due to market impact. The potential transaction costs for buying and selling funds vary over time and with market conditions. Transaction costs within the Investment Builder are minimised as far as possible by netting sales and purchases and using new cash flows for rebalancing funds to their target allocation.

Chair's defined contribution statement
Continued

The Cost Transparency Initiative (CTI) is an industry body overseeing the introduction of standardised templates for reporting of costs and charges by suppliers of investment services. The trustee has adopted their templates for the purpose of collecting transaction cost information from the external investment managers.

Without exception, the external investment managers have all provided the requested data in this format for the period 1 January 2022 to 31 December 2022. The data collected for periods prior to 1 January 2019 used the DC workplace pensions template developed by the industry working group for the purpose of providing insurers with transaction cost data in accordance with COBS 19.8.4R. The trustee continues to build up transaction cost data each year in line with TPR guidance.

The embedded transaction cost data provided for the funds in the AVC arrangement with Prudential was an aggregate figure rather than being collected via the CTI template. The transaction cost data received for the period 1 January 2022 to 31 December 2022 has been aggregated with data from prior periods (as described above) to calculate the average transaction costs shown in the tables and illustrations on pages 97 to 101.

The tables on the following pages provide the details of the (pre-subsidy) investment management costs and specific transaction costs for both the USS Default Lifestyle Option and the Let Me Do It funds (including the USS Ethical Lifestyle Option).

As mentioned above, no members pay the 0.20% notional cost of pension management services applicable to all of the scheme's funds, so this cost has not been included in the tables below, however the notional 0.30% Investment Management Charge that is covered by the employer subsidy has been included because it is not guaranteed to last all the way to a member's retirement. Sale and purchase costs for the USS DC Funds range up to 0.17% for the USS Default Lifestyle Option and up to 0.17% in the USS Ethical Lifestyle Option. Exact costs will depend on the particular funds members are invested in, whether they are buying or selling and the day on which they deal.

The costs apply to the investment of contributions, requests by members to switch between funds or disinvest funds, automatic switching as part of the scheme's lifestyle options and transferring assets in from schemes outside USS. Transaction costs include advisory fees, commissions and stamp duty (stamp duty is applicable on property and UK equity purchases only, not sales).

Overall value for members

Delivering good value for both employers (who subsidise the costs of the Investment Builder) and members is fundamental to the scheme.

In designing and managing the Investment Builder, the trustee focused on using the scheme's scale and expertise to deliver a high quality, cost-effective DC arrangement as part of the overall hybrid scheme.

For the fourth year running the trustee has worked with Redington to undertake a value for member benchmarking exercise with Master Trust peers to assess the scope and quality of services being provided.

Assessment framework

The Redington benchmarking exercise considered our performance alongside that of the six peers across six service characteristics compared to the value members receive for those services. This was based on a completed questionnaire and additional insight gained from meetings with USS management.

Weightings were agreed for the service characteristics to reflect what matters most to members' retirement outcomes. Administration and Investment capabilities were given the greatest weighting. This information is considered alongside the performance of the Investment Builder investment options.

The trustee is satisfied that the quality of the Investment Builder product and service is high relative to both the costs of running it and the charges borne by members pre- and post-subsidy, and that the scheme offers good value for members.

The Redington assessment, relative to peers, showed the greatest improvement in Administration. The single point of contact for DB and DC members was noted as a key differentiator and the shorter processing target times and strong SLA performance was noted.

The Investment Builder continues to score highest in the Investment category, with robust controls and innovations in areas such as private markets investments and climate tilted equities within the USS Default Lifestyle Option.

Overall, the Redington assessment concluded that the scheme continues to rate ahead of the other master trusts assessed. The trustee uses the Redington assessment, alongside input from advisers, employers and members to strive to continually improve and enhance the Investment Builder product so that it continues to demonstrate and deliver good value for members.

Transaction costs and charges for the year ended 31 March 2023

Funds in the USS Default Lifestyle Option

Fund	Transaction costs and charges (%) IMC	Purchase (max)	Sale (max)	Embedded
USS Growth	0.30	0.17	0.04	0.06
USS Moderate Growth	0.30	0.17	0.05	0.07
USS Cautious Growth	0.30	0.13	0.05	0.07
USS Liquidity	0.10	0.00	0.00	0.02

Funds in the USS Ethical Lifestyle Option

Fund	IMC	Purchase (max)	Sale (max)	Embedded
USS Ethical Growth	0.30	0.11	0.09	0.09
USS Ethical Moderate Growth	0.30	0.15	0.14	0.06
USS Ethical Cautious Growth	0.30	0.17	0.16	0.05
USS Ethical Liquidity	0.10	0.00	0.00	0.02

Self-select Funds

Fund	IMC	Purchase (max)	Sale (max)	Embedded
USS Growth	0.30	0.17	0.04	0.06
USS Moderate Growth	0.30	0.17	0.05	0.07
USS Cautious Growth	0.30	0.13	0.05	0.07
USS Liquidity	0.10	0.00	0.00	0.02
USS Bond	0.20	0.24	0.00	0.05
USS UK Equity	0.10	0.56	0.06	0.04
USS Global Equity	0.10	0.02	0.02	0.01
USS Emerging Markets Equity	0.30	0.14	0.18	0.12
USS Ethical Equity	0.30	0.08	0.05	0.11
USS Sharia	0.30	0.00	0.00	0.03

Funds in an AVC arrangement with Prudential

Fund	IMC	Purchase (max)	Sale (max)	Embedded
With-Profits Cash Accumulation	Up to 1%	N/A	N/A	0.10
Deposit	N/A	N/A	N/A	0.00
International Equity	0.65	0.18	0.17	0.09
UK Equity	0.65	0.68	0.21	0.00
Index-Linked	0.65	0.34	0.34	0.17
Discretionary	0.65	0.32	0.19	0.08
Fixed Interest	0.65	0.07	0.06	0.00
LGIM Ethical Global Equity Index	0.85	0.05	0.03	0.00
UK Equity Passive	0.45	0.64	0.14	0.08
Cash	0.65	0.00	0.00	0.00

Notes for the transaction cost information included in the tables above:
1 Purchases and sale costs are maximum costs. Actual realised costs may be much lower.
2 A negative embedded cost indicates a positive impact, i.e. a gain. This may be due to implicit costs such as market timings.
3 IMCs and embedded fees are calculated on a per annum basis, sales and purchases are one-off costs.
4 Prudential embedded transaction costs are the average over the period from January 2018 to 31 December 2022.

Chair’s defined contribution statement

Continued

Net Investment Returns
The trustee is required to provide net investment returns for funds that members were invested in during the scheme year to 31 March 2023, including the USS default investment option. The trustee has taken account of statutory guidance when preparing this section of the statement.

The historic net investment returns shown are not a guide to future returns, which may vary over time.

Funds/Investment Options in the Investment Builder
As set out in more detail in the sections above, employers currently subsidise investment costs up to 0.30% on all Investment Builder funds resulting from normal and additional contributions. Investment Builder funds resulting from transfers into the scheme, and funds from legacy AVCs that remain managed by Prudential, do not qualify for this subsidy. Therefore, the investment returns in the following tables are shown both before (within brackets) and after (outside of brackets) the scheme subsidy to reflect that the net investment returns experienced by members will be dependent on the extent to which their funds are covered by the subsidy. We have shown the net investment returns over one-year and five-year periods to 31 March 2023 only.

Funds in an AVC arrangement with Prudential
The legacy AVC funds do not include a lifestyle option and do not qualify for the subsidy. The investment returns presented for these funds are therefore net of costs and charges.

Net investment returns

Funds/Investment Options in the Investment Builder

	5 years (%p.a.) to 31 March 2023		
	Age as at 31 March 2018		
Fund / Investment Option	25 year old	45 year old	55 year old
USS Default Investment Option	5.8 (5.5)	5.8 (5.5)	3.5 (3.2)
USS Ethical Investment Option	7.9 (7.6)	7.9 (7.6)	4.6 (4.3)
USS Growth	5.8 (5.5)	5.8 (5.5)	5.8 (5.5)
USS Moderate Growth	4.5 (4.2)	4.5 (4.2)	4.5 (4.2)
USS Cautious Growth	2.8 (2.5)	2.8 (2.5)	2.8 (2.5)
USS Liquidity	0.8 (0.7)	0.8 (0.7)	0.8 (0.7)
USS UK Equity	4.5 (4.4)	4.5 (4.4)	4.5 (4.4)
USS Global Equity	10.5 (10.4)	10.5 (10.4)	10.5 (10.4)
USS Emerging Markets Equity	2.4 (2.1)	2.4 (2.1)	2.4 (2.1)
USS Ethical Equity	11.7 (11.4)	11.7 (11.4)	11.7 (11.4)
USS Sharia	15.1 (14.8)	15.1 (14.8)	15.1 (14.8)
USS Bond	0.3 (0.2)	0.3 (0.2)	0.3 (0.2)

Source: USS Funds – USS Investment Management. Returns shown are annualised geometric mean returns

	1 year (%) to 31 March 2023		
	Age as at 31 March 2022		
Fund / Investment Option	25 year old	45 year old	55 year old
USS Default Investment Option	-0.9 (-1.2)	-0.9 (-1.2)	-2.5 (-2.7)
USS Ethical Investment Option	-5.7 (-5.9)	-5.7 (-5.9)	-5.2 (-5.5)
USS Growth	-0.9 (-1.2)	-0.9 (-1.2)	-0.9 (-1.2)
USS Moderate Growth	-2.6 (-2.9)	-2.6 (-2.9)	-2.6 (-2.9)
USS Cautious Growth	-4.9 (-5.2)	-4.9 (-5.2)	-4.9 (-5.2)
USS Liquidity	2.3 (2.2)	2.3 (2.2)	2.3 (2.2)
USS UK Equity	3.2 (3.1)	3.2 (3.1)	3.2 (3.1)
USS Global Equity	-0.4 (-0.5)	-0.4 (-0.5)	-0.4 (-0.5)
USS Emerging Markets Equity	-6.1 (-6.4)	-6.1 (-6.4)	-6.1 (-6.4)
USS Ethical Equity	-4.7 (-5.0)	-4.7 (-5.0)	-4.7 (-5.0)
USS Sharia	-2.7 (-3.0)	-2.7 (-3.0)	-2.7 (-3.0)
USS Bond	-5.7 (-5.9)	-5.7 (-5.9)	-5.7 (-5.9)

Source: USS Funds – USS Investment Management. Returns shown are annualised geometric mean returns

Funds in an AVC arrangement with Prudential

Fund / Investment Option	1 Year (%)	5 Years (% p.a)	10 Years (% p.a)	15 Years (% p.a)	20 Years (% p.a)
With-profits Cash Accumulation	4.5	4.9	5.7	6.6	6.6
Deposit	2.1	0.8	0.6	0.8	1.8
International Equity	1.9	6.5	8.9	8.3	10.3
UK Equity	-0.9	3.5	5.1	5.8	7.6
Index Linked	-30.1	-4.0	1.7	4.3	4.9
Discretionary	-4.4	3.7	6.0	6.3	7.9
Fixed Interest	-16.4	-3.2	0.4	2.6	3.0
LGIM Ethical Global Equity	-0.2	11.5	11.1	N/A	N/A
UK Equity Passive	-2.4	4.6	5.4	5.7	7.8
Cash	1.6	0.1	-0.1	0.2	1.2

Source: Prudential – USSIM calculations. Returns shown are annualised geometric returns. Investment returns data was not available covering periods of more than 20 years. As such we have shown net investment returns to 31 March 2023 over a 1-year, 5-year, 10-year, and 20-year period. Prudential were able to provide investment returns after allowing for the impact of certain fund charges and further costs, but before the deduction of the Investment Management Charge. USS calculations include the deduction of charges and transaction costs shown on page 97.

The value of a member’s With-Profits policy can change by more or less than the underlying net investment return of the overall fund. The above table therefore shows average overall returns experienced by policyholders, which combine the previously declared regular bonus and final bonus applicable to a fund withdrawn to provide benefits from 15 March 2023 subject to any further bonuses notified by Prudential after the scheme year end. Prudential With-Profits policies are currently subject to a fund charge of 1% p.a. The fund charge and any transaction costs are allowed for in the overall returns shown in the above table.

Illustration of costs and charges
The trustee is required to provide an illustrative example of the cumulative effect over time, of the application of the transaction costs and charges on the value of a member's Investment Builder savings.

Members automatically make contributions into the Investment Builder at the point where their salary exceeds the salary threshold (£40,000 for the 2022/23 financial year and £41,004 for the 2023/24 financial year).

All members (including those with earnings below this threshold) can elect to make additional contributions into the Investment Builder.

The potential impact of costs and charges across three different investment examples is set out on the following pages, for five member profiles.

The examples illustrate the costs and charges borne by each member whose entire funds are invested in one of the funds named below only (and not a combination of the different options):

(i) USS Default Lifestyle Option

(ii) USS Emerging Markets Equity Fund (highest charging self-select fund with the highest expected return)

(iii) USS Liquidity Fund (lowest charging self-select fund with the lowest expected return)

It is important to note that for the purposes of the illustration we have assumed that members meet all investment management costs, even though employers currently subsidise most of the fees a member would otherwise pay for investing in the Investment Builder.

The trustee has taken account of statutory guidance when preparing this section of the statement.

Member 1: Member who joins the scheme age 30 with a starting salary of £40,000 and makes normal contributions (but no additional contributions) until accessing their Investment Builder funds at age 66 (Normal Pension Age)

Investment in USS Default Lifestyle Option

Years in scheme	Before charges and costs £	After all charges and costs £	After all charges and costs %
1	–	–	–
3	118	117	99.5
5	873	867	99.3
10	6,199	6,118	98.7
15	17,416	17,087	98.1
20	35,955	35,055	97.5
25	63,515	61,530	96.9
30	101,212	97,345	96.2
35	146,505	140,019	95.6
36	155,917	148,818	95.4

Investment in USS Emerging Markets Equity Fund (highest charging fund)

Years in scheme	Before charges and costs £	After all charges and costs £	After all charges and costs %
1	–	–	–
3	119	119	99.3
5	893	886	99.1
10	6,499	6,405	98.4
15	18,736	18,330	97.7
20	39,729	38,573	97.5
25	72,168	69,510	96.1
30	119,447	114,087	95.3
35	185,838	175,954	94.4
36	201,860	190,433	94.1

Investment in USS Liquidity Fund (lowest charging fund)

Years in scheme	Before charges and costs £	After all charges and costs £	After all charges and costs %
1	–	–	–
3	114	114	99.9
5	827	825	98.8
10	5,552	5532	99.6
15	14,744	14,665	99.5
20	28,759	28,555	99.3
25	47,993	47,571	99.1
30	72,883	72,123	99.0
35	103,913	102,665	98.8
36	110,902	109,553	98.8

Chair's defined contribution statement

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Member 2: Member who joins the scheme age 30 with a starting salary of £30,000 and makes additional voluntary contributions of 2% from entering the scheme as well as normal contributions when salary exceeds the prevailing salary threshold until accessing their Investment Builder funds at age 66 (Normal Pension Age)

Investment in USS Default Lifestyle Option

Years in scheme	Before charges and costs £	After all charges and costs £	%
1	618	614	99.5
3	1,944	1,928	99.1
5	3,400	3,360	98.8
10	7,673	7,516	97.9
15	12,989	12,610	97.1
20	20,480	19,734	96.4
25	33,962	32,594	96.0
30	54,631	52,216	95.6
35	81,500	77,619	95.2
36	87,332	83,104	95.2

Investment in USS Emerging Markets Equity Fund (highest charging fund)

Years in scheme	Before charges and costs £	After all charges and costs £	%
1	626	623	99.5
3	2,000	1,982	99.1
5	3,549	3,502	98.7
10	8,309	8,115	97.7
15	14,606	14,113	96.6
20	23,803	22,781	95.7
25	40,236	38,286	95.2
30	66,437	62,885	94.7
35	105,338	99,123	94.1
36	114,951	107,835	93.8

Investment in USS Liquidity Fund (lowest charging fund)

Years in scheme	Before charges and costs £	After all charges and costs £	%
1	597	596	99.9
3	1,818	1,814	99.8
5	3,075	3,064	99.7
10	6,387	6,349	99.4
15	9,963	9,878	99.1
20	14,712	14,560	99.0
25	23,726	23,467	98.9
30	37,572	37,144	98.9
35	56,645	55,957	98.8
36	61,125	60,381	98.8

Member 3: Member who joins the scheme age 50 with a starting salary of £80,000, transfers in a starting pot of £100,000, and who makes normal contributions (but no additional contributions) until accessing their Investment Builder funds at age 66 (Normal Pension Age)

Investment in USS Default Lifestyle Option

Years in scheme	Before charges and costs £	After all charges and costs £	%
1	110,954	110,561	99.6
3	134,814	133,479	99.0
5	161,446	158,938	98.4
10	239,446	232,681	97.2
15	326,856	314,310	96.2
16	344,181	330,303	96.0

Investment in USS Emerging Markets Equity Fund (highest charging fund)

Years in scheme	Before charges and costs £	After all charges and costs £	%
1	112,532	112,080	99.6
3	140,269	138,694	98.9
5	171,879	168,843	98.2
10	270,585	262,001	96.8
15	403,520	385,677	95.6
16	434,994	413,960	95.2

Investment in USS Liquidity Fund (lowest charging fund)

Years in scheme	Before charges and costs £	After all charges and costs £	%
1	107,273	107,152	99.9
3	122,650	122,262	99.7
5	139,166	138,477	99.5
10	185,704	184,102	99.1
15	240,279	237,504	98.8
16	252,221	249,177	98.8

Member 4: Member who joins the scheme age 40 with a starting salary of £60,000 and makes normal contributions (but no additional contributions) until leaving the scheme at age 50, and remaining as a deferred member until accessing their Investment Builder funds at age 66 (Normal Pension Age)

Investment in USS Default Lifestyle Option

Years in scheme	Before charges and costs £	After all charges and costs £	%
1	3,910	3,891	99.5
3	12,813	12,705	99.2
5	23,260	22,988	98.8
10	57,029	55,909	98.0
15	65,877	63,485	96.4
20	75,380	71,355	94.7
25	83,024	77,250	93.0
26	84,037	77,917	92.7

Investment in USS Emerging Markets Equity Fund (highest charging fund)

Years in scheme	Before charges and costs £	After all charges and costs £	%
1	3,966	3,945	99.5
3	13,177	13,056	99.1
5	24,252	23,938	98.7
10	61,518	60,142	97.8
15	76,261	73,107	95.9
20	94,537	88,867	94.0
25	117,192	108,025	92.2
26	122,337	112,121	91.6

Investment in USS Liquidity Fund (lowest charging fund)

Years in scheme	Before charges and costs £	After all charges and costs £	%
1	3,781	3,776	99.9
3	11,989	11,963	99.8
5	21,084	21,016	99.7
10	47,897	47,625	99.0
15	46,740	46,212	98.9
20	45,612	44,840	98.3
25	44,510	43,510	97.8
26	44,293	43,249	97.6

Member 5: Member who joins the scheme age 20 with a starting part-time salary of £10,000 and makes additional voluntary contributions of 1% from entering the scheme as well as normal contributions when salary exceeds the prevailing salary threshold until accessing their Investment Builder funds at age 66 (Normal Pension Age)

Investment in USS Default Lifestyle Option

Years in scheme	Before charges and costs £	After all charges and costs £	After all charges and costs %
1	103	102	99.5
3	324	321	99.1
5	567	560	98.8
10	1,279	1,253	97.9
15	2,165	2,102	97.1
20	3,258	3,135	96.2
25	4,598	4,384	95.3
30	6,230	5,885	94.5
35	8,208	7,683	93.6
40	10,499	9,728	92.7
45	12,751	11,705	91.8
46	13,148	12,046	91.6

Investment in USS Emerging Markets Equity Fund (highest charging fund)

Years in scheme	Before charges and costs £	After all charges and costs £	After all charges and costs %
1	104	104	99.5
3	333	330	99.1
5	592	584	98.7
10	1,385	1,352	97.7
15	2,434	2,352	96.6
20	3,808	3,639	95.6
25	5,591	5,283	94.5
30	7,890	7,368	93.4
35	10,837	9,998	92.3
40	14,598	13,302	91.1
45	19,378	17,433	90.0
46	20,478	18,342	89.6

Investment in USS Liquidity Fund (lowest charging fund)

Years in scheme	Before charges and costs £	After all charges and costs £	After all charges and costs %
1	100	99	99.9
3	303	302	99.8
5	512	511	99.7
10	1,064	1,058	99.4
15	1,660	1,646	99.1
20	2,305	2,280	98.9
25	3,004	2,964	98.7
30	3,762	3,704	98.5
35	4,586	4,506	98.3
40	5,483	5,380	98.1
45	6,461	6,332	98.0
46	6,666	6,532	98.0

Notes on illustrations above and the previous page:

1 Starting pot criteria is as follows:
   a) Members 1, 2, 4 and 5: starting pot criteria is nil and no funds are transferred in.
   b) Member 3: starting pot criteria is £100,000 of transferred in funds. No further funds are transferred in.
2 All members retire at age 66 and funds are then fully disinvested, with no early withdrawals.
3 For the purposes of this illustration it is assumed that investment management charges apply, even though employers currently fully subsidise most of the fees that a member would otherwise pay for investing in the Investment Builder. This approach has been taken because there is no guarantee that employers will continue the subsidy in the future, so it provides a more prudent estimate of the impact of charges.
4 Values shown are illustrations and actual experience will depend on investment returns, as well as realised charges and costs.
5 Projected pension pot values are shown in today's prices, and do not need to be reduced further for the effect of future inflation.
6 Inflation is assumed to be 2.5% per annum as prescribed in the Statutory Money Purchase Illustrations.
7 Normal contributions are assumed to be 20% per annum in excess of salary cap (8% employee and 12% employer). It is assumed that there are no contribution holidays for any of the five members and no additional contributions are made by members 1, 3 or 4. Member 2 is assumed to make 2% additional voluntary contribution from entering the scheme. Member 5 is assumed to make 1% additional voluntary contributions from entering the scheme.
8 Salary increases are assumed to be 4.5% per annum.
9 The projected growth rate for the USS Default Lifestyle Option is 5.5% up to 10 years prior to retirement, reducing to 5.0% at 5 years prior to retirement, and 4.0% at 1 year prior to retirement. The projected growth rate for the USS Emerging Markets Equity Fund is 7.0%. The projected growth rate for the USS Liquidity Fund is 2.5%. These are consistent with the assumptions used in calculating members' Statutory Money Purchase Illustrations issued for scheme year ending 31 March 2023 and before 1 October 2023.
10 The above illustrations take account of property management expenses as these are embedded within the projected growth rate of the relevant fund; they are not included within the percentages in the tables on page 97.
11 Year 1 represents the year ending 31 March 2024, with a pertaining salary threshold of £41,004.

Members typically face minimal charges, as administrative costs are met in full by the employer and investment costs are currently fully subsidised (other than for funds transferred in) for members in all Investment Builder funds. Even in a case where a member does face some charges, for example a member who has transferred funds into the scheme, the trustee assesses that the charges for investment management represent value for members.

The trustee continues to identify and implement improvements to the products and services we offer members. In 2023/24 we are focusing on the following developments:

- Continuing to segment member communications to allow us to tailor communications that are most relevant to members, including those with Investment Builder funds at different stages of their journey
- Improving our member decision support solutions by introducing new digital tools and calculators to help members understand their pension benefits and options
- Continuing to digitise a number of our core journeys to make it easier and quicker for members to interact with USS, and also encourage them to use online resources to support their decision making
- More information on our member services can be found on pages 12 to 15.

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5 Trustee knowledge and understanding

The Trustee Board is made up of a diverse and mixed range of individuals who collectively possess the broad range of skills needed for management and oversight of both the DC elements and DB elements of the hybrid scheme, and to ensure the proper exercise of their functions as trustee directors of the scheme. All Trustee Board members have been assessed as Master Trust Scheme Strategists.

The Trustee Board includes members with significant expertise and recent and relevant practical experience in DB and DC pensions, investment, actuarial, governance, financial management, law, risk and compliance, IT, HR, stakeholder engagement and the Higher Education sector. A number are, or have been, trustees or executives of other DC or hybrid schemes and bring practical knowledge and experience of value for money assessments and criteria, pensions administration, investment management and developing member facing products and services within a DC context. There are also a number of board directors who are members of the scheme (active, deferred and pensioners), who help to support and contribute to the board's understanding of the views and needs of the scheme's membership.

The diversity of the Trustee Board allows individuals to challenge each other, the executive and advisers, offering different perspectives and solutions to matters.

In addition to the skills within the Trustee Board and the trustee's executive, we have also appointed a number of professional advisers who provide specialist support and advice. This includes the scheme's lawyers, auditors, actuary and investment consultants.

The trustee is committed to ensuring that its directors, both individually and collectively, have access to appropriate professional advice, and have and maintain all the necessary skills, knowledge, competence and understanding required for the effective performance of their role as Trustee directors. As part of this, each trustee director ensures that they:

- are conversant with all the key scheme documents (including the Scheme Rules, the Statement of Investment Principles, the default Statement of Investment Principles and the Statement of Funding Principles); and
- have an appropriate degree of knowledge and understanding of: (i) the law relating to pension schemes; (ii) of the principles relating to funding and investment; and (iii) risk management (including the risks to the scheme from climate change).

The Trustee Board has various procedures in place to facilitate this, which are detailed below.

A number of activities are undertaken each year to evaluate and enhance the individual and collective skills, knowledge, competence and experience of the Trustee Board. These activities facilitate compliance with The Pensions Regulator's DC Code of Practice number 7 (TKU) and number 13 (Governance and administration) and are summarised in the diagram below and further details appear on the following pages.

Trustee skills, knowledge and understanding: key tools

Skills matrix	Competency matrix	Induction
Training needs assessment and training programme	Annual appraisal process	Trustee Board/committee effectiveness reviews

Skills and competencies

On appointment and subsequently, trustee directors are required to maintain appropriate levels of knowledge and understanding, both individually and collectively, to ensure that the Trustee Board as a whole has the right combination of skills, knowledge and experience to fulfil its responsibilities. Each trustee director is assessed against the trustee's skills and competency matrices upon joining and every year as part of the annual director appraisal process. Any learning or development objectives are agreed as part of these annual appraisals and individual training arranged to rectify any actual or potential knowledge gaps (see further below).

An effectiveness review of the Trustee Board is usually carried out annually and of the board's standing sub-committees every two years. This is supplemented every two to three years by an externally facilitated review.

During the scheme year, the Trustee Board undertook an internally facilitated board effectiveness review. In this exercise the board reflected on various aspects of its governance and processes, as well as re-testing aspects of and actions arising from the externally facilitated effectiveness review completed in the prior year.

The Remuneration Committee also undertook an effectiveness review in November 2022 (see the Remuneration Committee report in the Governance supplement to the Report and Accounts). The actions arising from these reviews were overseen and monitored by the board's Governance & Nominations Committees.

In the 2023/24 scheme year, the board will undertake a combined board and committee effectiveness review facilitated by the governance team.

The Trustee Board has developed a skills matrix and competency matrix to assist it in identifying the skills and training required of the Trustee directors. The balance of the Trustee Board's knowledge, skills and experience is summarised in the skills matrix, which sets out the behaviours, knowledge, skills and experience that are required of the Trustee directors. In doing this, the Trustee Board also considers the strategic priorities in the business plan to identify any future areas of focus.

The Governance and Nominations Committee reviews the board competency and skills matrices annually (and in anticipation of changes to board membership).

It assesses whether or not the Trustee Board's collective competencies are appropriate to enable the trustee to properly exercise its functions and whether there are any gaps which should be filled by training, succession planning or other means. As part of this review, consideration is also given to whether the skills and knowledge of the Trustee Board's standing committees are appropriate or need supplementing.

Rigorous appointment processes are followed in respect of all trustee director appointments and reappointments (having regard to the board succession plan and competency matrix), including use of a role specification which highlights the skills, experience and behaviours required for the role. This helps to ensure that the directors collectively have appropriate competencies and that each director appointed is fit and proper.

Training

In addition to the review of individual directors' training and development needs during annual appraisals (as noted under the 'Skills and competencies' section of this report), the collective training needs of the Trustee Board and its committees are reviewed at least annually by the Governance and Nominations Committee (GNC). The GNC has responsibility for approving and overseeing the implementation of the annual board and committee training programme.

In compiling the annual training programme, consideration is given to a number of relevant matters including:

1. directors' completed skills matrices and any gaps identified
2. the scheme's business plan and business and strategic objectives
3. future board and committee agenda plans
4. legal and regulatory horizon scanning
5. regulatory guidance
6. feedback from directors, committee members and the executive

The training is compiled in this way in order to ensure that any actual or potential knowledge gaps are identified and rectified. The directors receive targeted training sessions delivered by both external industry experts and USS employees.

These formal training sessions are supplemented by additional (non-compulsory) educational sessions, open house events where the directors spend time with different areas of the business and the completion of mandatory e-learning modules. A log is maintained of all training undertaken by the trustee directors.

Trustee directors are also encouraged to attend additional external training events relevant to their specific areas of expertise and/or the committees on which they sit.

The trustee directors' working knowledge of the scheme's trust documentation, the latest Statements of Investment Principles, pensions and trust law, the principles of pension funding and investment, and assessment and management of climate change risks and opportunities is evidenced by the latest completed training needs analysis and supplemented by training for trustee directors.

Trustee directors receive training on a broad range of topics, including some that are DC specific. In addition to deep dive sessions and presentations from different teams across USS during the scheme year, training received by the trustee directors and its committees included the following topics:

- Cyber and IT Security Risk
- Developments in Master Trust Regulations
- Diversity and Inclusion
- Pension Schemes Act 2021
- Member engagement and experience
- Climate change, Environmental, Social and Governance ('ESG') and climate reporting
- Investment return forecasting
- Geopolitical risks
- Governance structures and how peer scheme in the UK and Canada approach pension scheme governance
- Low-cost benefit options
- DB pension scheme valuations and approaches
- Trustees' obligations towards members and beneficiaries when accessing or transferring DC benefits
- Educational sessions in preparation for the 2023 valuation, covering such themes as; Post Valuation Experience, scenario planning for potential outcomes, and setting assumptions relating to funding, demographic and the Integrated Risk Management Framework
- Leverage, collateral and cash management

At the end of the scheme year, the Governance and Nominations Committee concluded that, on balance, the training delivered was aligned to the scheme's strategic priorities, while at the same time provided timely information to the directors and committee members to allow them to discharge their duties and to facilitate decision making.

Induction

The scheme has a detailed induction process for new trustee directors, designed to ensure familiarity with the key scheme documents and sufficient knowledge and understanding of pensions and trust law, as well as the principles of pension scheme funding and investment (among other matters). This includes sessions with board members, members of the management team and key external advisers including on investment, pensions administration, actuarial, accounting, communications, risk and internal audit, compliance, legal and governance and the role of the Joint Negotiating Committee (JNC) and Advisory Committee.

This process is documented and is regularly reviewed by the Governance and Nominations Committee, which also oversees completion of the induction process by each new director.

Each new director is expected to devote significant time to their induction, which is tailored to reflect their individual level of knowledge and assessed by reference to their completion of the skills matrix.

The trustee's appointment and induction processes also require that any individual appointed to the Trustee Board completes TPR's Trustee Toolkit prior to commencement of their appointment (in line with TPR's Code of Practice 15). All of the current trustee directors have completed TPR's Trustee Toolkit. In addition, one trustee director has received accreditation from Pensions Management Institute (PMI) as a professional trustee and two trustee directors hold an award in trusteeship from the Association of Professional Pension Trustees (APPT).

Chair's defined contribution statement

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Advice and guidance

The combined knowledge of the Trustee Board is supported by the USS Executive Management Team (which includes a range of professionals from various disciplines including: legal, actuarial and risk and compliance) as well as external professional advisers.

The Scheme Actuary and the Group General Counsel generally attend all Trustee Board meetings ensuring that the board has access to timely actuarial and legal advice. The trustee's principal investment manager and adviser is USS Investment Management Ltd ("USSIM"). The trustee also receives the benefit of independent investment advice in relation to members' DC benefits provided by Lane Clark & Peacock LLP. Both USSIM and the scheme's external investment advisers generally attend each meeting of the Investment Committee. In addition, other professional advisers attend meetings of the Trustee Board and its other committees on an ad hoc basis when required.

Non-affiliation of trustee directors

The scheme is a multi-employer trust-based pension scheme and as such it is required to comply with additional requirements in relation to governance. These include that the majority of the trustee directors (including the chair) must be 'non-affiliated'. The Trustee Board has considered these requirements and determined that, with the exception of Dr Alain Kerneis, all directors (including the chair) acting during the scheme year are 'non-affiliated' trustees for the purpose of the legislation. Dr Alain Kerneis is considered an 'affiliated director' as he is a director of both the trustee and the trustee's subsidiary, USSIM. Therefore, during the year, 11 directors out of 12 were classed as non-affiliated trustees and the requirement for a majority of non-affiliated directors has been satisfied. This means that we have carefully considered any links that the directors may have with companies providing services to the scheme and reviewed the procedures in place for managing any conflicts of interest that may arise.

We have also reviewed the length of service on the Trustee Board and confirmed that no director who is regarded as non-affiliated has been in his or her post for longer than the requisite time limits, and that each has either been appointed or reappointed through an open and transparent process or their appointment or reappointment preceded these requirements.

The trustee director appointment procedures, which reflect legislative requirements, ensure that the trustee has oversight and suitable control over the appointment process for all directors and that every director appointment or reappointment satisfies the 'open and transparent' criteria.

During the scheme year ending 31 March 2023, two non-affiliated trustee directors were subject to a reappointment process as follows:

- During the financial year, two directors were nominated for reappointment by UUK (Mr. Will Spinks with effect from 1 September 2022 and Mr. Gary Dixon with effect from 1 April 2023)
- The appointment/reappointment process for UUK-appointed directors or UCU-appointed directors is led by UUK or UCU, respectively, with the involvement of the trustee, and follows the same process as that for the appointment of independent directors subject to certain minor modifications as explained below
- These roles were advertised in national newspapers and on websites open to the public such as LinkedIn. Recruiters specialising in the academic sector were also used
- Applicants were shortlisted by reference to the criteria of the relevant role profiles and shortlisted candidates interviewed and assessed against a common scorecard by a UUK led interview panel, which also included the chair of the USS Governance and Nominations Committee. The Chair of the Trustee Board was also consulted on the proposed reappointments
- The Governance and Nominations Committee and the Trustee Board then reviewed and approved the reappointment of Mr. Spinks and Mr. Dixon

No UCU or independent directors were appointed or reappointed during the financial year.

6 Member communications, engagement and representation

We are proactive in our communications to members and have a communications strategy that is designed to engage, educate, and support members in making key decisions throughout their pensions journey, while building their knowledge of pensions basics along the way.

As well as meeting statutory disclosure requirements, we continuously seek to improve the overall member experience and reflect best practice identified by the Government, regulators, and the wider industry. A range of channels are used to communicate with members, including regular emails which point to a range of information and support on our website, the My USS member portal, and Annual Member Statements, including Statutory Money Purchase Illustration (SMPI) components, which are issued to active, deferred and pensioner members.

Website

Our website is a central source of information and support for members. As well as hybrid pensions information designed to help members get to grips with how their Income Builder (DB) and Investment Builder (DC) work together, it hosts a dedicated Investment Builder hub, that highlights specifically the benefits of the Investment Builder, how it works, investment options, charges, and how members can access their savings in a way that suits them. We have dedicated Investment Builder videos that look at what happens when you join the Investment Builder, investment choices, retirement options and how the Investment Builder works alongside the Retirement Income Builder to form the hybrid pension.

To increase visibility of investment performance we recently moved our Quarterly Investment Report from behind the My USS login, to the main website, so that all members can access this information. We have the ability for members to register for free webinars hosted by Mercer, that give members the opportunity to understand the Investment Builder in more detail, these are aimed at all members whether they are new to DC or have been saving for a while. And we regularly publish articles and videos to help members understand their DC savings as part of their hybrid pension.

My USS

Over three quarters of the scheme's active membership with Investment Builder funds were registered for My USS as at 31 March 2023. My USS allows active, deferred and pensioner (with remaining Investment Builder funds) members to manage their contributions and investment decisions, see the value and performance of their Investment Builder funds and view detailed fund information through fund factsheets. Members have access to a number of calculators and tools where they can estimate the value of their pension and factor in any additional savings they wish to make to the Investment Builder.

Emails

Throughout the scheme year, we continued to send regular emails to our members which included Investment Builder content. These emails were designed to engage, educate, and support members with a number of topics including Environmental, Social and Governance (ESG), Net Zero, fund benchmarks and reporting, the hybrid structure of USS, and features/charges within the Investment Builder. In total, 10 pieces of email content directly related to these subjects were deployed across the year.

To support members' understanding of the Investment Builder and the role it can play in their plans for the future, we produced a podcast in which members discussed their savings goals and how the Investment Builder supports them, we held a Mercer hosted webinar covering our journey to Net Zero, and produced a video designed to take members through what happens to their contributions and the key actions that they have to take about their DC savings, including setting a Target Retirement Age.

To further enhance our email communications, we are working on segmenting our active membership so that we can provide better personalised emails targeted at specific points in the pensions journey, this will include elements of DC specific targeting.

Combined Annual Member Statements

Following the success of last year's digital pilot, we rolled out online statements this year. We emailed active members to let them know their combined DB and DC Annual Member Statements for the year to 31 March 2022 were available online – most emails were sent by October 2022. Emails were personalised, with wording reflecting what pension savings members had, if they had exceeded their Annual Allowance, and whether they were registered for My USS. Only a small number of members that have opted out of receiving statutory communications digitally, received hard copy statements.

The emails signposted members to the location of their statements in My USS, where they could view their up to date pensions benefits, download their full statement, and access other sources of information and support, such as FAQs and calculators, and included an invite to an AMS webinar by hosted by Mercer, to help them get to grips with their statement.

All statements were personalised and highlighted specific benefits and/or calls to action. They also included information about the tax status of members' pensions in relation to annual and lifetime allowances, in order to support members with tax planning. We also met the statutory requirement to provide relevant members with Statutory Money Purchase Illustrations (SMPIs) during the scheme year.

Engagement with this year's statement exceeded KPIs set out by the project including email engagement, My USS registrations and log ins, and statement downloads.

Member feedback

USS ensures member experiences and views are at the heart of its decision-making and we encourage members to provide their feedback and make their views regarding the scheme known. UCU has the power (subject to the approval of the trustee) to appoint three directors to the Trustee Board. UCU also has a wide role representing members in connection with the scheme, both formally through the Joint Negotiating Committee (JNC) which approves and can initiate changes to Scheme Rules, and informally through regular discussions with the USS Executive Management Team.

The scheme gathers feedback from individual members in several ways. Members are given information on **USS.co.uk** about how to contact USS with any questions or comments online, by phone or by letter, and there is a specific number for the Member Service Team (MST) for members needing help with their benefits.

Members are also invited to provide specific feedback when they interact with their pension, for example, when using My USS or going through the retirement process. In 2022/23, the arrangements outlined above were supplemented by four large scale surveys of the active membership. These were designed to understand members' views about USS, including the options available in the Investment Builder, responsible investment, the quality of member communications, and other aspects of the products and services USS offers. The surveys included both structured questions and the ability to provide open feedback. USS also runs, via an independent research agency, a 'Member Voice' Panel, which provides a flexible and timely way of soliciting feedback from members, as well as giving members another route to raise non-sensitive issues that will be passed on to the executive.

Feedback from the surveys and the member panel has been shared with the Trustee Board and the scheme stakeholders through the JNC.

The trustee takes all member feedback seriously and through dedicated policy and member communications teams, continually assesses all of the channels (and their effectiveness) including through a dedicated Member Experience Forum, which reports regularly to the trustee's Pensions Committee.

Dame Kate Barker
Chair of the Trustee Board
20 July 2023

USS Default Lifestyle Option Statement of Investment Principles

1. Introduction

1.1 This is the Statement of Investment Principles of the Universities Superannuation Scheme ("USS" or "scheme") Default Lifestyle Option (the "Default SIP"). The USS Default Lifestyle Option is the default arrangement in relation to the USS Investment Builder ("DC Section"). Although the USS Default Lifestyle Option can be actively chosen by members as their investment strategy, as the default arrangement it is the investment strategy into which the contributions of members in the DC Section who do not make any investment decisions are paid.

1.2 Universities Superannuation Scheme Limited (the "trustee") has selected a lifestyle strategy as its default arrangement. Lifestyle strategies are designed to meet the divergent objectives of maximising the value of a member's assets at retirement and protecting the value of accumulated assets particularly in the years approaching retirement.

1.3 This Default SIP sometimes refers to the main Statement of Investment Principles (the "Main SIP") which covers the whole scheme. Copies of the Main SIP can be found in the "How USS invests" area of the scheme's website **uss.co.uk**.

2. The trustee's investment beliefs

2.1 The trustee maintains a set of Investment Beliefs available in the "How we invest" area of the scheme's website **uss.co.uk**. These beliefs form the basis of the trustee's investment principles as set out in Section 1.2 of the Main SIP and Default SIP.

2.2 In relation to the USS Default Lifestyle Option, the trustee's key beliefs are that:

2.2.1 The investment design of the default arrangement will take into account the hybrid benefit design and the benefit flexibility that members have up to and into retirement.

2.2.2 The asset allocation will adjust around a glide-path consistent with assumed member risk tolerance throughout the member's savings life-cycle. The default arrangement cannot capture all differences across individual members. However, a higher risk tolerance may be assumed when members are far from retirement, with the aim of increasing expected real returns and retirement savings. In later stages of the life-cycle, the accumulated investment pots will typically be greater and the ability to subsequently make good any material losses is reduced.

2.2.3 Asset Allocation and the timing of material changes are important drivers of a fund's financial outcomes. The asset allocation process for the USS Default Lifestyle Option balances diversified risks against the expected additional returns for exposure to these risks. The main sources of return for bearing risk ('risk premia') are expected to be equity, credit, illiquidity and complexity. Other exposures such as duration, inflation and foreign exchange offer less reliable risk premia but are expected to provide valuable sources of portfolio diversification. The asset mix should be reviewed periodically for suitability relative to evolving investment objectives and to take into account material changes to relative valuations across asset classes, which strongly influence long-run return prospects and risk of loss.

2.2.4 Private markets provide investment opportunities and structures not available in public markets. They may provide opportunities for additional returns (including illiquidity premia), diversification, protections or other desired characteristics relative to public market assets.

2.2.5 Diversification through effective portfolio construction allows risk to be mitigated and spread across a range of factors. This reduces the adverse impact of any one risk on a member's pension investments. There are limits, however, on overall risk-reduction from diversification and there are scenarios in which correlation between asset classes increases and diversification may be less effective.

3. Investment governance structure

3.1 The trustee applies the same governance structure it uses for the scheme as a whole to the USS Default Lifestyle Option. This is described in detail in Section 1.3 of the Main SIP.

3.2 Broadly, the trustee's governance structure focuses on embedding compliance with legislative requirements into agreements with investment and related service providers. The trustee's monitor compliance by having clear terms of reference for the board and sub-committees to which it delegates a number of tasks, supplementing this with appropriate formal investment advice where required.

4. Aims and objective of the USS Default Lifestyle Option

4.1 The main investment objectives in relation to the DC Section are described in detail in section 3.1 of the Main SIP. The USS Default Lifestyle Option aims to take a suitably controlled amount of risk to generate investment returns in order to provide a reasonable level of retirement benefits for members, taking into account the performance of asset markets and the level of contributions paid over a member's lifetime into the DC Section and recognising the hybrid nature of the scheme.

4.2 As well as the objectives set out in the Main SIP, the specific objectives of the USS Default Lifestyle Option are detailed below:

4.2.1 To focus particularly on generating returns in excess of inflation during the growth phase of the strategy (up to 10 years before retirement) with a degree of downside risk mitigation.

4.2.2 To provide a strategy that reduces investment risk in the consolidation phase for members between ten and five years before expected retirement.

4.2.3 To provide exposure, at retirement, to a portfolio of assets to align as much as possible with how a typical member is likely to use their savings at and into retirement.

4.2.4 To ensure sufficient liquidity to be able to pay benefits or transfers when required.

5. Investment strategy

5.1 Kinds of investment to be held

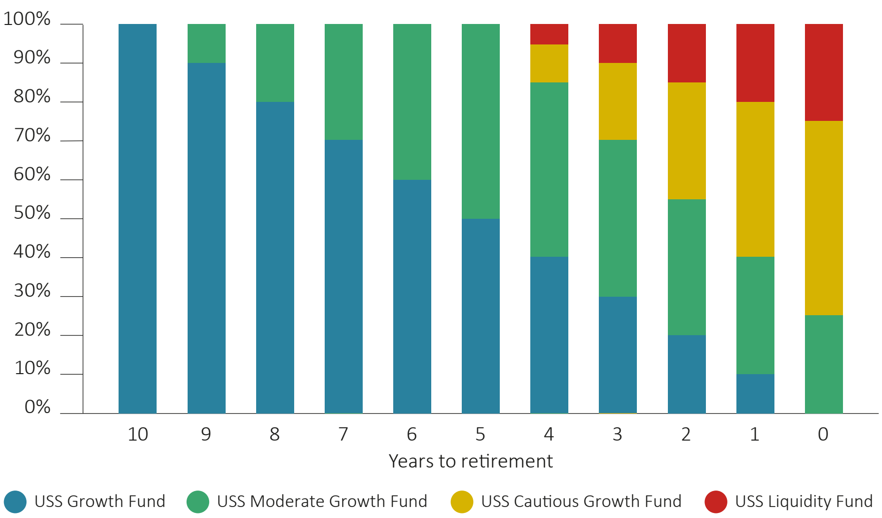
5.1.1 The main policies covering the kinds of investments to be held, the expected returns and the balance between different kinds of investments can be found in section 3.2 of the Main SIP.

5.1.2 The following are indicative descriptions of the type of investments that may be held by the different underlying funds comprising the Default Lifestyle Option:

- USS Growth Fund – will invest predominantly in growth assets, with an objective to provide long-term growth in excess of inflation to members, with some diversification to mitigate portfolio risk to a degree. Investments will be made in both public and private markets across a range of asset classes in order to take advantage of the opportunity to earn enhanced returns including a premium for illiquidity and the benefit of additional diversification.
- USS Moderate Growth Fund – will typically invest a majority in growth assets, with more diversification than the growth fund, and with an objective to provide long-term growth in excess of inflation to members from a balanced, more diversified portfolio of assets. Investments will be made in both private and public markets across a range of asset classes to increase diversification and enhance returns. This additional diversification aims to mitigate portfolio risk to a greater extent.
- USS Cautious Growth Fund – with an objective to provide stable growth at least in line with inflation to members from a portfolio of predominantly lower risk, income focussed assets, with some diversification, and minority exposure to growth assets. Investment will be made in both private and public markets across a range of asset classes to increase diversification and enhance returns.
- USS Liquidity Fund – typically aims to produce a return in line with its benchmark which represents short-term interest rates, principally from a portfolio of Sterling denominated cash, deposits and money market instruments.

5.1.3 Moving from the USS Growth Fund to the USS Moderate Growth Fund to the Cautious Growth Fund would be associated with decreasing proportions in growth assets, such as equities and property; and increasing proportions in non-government and government bonds.

The USS Default Lifestyle Option glidepath



USS Default Lifestyle Option Statement of Investment Principles
Continued

5.1.4 The chart on page 102 provides an illustration of the USS Default Lifestyle Option structure, in particular detailing the balance between the different funds held in the final 10 years prior to a member's retirement date.

5.2 Managing risk

5.2.1 The USS Default Lifestyle Option manages strategic asset allocation risks through use of diversification. The allocation typically consists of a mix of mainstream public market assets as well as allocations to private market assets. The asset allocation is calibrated to different stages in the USS Default Lifestyle Option (as indicated in item 5.1.3). Risk is not considered in isolation, but in conjunction with expected investment returns and outcomes for members. In designing the USS Default Lifestyle Option, the trustee considers the trade-off between risk and expected returns and opportunities for diversification and continues to monitor these risks through ongoing reporting. The actual holdings within the constituent USS Default Lifestyle Option will include private market assets where appropriate in order to take advantage of the opportunity to earn enhanced returns including a premium for illiquidity and to gain additional diversification. appropriate in order to take advantage of the opportunity to earn enhanced returns including a premium for illiquidity and to gain additional diversification.

5.2.2 The USS Growth Fund invests in equities and other growth-seeking and diversifying assets. These investments are structured to generate higher real (after inflation) returns over the long term with some downside protection. During the growth phase, the downside risk from an equity market downturn is partially mitigated through diversification away from equities into other growth-seeking asset classes.

5.2.3 In the consolidation phase, from 10 years before expected retirement, the trustee is seeking, through greater diversification of assets, to reduce the likelihood of extreme investment shocks adversely affecting retirement outcomes.

5.2.4 In the final five years before expected retirement (protection phase), the trustee has constructed a glide-path that seeks to continue to grow the member's DC retirement savings while reducing volatility as members' funds get closer to maturity. In the protection phase, assets are therefore switched to more cautious assets (such as government and corporate bonds), including an allocation to money market instruments. This has been designed to reflect the uncertainty inherent in the timing of retirements, and the post-retirement investment choices that might be made by members.

5.2.5 Paragraph 3.3 of the Main SIP details key risks that the trustee considers in relation to the DC Section in particular.

5.3 Realisation of investments, cash flow and liquidity management.

5.3.1 The DC Section offers members a range of daily dealing notional funds. While a portion of the USS Default Lifestyle Option will be in illiquid assets, the trustee's policy is to maintain sufficient investments in liquid assets so that the realisation of assets will not be unduly costly nor disrupt the USS Default Lifestyle Option or scheme's overall investment strategies in foreseeable circumstances. More detail can be found in paragraph 3.2.9 of the Main SIP.

6. The trustee's policies on responsible investment and engagement activities

6.1 The USS Default Lifestyle Option is managed in line with the trustee's policies as set out in the Main SIP, in particular, paragraph 1.4. The trustee's policies on responsible investment and engagement activities cover:

6.1.1 How financially material considerations are taken into account in the selection, retention and realisation of investments. This includes how the trustee considers environmental, social and governance (ESG) factors where financially material to the scheme, such as but not limited to climate change;

6.1.2 The extent to which non-financial ESG matters are taken into account in the selection, retention and realisation of investments;

6.1.3 The exercise of the rights (including voting rights) attaching to the investments; and

6.1.4 Engagement activities in respect of the investments.

6.2 In addition to the USS Default Lifestyle Option, the trustee makes available the USS Ethical Lifestyle Option reflecting the fact that a number of members have specific objectives around ethical investing. This USS Ethical Lifestyle Option is built along similar principles to the USS Default Lifestyle Option but has been specifically designed to reflect members' ethical beliefs in this area. As well as this, an ethical equity fund and a Sharia consistent fund are included in the range of self-select funds offered to members.

6.3 The scheme's statement on Responsible Investment sets out detailed information on how the trustee considers ESG factors where financially material to the scheme and the extent to which it takes non-financial ESG factors into account. The trustee expects its internal and external managers to act consistently with this statement in the selection, retention and realisation of the scheme's investments. The current Statement on Responsible Investment can be found in the "How we invest" area of the scheme's website **uss.co.uk/how-we-invest/our-principles-and-approach**.

6.4 The Trustee's policies in relation to its arrangements with asset managers are as set out in paragraph 1.5 of the Main SIP, including in relation to the Trustee's wholly owned investment manager and adviser, USS Investment Management Limited ('USSIM') which is primarily responsible for the management of the USS Default Investment Option and manager selection.

7. Investment in the best interests of beneficiaries

7.1 In designing the USS Default Lifestyle Option, the Trustee aims to invest in the beneficiaries' best financial interests, taking into account the different risk profile of representative members (e.g. according to their expected time frame until retirement). In doing so, the Trustee explicitly considers the trade-off between risk and expected returns and continues to monitor these risks through ongoing reporting. The Trustee considers high level profiling analysis of the scheme's membership in order to inform decisions regarding the USS Default Lifestyle Option. In accordance with the Trustee's mandate, USSIM also manages and monitors the default arrangement and the performance of investment managers involved in that arrangement and makes changes where necessary to ensure the Trustee's aims and objectives are met.

8. Compliance and review

8.1 This Default SIP has been prepared in accordance with the requirements of the Pensions Act 1995 and relevant Regulations taking into account guidance from the Pensions Regulator.

8.2 The Trustee will undertake such a review at least triennially, or sooner and without delay if there are significant changes to the scheme's investment policy, demographic profile or other circumstances which the Trustee determines warrant a reconsideration of the USS Default Lifestyle Option.

8.3 The Trustee will revise the Default SIP after every review unless it decides that no action is needed as a result of the review. It was last updated May 2022.

Implementation statement

1.1 Introduction

USS's[1] Implementation Statement (the Statement), sets out how, and the extent to which, the trustee believes the Statement of Investment Principles (SIP) has been followed during the scheme year ending 31 March 2023.

This Statement, as with the SIP, applies to both the defined benefit (DB) and defined contribution (DC) parts of USS. USS also has a supplementary Statement of Investment Principles specifically for the USS Default Lifestyle Option in the Investment Builder (the DC part). This is called the Default SIP (see **uss.co.uk/how-we-invest/our-principles-and-approach**).

The Statement outlines how key activities and decisions have followed the SIP and the Default SIP and, where they have not, what steps will be taken to remedy this. It also sets out how, and the extent to which, in the opinion of the trustee, the policies in relation to voting rights and our engagement activities have been followed during the year and gives a review of the voting behaviour carried out by investment managers on the trustee's behalf. The Statement should be read in conjunction with the SIP at **uss.co.uk/how-we-invest/our-principles-and-approach**.

1.2 Review of the SIP and Default SIP

USS reviewed and considered amendments to the SIP in March 2022. The main updates were as follows:

- Changes to the description of the investment strategy for the DB part to reflect the 2020 actuarial valuation. The Valuation Investment Strategy (VIS) replaced the Reference Portfolio as the theoretical, but investible, asset allocation developed for the purposes of the actuarial valuation. Like the Reference Portfolio, while the VIS is expected to broadly deliver appropriate long-term returns at an acceptable level of risk, it does not define the actual assets in which USSIM may invest. However, the VIS is a more high-level construct than the Reference Portfolio, with three broad components (or building blocks): an allocation to growth assets, an allocation to liability-hedging assets, and an allocation to credit assets.
- While USS's objectives in relation to the DC part remained unchanged, references to the Reference Portfolio were removed from the DC part of the SIP as USS seeks to focus its monitoring more explicitly on longer-term member outcomes with reference to inflation, rather than on the performance of funds relative to a detailed composite benchmark. The USS Growth Fund and USS Moderate Growth Fund invest predominantly in growth assets and aim to provide long-term growth in excess of inflation. The USS Cautious Growth Fund invests predominantly in lower risk, income focussed assets, and aims to provide stable growth at least in line with inflation over the long-term.

Further, but less fundamental changes to the SIP included:

- Reference to USS's ambition to be Net Zero by 2050
- Better alignment of the trustee's ESG related policies with the most recent legal advice received
- More detail on USS's approach to leverage as this is an important component of USS's investment and risk management strategy

USS consulted on these proposed amendments with participating employers in April 2022 and finalised a new SIP on 24 May 2022. The Default SIP was reviewed, in line with the changes to the SIP and in order to improve consistency between the two documents and was also re-issued on 24 May 2022.

1.3 USS's Governance Structure

Further details of USS's governance structure, including the Terms of Reference for the Trustee Board and the Investment Committee can be found at **uss.co.uk/about-us**. The allocation of responsibilities between the Trustee Board and its committees is clearly set out in their Terms of Reference. These Terms of Reference are reviewed at least annually, and updated to reflect any changes in regulations, best practice guidance and/or working practices.

The SIP is required to include USS's policy for arrangements with asset managers, and this includes USS Investment Management Limited (USSIM). USSIM is a subsidiary of Universities Superannuation Scheme Limited. It is the principal investment manager and adviser to the scheme, looking after the investment and management of the scheme's assets. USSIM is required to act in accordance with the SIP in performing its duties. USSIM manages assets directly on behalf of the trustee as well as having the delegated authority to appoint, monitor and change external asset managers.

2. How the SIP has been followed during the year

Following review and analysis, USS believes that the SIP, Default SIP and the USS Stewardship and Voting Policy have been followed during the scheme year April 2022 – March 2023. This Statement explains how USS has reached this view.

2.1 The kinds of investments to be held by the scheme and the balance between different kinds of investments – and the expected return on investments

The SIP and Default SIP set out USS's investment objectives and USS's policy in relation to the type and balance of investments held and the expected return on investments.

The Retirement Income Builder – the DB part

For the DB part, USS's broad investment strategy is set out as a theoretical, but investible, asset allocation across equities, property, gilts and other fixed income assets, including liability driven investments (LDI) and corporate and emerging market bonds. This theoretical asset allocation is the VIS, which is the investment strategy developed for the most recent actuarial valuation. The VIS is adjusted from time to time to retain consistency with the Investment Risk Management Framework (IRMF) and risk appetite. There have been no changes to the VIS over the year to 31 March 2023.

1 To keep things simple, we have used USS as a catch-all reference for different parts of the USS group. So, depending on where it appears, USS means either the scheme (Universities Superannuation Scheme), the trustee (Universities Superannuation Scheme Limited) or the trustee's principal investment manager (USS Investment Management Limited or USSIM). We may refer specifically to one of these three elements, where it is helpful to do so.

The Implemented Portfolio corresponds to the actual investments held in the DB part. As described in the SIP, the Implemented Portfolio can differ from the VIS as USS identifies opportunities to add value in its implementation of the strategy. The Implemented Portfolio invests in a range of asset classes, including quoted equity, government and non-government debt (including inflation-linked), currencies, money market instruments, commodities, derivatives or other financial instruments, as well as alternative strategies and private market assets including equity and debt, infrastructure and property. Investment is undertaken either directly, indirectly (for example via funds), in physical assets or using derivatives (where required for efficient portfolio management).

To improve prospective returns and better manage asset-liability risk, over recent years USS has taken on additional exposure to liability-hedging assets. This exposure is made possible by the prudent use of leverage, risk controls around the use of cash and collateral, as well as monitoring around counterparty risk.

The Investment Builder – the DC part
In the DC part, members have the option to manage their own investments (the Let Me Do It option) or have their investments managed for them (the Do It For Me option). USS regularly reviews its DC fund options against member requirements and makes enhancements as required.

The USS Default Lifestyle Option manages investment risks by investing in four underlying funds: USS Growth Fund, USS Moderate Growth Fund, USS Cautious Growth Fund and USS Liquidity Fund. The investment objectives for these funds are set by USS to reflect member requirements and are designed to deliver long-term returns above inflation, while providing some protection against market drawdowns in the years before retirement.

Although USS has discretion to invest in a wide range of assets, in practice the type of assets held in the Do It For Me and Let Me Do It options depends on the objectives and strategy of each DC fund. Investment is undertaken either directly, indirectly (for example via funds), in physical assets or using derivatives (where required for efficient portfolio management).

Expected return on assets
The SIP covers USS's policy in relation to the expected return on assets. The achieved investment returns are monitored regularly by the Investment Committee through reporting provided by USSIM. To ensure the DB Implemented Portfolio and DC funds remain appropriate (and are expected to deliver the appropriate long-term returns at the desired level of risk), USS monitors changes to asset class expected returns, the DB Implemented Portfolio and DC fund returns regularly.

2.2 Risks – including the ways these are measured and managed
The SIP and the Default SIP cover USS's policy in relation to risks, including the ways in which risks are to be measured and managed. USS believes that risk is best understood and managed using multiple approaches and has a structure in place to monitor the risks relevant to both the DB and DC parts. USS will take action to mitigate risk when appropriate. The key investment risks are managed through a range of thresholds and limits as detailed in the Investment Management and Advisory Agreement (IMAA).

The SIP recognises USS's exposure to investment, funding, and operational risks. USS integrates the management of those risks throughout its organisation. USS considers these risks when advising on investment policy, strategic asset allocation and portfolio management, and manager and fund selection when applicable.

USSIM provides regular quantitative and qualitative assessments of investment-related risks and implements appropriate mitigation strategies within its delegated mandate. USS's overall investment risk is diversified across a range of different investment opportunities.

Over the year, new Investment Frameworks were put in place for the DB part and DC part, which replaced the old Reference Portfolio Frameworks. The old Reference Portfolio Frameworks used the Reference Portfolios (the old theoretical, but investible, asset allocations) as the basis for both risk management in USSIM and for the assessment of USSIM's investment management performance. USSIM's objective was to outperform the Reference Portfolios, without taking more risk.

The new Investment Frameworks take a more holistic approach to both risk management and the assessment of USSIM's investment management performance and are tailored as appropriate for the DB and DC parts. For risk management they use a range of risk metrics across investment, liquidity, counterparty and climate risks. For the assessment of USSIM's investment management performance, they use a range of investment objectives on more comprehensive investment balanced scorecards (as shown in section 5). The scorecards include separate categories for investment return, investment risk, active management, portfolio resilience, responsible investment and investment advice.

USS assesses the definition of the risks throughout the year and more formally on an annual basis, when USSIM advises the trustee on the suitability of the risk metrics, thresholds, and limits in the Investment Framework. This Investment Framework was in place from 1 July 2022 for the DB part and from 1 January 2023 for the DC part.

USS is satisfied with the operation of its risk management and measurement processes. Further details on the elements relevant to the DB and DC parts are provided below.

Implementation statement
Continued

The Retirement Income Builder – the DB part
USS's funding risks are monitored and managed by the trustee's Funding Strategy team, with advice from the Scheme Actuary. USS's operational risks are managed throughout the organisation by individual teams.

Investment-related risks are a subset of USS's funding risks. These risks are assessed and monitored within the Investment Framework:

- USS assesses and manages the integration of investment-related risks, particularly as they relate to strategic asset allocation and investment strategy.
- The key risks include asset-liability, market, credit, currency, liquidity, collateral and operational risks.
- USS oversees the scheme's liquidity and collateral risks to ensure there is a sufficiently low probability of USS being forced to sell assets for liquidity and/or collateral purposes. Investments in illiquid assets are also subject to an upper limit and are periodically reviewed, by USS.
- An appropriate allocation to foreign currency is made on the basis of risk/return considerations and, where appropriate, a proportion of the foreign currency exposure is hedged back to Sterling.

USS also assesses the returns of the scheme's investments relative to a range of comparators (including the VIS) and the strength of the employer covenant.

The SIP covers USS's policy in relation to the realisation of investments. USSIM ensures that the scheme maintains sufficient cash and other liquid instruments to pay benefits and other commitments as they fall due. This is supported by robust and timely disinvestment and financing procedures, which operate without either disrupting the asset allocation or incurring excessive transaction costs. These processes are overseen by an internal USSIM committee.

The Investment Builder – the DC part
In setting and reviewing the DC investment strategy, USS assesses the key investment-related risks relevant to the DC part. These risks include inflation, currency, the impact of market movements in the period prior to retirement, returns on investments relative to the investment objectives, liquidity risk, operational risk and market risk including equity, interest rate and credit risk. Risk is not considered in isolation, but in conjunction with expected investment returns and outcomes for members and within the Investment Framework.

USS reports periodically on the return of the DC funds relative to their targets and reviews its policies on currency hedging and liquidity on an annual basis. USS also reviews performance versus expectations, benchmarks, and peers on a regular basis.

The funds made available to members by the scheme are daily dealing notional funds. USS has put in place several measures to ensure that the introduction of illiquid assets (including private market assets) will not affect a member's ability to switch or access their DC funds, unless in extreme market circumstances.

3. Stewardship, engagement and responsible investment

3.1. Introduction
USS is a long-term, responsible investor with a primary duty to invest in the best financial interests of our members and beneficiaries, so we can pay pensions long into the future. We believe that the way a company is run and overseen, and how it manages its environmental and social risks, such as its approach to climate change or health and safety, will impact the long-term financial returns it will make. USS's Responsible Investment (RI) strategy applies to all assets, whether managed internally or externally. As a result, USS has processes in place to assess and monitor how potential or current external managers are addressing Responsible Investment factors.

Both USSIM and the external managers use their influence as major institutional investors and long-term stewards to promote good practice in the investee companies and markets to which the scheme's investments are exposed.

Details of USS's approach to RI can be found at **uss.co.uk/how-we-invest/responsible-investment** and in USS's Stewardship Code report **uss.co.uk/-/media/project/ussmainsite/files/how-we-invest/uss-stewardship-code-report-2023.pdf**. This report provides details of how USS considers environmental, social and governance (ESG) factors where financially material to the scheme and the extent to which it can take non-financial ESG factors into account (see Section 6.3).

The trustee agrees the RI strategy and formally reviews the RI team's activities annually, signing off key focus areas and policies. The trustee receives reports from USSIM on a regular basis so that it can ensure the strategy is being effectively implemented. USS's ESG related policies[2] have been reviewed regularly and updated as required to ensure that they are in line with good practice.

The trustee believes USS's ESG related policies and policies in relation to engagement activities have been materially followed during the year.

3.2. Oversight and monitoring external investment managers
USS expects its investment managers to undertake appropriate monitoring and oversight of current investments. This oversight is to enable the identification of issues and to facilitate early engagement with the boards, management and other stakeholders of investment companies. USS oversees USSIM's policies and practices on Responsible Investment, stewardship and ESG integration. This includes how USSIM, in turn, monitors external managers in this regard.

2 By ESG related policies we mean the following items: the USS Stewardship and Voting Policy and its associated Voting Guidance document, the USSIM scheme-wide investment exclusion policy, the USS Ethical Guidelines (for DC) and the USS Global Asset Stewardship Principles.

USS has processes in place to assess and monitor how its external managers are addressing RI considerations in the selection and retention of assets. This applies to managers of both public market and private markets funds, and managers within the DB and DC parts. USS ensures the external managers are aware that the scheme is a signatory to the UN Principles for Responsible Investment (PRI) and supporter of the Task Force on Climate-Related Financial Disclosures (TCFD). The external managers also confirm that they will consider ESG in portfolio management to the extent it accords with the USS policy.

USS's RI reviews are based on information provided by the investment managers and from face-to-face meetings. Standard processes are in place for due diligence and monitoring for public and private markets but are adapted to suit the asset class and investment strategy for each fund under review. The due diligence establishes a baseline view and rating which then informs USS's ongoing monitoring programme.

4. Voting behaviour and vote disclosure

4.1. Introduction

USS believes that there have not been any material divergences from its voting policies during the scheme year.

As an active, long-term owner of the companies USS invests in, exercising the right to vote is one of the cornerstones of USS's stewardship approach. Further information on USS's approach and examples of USS's voting activities are in its Stewardship Code report.

4.2. USS Stewardship and Voting Policy

In January 2023, USS introduced an updated Stewardship and Voting Policy which is supported by the USS Voting Guidance document. These documents can be found at **uss.co.uk/how-we-invest/responsible-investment/how-we-vote**. The Stewardship and Voting Policy outlines USS's position on a range of ESG issues and why USS believes ESG factors should be well managed by companies. These are put in the context of universal ownership and systemic risk. The documents also outline USS's expectations for investee companies. USS's Stewardship and Voting Policy will be reviewed each year to ensure continued alignment to USS's beliefs about good practice in line with USS's fiduciary duties.

Key updates ahead of the 2023 AGM season, included an increasing expectation for board diversity and independence at Japanese companies (to align with other developed markets), an increased focus on climate change, highlighting an expectation for Say on Climate votes and how certain sectors (banks, oil and gas) are managing the issue, and a commitment to vote against directors rather than voting against the adoption of Annual Report and Accounts or equivalent.

USS forms an independent decision on voting on a case-by-case basis, considering both international and local market standards and best practice, proxy research, outcomes from engagement meetings, discussions with peers, and USS's investment managers' perspectives. The USS Stewardship and Voting Policy is not applied rigidly. Discretion is exercised to ensure voting decisions are tailored to the circumstances of the company and comply with the spirit of this policy, i.e. the overall improvement of the company's corporate governance.

USS integrates ESG factors into its voting decisions where such factors are financially relevant. USS promotes high quality disclosure and performance management of ESG issues through engagement with companies and its voting activities.

Shareholder proposals, including those which relate to ESG issues such as climate change, human rights, labour relations and other matters, are considered on their individual merits. It is USS's intention to support those resolutions which it considers to be in the long-term interests of shareholders. However, USS will not support a resolution which it considers overly burdensome or better addressed by another route.

Typically, USS has voted against company management on issues such as excessive executive remuneration or lack of board member independence. Usually when USS votes against management in one of USS's priority[3] holdings USS will write to the company to explain its concerns. USS sees this as an important way of providing feedback and encouraging change – that is, it is a form of engagement. For non-priority holdings, USS will write to the company after voting seasons informing them that we voted against certain resolutions and that the reasons for that are available on our dedicated disclosure tool (**uss.co.uk/how-we-invest/responsible-investment/how-we-vote**).

USS has an active securities lending programme. To ensure that USS can vote all its shares at important meetings or where the scheme is a significant shareholder, USS has worked with service providers to establish procedures to restrict lending for certain stocks and to recall shares in advance of shareholder votes.

USS monitors upcoming company meetings and can restrict stock lending on a case-by-case basis, for example in the event of a contentious vote or in relation to engagement activities, further to discussion with the portfolio manager.

4.3. Voting and USS's equity holdings

For the DB part, USS's internally managed equities (circa £6.6bn) and main externally managed equity mandates (circa £6.4bn) are subject to the USS Stewardship and Voting Policy. USS also has circa £1.1bn of equities which are externally managed in a pooled account. USS has agreed a 'vote override' with the manager of the pooled account which means that USS can direct voting to ensure it is aligned with USS's policy. Due to the number of holdings, USS is unable to attend every company shareholder meeting to cast votes. Therefore, USS votes by proxy through the Minerva voting platform for the assets subject to the USS Stewardship and Voting Policy.

3 Prioritisation for voting and engagement activities is based on criteria set out in our Stewardship Code report, including the size of our holding, the home market, the materiality of ESG factors and the adequacy of public disclosure on ESG factors.

Implementation statement

Continued

For the DC part, USS's main externally managed mandate (circa £834m) and internally managed emerging market equities (circa £84m) are also subject to the USS Stewardship and Voting Policy. The remaining equity holdings for the DC part are externally managed in pooled funds and votes are cast in accordance with the external manager's policy (circa £214m). While USS is not in a position to exercise voting rights directly, this does not mean that the way these voting rights are used is not important.

USS expects USSIM and its external managers, where appropriate, to use their voting rights as part of their engagement work, in a prioritised, value-adding, and informed manner. USS regularly monitors the voting and stewardship practices of the external equity managers as part of the RI manager oversight and monitoring processes. This includes reviewing updates to voting policies, sampling the managers' voting records and commentaries, and scrutinising their more detailed disclosures on significant votes. As part of USS's monitoring and engagement programme with external managers, USS engages to encourage greater alignment with international best practice and/or the Stewardship and Voting Policy where appropriate.

4.4. Disclosure and oversight

USS records, and publicly discloses, voting actions on its website at **uss.co.uk/how-we-invest/responsible-investment/how-we-vote** (USS's voting disclosures date back to 2010).

USS monitors and reviews voting decisions twice a year through the Investment Committee and once a year through the Trustee Board. Regular proxy voting activity reports are also included in the standard quarterly reporting suite from our external equity managers and are typically covered in the manager's annual RI/stewardship publications.

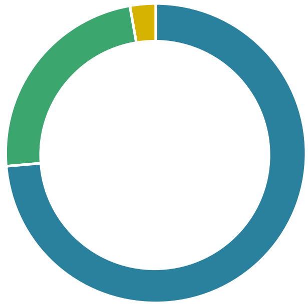
USS has not had, and does not expect to have, any difficulty obtaining voting data from the external managers. However, USS has engaged with the external managers to improve their reporting at fund level (as opposed to market or regional level).

4.5. Scheme voting statistics

The statistics below are in respect of USS's internal equity assets and the large externally managed mandate (together representing c.90% of the scheme's equity holdings):

Voting statistics April 2022 – March 2023	Response
How many meetings was USS eligible to vote at?	2,148
How many resolutions was USS eligible to vote on?	28,573
What percentage of resolutions did we vote on for which USS was eligible?	99.9%
Of the resolutions on which USS voted, what percentage did we vote with management?	73.7%
Of the resolutions on which USS voted, what percentage did we vote against management?	23.6%
What percentage of resolutions, for which USS was eligible to vote, did we abstain from?	2.7%
In what percentage of meetings, for which USS was eligible to attend, did we vote at least once against management?	73.4%
What percentage of resolutions, on which USS did vote, did we vote contrary to the recommendation of our proxy adviser?	N/A[4]

USS global votes April 2022 – March 2023



4 N/A: Minerva (proxy vote agent) does not issue their own voting recommendations; Minerva applies the Stewardship and Voting Policy directly on behalf of USS.

4.6. Most significant votes – examples for period from 1 April 2022 – 31 March 2023
Below are details of the most significant votes on behalf of the trustee.

Company and date of AGM	Shell plc 24 May 2022
Summary of resolution	Resolution 20 – Approve the Shell Energy Transition Progress Update Resolution 21 – Request Shell to Set and Publish Targets for Greenhouse Gas (GHG) Emissions
Vote	Resolution 20 – For Resolution 21 – For
Rationale for vote	USS voted in favour of Shell's Energy Transition progress update (Resolution 20) in light of the overall progress made against the company's Energy Transition Strategy, the strengthening of targets, and the progress made through engagement with CA100+ investors on achieving alignment to the CA100+ Net Zero Company Benchmark. USS welcomed Shell's decision to put a review of its Energy Transition Strategy up for an advisory vote every three years and to give shareholders an annual advisory vote on the progress made. We see this as an implicit recognition by management that the company's Energy Transition Strategy is expected to continue to evolve as a result of the experience of implementing it, continued engagement with investor groups like CA100+, and evolving international regulations and policies. After careful consideration, USS decided to vote in favour of the Follow This proposal (Resolution 21), in the best interests of shareholders. While Shell already met some requests of the shareholder resolution, it underlined USS's wish for adoption of quantifiable medium-term targets for the company's Scope 3 emissions in line with peers and a review and strengthening of Shell's 2030 net carbon intensity goal to ensure robust alignment with the goals of the Paris Agreement and real-world emissions reduction impact.
Vote outcome	Resolution 20 passed – For 77.4%, Against 19.4% (Abstain 3.2%) Resolution 21 defeated – For 19.9%, Against 78.1% (Abstain 2.0%)
Implications of the outcome	In 2022, Follow This filed resolutions at nine companies in the oil and gas industry asking them to draw up carbon reduction plans in line with the Paris Agreement. Shareholder support ranged from 42% at Valero to 15% at BP. Over the next decades, Shell will aim to transition from an oil & gas producer to a diversified energy company. USS will continue to engage with Shell and monitor progress on its alignment to the CA100+ Net Zero Company Benchmark, which presents a key measure of corporate progress on climate transition. Each vote is taken on its own merit, and USS's views on an issue will evolve as our own policies evolve or if a company changes it position. We will for example, take into account Shell's 2023 comments on climate change and the energy transition in our 2023 voting.
Criteria selected for this vote to be significant and link to the USS Stewardship and Voting Policy	As part of the scheme's commitment to being a long-term, active, and responsible shareowner, USS believes in active stewardship through company engagement and views voting as a valuable tool for engaging with companies to encourage better standards of corporate governance and management of environmental and social issues. USS has set an ambition to be net zero by 2050. To achieve this, USS requires the assets and companies in which USS invests to collectively achieve net zero. USS therefore expects the companies we invest in to establish processes to both manage their transition to a low carbon future while adapting to the physical risks of a changing climate. This is a significant vote for USS as Shell is a relatively large holding for USS, and if left unaddressed, the scientific evidence points to a world where a changed climate will impact the scheme's ability to achieve the returns it requires and will impact the quality of retirement for our members.

Implementation statement

Continued

Company and date of AGM	Meta Platforms Inc. 25 May 2022
Summary of resolution	Resolution 1.02 to 1.09 – Re-elect board of directors
Vote	Withhold (Against)
Rationale for vote	USS has been concerned with Meta's content management practices, and risk management oversight for a number of years. As part of a global investor coalition, led by the New Zealand Super Fund, USS sought to engage the board on improvements to strengthen controls to prevent the livestreaming and dissemination of objectionable content but without success. We note that in 2021 Meta did move to strengthen controls to prevent the live streaming and distribution of objectional content. However, following the tragic events in Buffalo, New York, in 2022, it appears the controls were insufficient for the scale of the problem. In light of this, USS consider Meta's management and the board to have failed to properly enforce its content management policies and provide the robust and continued oversight needed to mitigate the significant reputational, legal and financial risks and more importantly, retain its social licence to operate and ensure duty of care to its customers. For these reasons, USS withheld its support from the entire board and will support all shareholder proposals that drive further progress and accountability.
Vote outcome	All resolutions passed with between 92.75% – 99.97% support.
Implications of the outcome	USS followed up the vote with an engagement letter to the chairman outlining our vote rationale. This is an integral communication tool for USS, as a minority shareholder, to share governance priorities with directors. USS will continue to engage with Meta and other social media companies in 2023 through an investor collaboration.
Criteria selected for this vote to be significant and link to the USS Stewardship and Voting Policy	USS believes that the board plays a critical role in ensuring the success of companies, holding management to account and representing the interests of shareholders and other stakeholders. The guidelines within USS's detailed Voting Guidance are built around the UK Corporate Governance Code, which we believe outlines strong governance standards applicable to all companies irrespective of their market. Our new Stewardship and Voting Policy sets out that our primary approach will be to vote against individual directors if we believe the company is failing to appropriately manage or address an issue. This vote is considered significant for USS due to member interest in the company and is an example of how USS use its shareholder rights to reinforce, and where necessary, escalate its company engagements. It is also indicative of a rising voting trend in targeting the re-election of individual directors for mismanagement of material ESG risks.

Company and date of AGM	Electric Power Development Co. 28 June 2022
Summary of resolution	Resolution 8 – Disclose Business Plan through 2050 Aligned with Goals of Paris Agreement Resolution 9 – Disclose Evaluation concerning Consistency between Capital Expenditures and Greenhouse Gas Emission Reduction Target Resolution 10 – Disclose How Executive Compensation Policy Contributes to Achievement of Greenhouse Gas Emission Reduction Target
Vote	Resolution 8 – For Resolution 9 – For Resolution 10 – For
Rationale for vote	Electric Power Development (known as J-Power) operates Japan's largest coal fleet and derives more than 40% of its operating revenue from coal. While USS commended the company's adoption of its Net Zero commitments, we voted in favour of all three shareholder resolutions, as we consider the proposed amendments to be aligned with the interests of the company and its stakeholders. We have concerns about how the company's plans to manage the responsible decline of the coal portfolio align with its decarbonisation strategy and how its compensation policy incentivises executives to work towards set climate goals. USS also requires companies to provide the appropriate level of disclosure on their climate plans so that investors can track progress in achieving those plans. We would welcome enhanced transparency and disclosure of the specific processes and strategies, including metrics and short-, medium- and long-term targets, to align the company's decarbonisation strategy and future capital expenditure with the goals of the Paris Climate Agreement and the IEA's Net Zero by 2050 emissions scenario.
Vote outcome	Resolution 8 defeated – 25.9% For; 74.1% Against Resolution 9 defeated – 18.2% For; 81.8% Against Resolution 10 defeated – 19.0% For; 81.0 Against
Implications of the outcome	The institutional shareholders Man Group, Amundi and HSBC Asset Management together co-filed the set of three climate related resolutions, which were the first investor group-led climate proposal in Japan. Under Japanese corporate law, shareholder proposals on climate change have to be filed as an amendment to the company's articles of incorporation, thus requiring two-thirds majority support to pass. USS followed up the vote with a letter to the board outlining key areas of concern and strongly encouraging enhanced corporate disclosure, which would help investors better understand risk associated with climate change.
Criteria selected for this vote to be significant and link to the USS Stewardship and Voting Policy	Poor management of environmental issues can have significant implications for companies, both financially and reputationally. The most challenging environmental issue is climate change, both in terms of transitioning to a low carbon future, and in adapting to the physical risks that climate change poses. Our new Stewardship and Voting Policy sets out that USS expects the companies invested in to establish processes to manage their transition to a low carbon future while adapting to the physical risks of a changing climate. This vote is considered significant due to the high-profile nature of the first investor group-led climate proposals in a market that has traditionally been difficult for foreign investors to influence. If left unaddressed the scientific evidence points to a world where a changed climate will impact the scheme's ability to achieve the returns it requires and will impact the quality of retirement for our members.

Implementation statement

Continued

Company and date of AGM	Sainsbury's plc 7 July 2022
Summary of resolution	Resolution 21 – Shareholder proposal on paying a living wage to all workers and seeking accreditation as a Living Wage Employer by July 2023
Vote	For
Rationale for vote	Half of companies listed on the FTSE100 are accredited by the Living Wage Foundation however no supermarkets are yet accredited despite being among the largest UK employers. Before the vote, USS joined a collaborative investor meeting with the company's Chair and CEO to discuss the proposal in detail. USS welcomed the candour provided by the company during the engagement and the decision to support the shareholder proposal was not clear cut. USS was disappointed that only Sainsbury's was targeted by this proposal which may cause competitive disadvantage as fair pay is an issue for all companies in the sector. Furthermore, the board brought forward its annual pay review to January and increased workers' salaries to £10/hour (exceeding the real Living Wage of £9.90/hour) and matched the living wage rate for workers in inner London (£11.05/hour). However, on balance USS supported the proposal as contractors, who can be the most poorly paid and vulnerable, were not included in the wage rises and action by Sainsbury's can move the dial in the industry overall.
Vote outcome	Resolution 21 defeated – 16.3% For; 81.1% Against; 2.6% Abstain
Implications of the outcome	Prior to the AGM in April, and likely influenced by shareholder discussions, the company reviewed pay again in April and increased the rate for workers in outer London also to £11.05/hour. However, 16% of shareholders still supported the resolution. This is significant support and maintains pressure on the big supermarkets to continue to focus on fair pay.
Criteria selected for this vote to be significant and link to the USS Stewardship and Voting Policy	Companies do not operate separately from society, and there are potential financial and reputational risks if they do not recognise this. Our new Stewardship and Voting Policy sets out that USS therefore expects companies to be well run with topics such as employment rights, health and safety, modern slavery and a company's interactions with societal stakeholders all addressed by companies. This vote is considered significant for USS, as it was a high profile and contentious proposal among large asset owners and managers. There are clear reputational concerns regarding a supermarket's pay decisions during a cost-of-living crisis and following the pandemic where supermarket workers were put at risk as key workers.

5. Investment governance

The trustee believes USS's policies in relation to the arrangement with USSIM and any asset managers have been materially followed during the year.

5.1. Relationship with USSIM

USS Investment Management Limited (USSIM) is a subsidiary of Universities Superannuation Scheme Limited. It is the principal investment manager and adviser to the scheme, looking after the investment and management of the scheme's assets. USS has various methods for overseeing USSIM and it is the Investment Committee that is responsible for overseeing the delivery of these services. USSIM also provides regular reporting on its performance.

In addition to the oversight provided by the Investment Committee, USSIM's remuneration structures and risk and control environment are overseen through the Remuneration Committee and Group Audit and Risk Committee, respectively.

Investment advice

USS must obtain written investment advice before exercising its power of investment under the Scheme Rules. These requirements are included in the IMAA with USSIM as the principal investment manager and adviser to the trustee. USS may also engage external advisers and other specialist advisers as it considers appropriate. Any investment advice required by USS is provided in accordance with legislation and primarily to the Investment Committee.

Alignment of interests

The SIP covers USS's policy on how the arrangements with USSIM incentivise USSIM to make decisions in the long-term interests of USS.

USSIM is a non-profit entity, which is wholly owned by USS. The duration of USSIM's appointment is indefinite. It is intended that USSIM will continue to manage investments and external managers on behalf of USS on a continuous basis.

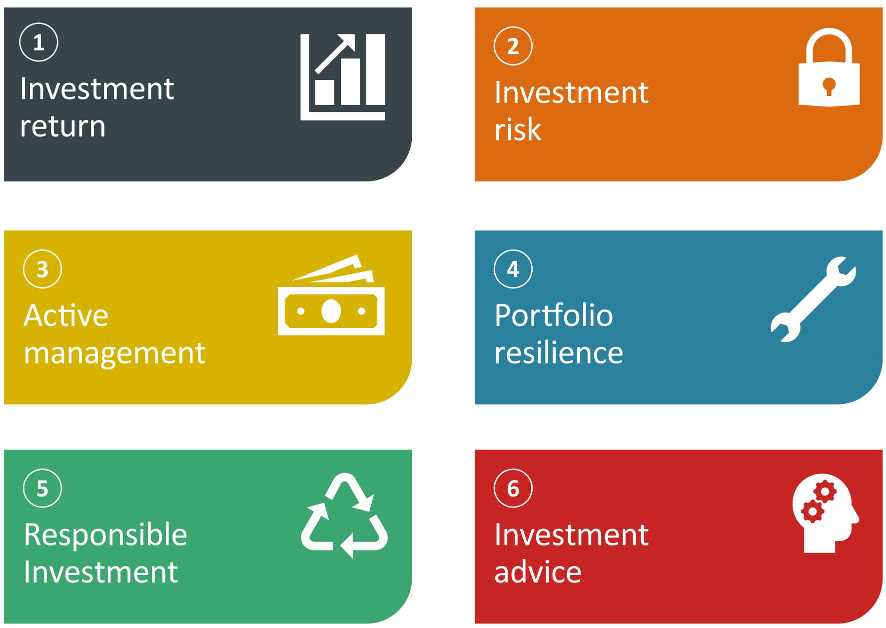
USS is satisfied that its arrangements incentivise USSIM to:

- Align its investment strategy and decisions with USS's policies, including whether to manage certain investments itself or to appoint external managers
- Make decisions based on assessments of the medium to long-term financial and non-financial performance of an issuer of debt or equity and to engage with issuers of debt or equity in order to improve their, and thereby USS's, performance in the medium to long term

USS has reached this conclusion on the basis that USSIM does not provide services to other clients and has no conflicting arrangements in place. USS does not have any fee arrangements in place with USSIM which would incentivise it to deviate from USS's policies.

USS undertakes a full value-for-money assessment of both the DB and DC parts of the scheme annually, including a review of investing internally via our in-house investment managers (USSIM) versus peer pension schemes' investment arrangements and using benchmarking analysis. The latest independent analysis by CEM Benchmarking (for the calendar year 2021) shows that our annual investment management costs were £137m less than the median global peer pension fund would have been (after adjusting for scale and investment strategy). This theme of being good value for money is consistent over the long-term trend – over the last five years, USS has been assessed as being 28% less expensive – equivalent to a total saving of £423m over this period.

As part of the new investment balanced scorecards, USS considers a wide range of metrics to assess the investment management performance of USSIM over time and to ensure alignment of interests. Some of these metrics include USSIM's realised investment returns versus a measure of USS's liabilities, USSIM's progress in reducing USS's interest rate and inflation risks within the DB part, and an assessment of USSIM's progress in integrating ESG factors into its investment decision making. These metrics are included in the investment balanced scorecards below, which spans six important categories across. The scorecards are considered separately for the DB and DC parts. These categories have been designed to be consistent with the best interests of the scheme's members and employers:



Implementation statement

Continued

USSIM uses a remuneration framework involving both quantitative (i.e. based on investment performance) and qualitative assessments. This framework ensures that USSIM's incentives are aligned to the needs of the scheme and USS's policies in relation to the selection and balance of investments, the management of risk, return on and realisation of investments, and responsible investment and engagement activities. To encourage alignment and retention of key personnel, this framework includes a base salary, annual incentives and, where applicable, long-term incentive plans (vesting over multiple years). From January 2023, every USSIM employee will have an element of their annual bonus linked to overall long-term scheme performance (using the balanced scorecard above).

USSIM is thereby incentivised and aligned with the medium to long-term performance of the scheme (including through making decisions informed by both financial and non-financial considerations, on issuers of debt and equity in which USS invests and engaging with such issuers to improve their performance).

The trustee is satisfied that USSIM is aligned with its policies because of the relationship between the trustee and USSIM, and the non-profit arrangements in place.

5.2. Role of the Investment Committee

The purpose of the Investment Committee is to oversee the investment of USS's assets. It will, based primarily on investment advice from USSIM, make strategic recommendations to the Trustee Board. Where authority has been delegated to the Investment Committee, it will approve on USS's behalf strategic matters relating to the investment of the assets and development of the investment strategy, having regard to any legislative and regulatory requirements. All day-to-day investment decision making is made by USSIM.

The Investment Committee meets regularly to review investment strategy proposals and to receive regular reporting from USSIM on its ongoing investment management activities. Regular reviews of the existing investment strategy, including the overall and individual mandate investment performance, are also completed.

The Investment Committee is responsible for overseeing the delivery of services provided by USSIM under the Investment Management and Advisory Agreement (IMAA). As part of this oversight, the Investment Committee reviews USSIM's business plan, budget and other investment costs prior to final approval by the Trustee Board. It includes consideration of the strategic projects that USS has asked USSIM to complete, as well as comparing USSIM's investment management costs compared to peers. The Investment Committee receives an annual attestation from USSIM confirming compliance with the responsibilities and guidelines given to it by the trustee under the IMAA.

The activities, decisions made, and recommendations of the Investment Committee are reported to the Trustee Board after each meeting. The Investment Committee also reviews the provision of investment advice from USSIM on an annual basis.

5.3. Relationship with external investment advisers

In addition to the advice from USSIM, USS has contracts in place with two external investment advisers. For the year ending 31 March 2023, USS's external investment advisers were Mercer (DB matters) and LCP (DC matters). Both attend all Investment Committee meetings and provide independent insight and challenge to the committee's consideration of USSIM's investment strategy proposals and on the reporting provided by USSIM. USS may also request formal investment advice from these advisers (in addition to or instead of that from USSIM), as it deems appropriate.

As required under the Occupational Pension Schemes (Scheme Administration) Regulations 1996, trustees of a 'relevant trust scheme' are required to: (1) set objectives for investment consultancy service providers and review their performance against those objectives at least every 12 months; and (2) review, and if appropriate revise, the objectives at least every three years and without delay after any significant change in investment policy. In early 2023, USS reviewed the objectives and the performance of its external investment advisers against their respective objectives and made changes to ensure they remain appropriate.

The trustee is not required to do this in respect of USSIM as it is a wholly owned subsidiary of the trustee. However, the trustee rates the performance of USSIM in the same survey. The main mechanism for rating advisers is set out in the respective investment frameworks.

5.4. External manager selection and monitoring

USSIM is the principal investment manager and adviser to the scheme, looking after the investment and management of the scheme's assets. As part of this role, USSIM can allocate investment mandates to external managers.

Manager selection

When appointing a new public markets manager, USSIM sets out mandate requirements which detail the investment and operational requirements for the mandate. These underpin the selection process which will usually consist of a long-list of managers which is then filtered based on assessed skill, quality and fit with scheme requirements.

At the short-list stage, further due diligence is carried out on the external manager's investment team, process, risk management, Responsible Investment practices and business structure. Initial fee negotiations will also be undertaken at this stage. After this work, a final candidate will be proposed for further due diligence including a detailed RI assessment and Operational Due Diligence assessment. During the new manager onboarding process, USSIM compares fund expenses where relevant and possible.

External managers are requested to provide USSIM with details of their internal remuneration arrangements, which allows USSIM, where ascertainable, to assess whether they are aligned with the long-term objectives.

For private market fund investments, due diligence also considers remuneration, firm culture and incentive structures. As part of the analysis prior to investment, USSIM will consider how the key individuals involved in the fund's decision-making processes are aligned to fund performance, how performance fees are shared among the team and how the ownership of the fund management firm is shared among partners. A key focus of this review is to ensure that those performing the analysis and responsible for the allocation of USS's capital within that firm are well-aligned with USS's investment objectives over the long term.

Manager monitoring

Oversight of the external and internal public market mandates is carried out by USSIM. The method and time horizon for evaluating and remunerating external managers is determined by policies set by USSIM. USSIM engages via questionnaires and regular meetings, covering performance, emerging risks and changes to the portfolio and process.

USSIM also undertakes formal in-depth annual reviews of all external public market managers incorporating detailed assessments, including changes in the organisation, team, process, expenses, portfolio turnover, risk and diversity and inclusion initiatives. USSIM undertakes regular benchmarking exercises of the external managers' fees and looks to renegotiate accordingly to ensure the fees remain competitive.

For private markets fund investments, USS's policy is complied with at the time of the investment and oversight is undertaken by USSIM on at least a semi-annual basis.

USSIM has processes in place to assess and monitor how its external managers are addressing financially material considerations in the selection and retention of investee managers and assets. This assessment takes place before appointment and is monitored on an ongoing basis. This applies to managers of both public market and private markets funds, and managers within the DB and DC parts.

5.5. Fees and transaction costs

There are different types of investment costs and charges, some of which are explicit (like an investment management charge) and some of which are implicit (like transaction costs).

To provide USS with a full view of the costs and charges, USSIM carried out an exercise to report total investment costs incurred over the calendar year 2022 (for both the DB and DC parts). USSIM appointed an external provider to help with the data collation and benchmarking purposes. Upon conclusion, USS was able to include the costs and charges for the DC funds within the DC Chair's Statement as at 31 March 2022 and comply with the Cost Transparency Initiative's guidance. The exercise also covered external portfolios, allowing USS to monitor target portfolio turnover[5] and/or turnover ranges, which it does on an annual basis.

Best execution is overseen by an internal USSIM committee. The committee's responsibilities include oversight and challenge of USSIM and the external managers' Cost and Quality of Execution.

6. Financially material considerations

6.1. Introduction

USS's primary duty in relation to investment strategy is to invest in the best financial interests of members and beneficiaries, with an appropriate level of risk. In carrying out this duty, USS expects its investment managers (USSIM and the external managers appointed by USSIM) to take into account all financially material considerations in the selection, retention and realisation of investments. This includes ESG considerations (such as, but not limited to climate change) where these are considered relevant financial factors. This approach is implemented in three ways:

- Integration into investment decision-making processes: USS requires active managers to seek to identify mispriced assets and make better investment decisions to enhance long-term performance by taking account of financially material considerations.

  USS believes additional returns are available to investors who take a long-term view and can identify where the market is overlooking or misestimating the role played by these considerations in corporate and asset performance.
- Stewardship, engagement and voting rights: As a long-term investor USS expects its managers to behave as active owners on its behalf and use their influence to promote good practices concerning financially material considerations.
- Market transformation activities: USS and its agents engage with policymakers and regulators in markets in which it invests, and articulate concerns of asset owners and long-term investors, covering areas such as accounting standards and climate change policies.

USS has processes in place to ensure the investment strategy and management of the assets are in the best financial interests of the members and beneficiaries. These processes are overseen by USSIM and the Investment Committee. USS is satisfied that USSIM is informed about the matters that the investment managers are taking into consideration and that these are aligned with USS's policies, as expressed in the SIP and the Default SIP.

The decision to appoint either internal or external managers and the decision regarding the preferred investment structure is made in the best interests of the members and beneficiaries considering several factors including investment capability, experience and value for money. This applies for both the DB and DC parts.

As it is financially material, USS believes that addressing climate change is in the best financial interests of its members and beneficiaries, and as such has set an ambition to be Net Zero for greenhouse gas emissions by 2050 if not before.

5 Turnover has been defined as Sales + Purchases / Average Asset Value. Purchases (sales) are total consideration paid (received) for the purchase (from the sale) of assets during the reporting period. Average Asset Value is the average value of assets at month end during the reporting period.

Implementation statement

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6.2. Investment manager oversight: alignment of interests
The SIP sets out USS's policies in relation to arrangements with internal (USSIM) and external asset managers, which is set out in Section 5, of this Statement.

USS has put in place several processes with its investment managers (internal and external) to ensure alignment of interests with USS's policies and objectives, and a long-term focus. These are considered in the selection, retention, and realisation of investments.

When appointing an investment manager, USS requires managers, including USSIM, to consider these investment policies which cover such things as:

- The kinds of investments to be held
- The balance between different kinds of investments
- Financially material considerations to be considered over the appropriate time horizon of the scheme, including how those considerations are considered in the selection, retention and realisation of investments

USS considers that the following processes create alignment with USS's investment policies:

Setting the investment strategy with a long-term horizon, including the use of private market assets
USS recognises that while underperformance may occur over periods of time, the probability of return-seeking assets outperforming lower-risk investments increases as the investment horizon lengthens, though it does not become a certainty. USS, as a long-term investor, is likely to hold some investments over many years, including the use of private market assets that provide opportunities for additional returns over the long term.

Investing responsibly and engaging as long-term owners
USS expects its investment managers, including USSIM, to engage as active owners of assets, focused on sustainability, good corporate governance and to consider all financially material considerations, including material ESG factors, in relation to the selection, retention and realisation of investments. Members' interests are further protected from adverse impacts by collaboration with like-minded investors and engagement with government, industry and regulators.

Long-term relationship with USSIM and external managers
USSIM and external managers are appointed as long-term investment managers, in line with the long-term focus and horizon of the scheme. USS monitors the performance of USSIM over rolling five-year periods and USSIM monitors external managers in the same way.

Using in-house investment management where beneficial to the scheme and members
USSIM's compensation approach for in-house investment managers is designed to incentivise the delivery of performance over the long term and to encourage the retention of key personnel.

6.3. Consideration of non-financial factors
Investing in the best financial interests of members and beneficiaries is USS's primary duty. However, to the extent permitted by its fiduciary duties, there are some circumstances where USS may consider non-financial factors and take account of member views in relation to the selection, retention and realisation of investments. These circumstances may include where:

I) Taking those non-financial factors into account would not pose a risk of significant financial detriment to the scheme, for example, where the choice is between two investments which are broadly equivalent from a financial perspective.

II) USS has good reason to believe that all members would share each other's concerns about the non-financial factors.

In the Investment Builder (the DC part), where USS is able to offer members a choice of self-select funds, ethical options are made available. These are based on member research and allow members to reflect their views and preferences and take account of their own position on the risks of potentially lower returns.

There have been no circumstances over the past 12 months where non-financial factors could be taken into account for investment decision making.

6.4. Engagement with the members
USS provides members with several ways to provide feedback on investment issues, including via a contact form on the website, post and member surveys. As part of USS's survey engagement, USS invites views from members and beneficiaries on non-financial matters. These include (but are not limited to) ESG issues and ethical matters.

Task Force on Climate-related Financial Disclosures (TCFD) Report Summary

Managing climate change risks and opportunities continues to be central to our investment strategy, and we continue to embed our Net Zero ambition into our culture and ways of working. We have been reporting against the TCFD framework voluntarily since 2018, and this is our second mandatory report. Set out below is a summary of our 2023 TCFD Report and details of where to find further information.

What is a TCFD Report?

TCFD (Task Force on Climate-related Financial Disclosures) reporting has been a statutory requirement since the UK's Department of Work and Pensions (DWP) Occupational Pension Schemes (Climate Change Governance and Reporting) Regulations 2021 (DWP TCFD Regulations) were introduced. These regulations require large pension funds like USS (and smaller funds in the coming years) to follow the TCFD structure to report how they are managing climate change risks.

The UK regulations follow the four sections within the TCFD's structure:

1. **Governance** – how the organisation's board, committees and senior management are assessing, managing and monitoring climate-related risks and opportunities.
2. **Strategy** – actual and potential impacts of climate-related risks and opportunities on the organisation's businesses, strategy and financial planning where such information is material.
3. **Risk Management** – the processes for identifying, assessing and managing climate-related risks, and how these are integrated into the organisation's overall risk management.
4. **Metrics and Targets** – the metrics and targets the organisation uses to assess and manage relevant climate-related risks and opportunities.

Our 2023 Report also contains details of our most recent carbon footprinting exercise, which provides an estimation of the scheme's investment footprint at 31 December 2022. As was the case in our 2022 Report, this will be subject to change as further climate data becomes available.

The DWP TCFD Regulations also specify that we must conduct scenario analysis at least every three years and more frequently where there are significant changes in either the scheme or the climate. Having undertaken scenario analysis for the 2022 TCFD Report, and as there had been no material changes either within the fund or with our climate scenarios, the Trustee Board decided not to update the climate scenario analysis for the 2023 TCFD reporting cycle. See more in 'Key findings' below.

Why is it important?

USS has a long history of recognising climate change as an investment risk. Our first work on this was completed in 2001, leading to the launch of the Institutional Investors Group on Climate Change (IIGCC). Since then, members and other stakeholders increasingly have wanted to understand how climate-related risks and opportunities may affect USS in the short, medium and long term.

The DWP TCFD Regulations and this report help us to structure our assessment, to manage the impacts of climate change and to communicate what we are doing. As a large asset owner and manager, we also have an important role to play in influencing the organisations in which we invest to provide better climate-related disclosures and solutions.

Key findings

A summary of the report's key findings is set out below. The full TCFD report is available here – **uss.co.uk/how-we-invest/responsible-investment**.

> *While we have voluntarily reported in line with the TCFD recommendations since 2018, this is our second mandatory report.*

Governance

We have adapted our governance structures to incorporate oversight of the scheme's climate strategy

This section of the report sets out how our Trustee Board, committees, principal investment manager (USSIM) and senior management assess, manage and monitor climate-related risks and opportunities.

The Trustee Board has ultimate responsibility for all issues relevant to the scheme, including the oversight and management of risks and opportunities related to climate change.

The Investment Committee supports the Trustee Board by overseeing the implementation of the trustee's climate strategy, including metrics and targets, and the relevant time horizons. In addition, we have established a Net Zero Steering Committee (NZSC), which oversees and manages the scheme's efforts to address climate change, providing planning, governance and oversight of the activities associated with achieving Net Zero. Asset class working groups are accountable to the NZSC to ensure we are on track to deliver our Net Zero ambition.

TCFD Report Summary
Continued

Strategy
Having undertaken scenario analysis in 2022, and with no material changes within the fund or with climate scenarios, we will review our approach to climate scenario analysis ready for future reporting

The Strategy section outlines that the 2021 scenario analysis raised important questions about our portfolio exposures which need to be addressed as we fully integrate climate factors into our investment process. We identified significant limitations with approaches to climate scenario analysis and are working with the University of Exeter to develop a more useful approach for investors which builds in climate tipping points and better integrates climate factors with other macro drivers.

Risk management
We have taken further steps to integrate ESG risks, and specifically climate risks, into the scheme's wider risk governance, monitoring and management processes

We introduced a new Investment Framework in 2022, which changes the way the trustee sets the mandate for USSIM.

Under the framework, a balanced scorecard approach is used to assess USSIM's investment performance and advice, as well as how well it has managed investment risks. In the Responsible Investment category of the balanced scorecard, we include an assessment of the scheme's progress against its Net Zero ambition and the extent to which USSIM has integrated financially material ESG factors into its investment decision-making and stewardship processes. More information on the investment balanced scorecard can be found on page 24.

Metrics and targets
The metrics and targets we use are aligned with peer funds and reflect good practice, although the availability and quality of data vary across, and even within, asset classes

We have improved our measurement methodology, enabling us to obtain better estimates of the emissions generated as a result of the scheme's investments (referred to as financed emissions). This means we are restating the carbon intensity for both our baseline year (2019) and our 2021 carbon footprint and have recalibrated our interim targets to align with our updated calculation of our 2019 emissions intensity. The table below lays out the original and revised 2021 data. Our emissions targets are based on non-sovereign related emissions as explained in the full 2023 TCFD Report.

The impact of these adjustments to our 2019 baseline year (and therefore our decarbonisation trajectory) are marginal with the intensity of the scheme in 2019 reducing from 93 tCO_2e per £m to 90 tCO_2e per £m. However, the impact on our 2021 emissions intensity was more pronounced; our carbon footprint has been adjusted from 90 tCO_2e per £m invested to 78 tCO_2e per £m invested.

We have also included an estimate of our Scope 3[1] emissions, although the availability and reliability of this data remains poor. We obtained Scope 3 data for approximately £23bn of our £46.4bn of non-sovereign assets.

In 2022, we voluntarily reported on 'Data Quality', and we are reporting this as our fourth, mandatory metric this year.

Tables[2]
Previously reported 2021 emissions data

31 December 2021	Asset value (£m)	Financed Emissions* (tCO_2e)	Emissions Intensity* (tCO_2e/£m)
Non-sovereign	47,388	4,243,411	89.5
Sovereign	35,039	25,375,617	724.2
Data unavailable	9,800	–	–
Total	**92,227**		

Updated 2021 emissions data

31 December 2021	Asset value (£m)	Financed Emissions* (tCO_2e)	Emissions Intensity* (tCO_2e/£m)
Non-sovereign	57,096	4,433,158	77.6
Sovereign	35,039	25,375,617	724.2
Data unavailable	92	–	–
Total	**92,227**		

*Emissions reported are Scopes 1 and 2 only[3]

Notes
1 Scope 3 encompasses emissions that are not produced by the company itself. They are not the result of activities from assets owned or controlled by them, but by those that it is indirectly responsible for, up and down its value chain. An example would be the emissions associated with holiday flights: these emissions would be Scope 3 for the oil and gas company that provides the aircraft's fuel.
2 'Sovereign' refers to the debt issued by governments, for example, UK gilts. 'Non-sovereign' assets are all other investments, including company issued equity and debt, property etc.
3 Scope 1 covers emissions from sources that an organisation owns or controls directly – for example, from burning fuel in a fleet of vehicles. Scope 2 are emissions that a company causes indirectly when the energy it purchases and uses is produced. For example, the generation of electricity would fall into this category.

As shown in the chart below (depicted by the orange triangles), we are currently ahead of the straight-line path from our baseline in 2019 (orange triangle) to our 2025 or 2030 target intensities (the green diamonds). For reference, we have included (in blue) the data points shown in last year's TCFD report, before recalibrating the trajectories for the updated base year.

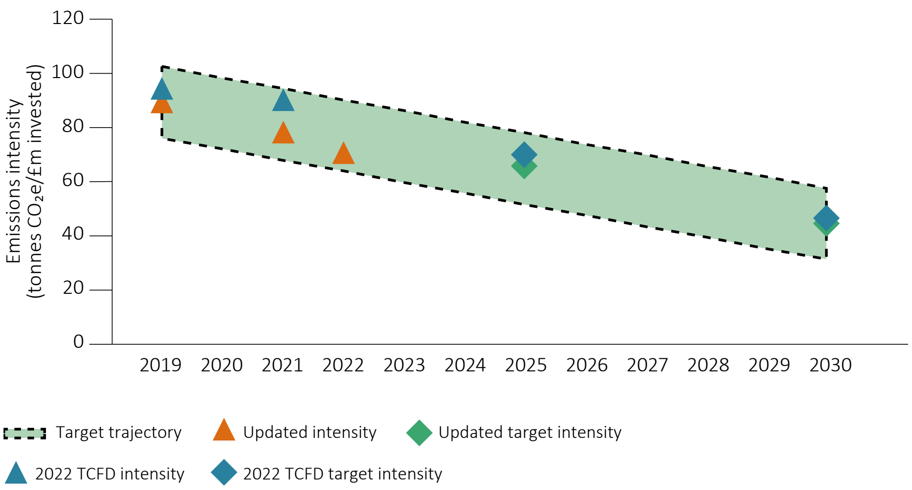
Whilst we are currently ahead of our trajectory, we are aware that our decarbonisation rate is unlikely to track directly in line with a required transition rate. We expect that some years the rate will overshoot and some years undershoot the necessary 4.7% to 6.1% yearly decrease required to achieve our interim goals. We expect our decarbonisation trajectory to vary over time within a range illustrated by the tramlines in the chart below.

Our emissions intensity is currently 7 tCO_2e / £m lower than it would be, if we were to follow a smooth path from 2019 to our 2025 ambition of a 25% reduction. It is over 3 tCO_2e / £m lower than the smooth path to our 2030 ambition of a 50% reduction.

The change from 2021 was primarily driven by reduced intensities within our Global Emerging Market (GEMs) equities portfolio (which has a high carbon intensity), the corporate component of our Emerging Market debt portfolio and an increased weight in property (which, because of the way its carbon intensity is measured, has a very low carbon intensity) relative to other assets. We sold some of the cement holdings in our GEMs portfolio. As cement is a very carbon intensive sector, this contributed to the reduction in the overall GEMs carbon footprint and intensity.

The chart on the next page demonstrates that following our restatement of 2019 and 2021 data, and with the inclusion of 2022 data, we are below the trajectory required to hit our revised 2025 interim target.

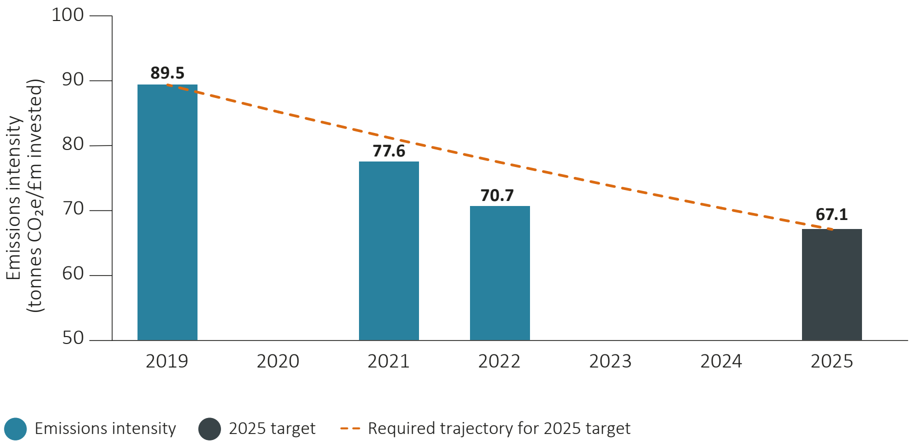
Actual emissions intensity vs. targets



Our carbon footprint data involves some estimations and is subject to change as further climate data becomes available.

TCFD Report Summary
Continued

Trajectory to our 2025 target



Our emissions intensity as at 31 December 2022 was 21% lower than in 2019 and our estimated financed emissions are down 26%. This means that the scheme's forward glide path over the next three years, based on a 2022 figure of 70.7 and a 2025 target of 67.1, will need to achieve a reduction of 1.7% annually. For our 2030 target of 44.8 (50% below our 2019 baseline) the required reduction rate is now 5.6% per annum.

It is also worth noting that the emissions intensities of our assets are not equally spread across different asset classes. The emissions associated with our Credit portfolio, for example, are significantly higher per £ invested than other asset classes, in particular our private assets.

We established our ambition for our investments to be Net Zero in May 2021, produced our first mandatory TCFD Report in 2022 and have continued to improve our investment practices with respect to climate-related risks, building on the policies and processes put in place to deliver on that ambition.

Delivering our ambition to achieve Net Zero for our investments by 2050, along with our associated interim targets, is a complex matter. It requires nothing less than a shift in how the world produces and uses energy – a transition away from fossil fuels to low-carbon alternatives. This will take time, as policymakers, companies, civil society and investors such as USS work through what this means.

Our 2022 carbon footprint seems to indicate that we are on track to achieve our interim targets (to cut the emissions intensity of the companies in our portfolio by 25% by 2025 and by 50% by 2030 relative to the 2019 baseline). However, our 2025 target is just a milestone on the path to deliver Net Zero, and arguably it will become more difficult to deliver carbon reductions over time. We recognise that we will need to do more to ensure that the reductions we deliver are sustainable and that we establish the processes to deliver our ambition in the future.

The Trustee Board and executive of USS are committed to delivering the changes required, so that we manage climate change risks effectively while also seeking out investment opportunities. We very much want to see a world worth retiring into and will aim to deliver both the pensions our members expect and a low-carbon future.

"We recognise that we will need to do more to ensure that the reductions we deliver are sustainable and that we establish the processes to deliver our ambition in the future.

Glossary

Actuarial valuation	appraisal of the defined benefit element of the scheme's assets and liabilities, using investment, economic, and demographic assumptions for the model to determine whether, at a certain date, we believe the scheme will have enough money for us to be able to pay the pensions promised to our members on a timely basis
CEM Benchmarking	specialist independent external benchmarking service for pension providers to compare value for money across 150 of the world's top 300 pension funds
CPI	Consumer Price Index
CPIH	Consumer Price Index including owner occupiers' housing costs
defined benefit	an employer-sponsored retirement plan where employee benefits are computed using a formula that considers several factors, such as length of employment and salary history
defined contribution	a plan in which members and employers contribute a fixed amount or a percentage of pay which is invested and the proceeds used to buy a pension and/or other benefits at retirement
emissions intensity	tonnes of CO_2 equivalent emitted per million pounds USSIM investments. This is a method of apportioning carbon emissions to the amount invested by USSIM
employees	employees of Universities Superannuation Scheme Limited or USSIM
employers	Higher Education and other institutions who pay contributions to their employees' pensions
ESG	environmental, social and corporate governance
FCA Senior Manager and Certification Regime	relates to regulation, implemented by the Financial Conduct Authority (FCA), to extend regulatory accountability to the senior managers within financial institutions in an effort to curb corruption and enforce an increased culture of compliance in the UK's financial services market
fixed income	means an investment approach focused on preservation of capital and income. It typically includes investments like government and corporate bonds and can offer a lower risk steady stream of income
funding ratio	ratio of a pension or annuity's assets to its liabilities
growth assets	investments expected to deliver capital growth and/or variable/dividend income over time
IAP	Institutions Advisory Panel; employer advisory group to USS
Implemented Portfolio	the actual distribution of the scheme's assets, across a more diversified asset mix, as determined by the investment programme
Investment Builder	the defined contribution element of the scheme. Members have funds in the USS Investment Builder if they have earnings above the salary threshold (£40,000 for the 2022/23 financial year increasing to £41,004 from 1 April 2023), made additional contributions, or recently transferred funds into the scheme
investment management cost	a measure used by USS to assess most of the investments managed on USS members' behalf to analyse value for money
leverage	Leverage measures the degree to which total investment exposure exceeds the value of scheme net assets. Leverage is created by repurchase agreements and derivatives, including futures and swaps
liability-matching assets	investments exposed to interest rate and inflation risks and which are expected to hedge those risks within the scheme's liabilities
members	employees of Higher Education institutions who may be active (make contributions into future pensions), deferred (previously active who have deferred their pension until retirement age), or pensioner members (in receipt of pension benefits)
My USS	the online service for managing USS savings and benefits

Glossary
Continued

pari passu	Pari passu is a Latin phrase meaning ‘equal footing’
pension administration cost	a measure used by USS to assess the cost of administrating USS pensions to analyse value for money for members
private markets	financial companies involved in private rather than public markets are part of the capital market. They include investment banks, private equity, and venture capital firms in contrast to broker-dealers and public exchanges
public markets	refers to securities available on an exchange or an over-the-counter market
Retirement Income Builder	the defined benefit element of the scheme. Members automatically join the Retirement Income Builder
return-seeking assets	investments comprising growth assets and assets expected to deliver fixed income in excess of cash and gilts
RPI	Retail Price Index
the scheme	the scheme means Universities Superannuation Scheme
the trustee	the trustee or trustee company means Universities Superannuation Scheme Limited It is a corporate trustee which has overall responsibility for scheme management
Trustee Board	a board comprised entirely of non-executive directors that provides overall leadership, strategy and oversight of the scheme, the trustee company and USSIM, in co-operation with USSIM’s board of directors
USS	USS means Universities Superannuation Scheme
USSIM	USSIM means USS Investment Management Limited
we, us or our	we, us or our means the trustee but, where the context admits, may mean USSIM

Pensions increases

USS pensions are generally increased in line with increases in official pensions as defined in the Pensions (Increase) Act 1971, although from 1 October 2011, changes to the Scheme Rules introduced limits on such increases in respect of rights that accrue after that date. Increases to official pensions are based on the rate of inflation for the 12 months to September, measured using the Consumer Prices Index (CPI). For the year to September 2022, the CPI rate was 10.1% and therefore the increase applied to USS pensions in payment and deferment accrued prior to 1 October 2011 was 10.1% effective from April 2023. This CPI rate exceeds the limit previously introduced for benefits accrued from 1 October 2011 however, and therefore the increase applicable to these benefits effective from April 2023 was 7.55%.

Enquiries about the scheme

Enquiries should be addressed to the Company Secretary, Mr Michael Burt, Universities Superannuation Scheme Limited, Royal Liver Building, Liverpool L3 1PY.

Principal advisers

A range of external advisers were engaged in the UK and overseas to support the operation of the scheme during the year. The principal external advisers of the scheme and for the trustee company are:

Scheme Actuary
Aaron Punwani of Lane Clark & Peacock LLP, 95 Wigmore Street, London, W1U 1DQ

Independent Auditor
Ernst & Young LLP, 25 Churchill Place, Canary Wharf, London, E14 5EY

Bankers
Barclays Bank PLC, 48B & 50 Lord Street, Liverpool, L2 1TD

National Westminster Bank Plc, 22 Castle Street, Liverpool, L2 0UP

Custodians
JP Morgan, 25 Bank St, Canary Wharf, London, E14 5JP

Northern Trust, 50 Bank Street, Desk 7-18-F, London, E14 5NT

Legal advisers
(Actuarial Valuation) CMS Cameron McKenna Nabarro Olswang LLP, Cannon Place, 78 Cannon Street, London, EC4N 6AF

Covenant advisers
PricewaterhouseCoopers LLP, 1 Embankment Place, London, WC2N 6RH

Investment adviser
USS Investment Management Ltd, 60 Threadneedle Street, London, EC2R 8HP

supported by:

Lane Clark & Peacock LLP, 95 Wigmore Street, London, W1U 1DQ

Mercer Ltd, 1 Tower Place West, Tower Place, London, EC3R 5BU

The financial statements included within the Annual Report and Accounts have been prepared and audited in accordance with regulations made under Section 41(1) and (6) of the Pensions Act 1995.

The registered number of the trustee company (Universities Superannuation Scheme Ltd) at Companies House is 01167127.

The reference number of the scheme (Universities Superannuation Scheme) at The Pensions Regulator is 10020100.

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