UNIVERSITIES SUPERANNUATION SCHEME

Report & Accounts for the year ended 31 March 2017

USS



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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## ONLINE INFORMATION

To keep our members and employers fully up-to-date, we have a range of communications available on our website **www.uss.co.uk**. This means access to the information is available 24 hours a day.

## Key facts and figures

## Funding ratio **83%**\* 31 March 2017

31 March 2016: 83% Actuarial valuation 31 March 2014: 89%

See page 104

Employer satisfaction survey

61%

2015/10:73% See naae 20

Member satisfaction survey

66%

2015/16:65%

See page 17

Net assets available for benefits **£60.0bn** 31 March 2017

31 March 2016: £49.8bn See page 104

\*on a 2014 valuation basis under our monitoring approach, keeping all the assumptions to determine accrued pension benefits constant except the discount rate, which is assumed to move exactly in line with changes in yields of index-linked gilts. The 2017 actuarial valuation is ongoing. \*\* One basis point is equal to 0.01% Investment cost per asset under management

## **32** basis points

2015/16: 39 basis points

See page 15

Administrative expenses per member

£137

## Investment return

**20.1%** (1yr) 2015/16: 1.6%

**12.0% p.a** (5yrs) 2015/16: 8.9% p.a See page 42

Investment performance relative to internal benchmark **(2.05%)** 

(1yr) Target: 0.55%

**0.50% p.a** (5yrs) Target: 0.495%

## **Member numbers**

## 396,278

Active members: 190,546 Pensioner members: 66,419 Deferred members: 139,313

See page 1

#### THE TRUSTEE'S ANNUAL REPORT

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## Chair's introduction



Professor Sir David Eastwood Chair

In 2016/17 it may have seemed that the world had turned on its head with the UK's vote to leave the European Union and the election of President Trump. These outcomes were not predicted by many and they have contributed to the more uncertain world we find ourselves in.

In a year of unprecedented change, USS has also adapted and evolved. I am pleased to present the 2017 Annual Report and Accounts which sets out our progress during the year, and demonstrates the trustee's ability to complete complex structural reform, to govern the scheme effectively, and to continue to provide a valued pension product and service for our members and employers.

Within the higher education sector, the passing of the Higher Education and Research Act 2017 brings fundamental changes to what it means to be called a

'university', opening the doors to private providers, and inevitably bringing forth greater competition for staff and students.

Against this backdrop the higher education sector will continue to seek ways to attract and retain the best staff, to deliver world class teaching and research, and to give our students a rich and fulfilling experience. In this respect, USS is strategically important to the higher education sector - it constitutes a critical part of the remuneration package that is offered to academic and senior support staff.

USS was created by, and for, the sector, and as such we have significant autonomy over the nature of the scheme and the services provided. We know employers and members recognise the importance of a good quality pension scheme – one that offers a secure way to save, together with the support to prepare for retirement, and the ability to access pension savings when needed.

The trustee board, is of course, profoundly conscious of the trust placed in it to act in the best interest of the scheme for the benefit of the employers and members. I wish to thank my fellow board members for their commitment, energy and the care with which they have carried out their duties over the past year. The agenda during the year has been substantial due to the work required to implement the changes to the scheme, in addition to the usual business of the board.

In terms of board membership there has been one change with Dr Steve Wharton of the University of Bath joining the trustee board on 1 September, appointed by the University and College Union (UCU). Dr Wharton previously served on USS's Advisory Committee, he replaces Dr Angela Roger who stepped down at the end of her term in August 2016. We welcome Dr Wharton to the board, and thank Dr Roger for her service to the trustee.

Dr Wharton's skill and experience will complement the existing expertise on the board. We are ever mindful of board composition, and all board members complete regular training to ensure our skills remain current. The introduction of the USS Investment Builder, the new defined contribution (DC) section of the scheme, means USS has become subject to the relatively new requirements of the Charges and Governance Regulations 2015. Amongst other things, these regulations, which are aimed primarily at Master Trusts, require both the Chair and the majority of board members to be non-affiliated. We are considering our own board composition and appointment procedures in light of these regulations. This is an evolving area, and as such, we will be working closely with the stakeholders on this topic in the forthcoming year.

The application of DC regulations, and the appropriate governance structures to support the new DC section, has been the focus of much of the board's work in the year. The USS Investment Builder was designed around the needs of our members, based on extensive research, and drawing upon industry best practice. We have applied the same rigour to ensuring we satisfy DC reporting requirements and you can find USS's Chair's Defined Contribution Statement on pages 90 to 99.



I also wish to recognise the Executive Team who have supported the substantial board agenda. We have asked a great deal from them during the year and they have consistently delivered. We have continued to devote time to ensuring that we have the right governance structures in place to support the board's strategic role, and enable the executive to deliver operationally. Our main stakeholder bodies, Universities UK and UCU have also contributed enormously during the year, via both our formal committee structure, specifically in the Joint Negotiating Committee and the Advisory Committee, and in the many engagements we have had with them around the implementation of the changes to the scheme - these engagements are invaluable. They ensure that the trustee remains aligned to the needs of both employers and members, and provides context to our own sector research and analysis.

Given the trustee's commitment to continuing to provide a high quality scheme which meets the retirement needs of employers and members for the long term, we welcome the work Universities UK is doing to develop a longer term strategy for pensions in the higher education sector. We want to deliver a scheme which achieves the most appropriate outcomes for our members, and for employers, and we can only do that with support and insights from those we serve.

The engagement in both the Universities UK work and the various consultations, working groups, and surveys initiated by the trustee is vitally important and will continue to inform the development of our increasingly bespoke products and services.

Professor Sir David Eastwood, Chair

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ACTUARIAL REPORTS

## Group Chief Executive Officer's update



Bill Galvin Group Chief Executive Officer

# 2016/17 was a year of important milestones for USS, with a challenging scheme change programme delivered within a very tight timescale.

In April, we launched the USS Retirement Income Builder, a career average defined benefit (DB) pension for all active members. To do this, we needed to move from one pensions administration system to another. This included the migration of the administration and payroll records together with the launch of a new employer portal with enhanced contribution and HR data interfaces.

In October, we launched the USS Investment Builder, a new DC arrangement for members with salaries in excess of the  $\pm 55,000$  threshold, and for the investment of additional voluntary contributions. This required us to design and build a market leading

DC investment offering. We had to implement a process to split payroll contributions between the DB and DC streams (while this is essentially an employer task, USS was able to do it more effectively, on behalf of the sector). We also introduced My USS, an online service for members, enabling them to make investment choices in the USS Investment Builder. A significant programme of development work was undertaken ahead of the introduction of the USS Investment Builder to understand the needs of our members, and to ensure that we provided tailored investment options. This also helped us to develop effective member communications that provided clear guidance and support by setting out investment and other options available as part of this flexible pensions offering. A new member service desk was also introduced, to support the efficient handling of member telephone enquiries and relieve pressure on the internal service team.

While we were busy with this implementation, the world did not stand still. Socio-political and macro-economic events further dampened opinion on future growth. The monitoring of DB risk that we initiated after the 2014 valuation indicated that we needed to accelerate preparations for the valuation due at the end of March 2017. We started our preparations in earnest, in the summer of 2016.

If this was a challenging time for USS, it was equally the case for our sponsoring employers, and for members, who were subject to levels of change and uncertainty that were unprecedented through the previous 41 years of USS's existence. The scale of the changes were such that 'normal' developments that we might have called to your attention in a more typical year, such as the increases to national insurance contributions and the introduction of tapered tax relief etc., were absorbed into a much bigger wave of change.

So, how did we do this year? I think the answer is 'pretty well, considering the circumstances'. Let's take a look.

Our members' experiences of USS, of our systems and processes, and of our people, is a crucial barometer of our success in managing

the scheme. The Net Promoter Score (NPS) measures whether we meet the high standards of service expected by our members. We ask those who have recently used a service or experienced a process to provide feedback.

Anticipating the substantial challenges we would ask of ourselves and the sector during the time of change and uncertainty, we thought that the employer NPS would fall by around 10 percentage points - from a comparatively high 73% last year. In fact, the NPS fell by 12 percentage points to 61%. The challenges of implementing completely new interfaces, revised processes and navigating members through a series of benefit changes challenged our delivery and our employers' patience at times. With goodwill, a huge amount of collaboration and input from all sides, we hit our major milestones for the delivery of this challenging undertaking, which was perhaps the most significant of the key performance indicators (KPIs) we set ourselves at the beginning of the year. This year, with a suite of new technologies fully in place, we aim to increase our satisfaction scores considerably.



Thanks to some excellent work from our colleagues in employer pension teams, and as a result of the substantial investment we made in communications design and content, our members continued to rate the service they received from USS highly. The NPS from members surveyed remained broadly flat at 66%, which is a significant achievement considering the changes that have been undertaken. Despite concerns about the benefit changes, members, on the whole, feel well supported, due to effective communications, and adequate service levels. Another key achievement was the level of awareness and understanding among members at each stage of the benefit change programme. We surveyed groups of members at key points throughout the process, in May and October 2016, and then again in February 2017. By October, more than two thirds of the members surveyed (70%) had been made aware of the introduction of the USS Investment Builder and more than half knew about the key features of the DC section, compared to just 40% of those surveyed in May.

Awareness is important, but in a DC world member action is also required. The member surveys also recorded very high levels of action or planned action. This included:

- 99% of respondents said they had visited or planned to visit the USS website.
- Half of the members surveyed had read the Member Guide.
- Two-thirds had used, or planned to use the online modellers.

This level of engagement reflects both our efforts, and the importance of the pensions offering to our membership. It is a privilege to provide the products and services we do in this sector, and these levels of engagement make us more determined to set the bar as high as possible in all our endeavours.

When members do engage with USS, the feedback from their experience is positive. Two-thirds of the members surveyed in September reported that their overall experience of dealing with USS was good, very good or excellent. For members surveyed who dealt directly with our staff, that number was even higher. 77% rated their experience as good, very good or excellent. I am grateful to the USS teams in Liverpool who have dealt with huge volumes of change and increased volumes of processing, and maintained an unflinching ambition for our service standards.

### Investment performance and funding

Through this period of substantial change, it was important we did not take our eye off the ball when delivering 'business as usual'. Our investment performance is measured over a five year period and continued to outperform the internal benchmark of the reference portfolio. The team has generated 50 basis points of added value after costs, or £1.1bn of investment returns over the reference portfolio, in this period. Over the latter 12 months, short positions in UK index linked gilts and North American equities relative to the reference portfolio somewhat dampened the very strong relative performance reported here last year. Our longer term performance management measures are designed to facilitate key investment decisions that may not pay off in the short term. In absolute terms, our invested portfolio returned 12.0% annualised over the last five years, driven by increases in the values placed on all asset classes, as expectations for forward returns fell across the board. This compares to a return on index-linked gilts over the same period of 9.8%. Though the return on the invested portfolio falls short of the expected outperformance of gilts +2.75%, our discount rate sets a hurdle of 1.7% over the gilt yield in this period, which was exceeded. Most challenging for scheme funding levels, however, is that over the last year, a portfolio of gilts that matches our liabilities has returned over 20%, as yields have fallen. In summary, the longer term performance of our investment teams remains strong. The asset liability mismatch we deliberately run to create value for the sector has not performed as highly as we anticipated over the five year period. Our expectation is that our assets will outperform the liability measures in future years.

We are currently working through, from first principles, our views on future returns and risk, with the intention of sharing our conclusions on the contribution rate for future accrual, and the scale of the deficit in respect of past service with our stakeholders in September 2017. We must submit a valuation to the Pensions Regulator, outlining the scheme solvency position and any remedial steps required by June 2018.

### Pensions administration

In pensions administration, we worked hard to ensure that work in progress prior to April 2016 was at a manageable level so that the team was well prepared to deal with the inevitable disruptions that accompany major change. We also communicated revised expectations for administration processing times to all our employers. This preparatory work stood us in good stead as there were indeed delays to turnaround times through the transition, but they were by and large within the revised commitments we had made in advance. We met some very challenging targets as we maintained service levels within the acceptable parameters.

### **Engagement levels**

The company and the sector have asked for huge amounts from USS colleagues and employers, in both time and commitment. I am very proud of the way in which the team has responded. Not only have they delivered during this challenging time, but their commitment to this important task has also increased. Our internal employee engagement score of 85% was above that reported last year, and the highest performing questions again included a 90% positive rating for a statement that 'USS cares about the service it provides and is sincere in its dealings with members and stakeholders'. Without these industry leading levels of engagement, the achievements of 2016/17 would not have been possible.



SCHEME FINANCIALS CHAIR'S DEFINED CONTRIBUTION STATEMENT

### **Internal controls**

We are very aware that we have huge responsibilities for processing and investing very large amounts of employer and member contributions. We aim to run a very tight ship, in control terms. We monitor our activities closely for operational loss and error, for regulatory and compliance breaches, and to ensure we remain within our policy guidelines. Although it was expected, it was also gratifying that we could report to the board and audit committee that we met expectations in all of these areas, despite the increases in scale, complexity and scope of the activities we took on this year.

#### Value for money

We are focused on using our scale and specialist skills to provide outstanding value for money for the higher education sector. Pages 13 to 16 of this report explains that administration costs have increased significantly over the last year. This is due to the financing requirements of a very complex change programme, and the costs of running a far more complex product. We have also insourced more of our investment activities with the aim of reducing the overall costs of investment borne by the scheme. We continue to benchmark (based on independent studies) as a low cost investment provider, and a relatively high cost, but high value pension administrator (reflecting our complex product, the number of employers served and the bespoke services we provide). I have no doubt that overall, USS provides excellent value for money for the products and services we provide. We will continue to focus on reducing the total cost to the sector of running the scheme.

#### **Perceptions survey**

This year, for the first time, we surveyed our members and employers to ask how they perceive USS, and in particular what they value most about the scheme and the service. Members' overall ratings of the relationship that they have with USS are generally good (53% responded with good or very good), and only 7% rated this as poor. Despite the changes, 61% of members surveyed have a positive view of the benefits USS provides. Just over half of the employers surveyed (56%) rated their overall relationship with USS as good or very good. Reflecting the challenges we have posed to the pensions teams in institutions this year, a significant minority of respondents reported their relationship to be poor (14%). We have set ourselves challenging KPIs to improve these scores this year.

During the year there have been a number of changes to the executive team. Alan Higham joined as Chief Pensions Strategy and Engagement Officer in June 2016. Alan is a gualified actuary and has previously served as a Partner at a leading professional services firm, and Retirement Director at Fidelity following its acquisition of his retirement advisory business. Alan's strong commitment to delivering retirement savings solutions which work for both members and employers makes him a really good fit for USS. We also welcomed David Barr to the executive team as the Chief People Officer in June 2017. This newly created role leads our HR strategy and day to day service delivery across the organisation, demonstrating the continued and increasing importance we place on our people. David has many years' experience of the financial services sector across a broad range of firms, and is a Fellow of the Chartered Institute of Personnel and Development. Jennifer Halliday, Chief Financial Officer, left USS in March 2017. I would like to thank Jennifer for her contribution to USS and we all wish her

well for the future. Glen Lucken joined USS in April as Interim Chief Financial Officer until a permanent replacement is appointed. Glen has held a variety of senior finance positions across the financial services sector and brings a wealth of experience to the team.

I'm privileged to lead an executive team with a very high level of competency in all the areas critical to running a pension plan with the scale and complexity of USS. Their strong commitment to the mission of the trustee company in serving our members and the higher education sector has been a very important component of the successful delivery outlined in this report, and gives confidence that USS is competent to continue to deliver to the changing needs of our members and the sector.

The trustee company holds a privileged position. We are entrusted with the delivery of a very important part of the higher education sector's reward strategy. We manage the substantial risks the sector underwrites on behalf of its employees, and former employees, in the development and delivery of pension benefits. We help members navigate the challenging decisions involved in making contributions to their retirement savings, investing those savings, and the choices available to them at retirement. Our ambition is to be the sector's retirement scheme of choice - to maximise the benefits of scale, mutuality and specialisation, so that the employees of the sector have the best possible pension arrangements.

As we look forward to 2017/18 and beyond, and contemplate more challenging economic forecasts, potentially substantial changes in higher education, and perhaps more political instability, I believe that USS is well positioned to serve the sector and its members. The investments we have made, in risk management, administration systems, and new products (career average and DC pensions), mean that whatever the needs of the sector and our members, USS has demonstrated a capability and a willingness to respond, and to ensure that the pension arrangements can continue to be of the highest quality – secure, cost effective, and flexible – and highly valued.

#### Bill Galvin, Group Chief Executive Officer

## Our mission:

To be the pensions service of choice for the higher education sector for the long term. THE TRUSTEE'S ANNUAL REPORT

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## Scheme management

USS is the principal pension scheme provided by universities and other higher education and associated institutions in the UK. It has over 390,000 members across over 350 institutions.

## **About Universities Superannuation Scheme**

Our mission is to be the pensions service of choice for the higher education sector for the long term. This anchors USS to a clear, long-term, member-driven goal and is an aspirational, forward looking statement which captures the alignment of interests shared by the trustee and the higher education sector.

Appropriate governance structures are important for a mutual scheme like USS. We rely on robust decision making processes to get to the right answers to ensure that we are making affordable promises, aligned to the needs of employers and members, and delivered effectively.

## Our mission is supported by three strategic priorities

## About the trustee company

Universities Superannuation Scheme Limited is the trustee of the scheme and holds scheme assets on trust to apply them for the purpose of paying pensions and other benefits under the scheme rules.

The trustee's primary duty is to ensure there are sufficient funds available to provide an income for members in retirement, guided by the USS mission.

The Annual Report and Accounts of the trustee company can be found on our website (www.uss.co.uk).

<u>z</u>	Development of our pension offering to employers and members	We are working with stakeholders to evolve our benefit options to provide greater choice for both employers and members. We have a plan to develop the range of choices available to develop our pensions product.
	Enhancement of our service to employers and members	It is the quality of USS's service that will continue to set us apart from other pension schemes. The changes to the scheme necessitated a change of administration platform, providing an opportunity to implement a new, modern foundation from which we can develop tailored services for employers and members which are simple to understand and easy to use.
ЦQ	Development of our governance framework	We are trusted to administer the scheme effectively and responsibly. We will continue to work diligently in the best interests of our members and employers by upholding the highest standards of governance.

The strategic priorities are reviewed by the trustee on an annual basis. This review considers the progress made to achieve the longer term expected outcomes for our stakeholders and the short term targets set at the start of the year. This annual review is also used to set new targets for at least the next year, and to consider whether the strategic priorities continue to drive USS forward in the right direction.

We monitor our progress monthly by assessment of the KPIs. These KPIs, which are both financial and non-financial in nature, allow us to identify the risk of not achieving our aims and ultimately our mission, and to take action on a timely basis. The KPI results for the year are set out in detail on pages 33 to 38.

2016/17 has been a busy year, one in which the foundations of our strategic priorities were successfully delivered. Many of these foundations were strengthened by the programme of scheme changes which has been a focus in the year and supported by our ongoing commitment to continuous improvement.

## A summary of our longer term outcomes and progress towards them in 2016/17 is set out below:



Development of the pension offering for employer and members

#### **Expected outcomes**

- High ratings for member and employer perceptions
- Continuing to meet the demands of an evolving regulatory landscape
- Developing flexibility to meet the emerging needs of members and employers over time

### Progress in 2016/17

 The USS Investment Builder was successfully launched in October 2016, the first stage in developing the DC offering, and now has assets under management of £99.2m

- The first survey of member and employer perceptions was launched telling us what is most valued about the scheme and where further improvements could be made
- Although USS Retirement Income Builder investment performance over the last year was lower than our internal benchmark, our performance over a five-year rolling basis remained strong
- A significant programme of development work was undertaken ahead of the introduction of the USS Investment Builder to understand the needs of the membership, and to ensure that the investment options were tailored to the membership

#### **Monitored by KPIs**

#### Funding ratio

- Investment performance
- Project delivery
- Employee engagement scores
- Operational risks of the hybrid scheme

#### **Expected outcomes**

Enhancement of our service to the members and employers

- Members feel supported when making decisions about their retirement
- USS communications are simple and easy to understand
- Improved digital processes and increased use of electronic communications
- Employers feel supported in their administration duties and that the systems are efficient
- Improved turnaround times for key processes

## Progress in 2016/17

- Service levels to members were maintained throughout a significant period of change
- Continued low volume of errors and complaints
- New online access for members
   launched
- New online portal to enable employers to support scheme administration launched
- Levels of USS employee engagement and commitment to USS and its goals remain high
- A dedicated service engagement team established to ensure every employer has a named contact to support them

#### Monitored by KPIs

- Net promoter scores
- Project delivery
- Employee engagement scores
- Operational risks of the hybrid scheme

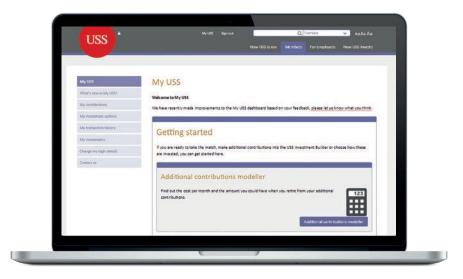
SCHEME FINANCIALS CHAIR'S DEFINED CONTRIBUTION STATEMENT

	Expected outcomes	Progress in 2016/17	Monitored by KPIs
Development of the governance framework	<ul> <li>Changes in the regulatory environment are responded to effectively</li> <li>Risk is managed effectively</li> <li>Expertise in DC is developed</li> <li>Value for money is optimised</li> </ul>	<ul> <li>Strong levels of member and employer trust in USS has continued as measured by surveys</li> <li>The governance framework has operated effectively during the year, supported by the risk management framework</li> <li>The transition to a hybrid (including both DB and DC) regulatory landscape was smooth</li> <li>A robust value for money framework has been implemented to enhance transparency of USS value drivers and their associated cost</li> <li>In-house investment capability continues to be developed to further reduce the cost of investment</li> </ul>	<ul> <li>Regulatory risk</li> <li>Data Risk</li> <li>Project delivery</li> <li>Employee engagement scores</li> <li>Operational risks of the hybrid scheme</li> </ul>

In 2017/18 we will include the results from the member and employer surveys to our KPIs and have set some challenging objectives which are discussed further in the members' and employers' experience sections of this annual report.

USS, like all schemes with a defined benefit element, will continue to face significant funding challenges whilst long term interest rates and the outlook for future investment returns remain low. Whilst we do not yet know the outcome of the 2017 valuation, we are confident that we have the administration structures and tools in place to maintain service for employers and members. A funding update, based on the assumptions from the 2014 valuation, is available in the Report on Actuarial Liabilities on pages 102 to 108. These underlying assumptions are being reviewed as part of the 2017 valuation process, and the actual funding position will not be confirmed until that review is complete.

# Our New Online Portal – MyUSS



# Scheme change programme

A large element of the activity in the year has centred on delivering a programme of fundamental changes to the structure of the scheme. In the annual report for 2015/16 we reported that there were three elements to this programme:

- Implementation of the new section of the scheme and upgrade of USS systems and procedures
- Calculation and communication of a member's entitlement to final salary benefits at 31 March 2016
- Establishing appropriate foundations from which we can develop future improvements to both the retirement saving solutions and the service we provide

To deliver these elements, a major IT transformation project was undertaken alongside substantial changes to the scheme structure, which started in 2015/16 and has continued in the current financial year. These updates were unavoidable, as the previous administration system and its processes could not support a hybrid scheme.

USS has absorbed significant components of the additional administrative burden related to the hybrid scheme.

We have experienced high levels of support from employers and members throughout the scheme change process. The move from one administration platform to another has required employers to deploy additional resources in addition to changes to their own operations and processes to make this a success. We are grateful to all those who contributed to the successful design and implementation of the changes to the scheme structure and associated operational and IT changes and for their continued support as we strive to improve and develop our services.

There have also been high levels of engagement by members with the scheme change activity. In the member tracker survey carried out in October 2016, just after the launch of the USS Investment Builder, 72% of members surveyed said they were aware of the contributions match. 31% of tracker survey respondents said that they had taken up the match and a further 29% intended to in the future. Over 60% had visited the USS website.

The changes to the scheme have delivered some resilience for the future and are already beginning to make us more efficient. Early indicators suggest this is also evident to our employers. However, these changes have resulted in a hybrid scheme which is inevitably more complex and will continue to require some additional effort to administer. We continue to look for ways to absorb this complexity and make the administration of the scheme easier for employers and members. Some of the ways we add value by absorbing complexity across the end-to-end process are shown below:

#### **Inputs - Contributions**

- Accurately derive the USS Investment Builder component of a member's total contribution for investment using complex rules and specifications
- Record those contributions accurately and reconcile to cash received to process the USS Investment Builder component of contributions
- Manage the contributions process across all employers, controlling and co-ordinating queries where differences are identified, proactively following up to resolve queries with employers
- Apply rules and specifications across multiple employments in line with monthly and yearly calculation requirements

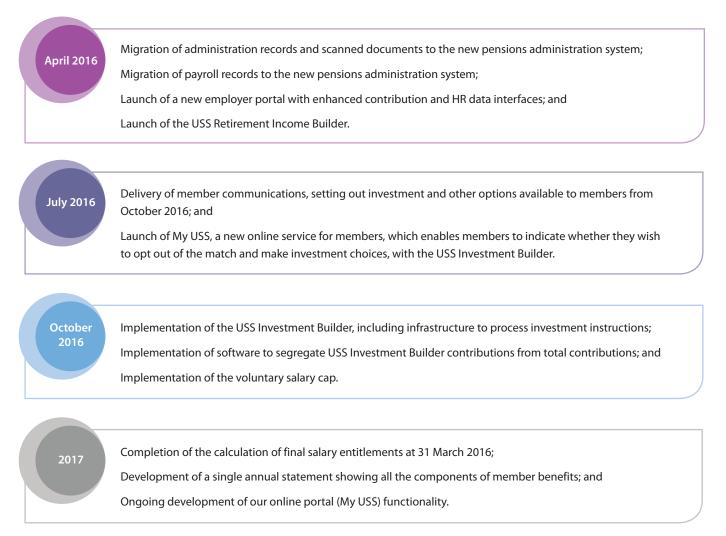
#### **Investment activities**

- Capture members' investment instructions and AVC elections directly (including the match)
- Communicate AVC elections to employers to instruct payroll providers to follow member instructions

#### **Benefits**

- Combine final salary/former Career Revalued Benefits, USS Retirement Income Builder and USS Investment Builder components into a single retirement calculation
- Provide benefit modellers accommodating multiple benefit components. We are evolving and extending the functionality to further support members and employers

This was a challenging change programme, delivered within very tight timescales, and we are pleased to report that all major milestones were achieved:



A first year review of the operating framework supporting the end-to-end DC process is planned for October 2017.

# Performance overview

This overview is intended to highlight sections of the financial statements that are key to understanding the financial position of the scheme and should be read in conjunction with the financial statements on pages 62 to 87. A summary of the funding status of the plan is also provided and should be read in conjunction with the Report on Actuarial Liabilities included on pages 102 to 108.

## Financial position as at 31 March 2017

## Year-end financial position

As at 31 March, in £bn	2017	2016
Net assets of the scheme	60.5	50.2
Less defined contribution investments	(0.5)	(0.4)
Net assets available for benefits	60.0	49.8
Accrued pension benefits	72.6	59.8
Deficit	12.6	10.0

### Net assets of the scheme

As at 31 March, in £bn	2017	2016
Securities (equities and bonds)	43.5	36.0
Pooled investment vehicles	13.1	10.1
Derivatives (net)	0.2	0.1
Property	2.1	2.1
Cash balances	2.0	1.4
Defined contribution investments	0.5	0.4
Other investment balances	(0.9)	0.1
Net assets of the scheme	60.5	50.2

The scheme's financial position, which includes the accrued pension benefits, is reported each year. The accrued pension benefits are valued from first principles at least every three years, this is known as the triennial valuation. The last valuation was at 31 March 2014, and the 2017 valuation is in progress.

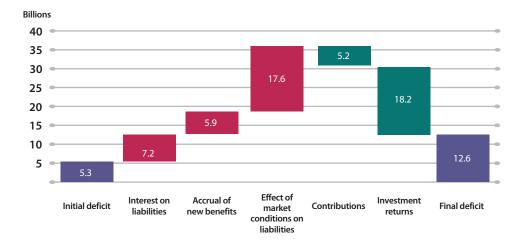
In the years between valuations, the financial position is updated under our monitoring approach, keeping all the assumptions to determine accrued pension benefits constant except the most significant one – the discount rate, which is assumed to move exactly in line with changes in yields of index-linked gilts. This is known as the monitoring position. The 2017 valuation, once completed, will take a fresh look at all the assumptions and can be expected to report a different set of estimates for the liabilities and deficit as at 31 March 2017 than the monitoring position shown above.

In relation to net assets, the purpose of the financial statements is to show, amongst other things, the fair value of net assets at a fixed point in time, being the financial year-end of 31 March 2017. They also provide a comparative fair value at the same point a year earlier. A summary of net assets is shown in the tables above. Within the net assets, the changes in fair value of investments can be subject to the impact of market volatility, and this is considered further below in the summary of the fund account.

## The monitoring position of the pension deficit

Under our monitoring approach, the deficit on the technical provisions basis (as determined at the 2014 valuation) has increased from £5.3bn in 2014 to £12.6bn at 31 March 2017. The investment performance over the period since the valuation has been positive; however this has not outweighed the effect of the fall in discount rates which has led to the liabilities increasing at a faster rate than the assets over the period. The monitoring position as at 31 March 2017 does not reflect the trustee's updated views on the current financial position of the scheme, which is being reviewed as part of the formal triennial valuation. In particular the trustee's approach to setting the discount rate for the valuation underway does not require a fixed margin to be applied to gilt yields. Rather, it is based on a prudent view of the current expected investment returns, taking into account current market conditions and future expectations. Alternative measures of scheme funding can help illustrate the financial position of the scheme. Funding levels and a best estimate of liabilities on both a self-sufficiency and buy-out basis are included in the Report on Actuarial Liabilities on pages 102 to 108.

## Change in deficit since 2014 valuation



The chart above shows a number of factors which drive the level of deficit recorded. The two most significant drivers are the level of investment returns and the effect of market conditions on the liabilities.

The assessment of the technical provisions takes into account the expected level of future investment returns and to the extent that these are exceeded (or not met) in practice, the deficit will be reduced (or increased). The higher the future investment returns, the greater the future value of the assets, and the lower the gap between assets and future pension payments will be. The actual investment returns achieved of £18.2bn have been higher than those originally expected at £7.2bn, and this has decreased the deficit by around £11.0bn over this period.

The liabilities however, have increased at a higher rate under our monitoring approach between formal valuations. The discount rate used to value the liabilities is adjusted from the figure used in 2014 by the change in the yield on index-linked gilts. Yields have fallen by over 1.5%, leading to a rise in the reported liability figure, that exceeded the increase in assets, leading to a rise in the deficit.

All assumptions are being reviewed for the 2017 valuation and the figures reported here are not indicative of the results of the 2017 valuation. The trustee expects to consult with Universities UK on its proposed assumptions and the indicative valuation results in September 2017.

More information is set out in the report on actuarial liabilities starting on page 102.

## Latest view of 2017 valuation - expected cost of future pension

The main cause of the increased deficit under the monitoring approach is the lower expected levels of future investment returns and lower yields on index-linked gilts. The scheme asset returns have mitigated the impact on the deficit but the impact on the expected future cost of pensions is more significant. The 2017 valuation will set the required contribution rate for the current level of benefits. The trustee has shared its emerging thinking with stakeholders throughout the valuation process. A formal consultation with Universities UK on behalf of all employers is due in September, on the trustee's proposed assumptions and the implications for the contributions required to maintain the current pension benefits. Whether benefits or contributions have to change to address the expected rise in cost of future pension provision is a matter for the Joint Negotiating Committee to propose. Any changes proposed by the Joint Negotiating Committee are subject to a detailed consultation with members before they are agreed. More information on the role, activities and membership of the Joint Negotiating Committee is on the USS website.

#### **Summary Fund Account**

For the year-ended 31 March, in £billions	2017	2016
Contributions	2.1	1.9
Benefits paid	(1.8)	(1.9)
Net return on investments	10.0	0.7
Net increase in the fund	10.3	0.7

- Employer contributions generated £1.9bn of income in the year, (including salary sacrifice contributions of £0.5bn), and employee contributions generated £0.2bn of income. Total contributions have increased year-on-year, primarily as a result of the increase in both employee and employee contribution rates effective from 1 April 2016.
- Benefits paid includes amounts incurred on administrative expenses, which are considered in more detail below.
- The net return on investments principally consists of:
  - o Investment income of £1.5bn, including £0.7bn arising from dividends from equities, £0.4bn bond income, and £0.4bn other income including from pooled investment vehicles. Investment income across all of these categories was higher in 2016/17 than in the prior year.
  - o Increase in the market value of investments of £8.5bn. This increase in value was mainly driven by a £5.2bn increase in the value of equities at 31 March 2017 compared to 2016. The impact of market volatility can be pronounced over a one year period, and therefore investment performance is also assessed within the trustee's annual report over a five year period, and against the internal benchmark the reference portfolio. Assessing this five year period is useful for a long term investor such as USS where the impact of short term volatility is removed. You can find more information in the investment matters section on pages 42 to 51.

### Administration and investment management expenses

USS investment costs per asset under management are 32 basis points (bps) in 2016/17 and have reduced by 15 bps since 2013/14. These are benchmarked annually and under the benchmark methodology, USS costs were 8 bps, or £34m, lower than our global peers in the latest available survey.

We also benchmark our pensions administration costs (currently to UK peers). Whilst this shows we are comparably a high cost scheme in the latest available benchmark (at £27 per member higher than the peer group average for 2015/16 under the benchmarking methodology), it also shows that we are a high service scheme. Information on service levels is provided in the member experience section of this report. The cost comparison was against a peer group that in many cases operates in a very different way to USS (such as single employer or group schemes). Whilst we intend to maintain and further improve our service levels, a priority for 2017/18 is to identify opportunities to reduce cost and we will extend our benchmarking approach to schemes globally to identify such opportunities for complex schemes such as USS. In 2017/18 USS will continue to monitor cost effectiveness across both the investment management and administration costs through the value for money commitment to members and employers.

The operating costs of administering the pension scheme and its investments are incurred by the trustee company and its investment management subsidiary. Costs are recharged to the scheme as incurred, and are shown in the Fund Account of the scheme as administrative expenses and investment management expenses. The costs are shown in the table below.

#### Total operating costs of the scheme

For the year-ended 31 March, in £millions	Underlying	2016/17 Exceptional	Total	Underlying	2015/16 Exceptional	Total
Employee incentives - investment	17.7	_	17.7	16.6	_	16.6
Employee incentives - non-investment	2.0	_	2.0	1.6	_	1.6
Other wages and salaries	39.5	2.1	41.6	34.1	7.5	41.6
Total personnel costs	59.2	2.1	61.3	52.3	7.5	59.8
Premises costs	3.8	-	3.8	3.6	1.5	5.1
Investment costs	28.8	-	28.8	29.9	_	29.9
Other costs	29.9	1.1	31.0	22.2	1.0	23.2
Total operating costs	121.7	3.2	124.9	108.0	10.0	118.0

SCHEME FINANCIALS

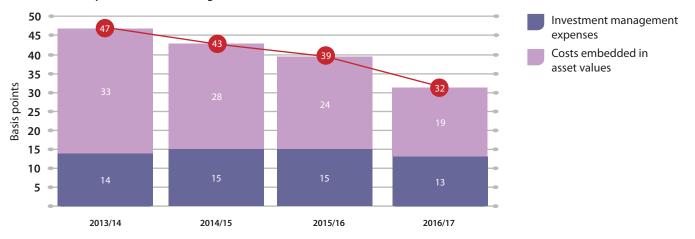
Total operating costs have increased by £6.9m and on an underlying basis (excluding exceptional costs) have increased £13.7m or 13% year-on-year.

Exceptional costs are defined as costs that are material (from the trustee company's perspective) and unusual by incidence or by nature, and total  $\pm 3.2m$  (2015/16:  $\pm 10.0m$ ). The exceptional costs in the year are not new since they relate to scheme change expenditure (2015/16:  $\pm 3.9m$ ). This expenditure does not reflect the ongoing activity of the scheme, as it is solely related to the activities undertaken to implement the changes to the scheme.

The key movements in underlying operating costs are:

- Incentives have increased by £1.5m. As explained in the section on remuneration and incentive arrangements on pages 23 to 26, a significant element of annual incentives is linked to scheme performance over a five year rolling period. Over the last five years the scheme's assets have outperformed the benchmark by 0.50% per year, with the net added value from outperformance contributing a total of £1.1bn to the scheme's asset value. The increase in incentives earned reflects this strong performance over the five years.
- Salaries and other employee personnel costs have increased by £5.3m. Headcount has continued to increase in 2016/17 driven by two elements of USS strategy. Firstly, broadening capabilities and bringing investment management in-house where this is more cost effective. Whilst this increases these visible personnel costs, the costs embedded in asset values are reduced to a greater extent. Secondly, we have increased the number of staff, both permanent and temporary, driven by the increased activity to implement the scheme's changes and to operate the hybrid scheme.
- Investment costs have decreased by £1.1m largely due to a decrease in external manager fees as the USS continues to bring investment management in-house where this is more cost effective.
- Other costs include computer and information services of £11.0m (2015/16: £8.0m) and professional fees of £9.1m (2015/16: £5.3m). These increases primarily resulted from the scheme change activity, including the dual running of the administration platforms.

The total operating costs shown in the table on the previous page represent costs that are invoiced directly or incurred internally (for example employee remuneration costs). These operating costs include investment management costs that are invoiced by external managers of scheme assets. However, a larger proportion of external managers deduct their management and performance fees from the value of the assets that they are managing. Under generally accepted accounting principles, these costs are not reported in the Fund Account under investment management expenses, but they reduce the value of the net assets available to the scheme. Therefore, when providing an explanation of the costs of the scheme, limiting the information to those shown in the Fund Account does not give stakeholders the full picture of the investment management costs that the scheme is exposed to. This is not unique to USS and transparency of these costs is a priority for many pension schemes. Both types of investment costs (those embedded in asset values and those directly incurred) are monitored by the trustee throughout the year alongside the costs of internal management. We show these investment costs in basis points in the chart below.



Investment cost per asset under management

For those costs that are shown in the Fund Account of the scheme, further analysis can be seen in the audited consolidated financial statements of the trustee company, which are available on the USS website. The external auditors issued an unqualified opinion on these financial statements.

# Member services

Our members' experiences of USS, of our systems and processes, and of our people is a crucial barometer of our success in managing the scheme. We have made some planned investment in our pensions administration business and its support functions to reflect the increasing complexity of the scheme and the regulatory environment in which we operate. Much of this investment is focused on reducing the overall running cost of the new hybrid scheme, through improvements to systems and processes building on the foundations from the scheme change implementation.

## The Net Promoter Score (NPS)

In 2016/17, we have continued to focus on delivering a positive member experience and we launched our first member perceptions survey.



The net promoter score measures whether we meet the high standards of service expected by our members. We ask those who have recently used a service or experienced a process to provide feedback.

The NPS score of 66% is good compared to peer organisations but we are keen to improve it. We will:

- Focus on our member insight capabilities to generate further understanding of member expectations and what they value
- Improve access to tools and other sources of support for members when making important decisions about their retirement objectives
- Conduct 'best practice' reviews of our processes so that there is a consistent and optimal service across all members
- Improve service processing times based on the improved data quality which was made possible through the data migration as part of scheme changes
- Develop the content of our member portal and increase My USS registrations to 75,000 (registrations totalled almost 60,000 in March 2017)

## **Overall relationship with USS**

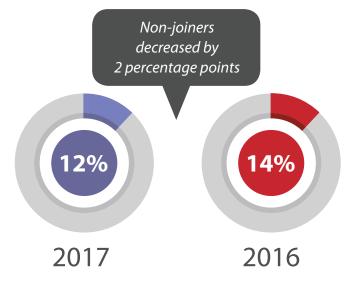
The perceptions survey is a broad survey of the membership which aims to gather feedback on how members feel about USS more generally. Members surveyed have given a 'net good' rating of 53%, but we have set ourselves a challenging objective to increase this to 70% (a 17 percentage point increase) by the end of 2019/20. The activities highlighted above to increase the NPS will also improve member perceptions more widely. Additionally, we will focus on:

- ✓ The content available via the website so that members can access information about pensions matters and scheme options directly online
- ✓ Making our communications simpler, so that it is easier for members to understand the key messages and what is important
- ✓ Tailoring communications appropriately so that they address member needs at key events
- ✓ Developing the choice of products which are uniquely tailored to the sector

Some of the member service highlights for 2016/17 are:

- The launch of the dedicated Member Service Desk to support efficient handling of member telephone enquiries;
- The launch of My USS, the new online service for members; and
- Our members and USS expect 100% of monthly pension payments to be made on time, and this expectation was met.

In addition to the NPS and the member perceptions survey ratings, USS service is compared independently by CEM to a selection of other UK pension schemes. Consistent with recent years, the rating for USS was better than the average at 67% (peer group average 62%). We believe that the goals set out above will also continue to differentiate USS in terms of member service levels from other providers in the UK.



SCHEME FINANCIALS CHAIR'S DEFINED CONTRIBUTION STATEMENT

## Membership age bands

Actives	
30 & Under	12.1%
31 - 35	16.4%
36 - 40	16.6%
41 - 45	14.3%
46 - 50	13.3%
51 - 55	12.0%
56 - 60	8.9%
61 & Over	6.4%
Total	100%
Total number of activ	e members
190,546	

50 & Under 51 - 55	0.2% 0.6%
51 - 55	0.6%
56 - 60	5.7%
61 - 65	19.3%
66 - 70	28.5%
71 - 75	20.3%
76 - 80	12.8%
81 & Over	12.6%
Total	100%
Total number of pensione	er members
66,419	

Deferred	
30 & Under	7.0%
31 - 35	12.6%
36 - 40	16.8%
41 - 45	16.9%
46 - 50	17.3%
51 - 55	15.3%
56 - 60	10.0%
61 & Over	4.1%
Total	100%
Total number of defe	rred members
139,313	

The introduction of a member service desk this year complemented our objective to increase the support provided directly to members.

# 29,475

**New active members** were welcomed into the scheme during the year.

# 79,759

individual pensions were in payment at the year end. An increase of 4% compared to 2015/16.

Having dealt with a number of pension providers (I think five in total), USS are far and away the best! They are easy to talk to, clear in explaining what is happening or what they need you to do, and are really, really helpful!

2016 member service survey

## **Membership numbers**

USS provides a snapshot of members at a specific and consistent date each year. The date chosen is the financial year end and the table below shows the active membership of the scheme at the beginning and end of the year along with changes during the year:

Active Members	University Institutions	Non-university institutions	Total
Membership at 1 April 2016 as reported			
	174,332	6,530	180,862
Change in active members*	-	(519)	(519)
Membership at 1 April 2016 as restated			
	174,332	6,011	180,343
New members	28,407	1,068	29,475
Re-joiners	4,523	536	5,059
	207,262	7,615	214,877
Leavers and exits during the year			
- Retirements	(2,277)	(80)	(2,357)
- Retirements through incapacity	(89)	(2)	(91)
- Deaths in service	(104)	(6)	(110)
- Refunds	(945)	(105)	(1,050)
- Deferrals	(15,544)	(797)	(16,341)
- Retrospective withdrawal	(4,215)	(167)	(4,382)
	(23,174)	(1,157)	(24,331)
Total active members at 31 March 2017	184,088	6,458	190,546

The number of pensioner members, along with an analysis of the movements in the year is provided in the table below:

Pensioner Members	University Institutions	Non-university institutions	Total
Membership at 1 April 2016 as reported			
	61,903	2,282	64,185
Change in pensioner members*	(325)	48	(277)
In payment at the start of the year	61,578	2,330	63,908
New pensioners in year resulting from:			
- Retirement of active members	2,366	82	2,448
- Retirement of deferred members	1,333	87	1,420
	65,277	2,499	67,776
Re-joiners	(148)	(5)	(153)
Deaths in retirement	(1,175)	(29)	(1,204)
In payment at 31 March 2017	63,954	2,465	66,419

In addition to the pensioner numbers above are 13,340 pensions in payment at 31 March 2017 (31 March 2016: 12,704) which are paid in respect of the service of another (for example a surviving spouse or dependant).

Deferred members not yet receiving a pension totalled 139,313 (31 March 2016: 128,043). The total number of members as at 31 March 2017 was therefore 396,278, comprising 190,546 active; 66,419 pensioners; and 139,313 deferred members.

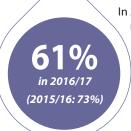
Included within the above are 64,902 active members and 682 deferred members in the USS Investment Builder as at 31 March 2017.

\*These figures reflect adjustments owing to member processes being carried out with an effective date prior to this date but were completed subsequently.

## **Employer** experience

Teams at USS work closely with sponsoring employers to deliver an efficient, timely and high quality service to our members. We actively seek feedback from employers through the daily contact we have with scheme administrators, through the newly established service engagement team, and through more formal channels such as the Institutions' Advisory Panel (IAP) and the Institutions Meeting.

## The Net Promoter Score (NPS)



In 2016/17, our NPS rating deteriorated to 61% compared to the 2015/16 level of 73%. This was largely as a result of scheme changes and the increased administrative burden it placed on employers. We acknowledge this feedback and have set ourselves the challenging objective to return to at least a rating of 73% within one year. To achieve this we will focus on employer engagement, systems and process improvements and improving our communications. Our goals are intertwined with the similarly challenging objectives we have set ourselves in relation to the wider perceptions of employers about USS as measured by our new survey created in the year.

## **Overall relationship with USS**

Those employers which participated in our new survey have given USS a 'net good' rating of 56%. We have set ourselves a challenging objective to increase this to 62% in 2017/18 which will be achieved by:

- ✓ Focussing on our employer insight capabilities to generate further understanding of employer needs
- ✓ Improving the turnaround time for key processes
- $\checkmark$  Developing the current retirement modelling capability
- $\checkmark$  Developing our communications, providing targeted and streamlined information
- ✓ Increasing the level of support available for the contribution cycle, enabling employers to fulfil their obligations more easily
- ✓ Developing a targeted employer support plan covering other processes more widely
- ✓ Enhancing the training provided to those USS employees who deal directly with employers

Employer engagement is a key focus for 2017/18 and the IAP network will play a key role in our relationships with employers. A comprehensive review of how the IAPs work has been carried out, and 31 employers (including those which are IAP members as well as non-IAP members) were interviewed to get their opinions on how the panels should be run. As a result, the sessions will be streamlined and we intend to improve communication of the content of the IAP meetings to employers.

## Some quotes from the survey



## Our people approach

Our people, their engagement and their capability are essential to the continued success of USS. We start from a good base, with significant levels of employee engagement across the business. We are investing in our capability to deliver value for money pensions and investment services to employers and members.

## Bill Galvin - Group Chief Executive officer

To create optimum value for members and employers, the executive must engage employees in its aims and values, provide effective support and encourage a collaborative culture, whilst ensuring it has the right mix of skills and experience required at every level. 2016/17 has been a challenging year for our people, who have worked exceptionally hard to deliver the required changes to the scheme, to meet the agreed milestones, and to maintain the high quality standards expected by employers and members. At the start of the year, we identified three people priorities to be well positioned to deliver all that was required:

- Maintain strong levels of employee engagement;
- Continue to develop the performance management framework; and
- Strengthen succession planning for key roles.

## **USS employee engagement**

2016/17 represented a year of considerable change and the trustee asked a lot from our people. It is widely acknowledged that during periods of change employee engagement can suffer, and we anticipated that we might see some impact on the high levels of employee engagement reported in the previous year. However, we were pleased to see the efforts we put into maintaining employee engagement and strengthening support for our employees paid off. Our overall engagement score increased by 3 percentage points to 85% in 2016/17. USS is a people-based, service led business, and these results show just how committed our employees are to our mission and values. We will continue to support our people, and work hard to maintain the high levels of employee engagement which exist within our business. However, although these high levels of engagement might not be maintained in the short term, employee engagement will continue to be a priority.

#### Performance management framework

Our remuneration levels are covered in detail on pages 23 to 26 and are set relative to performance delivered. We measure performance fairly across the organisation both quantitatively, in terms of outperformance of the scheme investment mandates where applicable, and qualitatively, in terms of alignment with the trustee's mission and values.

In 2015/16 we introduced a calibration exercise to provide additional oversight and challenge for performance ratings to support equitable application of the performance review scale across the organisation. This has been enhanced further in the year by the introduction of behavioural competencies, which outline the abilities or attributes that support excellent performance. When developing the new framework, we reviewed the strategy to identify those key skills which would contribute most to the success of USS.

The link between performance (including longer-term investment performance) and remuneration is fundamental. This ensures emphasis is rightly placed upon the value provided to employers and members.

Engagement can be defined as the extent to which employees feel passionate about their jobs, are committed to the organisation, and put discretionary effort into their work.

Engagement score

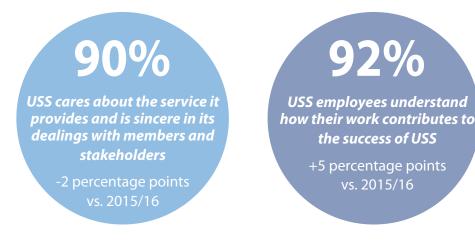
+3 percentage points

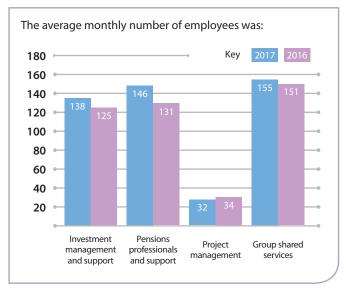
vs. 2015/16

## **Succession planning**

Our succession planning approach will be enhanced in the coming year and cascaded across all levels of the business over time. This will enable a clearer understanding of our talent pool, and identify any gaps and/or risks against which we will create succession or development plans for regular review. By enhancing our approach and linking it to our forward projections as outlined in our strategy, we will be better placed to understand our current and potential future capability needs. We will also create a pool of talent that gives us flexibility as the business develops, and more sophisticated ways of covering potential succession gaps where internal options are not clearly available to us.

The top two highest scoring questions in the 2016/17 USS employee engagement survey were those below (with 2015/16 shown):





In total, staff numbers were 471 (2016: 441).

# Remuneration and incentive arrangements

This section explains the trustee's approach to remuneration arrangements including the components within the overall compensation package for all employees, with a specific focus on the remuneration of the key management personnel, being those individuals responsible for the direction of the scheme's activities (defined as the trustee board and executive committee). Furthermore, whilst not defined as key management personnel, the remuneration of highly paid individuals (those with total remuneration in excess of £100,000 in the year) is also subject to specific focus.

## **Remuneration philosophy**

USS's remuneration framework is designed to ensure the scheme has access to the right mix of skills and expertise to deliver its long-term priorities. As outlined throughout this report, it is one of USS's fundamental objectives to deliver good value for money for members. USS is committed to providing a high quality pensions and investment service to employers and members. We hire expert people, who can deliver consistent, long-term results, and we pay them at market rates commensurate with the skills and experience they bring to the scheme. A cornerstone of the remuneration and incentive objective is to pay for performance, which means to reward contribution that is aligned to the needs of the employers and members in a cost effective manner. The investment managers represent the largest proportion of the compensation paid, representing 89% of the variable incentive in the year. USS's compensation approach includes the following key elements:

- Base salary, which is benchmarked annually (either in its own right or part of total remuneration). Base salary is designed to attract and retain high-performing individuals
- Annual incentives for certain roles, aimed at motivating and rewarding top performance, aligned to the USS values. Where incentives exceed a £50,000 threshold, payment is deferred for three years. For investment managers, the annual incentive includes an element that is linked to scheme performance, calculated on a rolling five-year basis
- Long-term incentive plans (LTIPs) available to a limited population, designed to incentivise delivery of scheme performance over the long-term and to encourage retention of the key management 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 itself

Trustee board directors and other non-executives receive only the base salary or agreed fee level for their services.

## Benchmarking of base salary and/or total compensation

Given the importance of attracting and retaining high-calibre employees in a competitive talent pool, USS aims to offer fair and competitive salaries in comparison with its peers. Salaries reflect the experience, responsibility and contribution of the individual and of the role within the organisation. Annual benchmarking is performed on salaries, this enables the trustee to demonstrate that salaries are fair. This minimises the disruption caused by employee turnover and also minimises any potential negative impact on employee engagement. At the same time, the salary benchmarking is vital to ensure we maximise the value and cost effectiveness obtained for employers and members. Two external benchmarking agencies are used, one for investment management and support services and one aimed at pensions services roles and their support functions. We target to pay a competitive, but not excessive, compensation level across the business as a whole.

Bringing investment management activities in-house has two overall impacts: 1) Increase in internal salary expenses 2) Reduction (to a greater extent)

of external performance costs either invoiced or embedded in asset values

## **Incentive payments**

The incentive arrangements in place ensure alignment to the trustee's primary duty, mission and values and to the strategic priorities. The trustee met its targets in relation to the strategic priorities over the financial year and delivered strong investment performance on a five year rolling basis. Accordingly, the incentive payments reflect this performance. There are three types of incentive payments, as shown in the table below:

	Annual incentive	Investment LTIP	Group executive LTIP
Main features & objectives	<ul> <li>Restricted to certain roles including certain executive committee members</li> </ul>	<ul> <li>Restricted to a small number of roles in the investment management subsidiary</li> </ul>	<ul> <li>Applicable only to executive committee members of the trustee company</li> </ul>
	<ul> <li>To drive strategic change and individual delivery of the business plan</li> <li>To recognise and reward individual contributions to USS priorities</li> <li>Individual contribution is calibrated annually</li> <li>Deferred elements aligned to longer-term strategic goals</li> </ul>	<ul> <li>Measured against scheme performance to deliver value</li> <li>Promotes retention of key personnel</li> <li>Applicable to members of the executive committee with an investment focus</li> </ul>	<ul> <li>Restricted to those not in receipt of an Investment LTIP</li> <li>Enables the recruitment of executives who are necessary to deliver the strategy</li> </ul>
Performance conditions	<ul> <li>For investment managers</li> <li>Scheme performance over five years and mandate performance (where applicable) over five years</li> <li>Qualitative measures aligned to USS values and delivery of strategic objectives</li> <li>For other employees</li> <li>Qualitative elements aligned to longer-term strategic goals</li> </ul>	<ul> <li>Scheme performance over multiple years</li> <li>Specific investment performance measures for Private Markets employees over multiple years</li> </ul>	<ul> <li>All qualitative</li> <li>Reflects personal objectives (2/3 weighting) and executive committee objectives (1/3 weighting)</li> <li>Promotes objectivity of those executive committee within the second or third lines of defence</li> </ul>
Service conditions	<ul> <li>Must be in employment and not serving notice at date of award</li> <li>For deferrals, must be in employment and not serving notice at the date of payment</li> </ul>	<ul> <li>Must be in employment and not serving notice at date of award and through to vesting although 'good leaver' provisions may apply</li> <li>LTIPs vest in tranches, the earliest being three years and the latest being five years after award</li> </ul>	<ul> <li>Must be in employment and not serving notice at date of award and through to vesting although `good leaver' provisions may apply</li> <li>LTIPs vest after either three years or five years</li> </ul>
Deferred element	<ul> <li>Incentives above threshold are deferred for three years as follows:         <ul> <li>30% over £50,000;</li> <li>40% over £200,000; and</li> <li>50% over £400,000</li> </ul> </li> <li>Where the deferred element is calculated as less than £5,000, this is paid immediately</li> </ul>	• As a long term plan, the payment is deferred until conditions have vested	• As a long term plan, the payment is deferred until conditions have vested

## Remuneration in 2016/17

The trustee remains committed to openly reporting the remuneration packages of the trustee board directors, key management personnel and highly paid employees (who are typically the investment managers). For the latter group of employees, the remuneration disclosure goes beyond what legislation requires and reflects the trustees' commitment to transparency.

The table below shows remuneration of highly paid employees, including key management personnel.

Remuneration levels for highly paid individuals	2017	2016
--	------	------

For the year-ended 31 March, showing numbers of individuals in bands of £50,000

£100,001-£150,000	40	22
£150,001-£200,000	21	22
£200,001-£250,000	14	13
£250,001-£300,000	8	13
£300,001-£350,000	3	2
£350,001-£400,000	5	3
£400,001-£450,000	5	6
£450,001-£500,000	4	1
£500,001-£550,000	3	6
£550,001-£600,000	3	2
£600,001-£650,000	2	-
£650,001-£700,000	-	1
£700,001-£750,00	1	-
£750,001-£800,000	2	2
£1,050,001-£1,100,000	1	-
£1,200,001-£1,250,000	1	-
£1,350,001-£1,400,000	-	1
£1,600,001-£1,650,000	-	1
Total	113	95

### Useful facts about remuneration for all employees



The table above includes the remuneration earned in respect of base salary, annual and long-term incentives. A significant proportion of the annual incentive is deferred for three years. The long-term incentive includes increases to the estimated value of plans previously awarded, which will mature over the next five years. This estimate depends on the scheme performance and therefore is reviewed each year until maturity.

There are two main trends observed in the data above. Firstly, overall there are more employees earning over £100,000, which has been impacted by continuing to bring more investment management in-house. The trustee has moved more of its investment activities in-house as it is more cost effective than paying performance fees to external managers. However, many of the external performance fees we have saved would have been embedded within the movement in scheme assets. More information is included on page 16. The second trend is that there has been a downward movement in the upper value categories. Our remuneration is linked to overall scheme performance, and whilst the trend over five years is very strong, we underperformed against the benchmark in the year 2016/17. More information is on page 44.

The tables below show the total remuneration of the high earners shown on the previous page, and key management personnel. The table provides the analysis of the 2017 amounts by remuneration element showing both amounts earned during the financial year and cash amounts paid during the year. The net value added (defined as the impact of active management on the scheme return) contributed £1.1bn.

Remuneration	High earners	Group Executive (A)	Trustee Board (B)	Total Key Management Personnel (A+B)
For the year-ended 31 March 2017, in £m				
Total base salary	14.1	1.9	0.6	2.5
Annual incentive	11.7	1.1	-	1.1
LTIP allocated*	3.9	0.9	-	0.9
Total compensation earned	29.7	3.9	0.6	4.5
Less:				
Annual incentives earned in the year deferred until 2020	(2.1)	(0.2)	-	(0.2)
LTIP allocated*	(3.9)	(0.9)	-	(0.9)
Add:				
Annual incentives from 2014 paid in the year	0.8	0.1	-	0.1
LTIP vested	4.3	1.0	-	1.0
Total compensation paid	28.8	3.9	0.6	4.5

\* The LTIP allocated refers to the apportionment of the movement in LTIP provision and corresponds to a proportion of the expense incurred in the year.

## **LTIP** awards

A notional amount is awarded in respect of LTIPs and amounts eventually payable depend on the performance and service conditions explained earlier in this report.

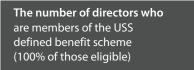
Thirty eight investment LTIP awards were made in the current year with a notional value of £6.6m, of which two related to key management personnel with a notional value of £1.0m. Six group executive LTIPs were awarded in the year with a notional value of £0.6m, all of which related to key management personnel.

The trustee board director fees are shown below with the comparison to 2015/16. Their remuneration is included within the analysis table above.

Total emoluments of the directors of the trustee company:	2017	2016
For the year-ended 31 March, in £thousands		
Fees (non-executive directors)	569	446
Employers' National Insurance contributions	105	79
Expenses reimbursed	57	66
Total	731	591

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 company and their legal responsibilities.

The Remuneration Committee report provides a summary of the oversight and governance of the compensation awards and can be found on the USS website.





# Legal and regulatory update

The external regulatory landscape as applicable to USS, has significantly broadened a result of the inclusion of a DC section, the USS Investment Builder, within the scheme from 1 October 2016. Much like 2015/16 before it, 2016/17 has therefore been a busy year as the scheme has developed in this new regulatory environment. The key highlights of the work undertaken are presented below.

### New benefit structure and further rule amendments

The trust deed and rules governing the scheme were formally amended in November 2015 with the changes becoming effective from 1 April 2016 and the USS Investment Builder commencing from 1 October 2016.

Since then, a further four deeds of amendment have been introduced dealing with a number of minor administration related updates as a result of the introduction of DC into the scheme as well as the abolition of contracting out and its impact on the scheme (that it will assume responsibility for full increases to pensions in payment). The scheme rules were also amended so that deferred members with money purchase AVCs (MPAVCs) with Prudential could access the investment options available within the USS Investment Builder.

## **Introduction of the USS Investment Builder**

The introduction of DC benefits into the scheme structure in the form of the USS Investment Builder has brought with it a number of new legislative requirements and additional consideration of codes and guidance issued by the Pensions Regulator (tPR):

#### a. Codes and guidance

tPR has increased its focus on DC in recent years to concentrate on the proper governance of DC schemes in the UK. As well as substantially updating the DC Code, tPR launched a complementary suite of "How To" guides designed to help trustees understand tPR's views and expectations in greater detail. By creating a bespoke, internal DC offering USS has been fortunate to have the ability to take this regulatory guidance and build best practice processes across the key areas of governance, administration and investment.

The legal requirements in relation to scheme administration remain largely the same in respect of the introduction of DC. However, as mentioned above, tPR's guidance takes this further and USS has spent time engaging with tPR on the standards it expects across member relevant areas such as the time from deduction of contributions from a member's pay to remittance by employers and ultimately investment. We have undertaken this engagement with the aim of ensuring USS's approach accords fully with tPR's expectations.

In line with relevant laws and with guidance from tPR, DC accrual members (either those above the salary cap or those electing to make additional contributions) were offered a diversified range of investment options designed to meet members' needs, to enable members to undertake their own risk and return assessment, and make investment choices accordingly.

In addition, a significant amount of work went into the creation of the default investment option to ensure that it exceeded both legal requirements and the guidance from tPR.

#### b. The Occupational Pension Schemes (Charges and Governance) Regulations 2015

These regulations amended the Occupational Pensions Schemes (Scheme Administration) Regulations 1996 and introduced a number of requirements for schemes providing DC benefits. These requirements include a charges cap on DC default investment funds; assessment of value for money for members; and requirements for the majority of the trustee directors to be "non-affiliated" (broadly defined as not connected to service providers to the scheme). These requirements have applied to USS since 1 October 2016. Crucially, they also introduced a requirement to produce a signed annual Chair's Statement on how the scheme has complied with these regulations including how the trustee seeks to monitor and maintain value for members. USS's first Chair's Statement is included on pages 90 to 99.

## **Abolition of contracting out**

As mentioned in the 2015/16 annual report, the abolition of the State Second Pension from April 2016 had a particular 'knock-on effect' for the scheme and its membership, in relation to the provision of increases to Guaranteed Minimum Pensions (GMPs) by the scheme. Historically, USS provided (along with other occupational pension schemes) for limited increases on GMPs, with the State picking up the remainder of increases. The impact of the reform is that the State will no longer provide increases for those reaching State Pension Age after 5 April 2016 but in respect of USS, legal advice confirmed that for those members reaching State Pension Age after 5 April 2016, USS will assume responsibility for providing the full increase in payment.

#### Tax

Two matters relating to pensions and taxation were announced in the March 2017 budget which would have an impact on USS and its processes. The first of these was the introduction of a new 25% tax charge on certain overseas transfers of benefits, included in the Finance Act 2017. The second was a reduction in the Money Purchase Annual Allowance; it has not yet been implemented and relevant legislation was not before the new Parliament at the time of writing.

## **Future developments**

Finally, the trustee is keeping a watching brief, along with its advisors, in relation to a number of matters which potentially could have legal and regulatory implications for the scheme. These include the impact of Brexit on EU legislation such as the IOPR II Directive, the implementation of the General Data Protection Regulations in May 2018, the green paper on the defined benefit pensions sector, pensions scams and the provisions to come into force under the Pensions Schemes Act 2017.

A signed annual Chair's Defined Contribution Statement has been prepared for the first time. This includes how the trustee seeks to monitor and maintain value for members. See pages 90 to 99.

# **Risk management framework**

The trustee's primary duty is to ensure that the benefits promised to members are delivered. In respect of the USS Retirement Income Builder this means ensuring that there are sufficient funds available to provide an income for members in retirement in accordance with the commitments made by employers under the scheme's rules. In respect of the USS Investment Builder this means ensuring that an appropriate range of investment fund options is available along with an effective investment process to enable members to manage their investment selections in line with their risk appetite, with appropriate record-keeping. In fulfilling this duty the trustee must manage a wide range of risks that could impair the delivery of these responsibilities.

USS has a comprehensive framework for managing the risks faced by the organisation. This framework includes a dedicated group risk team, along with risk management policies, processes and governance arrangements. Together, these ensure that risks are



effectively identified, measured, monitored, managed and reported across the business as a whole. The group risk team is independent of USS front-line businesses and its head, the Chief Risk Officer, reports directly to the Group Chief Executive Officer.

The risk team's remit is to coordinate and oversee risk management activities across USS with two key objectives in mind:

- Control: ensuring risks are identified and managed within risk appetite; and
- Adding value: using risk information more effectively in decision making.

These objectives direct the group risk team to assist the trustee company to manage risk by:

- Providing risk information, tools, analysis, insight and challenge;
- Facilitating the identification and evaluation of new and emerging risks; and
- Providing assurance to stakeholders through independent oversight and monitoring.

The risk team operates as part of a "three lines of defence" approach to risk management, which includes the USS business units within the organisation (as owners and managers of the risks), the independent oversight functions and the audit function. This is shown below:

First Line of Defence	The USS business units directly responsible for the activities containing risks	<ul> <li>Risk management:</li> <li>Operate day-to-day risk management processes</li> <li>Apply internal controls and risks responses</li> </ul>
Second Line of Defence	The independent oversight functions, including risk, legal, compliance, etc.	<b>Risk oversight:</b> • Oversee and challenge risk management • Provide guidance to the first line • Develop and maintain the risk framework
Third Line of Defence	The independent assurance of functions of internal audit	<b>Risk assurance:</b> • Review first and second line objectively • Challenge the process • Provide assurance

The first line of defence consists of the business units implementing and maintaining effective internal controls and risk management processes. In this respect all employees are appropriately trained, alert to risks within their own area and know what action to take to mitigate those risks.

The second line of defence, comprising the group risk, legal and compliance functions, has continued to review and improve the control environment on several fronts over the past year. This included improvements to the risk management framework, enhancements to processes and controls, and a continued effort to embed the risk management culture within the business. In terms of the first of these, improvements to the risk management framework, a new approach to risk oversight and assurance in the investment management business has been implemented. This has been designed to strengthen the risk management control environment. Improvements have continued to be made to the monitoring, reviewing and reporting of risk and control information across USS as a whole. The second line has also been engaged in several major projects across the business, including the scheme changes programme and the launch of the USS Investment Builder. It has taken a leading role in the 2017 actuarial valuation of the scheme and has successfully concluded phase one of this project. This phase included a major review of the employers' ability to provide continued support to the scheme (the so-called employers' "covenant") and the risks associated with that support. The 2017 actuarial valuation remains a major focus for the group risk team in the coming year, working closely with the scheme actuary.

Over the past year USS gained ISO27001 accreditation, the international standard for information security management, reflecting our commitment to protecting personal and sensitive data within the business. In addition to this, the information security team within group risk has been working with IT and legal in preparation for the implementation of the EU's General Data Protection Regulation (GDPR), which comes into effect in May 2018.

The process of second-line review and improvement will continue over 2017/18. Key initiatives in addition to those mentioned above include further improvements to data governance, investment risk modelling, risk management systems and the firm's monitoring and control framework.

An effective third-line of defence is essential to provide oversight and maintain the trust of the members and employers. The internal audit function has continued to provide independent, objective assurance to the trustee through the completion of activities within the annual internal audit plan. In 2016/17, Deloitte LLP was appointed as internal audit's co-source provider. The key focus for 2017/18 will be to ensure the efficient and effective use of this resource on those areas where Deloitte's expertise will add the most value.

Over the course of the year, further investment has been made in the in-house legal team. It is now fully-staffed with a mixture of experienced investment and pensions lawyers. The legal team provides cost-effective legal risk management and assurance. The in-house team is complemented by use of external lawyers where appropriate. The compliance team extended its coverage over the year to include the trustee company's activities as well as those of USS Investment Management Limited. The team has increased its focus on risk-based thematic monitoring and this will develop further in 2017/18.

This approach to risk management is embedded throughout USS via three key pillars:

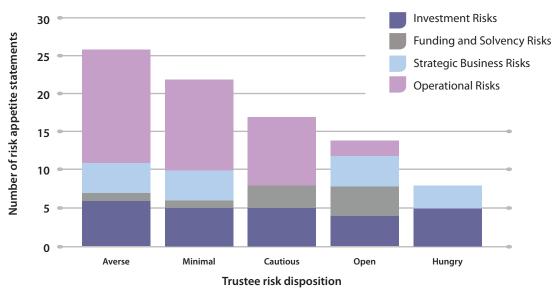


## **Risk appetite**

Risk appetite is at the heart of USS's approach to risk management. It expresses the desired or target level of risk that USS is prepared to accept in the pursuit of its objectives. Taking on too much risk, or indeed, too little risk could result in a failure to achieve those objectives.

Risk appetite is set by the trustee board and is expressed in terms of a series of statements for each risk type, linked, where possible, to quantitative metrics that provide a measure of the acceptable tolerance, or operating limits, for different risks. USS's risk appetite statements perform two key functions. First, they promote consistent, risk-aware decision-making that is aligned with our strategic objectives. Second, they support robust governance across the group by setting clear risk-taking boundaries.

Our risk appetite statements cover a wide range of risks which are broadly organised into four categories: investment risks, funding and solvency risks, strategic business risks and operational risks. Within each category is a hierarchy of more detailed risks. The trustee's risk disposition in relation to each statement is expressed on a five-point scale: averse, minimal, cautious, open and hungry.



## Risk appetite by risk category and disposition

## **Risk definitions**

- Investment risk is the potential for not achieving the expected or targeted level of investment returns.
- Funding and solvency risk is the potential for the future level of scheme assets to be insufficient to pay pensions promised when due.
- Strategic business risks can be defined as the uncertainties and untapped opportunities embedded in our strategic priorities and the way in which they are executed.
- Operational risk is defined as the potential for loss resulting from inadequate or failed processes, procedures, systems or policies.

SCHEME FINANCIALS CHAIR'S DEFINED CONTRIBUTION STATEMENT

#### **Risk management processes**

USS has implemented risk management processes to identify, measure, monitor and report risks across the business.

## Risks are *identified...*

...both "top-down" at the organisational level and "bottom-up" from within individual business units. In addition, the business conducts regular scanning for emerging risks arising from the external environment. The risks are documented in risk registers and measured prospectively against relevant risk appetite statements. Quarterly risk boards provide a regular opportunity for the business to review and update risk registers, risk measurements and controls.

## Risks are *monitored*...

...using appropriate metrics against tolerances linked to risk appetite. Adverse outcomes are used to inform the reassessment of the risk response, which may drive changes in the business strategy and operations.

## Risks are *reported...*

...regularly to the board, the risk committees and other committees, with a focus on the level of risk relative to appetite and tolerance, and the need for mitigating actions.

## **Risk governance**

Effective risk governance starts with clear roles, responsibilities and delegations. USS combines these with specific policies, business standards and risk committees. The risk governance processes ensure that the risk management processes are effective and that risk is appropriately assessed against risk appetite.

For risk management to be effective, it is important that the roles and responsibilities of all those involved are defined unambiguously and in accordance with the three lines of defence model. At USS, the trustee board retains ultimate responsibility for risk management across the organisation ensuring that risk management responsibilities are delegated appropriately and risk management processes are delivered effectively. The trustee board has primary responsibility for the group's risk management framework, but delegates the day-today activities associated with this responsibility.

Both the GCEO and the CEO of USS Investment Management Limited are responsible for risk management within their respective legal entities and have established risk committees to review and monitor the effectiveness of internal control and the risk management systems. These risk committees are supported by the functions in the second line of defence, which include the group general counsel team (covering governance, legal and regulatory compliance risks) as well as the group risk team. In the third line of defence, USS's internal audit team audits the policy, framework, and operation of risk management across USS and provides assurance to the audit committee on the effectiveness of these arrangements.

### **Risk culture**

Underlying the risk management processes and risk governance is USS's risk culture. The risk culture, reinforced by employee training and communications, encourages the behaviours and values that support the risk management approach.

All USS employees are required to support the implementation of the risk management framework. In particular, they are required to:

- Think and act with integrity and sound business judgement in the performance of their duties;
- Ensure that risk management is robust, pervasive and has a prominent role in strategy, policy, structures and activities, and is not restricted to particular activities or to internal control; and
- Give appropriate weight to risk information and the views of risk managers at all levels of decision making.



## **Principal risks and uncertainties**

USS maintains a comprehensive register of the risks that it faces across the various parts of its business. These risks can arise as a result of internal or external factors and can adversely impact the scheme's funding, solvency, investments, operations and reputation. A subset of these - the scheme's principal risks and uncertainties - are assessed by reference to their potential to threaten the ability of the trustee to deliver its strategic objectives. The table below sets out those principal risks, the potential impact and the mitigation in place:

Risk	Potential Impact	Control/mitigation	Key performance indicator for 2017
Funding and solvency risk			
Deterioration in the financial health of the scheme. This may be driven by a significant increase in net pension liability (deficit) and/or significant deterioration in the ability of employers to make contributions to fund the benefits promised to members.	The inability of the trustee to meet the benefits promised under the USS Retirement Income Builder to members. This may lead to the requirement to substantially increase contributions, amend investment strategy and/or reduce future benefits.	Development of a comprehensive financial management plan (FMP) as part of the ongoing 2017 Actuarial Valuation, incorporating the strength of the employers' covenant, the contribution rate and investment strategy. Regular monitoring of the funding level, employers' covenant strength and liability in the context of the FMP.	At 31 March 2017, the funding ratio stood at 83% with a deficit of £12.6bn. See page 104. This deficit has been determined under our monitoring approach, which is an estimate using the assumptions from the 2014 valuation. This is somewhat below the level forecasted in the FMP, but within the projected volatility range.
		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.	The ability of the employers to provide support to the scheme over the long term was confirmed by the latest covenant review. See page 104.

#### Linked strategic priority



The funding ratio is a key measure when monitoring the development of the pension offering

#### Pension service risk

Pension service delivery fails to meet requisite quality standards.

The failure to manage or effectively execute operational processes leads to poor or incorrect outcomes for the scheme's members/beneficiaries. This may lead to rework, additional costs and reputational damage.

Robust operational controls and defined service standards with regular reporting and review of performance across all administration teams.

Comprehensive workload forecasting and the deployment of additional resources during key transitional periods.

Communication of extended turnaround times to manage service expectations during the initial transitional period from May to August 2016.

Enhanced and extended quality control checking during transitions.

#### Target:

To contain the impact of the implementation of the new systems and processes required to support the scheme changes programme. Targets were adjusted to reflect expected service impacts and set at 2015/16 results minus 10% (for both member and employer's net promoter scores).

### Update:

Service delivery maintained performance within the targeted parameters. Member results, encouragingly, improved by 1% from the previous survey 11% greater than target. Employer results fell by 12% broadly in line with expectation.

#### Linked strategic priority



Our member and employer satisfaction levels are a key measure of progress against providing excellent service

SCHEME FINANCIALS CHAIR'S DEFINED CONTRIBUTION STATEMENT

ACTUARIAL REPORTS

#### Risk

#### **Potential Impact**

#### **Control/mitigation**

#### Key performance indicator for 2017

#### Investment performance risk

A prolonged period of inadequate investment performance, or a sharp fall in the value of investments. This may be due to (i) selection of an inappropriate reference portfolio, (ii) under-performance of the implemented portfolio relative to the reference portfolio and/or (iii) unfavourable economic conditions. A significant further increase in the scheme's deficit. This may lead to the requirement to increase contributions, amend investment strategy and/or reduce future benefits

Lower growth in the size of members' USS Investment Builder funds. This may lead 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.

#### USS Retirement Income Builder:

The investment portfolio is well diversified across a range of asset classes and risk factors. It is managed relative to a long-term reference portfolio designed to fulfil the goals of the FMP.

#### USS Investment Builder:

The fund range has been chosen to provide members with an appropriate balance of risk and return expectations.

#### Target:

USS Retirement Income Builder: Long-term total investment return above the FMP expected return target set on 31 March 2014.

Relative investment performance after applicable costs meet target of 0.50% above the reference portfolio over the past 5 years and consistent with the risk parameters set by the board.

#### USS Investment Builder:

To outperform the relevant benchmark on an asset-weighted basis across the investment sub-funds.

#### Update:

USS Retirement Income Builder: The realised total investment return of 20.1% comfortably outperformed the FMP expected return target which was set in 2014.

Investment outperformance relative to the benchmark met the five yearly target of c0.50% in excess of the strategic benchmark. Over one year, investment returns underperformed the reference portfolio by 2.05%, with marginally higher-asset liability risk.

Asset weighted returns have exceeded the fund benchmarks over the initial six month period. The three main balanced funds, Growth, Moderate Growth and Cautious Growth, which account for 85% of DC investments have outperformed their benchmarks by 1.4%, 1.5% and 1.2% respectively.

For further information see the investment matters section in the scheme's annual report on the USS website.

#### Linked strategic priority



lopment of our Invious and members pe

Investment performance is a key measure when monitoring the development of the pension offering

#### **Potential Impact**

#### **Control/mitigation**

## Key performance indicator for 2017

#### **Business change risk**

Risk

Failure to deliver strategic business change effectively, especially in relation to ongoing scheme changes. Change programmes miss deadlines, are poorly implemented and/or lead to low quality outcomes. This leads to increased costs, unfavourable member experience and reputational damage amongst key stakeholders. Business change governance is closely monitored and controlled with oversight from the executive committee. Specific change initiatives have their own project teams.

#### Target:

100% on-time completed milestones for scheme change programme and >80% for other change projects.

#### Update:

Achieved 100% of our critical milestones for the scheme change programme and 80% of the tighter internal deadlines. For other change projects the figure was 83% of internal deadlines. Satisfactory results were achieved for all change assurance activity.

The scheme change programme

spanned all of our strategic

#### Linked strategic priority

pension offering to employers and members

#### **People risk**

Failure to attract and retain sufficient people with the necessary skillsets in the right roles or to develop appropriate management structures and business culture. This may lead to an inability to provide the necessary resources 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. The trustee has consistently sought to recruit and retain a talented team. This is supported by clear objective setting linked to the strategic priorities, regular performance and remuneration reviews with reference to appropriate benchmarks, training and development programmes, and employee satisfaction reviews.

#### Target:

priorities

Maintain employee engagement and training satisfaction levels relative to the employee engagement survey in 2015/16.

#### Update:

Overall engagement in 2016/17 increased by 3% to 85% across the USS Group.

We continue to be able to attract high quality talent across the USS Group.

The Managing at USS programme has been launched and the performance management process has been revamped. This has been well received and we expect this to have a positive impact on engagement in 2017/18.

We maintained spending levels on training and development in line with industry benchmarks.

#### Linked strategic priority



nent of our offering to

Enhancement of ou service to employer members



Employee engagement drives progress against all of our strategic priorities **Potential Impact** 

SCHEME FINANCIALS

Control/mitigation

CHAIR'S DEFINEE CONTRIBUTION STATEMENT

ACTUARIAL REPORTS

#### Risk

**Regulatory risk** 

The product and service offering is impacted adversely by changes to pension policy, legislation or regulation. The trustee fails to adopt and apply effective oversight of its legal and regulatory compliance arrangements. Potential for change to impact the scheme's product offering, give rise to additional costs and lead 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. Dedicated professionals focussed on assessing existing and emerging regulatory initiatives. Legal and regulatory change is monitored via the Group General Counsel canon of law and regulation, which is reviewed quarterly to ensure that relevant updates are captured and flagged to business areas. This facilitates the application of structured change management methodology for the implementation of necessary changes. Ongoing compliance training, advisory and monitoring activity in the relevant business divisions.

## Key performance indicator for 2017

#### Target:

Demonstration of performance of the quarterly review process vs. the canon of law; absence of significant regulatory issues arising; and satisfactory completion of all education and awareness activity by relevant staff.

#### Update:

The trustee is prohibited by law from making employer-related loans. It was identified in 2015 that certain investments of the scheme were in technical breach of this prohibition. A disclosure was made to tPR and a remediation plan was agreed to correct the breach. The trustee progressed the remediation plan during the year with the effect that only one employer related loan remains outstanding. Remediation of this remaining loan is continuing in accordance with the plan. Further information on the position at the end of the financial year is set out in note 20 on page 85.

The most relevant new or evolving areas of legislation are summarised on page 27.

#### Linked strategic priority

Development of our governance framew

Regulatory compliance measures the strength of the governance framework, amongst other things

#### **Potential Impact**

#### **Control/mitigation**

## Key performance indicator for 2017

#### Data risk

Risk

USS fails to protect the confidentiality, integrity or availability of critical data (including personal and commercially sensitive data), or is successfully hacked and subjected to a data breach. Breach of applicable data protection legislation, potential for regulatory censure or fine, loss of reputation with members and employers. Potential for monetary loss and remediation costs. Implementation of appropriate information security framework and processes, along with cyber risk controls.

Delivery of regular education and awareness training to employees.

#### Target:

No material breach of legislation. Completion of awareness and prevention training by all staff.

#### Update:

There were no breaches of legislation. The trustee continued to invest significantly in its cyber defences, improving its ability to prevent, detect and quarantine malware and viruses. Education and awareness, including cyber risk, is provided to all employees when they join the organisation. The training includes an end of course assessment to ensure the content has been understood. We provide continuous education and awareness throughout their employment.

USS is accredited to ISO27001, the internationally recognised standard for information security. USS undertakes compliance reviews against the requirements of the standard with a view to improving its information security framework. This activity is verified by an external certification body on a bi-annual basis.

The information security risk is continually monitored and managed within the organisation to ensure the confidentiality, integrity and availability of the data we hold and process is upheld.

The role of head of information security has been upgraded to a direct report of the Chief Risk Officer.

#### Linked strategic priority



Development of our governance framework

Data compliance measures the strength of the governance framework, amongst other things

#### Risk

Operational risks of the hybrid scheme and the **USS Investment Builder** section

Inaccurate splitting of contributions between the USS Retirement Income Builder and USS Investment Builder.

Delays in receiving and reconciling contributions.

Delays in correctly investing contributions.

Failure to carry out members' investment instructions correctly or on a timely basis.

Incorrect pricing of funds in which members' monies are invested.

#### **Potential Impact**

These risks may lead to the

Members may not receive

credited to their accounts.

the correct monies

Members may suffer

Reputational damage to

non-compliance with

regulatory requirements.

following impact:

financial loss.

USS.

Potential for

#### Control/mitigation

process including:

contributions.

instructions.

Pricing of units.

of errors.

members' accounts.

Established process for the

reporting and rectification

Monitoring of the end-to-end

Receipt and reconciliation of

Allocation of contributions to

Compliance with members'

#### **Key performance** indicator for 2017

#### Target:

No material administration service issues.

#### Update:

There have been no material administration service issues. Whilst a small number of operational issues have been encountered as the new USS Investment Builder arrangements embed, these have been resolved quickly and without detrimental financial impact to members.

#### Linked strategic priority





Operational risks by their nature can impact all strategic priorities. The level of operational issues is a key measure of the effectiveness of governance and oversight within the organisation across all three lines of defence

#### Stakeholder engagement risk

USS fails to engage effectively with its stakeholders. This may occur through oversight or the limited bandwidth of USS executives.

This may lead to an impaired ability to respond effectively to the changing needs of employers and members. The potential consequences include the USS pension offering becoming misaligned with their needs or too costly.

Regular meetings are held with member and employer representatives, including both Universities UK and UCU. These cover issues of most interest to stakeholders, including valuation, funding, contributions and investment performance.

#### Target:

The trustee continues to seek a high level of engagement.

Communication with stakeholders has improved in frequency, level of detail and transparency over the past year, particularly with regard to the 2017 actuarial valuation. USS has maintained a high level of engagement in terms of the latter, accompanied by a concern about the funding level and the cost of future benefit accrual.

USS is open to considering stakeholder requests for greater flexibility in the future structure of the scheme.

#### Linked strategic priority







Effective stakeholder engagement impacts all of our strategic priorities

#### Impact of the EU referendum

The result of the EU referendum on Brexit in June 2016 presented a new risk to the scheme. The impact of Brexit on the recruitment and retention of EU staff by the higher education sector and the ability to attract EU students could have an adverse effect on the employers' covenant. There could also be economic consequences of Brexit which may have an adverse impact on the scheme's deficit.

This risk is mitigated by the strong international reputation of the higher education sector in the UK and high rankings in international league tables, and further mitigated by robust management within the sector. The trustee regularly monitors the potential wider economic consequences of Brexit, and the investment portfolio is well diversified in terms of asset classes and international geography.

Our outlook for the future is set out on the next page.

SCHEME FINANCIALS CHAIR'S DEFINED CONTRIBUTION STATEMENT

# **Future outlook**

The external environment in which USS operates is changing. We have experienced a remarkable level of political change and economic uncertainty in 2016/17 and that is set to continue; and macroecomomic developments are likely to be key drivers of the future outlook facing the scheme. Our actions have focussed on ensuring that short-term market turbulence does not materially impact the scheme's efficient operation. We will continue to monitor and respond to these challenges throughout 2017/18, as we work towards finalising the 2017 valuation. We will also continue to work to develop our products and services to continue to meet the needs of and provide value to employers and members.

A great deal has been achieved in the last year with the introduction of the USS Retirement Income Builder, the USS Investment Builder and the implementation of the new pensions administration system provided through our strategic partnership with Capita. We have a further year of significant work ahead as we evolve our systems and processes beyond the level of functionality that was required to support the transition during 2016/17 towards a system more tailored to employer and member needs. We will also continue to make improvements to our systems so that we can deliver a high quality employer and member experience.

The needs of employers and members are paramount. We want to deliver a pension and investment service which is simple to understand and easy to use, one that is built upon a detailed understanding of the higher education sector and responsive to the changing retirement needs of the workforce.

#### 2017 valuation

We do not yet know the outcome of the valuation. However, we expect to report that the existing benefits will cost more to provide in the future than at the previous valuation. This could lead to a recalibration of the balance between the benefits provided and the contribution rates payable. A shortfall is not unusual in the current financial environment; most pension schemes offering plans like the USS Retirement Income Builder currently have a shortfall or deficit. Our primary role is to ensure there is enough money to pay the benefits members have earned to date and we will always act to ensure these financial interests are protected.

Benefits earned before 31 March 2016, plus anything subsequently built up in the USS Retirement Income Builder, are protected by law, and in the scheme rules. Entitlement to these benefits cannot be changed. The security of the benefits depends upon the scheme's finances and the employers' collective ability to support the scheme. USS is backed by over 350 sponsoring employers. We have a high degree of confidence that the scheme's assets and contributions from employers will be able to pay for the pensions members have already earned.

#### **Brexit**

USS is a long-term investor, globally diversified and backed by the most prestigious employers in the higher education (HE) sector. We are well-placed to respond to the changes the outcome of the referendum will bring. We will monitor developments and assess the impact for USS as an employer, notably any effect on our ability to attract and retain good people. We will seek to protect and improve our position and that of our members. The higher education sector is well positioned to respond to changes which might be introduced as a result of the UK's decision to leave the EU. There may be short-term uncertainty, and significant difficulty for individual employers, but over the medium to long term, we consider the sector will remain strong. This is important, as the financial health of the sector is an important factor in managing scheme funding.



THE TRUSTEE'S ANNUAL REPORT

SCHEME FINANCIALS CHAIR'S DEFINED CONTRIBUTION STATEMENT

ACTUARIAL REPORTS

## Investment matters

USS Retirement Income Builder investment return 1yr +20.1% 5yrs +12.0% p.a

Successful launch of the USS Investment Builder

Investment performance relative to internal benchmark 1yr (2.05%) 5yrs 0.50%

Net value added over five years **£1.1bn** 

This summary of investment matters sets out details of the trustee's investment strategy and its implementation, including any changes during the year. It also includes the investment returns achieved during the year compared to the appropriate benchmark and a summary of the investment managers in place for each asset class. This summary, which is the first to include both DB and DC investments, covers the USS Retirement Income Builder, which has been in place throughout the year, and the USS Investment Builder, which commenced on 1 October 2016.

#### USS Retirement Income Builder – investment objectives

The Statement of Investment Principles (SIP), the scheme's Financial Management Plan (FMP) and the trustee's investment beliefs and principles underpin our investment activities. The SIP can be found on the USS website. The investment committee monitors compliance with the SIP at least annually and during the year the scheme operated within the agreed framework. One of the trustee's key beliefs is that a well-run and appropriately governed internal investment capability is the best way to meet its long term investment objectives in the most cost-effective manner.

#### USS Retirement Income Builder – investment strategy

The scheme's assets generated exceptional absolute returns over the past year. We underperformed however versus the strategic benchmark due to underweights in index-linked gilts and US equities, with the portfolio focused on assets expected to outperform in the long-term. We are confident that the breadth and diversity of assets and capabilities deployed for the scheme will continue to pay off over longer periods.

> Roger Gray, Chief Investment Officer

The trustee sets a reference portfolio on the recommendation of its investment committee. This is a hypothetical portfolio that is expected to deliver the investment returns assumed in the FMP at a level of risk consistent with the trustee's risk appetite. It is a portfolio that could largely be implemented passively at low cost and is reviewed at least annually. It provides a benchmark for measuring the manager's performance. The reference portfolio will evolve as circumstances permit incremental risk reduction over the duration of the FMP. Under the reference portfolio framework, the trustee retains responsibility for the investment strategy and delegates oversight of its implementation to the investment committee.

The day-to-day management of USS investments including the specifics of asset allocation, implementation and reporting are delegated to USS Investment Management Limited, the principal investment manager and advisor to the trustee. The objective is to deliver greater returns than those derived from the reference portfolio, whilst simultaneously targeting a similar (or lower) level of risk over the long-term.

Environmental, social and governance (ESG) considerations refer to the three central factors in measuring the sustainability, wider impacts and conduct related to an investment. USS via USS Investment Management Limited deploys a responsible investment (RI) function consisting of six professionals who work with investment managers to ensure ESG issues, where they are material, are taken into account in the selection, retention and realisation of the scheme's investments. The in-house RI team engages with companies and with global policy makers on issues that could impact the long term sustainable returns on investments across the range of asset classes in which the trustee invests. The trustee believes this approach is important to protecting the value of the scheme's assets over the long term and is a strategic priority for USS; accordingly further information is provided on the approach on pages 49 and 50.

As one of the UK's largest pension funds, USS is able to provide employees with the resources, training and career development opportunities needed to attract and retain high quality investment professionals. Talent development allows the executive to build the intellectual capital needed to employ sophisticated and innovative strategies. More detail on talent development is found on page 22. Alignment between USS and its investment management subsidiary is ensured through the governance structure, organisational culture and incentive structure.

As outlined on page 10, the scheme follows a strategy of in-house investment management where cost effective. Some areas of investment sought for the scheme may not match the existing internal skills, experience or operational capability and it may not be cost-effective, timely or otherwise desirable to build the required capability internally. In these circumstances, USS Investment Management Limited will select external managers to undertake investment on its behalf.

The following table shows the principal investment managers, their mandate and their share of total scheme managed as at 31 March 2017:

	Mandate	% Assets
USSIM Ltd (Internally managed)	Multiple	73%
External funds (Private markets and absolute return)	Multiple	16%
Legal & General Assurance (Pensions management)	Multiple	6%
Investec	Emerging Market Debt	1%
Royal London Asset Management	Sterling Investment Grade Credit	1%
Pictet	Emerging Market Debt	1%
Goldman Sachs	Short Duration Credit	1%
Fairoaks	Collateralized Loan Obligations	1%

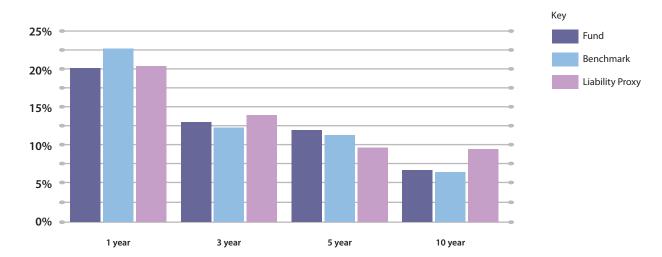
USS also uses external investment advisors in respect of its property portfolio and property management services. The contracts currently in place are shown in the following table:

Role	Portfolio	
	Retail and Leisure	JLL
Investment Advisory	Offices and International	DTZ Investors
	Industrial	JLL
	Grand Arcade Shopping Centre, Cambridge	Cushman & Wakefield LLP
	Monks Cross Shopping Park, York	Savills
Property Management	Whiteley, Fareham and Eden Walk Shopping Centre, Kingston-upon-Thames	Broadgate Estates Ltd
	Other Retail and Leisure, Offices and Industrial	Workman & Partners

#### USS Retirement Income Builder – investment performance

The return objective of the implemented portfolio is to outperform the reference portfolio by 0.55% or more per year on an annualised basis over rolling five-year periods to 31 March, net of applicable costs. Prior to 2015, the outperformance target was 0.45% relative to the scheme's strategic allocation benchmark and therefore the weighted target over five years to the end of the financial year 2016/17 was 0.495%. Performance is inherently unstable and at times may fall beneath the target outperformance, which itself represents a strong outcome over periods of five years and longer given the rarity of sustained outperformance in asset management. Performance was below the benchmark in the 2016/17 year, despite exceptionally strong absolute returns. Performance exceeded the benchmark over the five-year period by 0.50% net of applicable costs, in line with the target. Performance is regularly monitored by the investment committee, with a formal review process related to a RAG scale with triggers if outperformance falls below two-thirds of target (-0.34%). Performance relative to the proxy of the scheme's liabilities (the gilts proxy) is also reported as an indicator of changes in the scheme's funding position.

The chart below shows the performance of the scheme, its performance benchmark and the gilts liability proxy over 1, 3, 5 and 10 years.



#### Annualised returns to March 2017

In absolute terms, the scheme's investment returns have been exceptionally high at 20.1% in the 2016/17 financial year. However this return lagged the 22.7% appreciation recorded by the reference portfolio and the 20.5% rise in the gilts proxy for the scheme's liabilities over the period. As a result, the scheme underperformed the reference portfolio by 2.05% in the 2016/17 financial year, described as the 1 year basis and it underperformed the gilts proxy for the scheme's liabilities by 0.3%. The under performance versus the reference portfolio was more than fully accounted for by the large underweight in UK Index-linked gilts relative to the reference portfolio and additionally by the decision to underweight US equities. Both of these asset classes showed exceptionally strong performance, following the UK's decision to leave the EU (Brexit) and President Trump's election respectively. Over the last five years the scheme assets have returned 12.0% per year, and outperforming gilts liability proxy by 2% per year. Over this five year period, net added value from active management net of applicable costs has been 0.50%, contributing £1.1bn to the scheme's asset value while contributions net of benefits paid has contributed £0.8bn.

#### Distribution of the scheme's assets

The table below sets out the approximate distribution of the scheme's asset exposure, and its position relative to the reference portfolio as at 31 March 2017. The table excludes the money purchase AVC programme, which has been separately managed by Prudential and the assets held in the USS Investment Builder section of the scheme.

%	Implemented portfolio	Reference portfolio	Difference
Equities	42.8	62.5	(19.7)
– UK	12.0	15.6	(3.6)
– Europe Ex-UK	5.2	6.7	(1.5)
– N America	12.2	25.5	(13.3)
– Pacific inc Japan	4.1	5.3	(1.2)
– Emerging Markets	9.3	9.4	(0.1)
Credit	8.0	10.0	(2.1)
Nominal Bonds	12.3	0.0	12.3
Liability-Hedging Gilts	9.9	25.0	(15.2)
Commodity Sensitive	1.1	0.0	1.1
Absolute Return	3.7	0.0	3.7
Private Markets	23.2	7.5	15.7
– Inflation Linked Debt/Equity	6.2	0.0	6.2
– Private Debt/Equity	9.2	0.0	9.2
– Special Situations	2.7	0.0	2.7
– Property	5.2	7.5	(2.3)
Overlays	1.1	0.0	1.1
Cash*	(2.0)	(5.0)	3.0
Total Fund	100	100	0.0

Please note that the figures in the table may not add up due to rounding

\* Includes Liability-Driven investment funding

In order to outperform the reference portfolio, the implemented portfolio must be invested in a different mix of assets. This difference in investment strategy gives rise to the opportunity for the implemented portfolio to achieve higher returns than the reference portfolio, but it also gives rise to the risk that the realised returns of the implemented portfolio will be lower than those of the reference portfolio. This risk needs to be measured and monitored to ensure it is consistent with the trustee's risk appetite.

SCHEME FINANCIALS CHAIR'S DEFINED CONTRIBUTION STATEMENT

The investment risk of the implemented portfolio is measured on a daily basis and compared to the risk that would have been incurred if the scheme's assets were invested only in the reference portfolio. Over the course of 2016 a new risk model was implemented for the monitoring of investment risk. This new model takes a somewhat longer-term perspective on measuring investment risk than the previous model, making it more aligned with the investment decision-making process.

As was the case in the previous year, investment risk is measured in three complementary ways (see the chart below). The first measure of investment risk reflects the mismatch between the implemented portfolio and reference portfolio (the tracking error). This is a risk that should not be too small, because the mismatch between these portfolios is essential to having the potential for outperformance, but it should also not be too large, because that would be outside risk appetite. Over the course of 2016/17 this mismatch risk averaged 2.3%, which is near the middle of the targeted range. This compares with an average mismatch risk of 2.1% in 2015/16.

The second and third measures relate to the relative size of the risk to the deficit between the implemented portfolio and reference portfolio. These two measures showed that the deficit risk associated with the implemented portfolio was on average about the same as the deficit risk associated with the reference portfolio, but reflecting a slightly higher risk position that the previous year.

The higher levels of risk at the start of the year (shown in the chart below) reflect the implementation of a new reference portfolio with the liability-hedging assets weight (primarily long-dated index-linked gilts) increased by 4%. The Brexit market shock along with the subsequent Bank of England response caused a spike in risk model readings, especially in the shorter-term risk model. The decision was taken not to close down the risk immediately as this would have involved purchasing index-linked gilts at historically low yields.

Arrangements for escalation and reporting have been agreed between the investment committee and USS Investment Management Limited to ensure that there is prompt consideration of appropriate remediation actions if the level of risk according to these measures exceeds the scheme's risk appetite.



#### Risk metrics - implemented portfolio vs. reference portfolio

#### **USS Investment Builder**

As explained in the Chair's Defined Contribution Statement on page 90, the USS Investment Builder offers members a choice as to how they wish their contributions to be invested. This range of options provides a range of different types of investment with different levels of risk and return. For members who do not wish to make any explicit investment decisions, the USS Investment Builder has a default investment approach, known as the USS Default Lifestyle Option. In addition to this, members are able to choose from the USS Ethical Lifestyle Option and ten individual funds, which are referred to as the self-select options.

#### **USS Investment Builder - distribution of assets**

As at 31 March 2017, the value of members' investments in the USS Investment Builder totalled £99.2m, which was distributed across the investment options as follows:

Investment option	Assets as at 31 March 2017 (£m)
USS Growth Fund*	60.9
USS Moderate Growth Fund*	17.9
USS Cautious Growth Fund*	5.5
USS Cash Fund*	7.1
USS Bond Fund	0.4
USS UK Equity Fund	0.6
USS Global Equity Fund	1.6
USS Emerging Market Equity Fund	0.7
USS Ethical Equity Fund	0.6
USS Sharia Fund	0.1
USS Ethical Growth Fund (Lifestyle only)	2.7
USS Ethical Moderate Growth Fund (Lifestyle only)	0.7
USS Ethical Cautious Growth Fund (Lifestyle only)	0.2
USS Ethical Cash Fund (Lifestyle only)	0.2
Total	99.2

The USS Investment Builder investments are shown in the Statement of Net Assets on page 65 within defined contribution investments, which also includes legacy MPAVC investments of £444m.

\* The components of the USS Default Lifestyle Option

The USS Growth Fund is the largest fund by assets with 61% of the total USS Investment Builder assets being invested here. This fund is a key element in the USS Default Lifestyle Option.

You can find further information on the governance of the USS Default Lifestyle Option in the Chair's Defined Contribution Statement on page 90.

#### **USS Investment Builder - investment performance**

The investment performance of the various USS Investment Builder funds since inception (on 3 October 2016) to 31 March 2017 is set out below. Performance is shown before the deduction of fees.

Fund name	Fund return%	Benchmark return%	Difference to benchmark
USS Growth Fund*	8.4	7.0	+1.4
USS Moderate Growth Fund*	6.2	4.7	+1.5
USS Cautious Growth Fund*	3.9	2.7	+1.2
USS Cash Fund*	0.2	0.1	+0.1
USS Bond Fund	(1.2)	(1.9)	+0.7
USS UK Equity Fund	7.8	8.0	(0.2)
USS Global Equity Fund	11.4	11.5	(0.1)
USS Emerging Market Equity Fund	12.0	11.4	+0.6
USS Ethical Equity Fund	9.4	11.4	(2.0)
USS Sharia Fund	8.7	8.9	(0.2)
USS Ethical Growth Fund (Lifestyle only)	7.3	7.7	(0.4)
USS Ethical Moderate Growth Fund (Lifestyle only)	4.9	4.9	0.0
USS Ethical Cautious Growth Fund (Lifestyle only)	2.8	2.6	+0.2
USS Ethical Cash Fund (Lifestyle only)	0.1	0.1	0.0

\* The components of the USS Default Lifestyle Option

Further details on the funds and performance can be found in the fund factsheets which are available for members to download.

Performance of the funds against their comparator benchmarks is broadly positive over the initial 6 month period, with the USS Ethical Equity Fund being the only fund with notable underperformance. The USS Ethical Equity Fund invests in companies which meet strict ethical and socially responsible criteria in line with the views of members of USS, which were determined in a survey conducted in 2016. However, performance is compared against a benchmark representing the whole of the market as this is the benchmark which the fund manager has set themselves. Therefore, some difference to the benchmark is expected, especially over shorter periods of time. Over longer periods, the difference in the cumulative rate of return is expected to be smaller. The trustee continues to monitor the funds on a frequent basis and periodically reviews reports from the executive on the selected managers and, where relevant, asset allocation decisions.

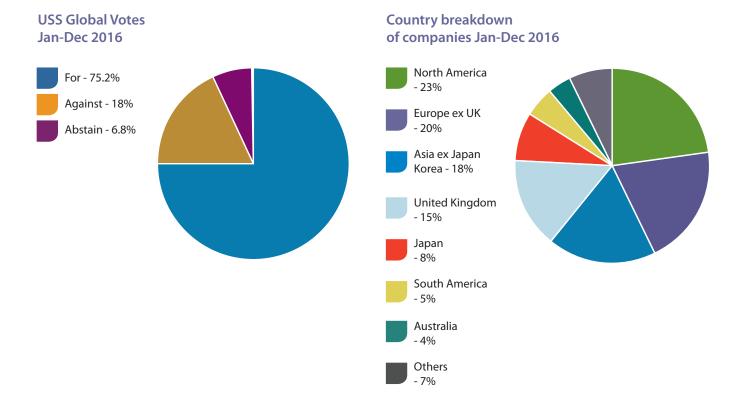
Information about the ethical investment guidelines can be found on the USS website.

#### **Responsible investment (RI)**

The trustee requires its investment managers to integrate all material financial factors, including ESG considerations, into the decisionmaking process for its investments. The investment committee monitors RI activity with the aim of ensuring that its impact and effectiveness are maximised. The trustee's governance, social, ethical and environmental policies are reviewed regularly by the board and updated as appropriate, to ensure that they are in line with good practice and meet the scheme's current needs and requirements.

USS has published its own Stewardship Principles which articulates the scheme's approach to voting and engagement so that the companies in which USS invests will understand better our expectations of them and how the scheme will interact and communicate with issuers. In November, the Financial Reporting Council (FRC) named USS in the top tier for asset managers for its stewardship reporting following an assessment of almost 300 signatories of the Stewardship Code. The UK Stewardship Code aims to enhance the quality of engagement between investors and companies to help improve returns to shareholders. The Code sets out a number of areas of good practice to which the FRC believes institutional investors should aspire. USS was classed in Tier 1, which indicates we provide a 'good quality and transparent description of our approach to stewardship, and provide explanations of an alternative approach where necessary'.

Voting is central to our stewardship and active ownership activities. In 2016 the RI team voted on 7,539 resolutions at 615 events covering 519 separate companies.

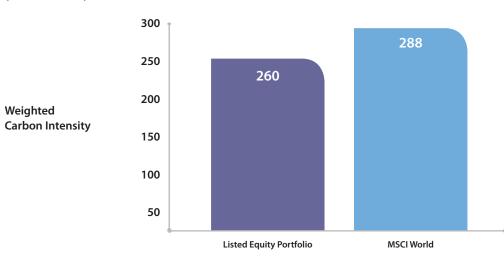


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Climate change introduces some additional long term uncertainty to investment returns. USS continues to support and play an active role in the Institutional Investors Group on Climate Change (IIGCC), which USS founded in 2001. The IIGCC led global investor input into the United Nations Climate Change Conference (COP 21) in Paris in December 2015. USS also signed the Montréal Pledge, which commits signatories to publishing the carbon footprint of their public equities portfolios. Footprinting means we can identify which companies are most exposed to carbon, and see whether companies are increasing or decreasing their exposure over time and which are best at reporting and managing emissions. Through active investment decisions, the scheme has continued to be 'underweight' carbon, that is, less carbon intensive than our benchmarks.

The footprint of the scheme's public equity portfolios, when last assessed on 31 March 2016, was as follows:



# Weighted carbon intensity of equities portfolio v MSCI World (March 2016)

As active stewards of the capital we invest, we also actively engage with companies to encourage them to manage any climate risk they face. In 2016 USS co-filed resolutions on climate change related issues at three UK listed diversified mining companies; Rio Tinto, Anglo American, and Glencore. All three companies have thermal coal resources, and the resolution focussed on how the companies were managing the transition to a 2 degree world. In addition, USS Investment Management Limited wrote to the companies most exposed to climate change risk to find out more about how they were adapting their businesses to the agreement at the Paris Climate Change Conference to limit the global temperature rise to 2°C (or aspirationally 1.5°C). We also established, with other pension funds, the Transparency Pathway Initiative to track how companies are responding to the shift to a 2 degree world.

Shareholder rights have been another area of focus for several years. Investment managers have worked with the Asian Corporate Governance Network and Governance for Owners in Japan to encourage continued change in the Japanese market following the introduction of the Stewardship and Corporate Governance Codes. USS Investment Management Limited also responded to consultations on the German corporate governance code and the availability of information during UK initial public offerings (IPOs).

USS Investment Management Limited believes it is important to apply the scheme's RI policies as consistently as possible to all assets whether they are internally or externally managed. The RI team undertook due diligence meetings with all the managers who were appointed to manage the assets invested in the USS Investment Builder. In addition to desk based studies, the RI team met or held conference calls with all of the managers on the platform. USS Investment Management Limited also continues to undertake detailed due diligence on all of its investments in private markets, whether direct or indirect (via funds) and including private equity, infrastructure and investments in private credit.

USS is one of the few schemes to offer members an ethical lifestyle fund alongside an ethical self-select option. These funds screen out a number of companies and sectors based on ethical factors, which have been specifically developed for USS members. These include factors such as oil and gas, which produce greenhouse gases and contribute to climate change, and tobacco.

Further information about USS Investment Management Limited's integrated approach to ESG matters can be found in the SIP and more details of the fund's responsible investment activities, including voting records, are available on the USS website.

#### **Other investment matters**

#### Custody of the scheme's assets

The scheme's assets are generally held in the name of the trustee company on behalf of the scheme. A range of investment assets are held in custody by JPMorgan Chase and Northern Trust as independent professional custodians. The trustee company is responsible for appointing those custodians, and does so with the benefit of advice and assistance from USS Investment Management Limited and other advisors as necessary.

The independent custodians are responsible for the safekeeping of those of the scheme's assets which are entrusted to them. These are typically all the listed and publicly traded securities held for the scheme. The custodians also perform associated administrative duties (e.g. trade settlement, dividend collection, corporate actions, tax reclaims and proxy voting).

Some assets of the scheme are not capable of being held within the custody network provided by independent custodians (e.g. title to real estate investments) and appropriate safekeeping arrangements are made in respect of those assets.

#### Money purchase additional contributions

The scheme provides for members to pay additional contributions to secure additional benefits at retirement. The trustee had previously selected Prudential to be the scheme's money purchase additional contributions provider. The investment committee reviews the range of funds made available to additional contributions participants to ensure it offers an appropriate range of investment choices. From October 2016, new additional contributions received (i.e. excluding those received in respect of legacy Prudential AVCs) are invested into the USS Investment Builder. Following the end of the financial year, some of the monies invested with Prudential were transferred into USS Investment Builder.

For the remaining amount invested in unit-linked funds with Prudential, there are further bulk switches to the USS Investment Builder planned over the course of the next two and a half years, which are planned to continue later in 2017. There are no plans at present to switch funds from either the Prudential with profits or deposit funds. Further information on these switches is available on the USS website.

#### Summary of the investments

Below are the scheme's 20 largest investments in listed equities and in bonds:

Asset	Value £m	Fund %
UK Treasury 0.75% IL 22/03/2034	1,955.0	3.2
UK Treasury 3.25% 22/01/2044	1,161.1	1.9
UK Treasury 4.25% 07/03/2036	1,132.3	1.9
US Treasury 0.625% IL 15/02/2043	1,009.5	1.7
US Treasury 0.75% IL 15/02/2042	908.0	1.5
UK Treasury 0.625% IL 22/03/2040	729.3	1.2
UK Treasury 1.5% 22/07/2047	690.8	1.1
UK Treasury 4.5% 07/09/2034	636.3	1.1
US Treasury 1.375% IL 15/02/2044	591.5	1.0
Royal Dutch Shell	505.0	0.8
UK Treasury 4.25% 07/09/2039	463.8	0.8
UK Treasury 0.125% IL 22/03/2044	377.5	0.6
Roche Holding	357.7	0.6
US Treasury 3.75% 15/08/2041	327.4	0.5
US Treasury BOND 3.125% 15/02/2042	307.2	0.5
Flughafen Zuerich AG	292.1	0.5
Samsung Electronics	290.5	0.5
UK Treasury GILT 3.5% 22/07/2068	281.3	0.5
US Treasury 2.125% IL 15/02/2040	276.1	0.5
Vodafone Group	274.1	0.5

A list of all the fund's equity holdings and a more comprehensive review of corporate governance issues is available on the USS website www.uss.co.uk

#### **Employer-related investments**

Details of employer-related investments are given in note 20 to the financial statements on page 85.

# Financial reporting compliance matters

The information below sets out those matters of importance which are a required communication to members within the annual report and accounts and which are not covered elsewhere within this report.

#### **Constitution of the scheme**

USS benefits payable consists of two elements:

- USS Retirement Income Builder, providing DB benefits on a career revalued benefit basis. All members automatically join this section of the scheme and earn benefits based on their salary up to the salary threshold (£55,000 for 2016/17); and
- The USS Investment Builder, providing DC benefits. Members whose salary is above the salary threshold build up benefits above the threshold in this section. All members can also pay additional contributions to the USS Investment Builder the first 1% of those additional contributions will be matched by their employer.

#### **Rule changes**

On 1 April 2016 the first of three deeds of amendment to the scheme rules was executed. This deed:

- Extended salary sacrifice to additional member contributions
- Updated the auto-enrolment provisions for re-employed pensioners and flexible retirers
- Amended some minor typographical errors

Two more deeds of amendment, both relating to money purchase additional voluntary contributions (MPAVCs) were executed. On 9 June 2016 the second deed of amendment was executed, which:

- Closed the MPAVC arrangement to further contributions with effect from 1 October 2016, subject to the below transitional measures
- Provided transitional measures for those contributing to the life assurance arrangement
- Provided transitional measures for those contributing to the MPAVC 'with-profits' arrangement

The third deed of amendment, executed on 15 December 2016, brought the position for deferred and pensioner members with MPAVC funds in line with that of active members, by:

- Giving the trustee power to automatically map deferred members' MPAVC monies to USS Investment Builder, without consent
- Providing deferred and pensioner members with the option to voluntarily switch their MPAVC funds to USS Investment Builder

#### Internal dispute resolution (IDR)

The trustee has a clear process for members who wish to make a complaint. The first stage of the IDR procedure provides for the Head of Pensions Operations to review the circumstances and take a decision on the matter. In the event that a complainant is not satisfied with the outcome of the decision, they are able to make a further, second stage application for the trustee to review the matter and either confirm or alter the decision. The second stage review is undertaken by the advisory committee, augmented for this purpose alone by two members of the trustee board (one nominated by Universities UK and one nominated by UCU). After a complaint has been determined under the IDR procedure, the complainant may then refer the complaint to the Pensions Ombudsman.

#### Stage one

During the year, 29 complaints were received under stage one of the IDR procedure. Of these, one was upheld, two were upheld in part, 17 were not upheld, three were withdrawn, and six were pending.

#### Stage two

15 complaints were received under stage two of the IDR procedure. Of these, three were upheld in part (all of which had been upheld in part at stage one), nine were not upheld and three remain pending.

#### Other

Eight complaints were made to the Pensions Ombudsman. Of these, one was upheld in part (which had also been upheld in part at stage one and stage two), one was not upheld, one was withdrawn and five remain pending. An additional two complaints have been raised with the Pensions Ombudsman, although the trustee company has not yet received formal notification of these from the Pensions Ombudsman.

#### **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 2016 the rate of CPI was 1.0%, and therefore the increase applied to USS pensions in payment and deferment was 1.0%, effective from April 2017.

#### **Changes to advisors**

The principal advisors are set out on page 61. The only significant change to the advisors stated is the addition of NatWest as an additional banker.

#### **Scheme mergers**

There were no scheme mergers during the year.

#### Late contributions

During the year there were no late payments of contributions from participating employers.

#### Non joiners

During the year, the trustee company was notified of approximately 4,000 employees of participating employers who were eligible to join the scheme but elected not to do so, which equates to 12%. This represents a reduction from approximately 5,000 or 14% seen in 2015/16.

#### **Actuarial liabilities**

The report on actuarial liabilities is included on pages 102 to 108 of the annual report and accounts and by cross reference forms part of this trustee report on the year ended 31 March 2017.

#### **Statement of Investment Principles (SIP)**

In accordance with Section 35 of the Pensions Act 1995, a SIP has been prepared by the trustee which incorporates the investment strategy, a summary of this strategy is provided on page 42 of this annual report. The SIP has been updated in the current financial year and a copy is available at **uss.co.uk** from the Company Secretary of the trustee. A supplementary SIP specifically in relation to the default lifestyle option provided within the USS Investment Builder has also been prepared in the financial year. This is included on page 97.

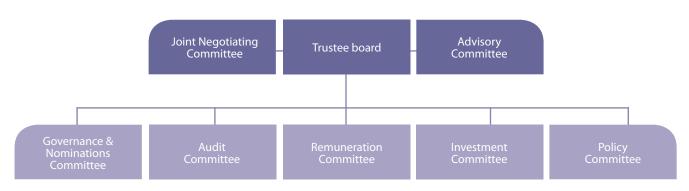
#### **Enquiries about the scheme**

Enquiries should be addressed to the Company Secretary, Mr Jeremy Hill, at Universities Superannuation Scheme Limited, Royal Liver Building, Liverpool, L3 1PY.

# Governance

#### **Overview**

The governance structure of USS is sustained by a strong non-executive trustee board which ensures that USS is run efficiently and effectively. A summary of some of the key matters considered by the trustee board during the year is provided on page 59.



Further information on the role of the trustee board and executive, and the activities and membership of the boards' committees is provided on the USS website.

#### **Trustee board composition**

The trustee board consists of between 10 and 12 non-executive members comprising:

- Four directors appointed by Universities UK;
- Three directors appointed by the University and College Union (UCU) at least one of whom must be a pensioner member; and
- Between three and five independent directors.

This composition promotes an effective and balanced trustee board with sufficient knowledge and experience of the higher education sector, scheme member viewpoints as well as independent opinion and specialised skills.

Universities UK and UCU each have the authority under the articles of association to remove their appointed directors from office. An independent director may only be removed prior to the expiration of that directors' term of office by resolution of the trustee company in a general meeting with the prior approval of the Joint Negotiating Committee.

Detailed biographies of the board members appear on the following pages.



#### The members of the Board (in alphabetical order following the Chair), are set out below.



January 2007

Chair **UUK appointed** 



**Professor Dame Glynis Breakwell** Appointed: September 2009

Professor Sir David Eastwood became Vice-Chancellor of the University of Birmingham in April 2009. Previously, he was Chief Executive of the Higher Education Funding Council for England (HEFCE). During his distinguished academic career, David has undertaken various senior roles within notable Institutions, including Vice-Chancellor of the University of East Anglia, and Chief Executive of the Arts and Humanities Research Trustee board.

**Professor Sir David Eastwood** 

Appointed: Chair of the trustee

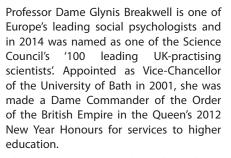
board in April 2015, Director in

In January 2012, he was appointed as a Deputy Lieutenant for the county of West Midlands, and in June 2014 he was awarded a Knighthood for services to higher education.

David's deep understanding of the higher education sector and significant experience as a director and chairman across various bodies, results in him being a very effective Chair of the trustee board.

#### **Other roles**

Director of the Russell Group; NED of Universities UK; Vice Chancellor at the University of Birmingham; Member of the University Grants Committee, Hong Kong; Trustee of the Barber Institute of Fine Arts, Birmingham; Member of the Advisory Trustee board of the Higher Education Policy Institute; NED of INTO University Partnerships; Honorary fellow of St Peter's College, Oxford; Honorary fellow of Keble College, Oxford; Chair of Universitas 21; Trustee board Member of Arts and Humanities **Research Council.** 



Glynis is an active public policy adviser and researcher, specialising in leadership, identity processes and risk management. She holds a number of senior governance positions, acting as an adviser to the higher education sector, government organisations, and not-for-profit organisations.

Her extensive experience in senior governance roles, as well as her knowledge of the higher education sector and her commitment to its ongoing development and growth, means that she is a highly valued member of the trustee board. Glynis is also Chair of the Policy Committee.

#### Other roles

NED of Universities UK; Vice Chancellor of the University of Bath; NED of the NHS Improvement Board; Council member of the Economic and Social Research Council; Chair of the GW4; Member of the Science and Technology Honours Committee.



**Deputy Chair** Independent Independent

**Dr Kevin Carter** Appointed: September 2012

Dr Kevin Carter is a successful investment management professional holding positions at the very highest level. At Old Mutual Asset Managers (UK) Limited, he ran the asset management arm in the UK and US. He was Head of the European Investment Practice at Watson Wyatt LLP and led the set-up of JP Morgan's pension practice. He was also a member of the National Association of Pension Funds' investment council.

In addition to his extensive executive career in investment management, Kevin sits on the investment committee at two of the largest pension funds in the UK; BBC and USS. He is also a director of a range of investment funds covering diverse asset classes.

Kevin's expertise in the investment world, and extensive knowledge of pension fund portfolios, enhances the trustee board's investment strategy capability significantly. Kevin is the Chair of the Investment Committee.

#### Other roles

Chair of Murray International Trust PLC; NED of Aspect Capital Limited; NED of Lowland Investment Company PLC; NED of JP Morgan American Investment Trust PLC; NED of BBC Pension Trust Limited; Chair of the Valuation Committee at Hermes GPE LLP; Former managing director and head of JP Morgan pension advisory group for EMEA.

THE TRUSTEE'S ANNUAL REPORT

FINANCIALS

**UCU** appointed

CHAIR'S DEFINED CONTRIBUTION STATEMENT



Kirsten English Appointed: May 2014

Kirsten English's background is in Financial Technology. Services and Financial Her experience includes roles as CEO, General Manager, and Entrepreneur in residence plus Non-Executive Directorships. These roles have included work with public companies listed on several stock exchanges: FTSE 100, NASDAQ and Oslo. She has also worked for a number of years with Private Equity firms and as CEO of a Fund of Hedge Funds. Her expertise in Financial Services Infrastructure and Telecommunications adds depth to the trustee board's knowledge in this area. Kirsten is Chair of the Governance & Nominations Committee.

Professor Jane Hutton Appointed: November 2015

Professor Jane Hutton is a Professor of Medical Statistics at Warwick University, with special interests in survival analysis, metaanalysis and non-random data. Her external appointments have included membership of the Core Methodology Panel, National Institute for Health Research (NIHR), 2011-2015.

She brings strong analytical skills to the trustee board and has experience of serving on governance bodies in a senior role.



lan Maybury
Appointed: November 2013

lan Maybury is an experienced trustee and actuary. He has particular expertise in investment and risk management, having worked with such organisations as Schroders, Royal London, Redington and Citigroup. He possesses a wealth of knowledge of many different business areas including: insurance, banking, investment consulting and asset management. Ian brings a broad executive experience and a keen interest in the governance of DB and DC pensions schemes to the trustee board.

#### Other roles

Chief Executive Officer at Style Research (Analytics software for Institutional Investors); Senior Independent NED at Innovative Finance (Industry Association for FinTech in the UK).

#### Other roles

Professor at The University of Warwick; Member of the Education Committee of the International Biometric Society.

#### Other roles

Director of CGML Pension Trustee Ltd (Common Trustee of Citi's UK schemes); Trustee of the Mineworkers' Pension Scheme Limited; Chair of Trustees of RNIB Retirement Benefits Scheme; an independent member of the DC committee of the Unilever UK Pension Fund; independent member of the Reed Elsevier Investment Advisory Committee and Investment Adviser to the Investment Committee of the Airways and New Airways Pensions Schemes (BA); Director of Telepathic Ltd; member of the Global Advisory Council, Tobacco Free Portfolios.



Independent



Michael Merton Appointed: February 2014

Michael Merton is a Fellow of the Institute of Chartered Accountants in England & Wales, he has extensive experience in the international resources industry, and previously held various senior executive roles at Rio Tinto. Michael has had considerable Pension Fund involvement and holds a number of non-executive positions, including Chair of the trustee board of the J Sainsbury Pension Scheme and its investment committee.

Michael brings to the trustee board, comprehensive senior-level financial insight combined with wide-ranging experience of senior governance roles. Michael is chair of the Audit Committee.

#### Other roles

Chair of the Board and Chair of the Investment Committee of the J Sainsbury Pension Scheme Trustees Ltd; Director of J Sainsbury Common Investment Fund Limited; Director of J Sainsbury Trustees Limited; NED and Chair of the Audit Committee of Cape PLC; Director and Chair of the Audit Committee of Blackrock Commodities Income Investment Trust PLC; Director of Blackrock Commodities Securities Income Company Limited; Director of Returnstance Property Management Limited.



I

Professor Sir Anton Muscatelli Appointed: April 2015

**UUK appointed** 

Professor Sir Anton Muscatelli became Principal and Vice-Chancellor of the University of Glasgow on 1 October 2009. He studied at the University of Glasgow, where he graduated with an MA in Political Economy and with a PhD in Economics. He was a lecturer in Economics from 1984 and Daniel Jack Professor of Economics from 1992 until 2007. He was Dean of the Faculty of Social Sciences, 2000 to 2004, and Vice-Principal (Strategy, Budgeting and Advancement) from 2004 until 2007. He was also Principal and Vice-Chancellor of Heriot-Watt University from 2007 to 2009. Anton was knighted in the Queen's 2017 Birthday Honours for services to economics and higher education. He brings extensive expertise of economics, as well as an intimate knowledge of the higher education sector, to the trustee board.

#### Other roles

Principal and Vice-Chancellor of the University of Glasgow; Director of High School of Glasgow, Trustee of Universities UK; NED of Russell Group of Universities; Honorary President of the David Hume Institute; Director of the Beatson Institute; Board Member of the Scottish Funding Council; Trustee of Council for the Advancement and Support of Education (Europe); Trustee of Carnegie Trust for the Universities of Scotland (ex officio); Trustee of Newbattle Abbey College Trust (ex officio); Chair of Commission on Economic Growth for the Glasgow City Region; Member of Scottish Government's Council of Economic Advisers; Chair of Scottish Government's Standing Council of Europe; Director of Glasgow Life.

UUK appointed



R P

Professor Stuart Palmer Appointed: 31 March 2016

Professor Stuart Palmer was appointed to the trustee board on 31 March 2016 and is a pensioner member of USS. He became a member of the Remuneration Committee in September 2016 and joined the Policy Committee on 1 July 2017.

Stuart brings to the board senior governance experience within the higher education sector as well as a range of experience in trustee roles, including acting as trustee and chair of other higher education pension schemes.

He was previously Deputy Vice-Chancellor of the University of Warwick and holds a BSc, PhD and DSc in Physics from the University of Sheffield and Honorary DSc from the University of Warwick. He is also a Director of the Universities and Colleges Employers Association (UCEA).

#### Other roles

Chair of Trustees, University of Warwick Pension Fund; Chair of Council, Cardiff University; Director of the Universities and Colleges Employers Association (UCEA); Advisory Committee member, Mercia Fund Management; Mercia Fund Management Limited; Director, Institute of Physics Publishing; Honorary Secretary, Institute of Physics. He is also a Director of the Universities and Colleges Employers Association (UCEA). THE TRUSTEE'S ANNUAL REPORT

SCHEME FINANCIALS CHAIR'S DEFINED CONTRIBUTION STATEMENT



Independent



Rene Poisson Appointed: November 2012

Rene Poisson joined USS, having retired after a 30 year career with JP Morgan, latterly as Managing Director and Senior Credit Officer for Europe, Middle East and Africa. His extensive executive experience in the financial services industry is complemented by a substantial and long-standing nonexecutive career, with a particular focus on Pensions and Investment. Rene is the Chair of the Remuneration Committee.



Bill Trythall
Appointed: October 2009

Bill Trythall is now retired after nearly 40 years teaching History at the University of York. He has had a long involvement in USS, including over 20 years on the Joint Negotiating Committee, and many years as an Association of University Teachers appointed director of the trustee company up to 2005. Bill brings invaluable knowledge and experience of the higher education sector and an extensive and detailed understanding of USS to the trustee board.



G&N

Dr Steve Wharton Appointed: September 2016

Dr Steve Wharton was appointed to the board in September 2016 and joined the Governance & Nominations Committee on 1 July 2017.

He is a Senior Lecturer in French and Communication at the University of Bath, where he is also a Council member and a life member of Court.

He is well placed to understand the views of the scheme's members as an active member of the scheme, and having undertaken prior roles as the last national President of the Association of University Teachers and first (joint) President of UCU.

Steve joined the board with prior experience of USS, having spent three years as a member of the USS Advisory Committee.

#### Other roles

Chairman of JP Morgan UK Pension Plan and Member of their Investment Subcommittee; MD at Poisson Management Limited; Chair of the Independent Governance Committee of Standard Life Assurance PLC; Director of Standard Life Master Trust; Patron of the Disability Challengers Charity; Chair of the Advisory Committees of Five Arrows Credit Solutions and Five Arrows Direct Lending.

#### Other roles

Member of the Superannuation Working Group at UCU; Director, committee member and company secretary of the Association of Member Nominated Trustees Limited.

#### Other roles

Trustee, Association for the Study of Modern and Contemporary France; Chair of the Board and Director, Trustee Company of Bath Royal Literary and Scientific Institution.

# Trustee board key activities 2016/17

There was a significant volume of activity carried out by the trustee board during 2016/17, particularly around the scheme changes programme. The trustee board met formally eight times during the year. The board's meeting in April 2016 included a session specifically dedicated to strategy and how the scheme can continue to best serve the higher education sector. A summary of some of the key matters considered during the year appears below.

Торіс	Activity
Strategy	Oversaw and made critical decisions in relation to the implementation of a substantial programme of changes to the scheme, which included the launch of the USS Investment Builder in October 2016. A full outline of the scheme changes programme is set out on page 11.
	Reviewed and approved, in conjunction with the Joint Negotiating Committee, amendments to the scheme rules required by the scheme changes.
	At its strategy session in April 2016, the trustee board discussed:
	• Possible future member requirements, in anticipation of the scheme offering DB and DC benefits;
	<ul> <li>Possible future higher education sector pension requirements; and</li> </ul>
	• How the board can best meet the requirements of its members and the employers that participate in the scheme.
	Began preparations for our next triennial actuarial valuation as at 31 March 2017, including detailed analysis of the strength of the sponsoring employers' ability to support the scheme (the covenant), preliminary discussions on the key assumptions to go into the valuation calculations and discussions with the sponsoring employers on these assumptions.
Investment	Reviewed and approved amendments to the investment agreement with our investment manager (USS Investment Management Limited), in particular to include the provision of DC investment services and advice.
	Oversaw implementation of the DC fund range and default investment option for members, following detailed analysis of our members' requirements. Detailed work in these areas was undertaken by the Investment Committee and Policy Committee.
	Reviewed and approved amendments to the reference portfolio for the DB section investments.
	Reviewed and approved revisions to stewardship principles and voting policy as part of USS's responsible investment programme.
Financial reporting and controls	Approved the financial statements for the scheme and the trustee company for the year ended 31 March 2016 following recommendation for approval by the Audit Committee.
Risk management and	Reviewed and approved USS's risk governance policy and risk appetite statements.
internal controls	Reviewed the group risk report on a quarterly basis encompassing all key risks impacting upon the delivery of USS's strategic objectives.
	Considered the adequacy of the internal control and risk management framework of the USS group, based on assurance provided by the Audit Committee on each of the three lines of defence.
Corporate governance	Completion of a comprehensive review of group governance and implementation of a new group governance framework and new terms of reference for all committees.
	Reviewed and approved various appointments to the trustee board and its committees.
Performance oversight	Approved a range of key performance indicators, measures and targets against which performance across the group could be monitored and assessed.
Leadership	Discussed the outcomes of the USS employee engagement survey and the executive committee response.
Stakeholders	Oversaw member and employer communication and consultation activity in the year.
	Discussed the outcomes of the member and employer satisfaction surveys (NPS and perceptions) and the executive committee response.
Oversight	Reviewed performance reports from all key business areas on a quarterly basis.
	Received and discussed reports at each meeting from all principal committees which had met in the reporting period.

#### **Trustee board meeting and committee Attendance**

The trustee board met eight times during the year. A summary of trustee board activity during the year is outlined on page 59. An overview of the attendance at board and committee meetings is provided below:

	Trustee Board	Investment	Policy	Audit	Remuneration	Governance & Nominations
Meetings held in the year	8	6	8	5	4	4
Trustee board members						
Professor Dame Glynis Breakwell	7		8		3	
Dr Kevin Carter	8	6	7			
Professor Sir David Eastwood	8	5				4
Ms Kirsten English	8			5		4
Professor Jane Hutton	8			5		
Mr Ian Maybury	7	б		3		4
Mr Michael Merton	8			5	4	
Professor Sir Anton Muscatelli	8	6				
Professor Stuart Palmer	7				3 (i)	
Mr Rene Poisson	8		8		4	
Dr Angela Roger	3 (ii)	2 (ii)			1 (ii)	2 (ii)
Mr Bill Trythall	8		6		3 (iii)	2 (iii)
Dr Steve Wharton	5 (iv)					
Committee members						
Ms Sarah Bates		4				
Mr Gordon Coull				5		
Mr Mark Fawcett		4				
Mrs Virginia Holmes		б				
Mr Tony Owens				5		

(i) Professor Stuart Palmer was appointed to the Remuneration Committee on 1 September 2016, and attended all three meetings in the year following his appointment.

(ii) Dr Angela Roger attended all trustee board, Investment Committee and Remuneration Committee and Governance and Nominations Committee meetings held in the year prior to retiring as a director on 31 August 2016.

- (iii) Mr Bill Trythall was appointed to the Remuneration Committee and the Governance and Nominations Committee on 1 September 2016, and attended all three meetings in the year following his appointment.
- (iv) Dr Steve Wharton was appointed as a director on 1 September 2016 and has attended all trustee board meetings in the year following his appointment.

# Principal officers & advisers

The principal officers of the trustee company are (left to right):



Alan Higham, Chief Pensions Strategy and Engagement Officer; Kevin Smith, Chief Service Delivery Officer; Roger Gray, Chief Investment Officer and Chief Executive of USS Investment Management Limited; Bill Galvin, Group Chief Executive Officer; Jeremy Hill, Group General Counsel; Guy Coughlan, Chief Risk Officer; David Barr, Chief People Officer (appointed 1 June 2017); Howard Brindle, Chief Operating Officer (USS Investment Management Limited).

Jennifer Halliday, Chief Financial Officer, resigned on 31 March 2017. An interim Chief Financial Officer, Glen Lucken, is in place until a permanent replacement is appointed.

The principal external advisers of the scheme and for the trustee company are:

Scheme Actuary Ali Tayyebi of Mercer, Birmingham B1 2LQ

Independent Auditor Grant Thornton UK LLP, Royal Liver Building Liverpool L3 1PS Bankers Barclays Bank Plc, Manchester M2 1HW

NatWest Bank, 22 Castle Street Liverpool L2 0UP

# Statement of Trustee's responsibilities

The financial statements, which are prepared in accordance with UK Generally Accepted Accounting Practice, are the responsibility of the trustee. Pension scheme regulations require the trustee to make available to scheme members, beneficiaries and certain other parties, audited financial statements for each scheme year which:

- 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 that scheme year of the assets and liabilities, other than liabilities to pay pensions and benefits after the end of the scheme year; and
- Contain the information specified in the Occupational Pension Schemes (Requirement to obtain Audited Accounts and a Statement from the Auditor) Regulations 1996 as amended by the Occupational Pension Schemes (Requirement to obtain Audited Accounts and a Statement from the Auditor) (Amendment) Regulations 2016, including a statement as to whether the accounts have been prepared in accordance with the Statement of Recommended Practice "Financial Reports of Pension Schemes".

The trustee has supervised the preparation of the financial statements and has agreed suitable accounting policies, to be applied consistently, making estimates and judgements on a reasonable and prudent basis. The trustee is also responsible for making available certain other information about the scheme in the form of the Annual Report.

The trustee is responsible under pensions legislation for ensuring that there is prepared, maintained and from time to time revised a Schedule of Contributions showing the rates of contributions payable towards the scheme by or on behalf of the employer 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 monitoring whether contributions are made to the scheme by the employer 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.

The trustee is responsible for the maintenance and integrity of the financial information of the scheme included on the scheme's website. Legislation in the United Kingdom governing the preparation and dissemination of the financial statements may differ from legislation in other jurisdictions.

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 appropriate internal controls.

Signed on behalf of the trustee on 11 July 2017.

Professor Sir David Eastwood Chair Bill Galvin Group Chief Executive Officer

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

We have audited the financial statements of Universities Superannuation Scheme for the year ended 31 March 2017 which comprise the fund account, the statement of net assets available for benefits and the related notes. The financial reporting framework that has been applied in their preparation is applicable law and United Kingdom Accounting Standards (United Kingdom Generally Accepted Accounting Practice), including FRS102, the Financial reporting Standard applicable in the UK and Republic of Ireland.

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 scheme's trustee 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.

#### **Respective responsibilities of trustee and auditor**

As explained more fully in the Statement of Trustee's Responsibilities set out on page 62, the scheme's trustee is responsible for the preparation of financial statements which show a true and fair view. Our responsibility is to audit and express an opinion on the financial statements in accordance with applicable law and International Standards on Auditing (UK and Ireland). Those standards require us to comply with the Auditing Practices Board's Ethical Standards for Auditors.

#### Scope of the audit of the financial statements

A description of the scope of an audit of financial statements is provided on the Financial Reporting Council's website at www.frc.org.uk/ auditscopeukprivate

#### **Opinion on financial statements**

In our opinion the financial statements:

- show a true and fair view of the financial transactions of the scheme during the year ended 31 March 2017, 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 scheme year;
- have been properly prepared in accordance with United Kingdom Generally Accepted Accounting Practice; and
- contain the information specified in Regulation 3 and 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.

Grant Thornton UK LLP Statutory Auditor, Chartered Accountants Liverpool 11 July 2017

# Fund account for the year ended 31 March 2017

	Note	2017 £m	2016 £m
Contributions and benefits			
Employers' contributions receivable	4	1,859	1,651
Employee contributions receivable	4	211	206
Augmentation		1	6
Total contributions		2,071	1,863
Transfers in	5	43	63
		2,114	1,926
Benefits paid or payable	б	1,702	1,780
Payments to and on account of leavers	7	74	75
Administrative expenses	8	54	43
		1,830	1,898
Net additions from dealings with members		284	28
Return on investments			
Investment income	9	1,509	1,173
Taxation		(19)	(17)
Change in market value of net investments	10	8,566	(379)
Investment management expenses	11	(71)	(75)
Net return on investments		9,985	702
Net increase in the fund during the year		10,269	730
Net assets of the scheme at start of the year		50,277	49,547
Net assets of the scheme at the end of the year		60,546	50,277

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

# Statement of net assets available for benefits as at 31 March 2017

	Note	2017 £m	2016 £m
Investment assets			
Equities		23,925	20,602
Bonds		19,563	15,471
Pooled investment vehicles	13	13,129	10,062
Derivatives	14	510	428
Property	15	2,052	2,130
Cash and cash equivalents		1,960	1,454
Defined contribution investments		543	434
Other investment balances	16	1,499	1,040
		63,181	51,621
Investment liabilities			
Derivatives	14	(304)	(363)
Other investment balances	16	(2,359)	(967)
		(2,663)	(1,330)
Total net investments		60,518	50,291
Current assets	21	212	206
Current liabilities	22	(184)	(220)
Net assets of the scheme at 31 March		60,546	50,277

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 102 and should be read in conjunction with this report.

The defined contribution investments included within net assets includes additional voluntary contributions invested with the Prudential. These assets are specifically allocated to secure extra benefits for those members that have made these additional voluntary contributions.

The financial statements on pages 62 to 87 were approved by the trustee, Universities Superannuation Scheme Limited, on 11 July 2017 and were signed on its behalf by:

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

# Notes to the financial statements for the year ended 31 March 2017

### 1 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 (Revised 2015) (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.

## 2 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. The results are included in the net assets at fair value within investment assets (see note 19). Details of these companies may be obtained by writing to the Company Secretary of Universities Superannuation Scheme Limited, Mr J P Hill, at Royal Liver Building, Liverpool L3 1PY.

### **3** Accounting policies

The principal accounting policies of the scheme are set out below and have been applied consistently by the scheme in both the current and prior years.

#### (a) 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 includes 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 S75 debt contributions are accounted for when a reasonable estimate of the amount receivable can be determined.

#### (b) Benefits paid or 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% 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 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.

## **3** Accounting policies (continued)

#### (c) Transfers in and out

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

#### (d) 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.

#### (e) Investment income

Investment income is brought into account on the following bases:

- (i) Dividends, tax and interest from investments, on the date that the scheme becomes entitled to the income;
- (ii) Interest on cash deposits and bonds, as it accrues; and
- (iii) Property rental income, on a straight line basis over the period of the lease.

#### (f) Change in the market value of investments

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.

#### (g) 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 trade 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;
- (iii) **Unquoted equities and bonds** Unquoted equities and bonds are stated at fair value estimated by the trustee using appropriate valuation techniques. Significant direct investments are valued by independent valuation experts; and
- (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;

#### Unit trusts and managed funds

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

Private equity funds are stated at the latest available cashflow adjusted valuations prepared in accordance with International Private Equity and Venture Capital Guidelines; and

#### Hedge funds

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

## 3 Accounting policies (continued)

#### (v) Derivative contracts

Derivative contracts are included in the statement of net assets at fair value. Exchange traded derivatives with positive values are included as assets at bid price, and those with negative values as liabilities at offer price.

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)

#### **Options** (exchange-traded)

Traded 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 within cash, and are not included within realised gains or losses reported within change in market value.

#### Futures (exchange-traded)

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. 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. 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.

#### Swaps (OTC)

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 or payments are reported within change in market value. Realised gains or 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.

#### Forward foreign exchange contracts (OTC)

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. Changes in the fair value of the forward contracts are reported within the change in market value in the fund account.

#### (vi) Property

Property is stated at open market value as at the year end date determined in accordance with the Royal Institute of Chartered Surveyors' (RICS) Valuation - Professional Standards Global – January 2014 and the RICS Valuation Professional Standards UK January 2014 (revised April 2015), taking into consideration the current estimate of rental value and market yields.

#### (vii) Defined contribution investments

Defined contribution investments are stated at net asset value provided by the fund administrator at the year end date.

#### (viii) Repurchase agreements (repos)

The scheme continues to recognise and value the securities that are delivered out as collateral from repurchased agreements (repos) 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 amount.

#### (h) Foreign currency

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 ruling 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.

## 4 Contributions receivable

	2017 £m	2016 £m
Employer contributions		
Employers' contributions - defined benefit section	1,289	1,191
Employers' contributions - defined contribution section	44	-
Employers' salary sacrifice contributions	522	440
S75 debt	4	20
	1,859	1,651
Employee contributions		
Members' basic contributions - defined benefit section	73	70
Members' basic contributions - defined contribution section	3	-
Main section AVCs	74	49
Money purchase AVCs	36	62
Supplementary section	25	25
	211	206
	2,070	1,857

The scheme offers the following additional contributions facilities:

Main section AVCs referred to above, represent contributions made to purchase additional benefits under the rules of the scheme.

A money purchase AVC facility was administered throughout the current and prior years by the Prudential Assurance Company Limited (the Prudential) (MPAVCs). Individual members' contributions are deducted from their salaries and paid direct to the Prudential by the employers. The contributions are invested through the Prudential on behalf of the individuals concerned to provide additional benefits within the overall limits laid down by HM Revenue and Customs (HMRC).

From October 2016, new additional contributions received (i.e. excluding those received in respect of legacy MPAVCs or other legacy additional contribution arrangements) are invested into the new defined contribution section of the scheme, the USS Investment Builder.

Contributions towards the past service deficit are included within employers' contributions above. For the period 1 April 2016 to 30 September 2016 this amounted to 2.5% of total salaries, and for the period 1 October 2016 to 31 March 2017 this amounted to 2.1% of total salaries, under the current funding plan, the 2.1% payable will continue until March 2031.

### 5 Transfers in

	2017 £m	2016 £m
dividual transfers in from other schemes	43	63

## 6 Benefits paid or payable

	2017 £m	2016 £m
Main section		
Pensions	1,374	1,322
Lump sums on or after retirement	288	406
Lump sums on death in service	17	16
Taxation where lifetime and annual allowance exceeded	9	17
	1,688	1,761
Supplementary section		
Pensions	14	14
Lump sums on death in service	1	3
	15	17

#### **MPAVCs**

Pensions	52	70
Lump sums on death in service	1	1
Transferred to Universities Superannuation Scheme	(54)	(69)
	(1)	2

1,702	1,780

MPAVCs transferred to Universities Superannuation Scheme represent amounts transferred from the Prudential to Universities Superannuation Scheme on members' retirement for inclusion within Universities Superannuation Scheme benefits.

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.

## 7 Payments to and on account of leavers

	2017 £m	2016 £m
Individual transfers out to other schemes	61	69
Payments for members joining state scheme	-	1
Refunds of contributions in respect of non-vested leavers	13	5
	74	75

## 8 Administrative expenses

	Note	2017 £m	2016 £m
Personnel costs (administrative and management staff)	12	27	24
Pension Protection Fund levies		3	2
Premises costs		4	5
Professional fees		8	5
Computer and information services costs		6	4
Other costs		6	3
		54	43

Administrative costs are incurred by the trustee company and, in accordance with the trust deed, the costs of managing and administering the scheme, are chargeable to Universities Superannuation Scheme.

### 9 Investment income

	2017 £m	2016 £m
Dividends from equities	680	554
Net property income	101	96
Income from pooled investment vehicles	283	101
Income from bonds	436	363
Interest on cash deposits	7	7
Other income	2	52
	1,509	1,173

Income from property is net of property related expenses of £9m (2016: £7m).

Investment income from overseas investments may be subject to deduction of local withholding taxes under local 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 shown as irrecoverable tax.

### **10 Investments reconciliation**

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

	Note	Market value 2016 £m	Purchases and derivative payments during the year at cost £m	Proceeds of sales and derivative receipts during the year £m	Changes in value during the year £m	Market value 2017 £m
Equities		20,602	14,952	(16,783)	5,154	23,925
Bonds		15,471	11,814	(9,984)	2,262	19,563
Pooled investment vehicles	13	10,062	2,904	(2,086)	2,249	13,129
Derivatives	14	65	4,162	(2,745)	(1,276)	206
Property	15	2,130	32	(122)	12	2,052
Defined contribution investments		434	132	(65)	42	543
		48,764	33,996	(31,785)	8,443	59,418
Cash and cash equivalents		1,454			123	1,960
Other investment balances (net)	16	73				(860)
Total	17	50,291			8,566	60,518

Changes in the value of investments comprise both realised gains and (losses) on investments sold during the year and unrealised gains and (losses) on investments held at the year end.

Included in the amount for derivatives are realised and unrealised losses of £1,720m (2016: £654m) from forward currency contracts, which are used to hedge the currency risk relating to overseas investments (see note 14, Derivatives). These are offset by gains in the values of the corresponding overseas assets. Turnover in derivatives primarily represents the rolling of these forward currency contracts. Included within the change in value of property are realised and unrealised foreign currency gains and losses of £3m (2016:  $\pounds$ 4m).

Defined contribution investments comprise of £444m legacy MPAVC investments and £99m USS Investment Builder.

At the year end, within other investment balances, amounts payable under repurchase agreements amounted to £1,729m (2016: £595m). At the year end £1,730m (2016: £548m) of bonds reported in scheme assets are held by counterparties under repurchase agreements.

## 10 Investment reconciliation (continued)

#### 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.

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

	Fees £m	Commission £m	Taxes £m	2017 £m	2016 £m
Equities	1	8	9	18	15
Bonds	1	-	-	1	1
Private equity	3	-	-	3	4
Property	1	-	-	1	2
	6	8	9	23	22
2016	7	8	7	-	22

In addition to the transaction costs disclosed above, indirect costs are incurred through the bid-offer spread on investments.

## 11 Investment management expenses

	Note	2017 £m	2016 £m
Investment costs			
Securities research costs		10	9
External manager base fees		10	12
External manager performance fees		-	1
Professional fees		2	2
		22	24
Property management			
External manager fees		2	1
Rent review and letting fees		1	2
Other		1	1
Legal and professional fees Custodial services		1	1
		3	2
Total investment costs		29	30
Other costs			
Personnel costs (investment and investment support s	taff) 12	34	36
Premises costs		-	1
Sundry costs		8	8
Total other costs		42	45
Total investment management costs	[	71	75

Investment management costs 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.

## 12 Supplementary information in respect of personnel costs

	Note	2017 £m	2016 £m
Personnel costs			
Included in administration expenses	8	27	24
Included in investment management expenses	11	34	36
		61	60
Analysed as:			
Wages and salaries		46	41
Pension costs		4	8
Social security costs		3	4
Other			7
		61	60

Included in the above are the emoluments of Mr Galvin, Group Chief Executive, comprising salary and benefits amounting to £566,000 (2016: £484,000). Mr Galvin is also a member of the career revalued benefits section of the scheme and at 31 March 2017 his accrued pension was £17,240 (2016: £12,610) and accrued lump sum of £51,720 (2016: £37,830). This accrued pension relates to amounts earned in respect of services to the scheme and excludes transfers-in from other schemes. Mr Galvin is eligible to participate in an individual three year LTIP, which will comprise of an annual maximum amount of £200,000 which will be entirely related to performance and the achievement of set objectives.

The aggregate amount of compensation payable for loss of office to employees during the year was £0.7m (2016: £0.4m) of which £0.2m (2016: £0.2m) was payable to employees whose remuneration exceeded £100,000 during the year.

## **13 Pooled investment vehicles**

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

	Note	2017 £m	2016 £m
Equities		1,879	1,048
Bonds		-	53
Hedge funds		2,200	1,670
Private equity		7,998	6,275
Property		1,052	1,016
Total pooled investment vehicles		13,129	10,062

## **14 Derivatives**

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

	Note	2017 £m	2016 £m
Assets			
Options	14 (a)	-	-
Futures contracts	14 (b)	42	92
Swaps	14 (c)	95	159
Forward foreign exchange contracts	14 (d)	373	177
		510	428
Liabilities			
Options	14 (a)	-	-
Futures contracts	14 (b)	(70)	(42)
Swaps	14 (c)	(160)	(74)
Forward foreign exchange contracts	14 (d)	(74)	(247)
		(304)	(363)
Net asset		206	65

#### **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:

- (a) Contributing to a reduction of risks;
- (b) 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 to a single counterparty and to other derivative operations 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 relative to the specified strategic benchmarks, 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.

## 14 Derivatives (continued)

#### 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 2017.

#### a) Options

Type of option	Expires within	Notional principal £m	Asset £m	Liability £m
Equities	1 year	1,826	-	-
Currency	1 year	24	-	-
		1,850	-	-

The economic exposure represents the notional value of stock purchased under the futures contract on an absolute basis, and is therefore subject to market movements. Within equities options are options with notional principal of  $\pounds$ 1,048m that reference short term interest rates.

#### b) Futures (exchange-traded)

Type of future	Expires within	Economic exposure £m	Asset £m	Liability £m
Equities	3 years	7,352	33	(43)
Bonds	1 year	4,434	5	(19)
Commodity	3 years	2,300	4	(7)
Currency	1 year	21	-	(1)
		14,107	42	(70)

The economic exposure represents the notional value of stock purchased under the futures contract on an absolute basis, and is therefore subject to market movements.

#### c) Swaps (OTC)

Contract	Expires within	Nature of Swap	Notional principal	Asset	Liability
			£m	£m	£m
Interest Rate	29 years	Fixed vs Floating	3,784	83	(103)
Currency Swap	11 years	Fixed Income	45	-	-
Bond Total Return	15 years	Fixed Income	6	6	-
Credit Default	47 years	Index and single	885	3	(39)
	6 years	Single	506	2	(10)
Dividend Swap	6 years	S&P 500 Index	2	1	(8)
			5,228	95	(160)

## 14 Derivatives (continued)

#### d) Forward foreign exchange (OTC)

Currency bought	Currency sold	Notional Principal £m	Asset £m	Liability £m
GBP	JPY	790	-	(21)
GBP	AUD	1,118	21	-
GBP	USD	13,105	197	(4)
GBP	OTHER	514	6	(11)
GBP	EUR	3,634	59	(1)
GBP	CHF	871	15	(1)
USD	OTHER	1,674	5	(22)
USD	GBP	1,481	20	(5)
OTHER	USD	1,914	39	(6)
OTHER	GBP	532	6	(3)
OTHER	OTHER	223	5	-
		25,856	373	(74)

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 £290m (2016: £238m) in the form of cash and government bonds in respect of OTC derivatives.

## **15 Property**

	Note	2017 £m	2016 £m
UK completed properties		1,954	2,107
UK developments in progress		98	23
		2,052	2,130
Properties analysed by type:			
Freehold		1,654	1,702
Leasehold		398	428
		2,052	2,130

The completed investment properties and developments have been valued externally by CBRE Limited, Chartered Surveyors, who have broad experience and knowledge of the locations and type of properties held by the scheme.

## 16 Other investment balances

	Note	2017 £m	2016 £m
Assets			
Amount due from stockbrokers		112	141
Dividends and accrued interest		501	148
Margin balances		886	751
		1,499	1,040
Liabilities			
Amount due to stockbrokers		(153)	(95)
Margin balances		(217)	(277)
Repurchase agreements		(1,729)	(595)
Accrued interest		(260)	-
		(2,359)	(967)
Net other investment balances		(860)	73

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.

## 17 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 (a) The quoted price for an identical asset in an active market at the reporting date.

Category (b) When quoted prices are unavailable, the price of a recent transaction for an identical asset adjusted if necessary.

Category (c) Where a quoted price is not available and recent transactions of an identical asset on their own are not a good estimate of fair value, the fair value is determined by using a valuation technique that uses:

- (c) (i) observable market data; or
- (c) (ii) non-observable data.

The scheme's investment assets and liabilities have been fair valued using the above hierarchy categories as follows:

			2017 Ca	tegory		
	Note	(a) £m	(b) £m	(c) (i) £m	(c) (ii) £m	Total £m
Equities		22,165	-	-	1,760	23,925
Bonds		-	-	17,829	1,734	19,563
Pooled investment vehicles	13	76	1,780	-	11,273	13,129
Derivatives	14	(28)	-	299	(65)	206
Property	15	-	-	-	2,052	2,052
Cash and cash equivalents		1,960	-	-	-	1,960
Defined contribution investments		543	-	-	-	543
Other investment balances	16	(860)	-	-	-	(860)
		23,856	1,780	18,128	16,754	60,518

			2016 Category			
	Note	(a) £m	(b) £m	(c) (i) £m	(c) (ii) £m	Total £m
Equities		19,246	-	-	1,356	20,602
Bonds		-	-	14,621	850	15,471
Pooled investment vehicles	13	147	942	-	8,973	10,062
Derivatives	14	50	-	(70)	85	65
Property	15	-	-	-	2,130	2,130
Cash and cash equivalents		1,454	-	-	-	1,454
Defined contribution investments		434	-	-	-	434
Other investment balances	16	73	-	-	-	73
		21,404	942	14,551	13,394	50,291

The category of the defined contribution investments has been amended following a review of the fair value hierarchy categories.

### **18 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:
  - (i) 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.
  - (ii) 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.
  - (iii) 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 scheme has exposure to these risks because of the investments it makes to implement its investment strategy described in the Trustees' Report. 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 investment objectives and risk limits are implemented through the reference portfolio in place with the scheme's internal manager and monitored by the trustee by regular reviews of the activity and performance of the internal manager relative to the reference portfolio.

Further information on the trustees' 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. This does not include defined contribution investments as these are not considered significant in relation to the overall investments of the scheme.

#### (i) 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.

	2017				
	Investment grade £m	Non-investment grade £m	Unrated £m	Total £m	
Direct					
Bonds	16,965	1,440	1,281	19,686	
OTC derivatives (fair value)	665	-	-	665	
Cash	1,960	-	-	1,960	
Repurchase agreements	35	-	-	35	
Unsettled trades	95	-	16	111	
Securities on loan	2,919	-	-	2,919	
Property rent debtors	-	-	-	-	
Indirect					
Pooled investment vehicles	-	-	10,907	10,907	
	22,639	1,440	12,204	36,283	

#### (i) Credit risk (continued)

	2016				
	Investment grade £m	Non-investment grade £m	Unrated £m	Total £m	
Direct					
Bonds	13,998	905	650	15,553	
OTC derivatives (fair value)	615	-	-	615	
Cash	1,454	-	-	1,454	
Repurchase agreements	1	-	-	1	
Unsettled trades	112	-	28	140	
Securities on loan	4,364	-	-	4,364	
Property rent debtors	-	-	4	4	
Indirect					
Pooled investment vehicles	53	-	8,612	8,665	
	20,597	905	9,294	30,796	

Credit risk arising on bonds and private credit is mitigated:

(i) Through investment in developed-market government bonds where the credit risk is minimal; and

(ii) For corporate and emerging-market bonds and private credit, individual investment mandates 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 £445m (2016: £40m).

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 14). OTCs are valued daily and counterparty exposures are fully collateralised subject to de-minimis limits.

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.

Credit risk on repurchase agreements is mitigated through collateral arrangements as disclosed in note 10.

Credit risk arising from unsettled trades is mitigated through delivery versus payment settlement in the majority of markets.

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 losses arising from stock lending exposure to counterparties.

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.

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

#### (i) Credit risk (continued)

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

	Note	2017 £m	2016 £m
Unit trusts		2,180	1,928
OEIC's		99	193
Partnership Interests		8,650	6,271
Shares of limited liability partnerships		2,200	1,670
		13,129	10,062

#### (ii) Currency risk

The scheme is subject to currency risk because some of the scheme's investments are held in overseas markets, either as segregated investments or via pooled investment vehicles. Currency exposures are monitored and mitigated through a currency hedging policy, through which the reference portfolio includes 50% hedging for developed market equity and 100% for developed market fixed income. Derivative holdings are represented on an economic exposure basis within the table below.

	2017 £m	2016 £m
Direct		
Australian Dollar	765	1,218
Brazilian Real	773	511
Euro	3,547	3,816
Hong Kong Dollar	1,353	1,105
Japanese Yen	2,004	288
Mexican Peso	618	607
South Korean Won	800	585
Swiss Franc	1,569	1,065
United States Dollar	23,340	15,041
Other	3,857	3,094
	38,626	27,330
Less: Foreign currency hedging	(13,655)	(10,530)
	24,971	16,800
Indirect		
Pooled investment vehicles	8,958	7,155
	8,958	7,155

#### (iii) Interest rate risk

The scheme's investments are subject to interest rate risk because they include public and private credit, swaps, liabilities under repurchase agreements and money market instruments, either as segregated investments or through pooled investment vehicles. 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.

	2017 £m	2016 £m
Direct		
Bonds	11,395	9,562
Equities	1,052	798
OTC derivatives (economic exposure)	5,225	2,859
Cash	1,960	1,454
Repurchase agreements	1,729	595
Indirect		
Pooled investment vehicles	10,905	8,610
	32,266	23,878

#### (iv) 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, bonds, equity futures, loans, hedge funds, private equity and investment properties. Derivative values are based on absolute economic exposure rather than market value.

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

	2017 £m	2016 £m
Direct		
Equities	23,925	20,602
Bonds	19,563	15,471
Derivatives (economic exposure)	21,185	11,830
Property	2,052	2,130
Indirect		
Pooled investment vehicles	13,129	10,062
	79,854	60,095

## 19 Subsidiaries controlled by Universities Superannuation Scheme

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

	2017 £m	2016 £m
Equities	2,495	1,161
Bonds	1,119	428
Pooled investment vehicles	1,753	785
Derivatives	4	(3)
Property	540	546
Cash	1,588	982
Other investment balances	(1,048)	(428)
	6,451	3,471

## 20 Self investment

The scheme had no Employer Related Investments (ERI) at year end, as defined by relevant legislation, except equity and loan investments made in the normal course of business to certain investment vehicles. The funding of these investment vehicles, which are held for investment purposes and not operating subsidiaries as explained on page 66, amounts to 1.5% (2016: less than 5%) of the net assets of the scheme.

### 21 Current assets

	2017 £m	2016 £m
Contributions receivable;		
- employers' contributions	104	103
- members' basic contributions	47	46
- members' additional voluntary contributions	10	4
Other debtors	8	17
Cash at bank and in hand	43	36
	212	206

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

## 22 Current liabilities

	2017 £m	2016 £m
Rents & service charges received in advance	92	83
Benefits payable	56	99
Taxation creditor	5	1
Due to trustee company	29	32
Other creditors	2	5
	184	220

## 23 Securities on loan

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.

	2017 £m	2016 £m
Value of stock on loan at 31 March		
Equities	1,754	2,134
Bonds	1,165	1,162
	2,919	3,296
Value of collateral held at 31 March	3,121	3,518

## 24 Financial commitments

	2017 £m	2016 £m
Direct Property		
Contracts placed but not provided for	4	28

#### Pooled investment vehicles

Outstanding commitments to private	5,032	3.889
equity partnerships	5,052	5,009

These represent amounts subscribed and committed to private equity partnerships that had not been drawndown at the year end.

## 25 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 20. 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 years 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 the institutions 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 notes 8 and 11. All transactions are solely for the purposes of effectively administering the scheme.



## Chair's defined contribution statement

#### Introduction

Having opened the Universities Superannuation Scheme (the scheme) to defined contribution (DC) benefits in October 2016 with the introduction of the USS Investment Builder, this is the first annual statement from the trustee regarding the governance of the DC section of the scheme in accordance with Regulation 23 of the Occupational Pension Schemes (Scheme Administration) Regulations 1996 (the Administration Regulations).

Universities Superannuation Scheme Limited is the corporate trustee (the trustee) responsible for the management and administration of the scheme. The trustee, supported by its specialist committees, directs and controls the scheme to ensure that it continues to provide a valuable way for members to save for retirement. The trustee board has delegated responsibility for day to day management of the scheme to the executive, which the trustee board oversees and holds to account through its robust governance structure of specialist committees.

This statement explains some of the procedures the trustee employs to ensure that the scheme is governed and managed to the standards expected by the Pensions Regulator and as determined by legislation.

In summary, the trustee has assessed its governance standards and procedures and they are in line with requirements of the regulations, as well as the Pensions Regulator's DC Code and industry best practice. The trustee believes that the USS Investment Builder represents good value for money to members. USS Investment Builder members currently do not incur any charges directly if they are invested in the USS Default Lifestyle Option (and the majority of the self-select options) since the actual charges are currently met by the employers on behalf of members by way of a subsidy.

While this statement focusses on the USS Investment Builder in line with the Administration Regulations, broader information on the scheme's operations as a whole is included within the Annual Report.

#### Governance of the default option

The USS Investment Builder offers members a choice as to how they wish their contributions to be invested. This range of options provides a mixture of different types of investment with different levels of risk and return. The investment options fall into two broad categories:

- the "Do It For Me" options which offer a choice between two lifestyle options the USS Default Lifestyle Option and the USS Ethical Lifestyle Option; and
- the "Let Me Do It" options which are a range of 10 individual funds which members can choose to invest in if they wish. These are referred to as the self-select options.

Members can change their investment choices anytime, including moving between "Do It For Me" options and "Let Me Do It" options, by logging onto the member portal (My USS).

For members who do not wish to make any explicit investment decisions, the USS Investment Builder has a default investment approach, known as the USS Default Lifestyle Option. As at 31 March 2017, approximately 86% of USS Investment Builder members were invested solely in the USS Default Lifestyle Option, which is structured as follows:

- The overall structure is that of a lifestyle strategy which changes the mix of investments for members automatically as they approach their target retirement age;
- Members are initially invested in the USS Growth Fund until 10 years from target retirement age, to provide greater opportunity to generate investment returns over the longer term;
- Within the final 10 years of target retirement age, members are gradually switched to the USS Moderate Growth Fund to reduce the overall level of risk;
- Within the final five years of target retirement age, members are gradually switched to a 50:50 mix of the USS Cautious Growth Fund and the USS Cash Fund; and
- At retirement, members are invested 50% in the USS Cautious Growth Fund and 50% in the USS Cash Fund.

For members who have not set their own target retirement age, it will be set to the scheme's normal pension age of 65.

A full description of the USS Default Lifestyle Option and its aims and objectives are included in the USS Default Lifestyle Option Statement of Investment Principles on pages 97 to 99.

#### **Review of the USS Default Lifestyle Option**

The USS Investment Builder was established in October 2016 and the USS Default Lifestyle Option was designed at this time. In designing the USS Default Lifestyle Option, the following items were taken into account:

- The views of members regarding investments, including their appetite and understanding of risk, following a member survey;
- Research into the circumstances of members and the impact on risk appetite;
- Surveys and research into how members may use their funds in the USS Investment Builder at retirement;
- Extensive investment strategy modelling; and
- Leveraging the existing defined benefit framework.

A review of the suitability of the USS Default Lifestyle Option will be undertaken by the trustee each year, with the first review planned for November 2017, and a formal in-depth review of all investment options will be undertaken at least triennially.

#### **Fund performance**

The performance of each of the investment options offered to members within the USS Investment Builder, including the funds making up the USS Default Lifestyle Option, is monitored on a monthly basis by USS senior management. The performance of legacy funds held under the Prudential AVC arrangement is reviewed on a quarterly basis by USS senior management. The trustee board delegated governance oversight of the investment elements of the USS Investment Builder to its investment committee, which reviews fund performance on a quarterly basis.

#### Administration of the USS Investment Builder

The trustee operates processes and controls aimed at ensuring that all financial transactions are processed promptly and accurately. The trustee recognises that delay and error with these financial transactions can cause losses to members, which could be significant. The financial transactions for the USS Investment Builder arrangement include (but are not limited to):

- Receipt and reconciliation of contributions across both the USS Retirement Income Builder and the USS Investment Builder, potentially across multiple employments;
- Derivation of the USS Investment Builder element of the contributions;
- Investment of contributions into the appropriate fund choice;
- Transfers of assets relating to members between different fund choices;
- Transfers of assets relating to members out of the scheme; and
- Payments of benefits to, or in respect of, members' out of the scheme.

During the six months since the USS Investment Builder was launched, the trustee has ensured that the core financial transactions were processed promptly and accurately by:

- Defining the timescales and associated Service Level Agreements (SLAs) both internally and with the third party service providers working with USS, which were agreed as part of contractual arrangements (see further information below);
- Designing appropriate and effective controls to mitigate the risk of inaccurate transactions within USS processes; and
- Regular executive reviews of the effectiveness of the controls and the timeliness of processing information, performance against SLAs and operational risk issues.

The trustee has established strategic partnerships with two external suppliers to deliver different elements of the USS Investment Builder. Capita provides the pensions administration system and some DC related back office administration services, and Northern Trust provides the investment platform. Working with Capita and Northern Trust, the executive closely monitors the end-to-end financial transactions to ensure prompt and accurate processing. The executive will investigate and implement any improvements which can be made in any part of the overall process.

The trustee aims to invest contributions within three working days of the later of receipt and reconciliation to supporting member data. Delays in reconciliation are investigated to identify thematic issues which require improvement. The USS Investment Builder is a new product offering and the process and controls in place at both employers and across USS are newly embedded. This means that prompt identification of any queries or themes of queries is particularly important. The trustee has introduced a dedicated engagement team to work with employers and support the identification and resolution of these themes, and a reduction in numbers of queries as the USS Investment Builder embeds into business as usual activities.

The executive monitors USS Investment Builder validation matters or queries. A contribution investment management team maintains oversight and review, including analysis of any queries. This includes the review of the cause of the event, deciding on the mitigating actions required and recommending any additional controls that should be introduced. The USS Investment Builder contribution investment management team reports to the group risk committee, and a monthly summary of any matters is reviewed by the executive. Any significant matters are also reported to the trustee board.

Key processes which ensure financial transactions are processed promptly and accurately include:

- Automated derivation of the USS Investment Builder element of contributions;
- Sample quality assurance checks to recalculate the contributions across a population of member types;
- Analytical reviews of contribution levels to identify any material unusual trends;
- Automated front end validation of the data contained within contribution files;
- Reconciliation of the total contribution file to the payment received by employers;
- Monitoring of the timely receipt of contribution payments and files, with overdue items being chased;
- Reconciliation of the cash approved for investment with the amount paid over to the third party for investment;
- Verification that all deals have been placed; and
- Contributions are invested automatically according to members' investment choices held within the system.

In the last scheme year there have been no material administration service issues which need to be reported here by the trustee. Whilst a small number of operational issues have been encountered as the new USS Investment Builder arrangements embed, these have been resolved quickly and without detrimental financial impact to members. The trustee is confident that the processes and controls in place are robust and will ensure that the core financial transactions are dealt with properly.

#### Costs and charges associated with the USS Investment Builder

Charges and transaction costs borne by members can have a significant impact on the value of USS Investment Builder funds. The approach to member charges was subject to extensive research, review and discussion as part of the design of the USS Investment Builder. These potential charges were benchmarked against a range of charges published by other DC providers.

Currently, members who are invested in the USS Default Lifestyle Option will not incur any charges directly, since the charges for the USS Default Lifestyle Option are currently met by the employers on behalf of members by way of a subsidy. There is currently one self-select option – the USS Emerging Markets Equity Fund – for which members will incur a charge directly. For transparency, we have considered the extent to which the services provided to members in relation to these charges represent good value by comparing to an illustrative charging structure. This illustrative charging structure is set out below. Information on the transaction costs that may be incurred by members is also shown below.

On an annual basis the Trustee will review the illustrative charges and level of transaction costs on an annual basis, which will include benchmarking against other DC providers. The next review is planned for November 2017.

#### USS Default Lifestyle Option - illustrative charges

The illustrative charging structure for the USS Default Lifestyle Option consists of two elements, both are met by employers:

- An annual management charge (AMC) of 0.3% of the member's fund value this represents a charge for investment management services, including platform costs; and
- A flat fee of £22 per year this represents the charge for administration services provided by the scheme.

#### **Self-select options**

The trustee has considered the charging structure of the self-select options and compared these charges to those for the USS Default Lifestyle Option. The illustrative flat fee of £22 per year shown above for the USS Default Lifestyle Option would also apply to the self-select options, but this is not incurred by the members as it is met by employers.

The AMC is based on the member's total fund value for the self-select fund options, and charges would range from 0.1% to 0.45%. Where the AMC is 0.3% (being the equivalent of the USS Default Lifestyle Option) or less, again the member will not incur a charge. One self-select option currently has a higher AMC at 0.45% – the USS Emerging Markets Equity Fund – and funds of the members who select this are only charged the incremental 0.15% directly.

#### **Transaction costs**

The Financial Conduct Authority (FCA) has recently consulted on the transaction costs that should be reported by investment managers, and suggests that investment managers should be reporting the full transaction costs incurred in managing a fund, rather than the cost to members of buying and selling units. The Investment Association is also consulting on a standard template for reporting across investment managers. Until this is agreed, we continue to report transaction costs for our funds on the same basis as the majority of the industry – that is, the maximum cost of buying and selling units in our funds. Once the FCA and Investment Association have agreed their approach, we plan to move to this new market standard, and we are in discussion with our investment managers on how they plan to provide this information.

The transaction costs reported below may be incurred by members on fund purchases and sales. This includes the investment of contributions, requests by members to switch between funds and switching as part of the scheme's lifestyle options. These are the costs associated with buying and selling funds, such as fees to market traders. The potential transaction costs for buying and selling funds vary over time and with market conditions.

Potential transaction costs for buying or selling units within the USS Default Lifestyle Option can be up to 0.85%. For the USS Ethical Lifestyle Option and the self-select options these transaction costs can also range up to 0.85%.

#### Value for members

#### **Overview**

Delivering good value for money to our members and to employers is fundamental to USS. In designing and managing the USS Investment Builder, the trustee has focussed on the benefits offered to members and employers by the USS Investment Builder relative to the costs of it.

The trustee considers that charges and transaction costs are likely to represent good value for members where the combination of costs and charges, and what is provided for the costs and charges, is appropriate for the scheme membership as a whole, and when compared to other options available in the market.

The trustee seeks to improve value for money for members and employers over time. As set out on pages 17 to 20 of the Annual Report, it has considered the scheme as a whole and has considered both employer and member perspectives. In line with the requirements of the Administration Regulations, this review focuses on the value offered by the USS Investment Builder to members of that section of the scheme. For the value offered by the scheme as a whole please refer to pages 13 to 16 of the annual report.

#### **Assessment framework**

The trustee oversees whether expenditure incurred is in the members' best interests and has established a set of principles to clarify the standards expected when carrying out the scheme's business. These principles are supported by an assessment framework for measuring value for members, which identifies the following key areas of service provided:

- Administration and service delivery;
- Communications and member engagement;
- Stewardship and governance;
- Design and suitability of DC investments; and
- DC investment performance.

Under this framework the trustee is able to assess the scope and quality of services provided relative to the illustrative or actual charge to pay for these services. The scope and quality assessment takes a broad range of factors into consideration including the scheme's performance in each key area of service. It also considers the member need for, and relative priority of, each key area of service.

The framework considers whether the quality of service justifies any difference in cost as compared to others in the market. The trustee's assessment also used a scoring mechanism to identify areas where the level of benefit relative to the associated cost could be improved. Sources of information used to inform the comparison of cost included the competitive tendering process for key services and the annual global benchmarking service to which USS contributes, as explained on page 15 in the annual report.

The trustee's assessment of member and employer needs uses a variety of information including member surveys and regular employer engagement and satisfaction surveys, and input from subject matter experts within the scheme. In the development of the assessment framework and the evaluation of value we also obtained independent advice from an external party with subject matter expertise in this area.

The trustee is satisfied that the process undertaken to determine what members and employers value is robust. Over the course of the next three years, further work will be conducted to improve our understanding of the membership and the way in which specific categories of members are served as part of the trustee's commitment to continuous improvement.

#### **Evaluation of value**

Using the framework described above, the executive undertook a review of value for members. The review was carried out between January and March 2017 and its results and supporting evidence were documented at the year end.

The trustee has considered the results of the assessment and concluded that the scheme represents good value for members. Charges compared favourably to relevant benchmarks and, for the default arrangement, are well below the legislative charge cap.

The USS Investment Builder is new, and there are inevitably areas of its design that are still being developed to improve value further across each of the key areas of service, including communications and member engagement. Additional modelling tools and analysis are being developed in order to support members to make decisions about their retirement benefits. The trustee is also seeking to increase the level of online registrations via My USS. These improvements are being developed without any increase to the current illustrative charges outlined above, leading to an improvement in value for money over time.

#### **Ongoing monitoring**

As described on page 8 of the annual report, value for money within the scheme is a strategic priority. As part of the business planning cycle, key drivers of value reflected in the scheme services are considered, and the costs of improvement initiatives to deliver ongoing and additional value are analysed and challenged. The business plan is reviewed by the board of USS Investment Management Limited, the trustee's investment committee, the executive, and ultimately the trustee board. USS group's underlying cost base is kept under review.

Key performance indicators (KPIs) have been established and are described on pages 9 to 10 of the annual report. These KPIs were reviewed during the year to consider whether they adequately address value for members. They will be reassessed on an annual basis and are monitored regularly by the executive and the trustee board. A specific review of value for money will be conducted on at least an annual basis by the trustee board, and more frequently by the executive. KPI targets are set in the context of the annual business plan, so that benefit and cost outcomes can be compared to intended outcomes laid out in this plan. The executive is accountable to the trustee board for delivering the business plan including these intended outcomes.

#### Trustee skills, knowledge and understanding

The trustee board meets the trustee knowledge and understanding requirements under legislation<sup>1</sup>.

The trustee has various procedures in place to ensure that each director has the knowledge and understanding required of the role, and that the collective skills of the trustee board are put to the best use for trustee and committee business. These processes include:

- A skills matrix to identify any training requirements and the suitable deployment of resources across the trustee board's committees;
- Formal role descriptions for the recruitment of directors (highlighting the skills and behaviours required of the role);
- An induction programme for any newly appointed directors (including the mandatory completion of the Pensions Regulator's Trustee Toolkit within six months of appointment);
- Regular director appraisal meetings with the chair (including discussion on training); and
- An annual programme of training at trustee board meetings.

The combined knowledge of the trustee board directors is supported by the executive and professional advisers. In addition, independent members of the various committees established by the trustee board are selected to bring specialist expertise to those committees.

Particular focus is given to governance, knowledge and training issues. The trustee's Governance and Nominations Committee (GNC) oversees these activities for the trustee board.

Appropriate recruitment, training and appraisal procedures are in place for the executive and senior management.

#### Non-affiliation of trustee directors and member representation

As a multi-employer trust based pension scheme, the composition of the trustee is subject to certain legislative requirements<sup>2</sup>. The requirements and how they have been met are detailed below:

1) The majority of the directors (including the chair) appointed to the trustee board are required to be non-affiliated (i.e. they are not connected with any company that provides services to the scheme, nor have they acted as director of the trustee board for an extended period) since the regulations became applicable to the scheme.

The trustee meets this requirement as it has counted nine of the twelve directors to be non-affiliated in accordance with the regulations, as at 31 March 2017.

Of the three directors counted as affiliated, two were re-appointments made without an external search being undertaken, after service for three-year terms of office. The third director counted as affiliated is a director of USS Investment Management Limited (a wholly owned subsidiary of the trustee), which provides investment management and advisory services solely to the scheme. The appointment to two boards was a conscious decision by the trustee board, and conflicts of interest which may arise as a result of this relationship are managed by the two respective boards.

2) The appointment process for a trustee director who has been appointed during the year, who is to count as non-affiliated for the purposes of the regulations must be open and transparent.

No trustee directors counted as non-affiliated were appointed or re-appointed since the regulations became applicable to the scheme.

<sup>1</sup>Under sections 247 and 248 of the Pensions Act 2004 and associated the code and guidance of the Pensions Regulator.

<sup>2</sup>Under the Occupational Pension Schemes (Scheme Administration) Regulations 1996

#### **Communications and member engagement**

To understand the needs of the membership in relation to the USS Investment Builder, and to ensure that the investment options provided by the trustee were tailored to the needs of the membership, a significant programme of development work was undertaken ahead of the introduction of the USS Investment Builder. This programme of work included:

- Understanding the member demographics (in terms of age, salary and tenure with USS) and running stochastic projections of active members' future DB and DC benefits with USS. This was done under different investment scenarios to build an understanding of members risk capacity and reliance on DC benefits for income in retirement;
- Running focus groups with members across the country, with independent research agency Ignition House, to inform the design
  of the default and self-select investment options, and understand members' attitudes to risk, views on investments, and their
  retirement options with the scheme; and
- Issuing a survey which nearly 10,000 USS members responded to, which included questions about the risk appetite (based on a series of psychological questions used within the financial services industry by A2Risk) and the risk capacity of the membership. The survey also gathered views on approaches to ethical investment, including asking members about specific areas where they would not want the ethical fund option to invest (for example, including arms, tobacco and fossil fuels).

The results of the member demographics analysis, focus groups and surveys helped to inform the trustee's policy beliefs and member requirements for the USS Investment Builder, as well as requirements for the USS Default Lifestyle Option and self-select options. This then directly influenced the construction of the default and ethical lifestyle options, and the number and type of self-select options made available. The results of all this research have been made available to employers and members on the USS website alongside the trustee's policy beliefs.

The trustee keeps member engagement with the USS Investment Builder under active review – monitoring the take up of matching and additional contributions and the choice of different investment options. As noted above, approximately 86% of USS Investment Builder members were invested in the USS Default Lifestyle Option at 31 March 2017, several thousand of whom made an active investment choice.

In addition to reviewing member behaviour on a monthly basis, the trustee also regularly surveys USS members to track their awareness of the scheme and the options within the USS Investment Builder. This has helped inform our communications strategy.

We communicate with members on an ongoing basis through a variety of channels, including regular emails and updates to our online member portal, My USS. My USS allows members to log in and see how much they have saved in USS Investment Builder. They can also manage their contributions and investment decisions using My USS, and access information for example through fund factsheets.

Almost 60,000 members have registered for My USS and we are planning targeted campaigns to encourage those who have not yet signed up to do so. To support this work we have analysed data to identify those who have not signed up and will use the surveys mentioned above to gain a better understanding of the barriers to registration.

Members can also access support via email and telephone through the Member Service Desk. Staff at the Member Service Desk are trained to answer questions about the USS Investment Builder and My USS, and to handle the transfer of other calls to the appropriate teams within USS. They have also been handling exceptions processes for members who do not currently have access to My USS, for example deferred members who cannot yet make changes to their investment decisions.

The trustee therefore believes that these arrangements encourage members to make their views on matters relating to USS Investment Builder known to the trustee.

Professor Sir David Eastwood Chair

## USS Default Lifestyle Option Statement of Investment Principles

#### Introduction

- 1. This Statement of Investment Principles specifically covers the USS Default Lifestyle Option and shall be referred to as the Default SIP. It supplements the main **Statement of Investment Principles (the SIP)** which covers the whole scheme.
- 2. The trustee makes available a default lifestyle option for members of the DC section. The approach for the default lifestyle option has been formed as a lifestyle strategy. Lifestyle strategies are designed to meet the conflicting 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.
- 3. Typically, a proportion of members will actively choose this option because they feel it is suitable for them. However, the vast majority of members do not make an active investment decision and are therefore invested in the default lifestyle option by default.
- 4. The default lifestyle option aims to generate investment returns, in a risk-controlled manner, which are sufficient to provide a reasonable level of retirement benefits for members, given the level of contributions paid over a member's lifetime in to the DC section, whilst also recognising the hybrid nature of the scheme.

#### **Objectives**

- 5. The objectives of the default lifestyle option, and the ways in which the trustee seeks to achieve these objectives, are detailed below:
  - To focus particularly on generating returns in excess of inflation during the growth phase of the strategy (up to 10 years before retirement) whilst mitigating downside risk.

The default lifestyle option's growth phase invests in equities and other growth-seeking and diversifying assets. These investments are structured to maximise real returns over the long term with some downside protection and some protection against inflation erosion. The downside risk from an equity market downturn is mitigated to a degree through diversification away from equities into other asset classes.

 To provide a strategy that reduces investment risk in the consolidation phase (between five and 10 years before retirement) for members as they approach retirement.

As a member's DC savings grow, investment risk will have a greater impact on member outcomes. Therefore, the trustee believes that a strategy which seeks to reduce investment risk as the member approaches retirement is suitable. In the consolidation phase, the trustee is seeking, through greater diversification of assets, to reduce the likelihood of extreme investment shocks adversely affecting retirement outcomes.

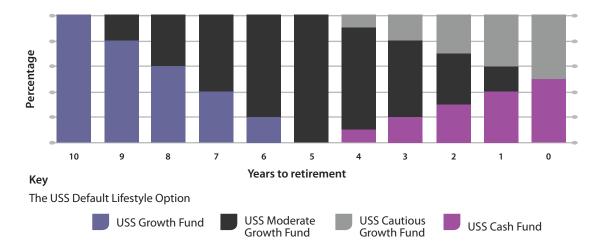
• To provide exposure, at retirement, to a more stable portfolio of assets that are broadly suitable for how members may take their retirement benefits.

In the final five years before retirement (protection phase), the trustee has constructed a glide-path that seeks to continue to grow the member's DC savings in real terms while reducing volatility as member's funds get closer to maturity. The trustee expects that the majority of members approaching retirement in the next five years or so will take their benefits as cash. In the protection phase, assets are therefore switched to more cautious assets (such as gilts and corporate bonds), including an allocation to cash. This has been designed additionally to reflect the uncertainty inherent in the timing of retirements, and the post-retirement investment choices that might be made by members. The trustee believes that maintaining a measured amount of risk will improve the average outcome for members.

• To comply with the trustee's policy in relation to the realisation of assets as set out in paragraphs 3.9 of Section 1 of the SIP<sup>1</sup>.

<sup>1</sup>The trustee's policy is that there will be sufficient investments in liquid or readily realisable assets to meet cash flow requirements in foreseeable circumstances so that the realisation of assets will not disrupt the scheme's overall investments, where possible. The internal manager will ensure the scheme holds sufficient cash to meet benefit and other payment obligations.

6. The chart below provides an illustration of the default structure described in paragraph 3.4 of Section 3 of the SIP<sup>2</sup>, in particular detailing the balance between the different kinds of investments held:



#### **Policies**

- 7. The trustee's policies in relation to the default lifestyle option are detailed below:
  - The default lifestyle option manages strategic asset allocation risks through a diversified reference portfolio consisting of traditional and alternative assets. Risk is not considered in isolation, but in conjunction with expected investment returns and outcomes for members. In designing the default lifestyle option, the trustee explicitly considers the trade-off between risk and expected returns and continues to monitor these risks through ongoing reporting.
  - Assets in the default lifestyle option are invested in the best interests of members and beneficiaries, taking into account the profile of members. In particular, the trustee considered high level profiling analysis of the scheme's membership in order to inform decisions regarding the default lifestyle option.
  - Members are supported by communications aiming to set out clearly the aims of the default lifestyle option and the access to alternative investment approaches. If members wish to, they can opt to make their own choice of investment strategy or an alternative lifestyle strategy from those made available by the trustee. This option is available on joining but also, subject to any restrictions or conditions imposed by the scheme rules of the trustee, at any other future date. Moreover, members do not have to take their retirement benefits in line with those targeted by the default lifestyle option; the target benefits are merely used to determine the investment strategy held pre-retirement.

#### Kinds and balance of investments held

- 8. The following are indicative descriptions of the type of investments that may be held by the different underlying funds comprising the default lifestyle option.
  - A growth fund will invest predominantly in growth assets, with an objective to provide long term growth to members, with some diversification to mitigate portfolio risk to a degree.
  - A 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 to members from a balanced, more diversified portfolio of assets. This diversification aims to mitigate portfolio risk to a greater extent.
  - A cautious growth fund with an objective to provide stable growth to members from a portfolio of predominantly low risk, income focussed assets, with some diversification, and minority exposure to growth assets.
  - A cash fund typically aims to produce a return in excess of its benchmark, principally from a portfolio of Sterling denominated cash, deposits and money market instruments.
- 9. Moving from growth to moderate growth to cautious growth funds would be associated with decreasing proportions in growth assets such as equities, and property and increasing proportions in non-government and government bonds.

<sup>&</sup>lt;sup>2</sup> Reference SIP Section 3 Para 3.4; which is referred to in detail above, in point 5.

#### Social, environmental or ethical considerations

- 10. The default lifestyle option is managed in line with the trustee's policy on social, environmental or ethical considerations as set out below:
  - The trustee is an active and responsible steward of the assets in which it invests. The trustee expects this approach to both protect and enhance the value of the fund in the long-term.
  - The trustee therefore requires its investment managers to integrate all material financial factors, including corporate governance, environmental, social, and ethical considerations, into the decision-making process for all fund investments. The trustee does this in a manner which is consistent with the trustee's investment objectives, legal duties and other relevant commitments e.g. the UN-backed Principles for Responsible Investment and the UK Stewardship Code.
  - Specifically, the trustee has instructed the internal manager, as its principal investment manager and advisor, to follow good practice and use its influence as a major institutional investor and long-term steward of capital to promote good practice in the investee companies and markets to which the fund is exposed.
  - The trustee also expects its internal and external investment managers to undertake appropriate monitoring of current investments with regard to their policies and practices on all issues which could present a material financial risk to the long-term performance of the fund such as corporate governance and climate change.
  - Effective monitoring and identification of these issues can enable engagement with boards and management of investee companies to seek resolution of potential problems at an early stage. The trustee tasks the internal manager to provide oversight of external managers in this respect. The trustee also aims to use its voting rights as part of its engagement work, in a prioritised, value-adding and informed manner. Where collaboration is likely to be the most effective mechanism for encouraging issues to be addressed, the trustee expects its investment managers to participate in joint action with other institutional investors as permitted by relevant legal and regulatory codes.
  - The investment committee monitors this activity on an ongoing basis with the aim of maximising its impact and effectiveness. The trustee's governance, social, ethical and environmental policies are also reviewed regularly by the board and updated as required to ensure that they are in line with good practice.

#### **Alternative options**

11. In addition to the default lifestyle option, the trustee makes available an alternative ethical lifestyle option reflecting the fact that a large group of the membership has specific objectives around ethical investing. This is built along similar principles to the default lifestyle option but has been specifically designed to reflect members' objectives in this area. As well as this, a range of self-select funds are also offered to members.

#### **Review**

12. Taking into account the demographics of the scheme's membership and the trustee's views of how the membership is likely to behave at retirement, the trustee will continue to review this over time, at least triennially, or sooner if there are significant changes to the scheme's investment policy, demographic or other circumstances which the trustee determines warrant a reconsideration of the reference portfolios (as explained in paragraph 7 of this Default SIP) for the default lifestyle option.



#### THE TRUSTEE'S ANNUAL REPORT

SCHEME FINANCIALS CHAIR'S DEFINED CONTRIBUTION STATEMENT

## **Report on actuarial liabilities**

Latest full actuarial valuation 31 March 2014

Funding ratio 89%

Annual update 31 March 2017

### Funding ratio 83%

31 March 2016 83%

#### **Overview**

Over the last 12 months we have continued to monitor the financial position of the scheme in accordance with the Financial Management Plan (FMP) which was agreed as a result of the 2014 actuarial valuation. We have also in the last 12 months started to prepare for the actuarial valuation due as at 31 March 2017.

Set out in the paragraphs below is an update on the progress of the financial position of the scheme against the FMP and details of the work that has been undertaken to date on the 2017 valuation.

#### Some fundamentals regarding the USS benefit structure

From 1 April 2016, final salary arrangements which formerly applied to some members came to an end and all members now build up benefits on a Career Revalued Basis (CRB) in the new USS Retirement Income Builder. From 1 October 2016, USS Retirement Income Builder only builds up benefits in respect of salary up to a threshold of £55,000. Contributions in respect of salary above £55,000 are paid into USS Investment Builder. This salary threshold will be revalued each year in line with CPI (subject to certain restrictions and reviewed in 2020). For more information the scheme's benefits provided please refer to the USS website, at www.uss.co.uk.

The financing of scheme benefits is through contributions from the sponsoring employers and from the scheme members. These contributions are paid into the scheme and, together with the investment returns earned on these amounts, are used to pay benefits to members and/or their eligible dependants when they fall due, as well as meeting the costs of operating the scheme.

#### How is the financial position of the scheme measured?

The scheme's financial position is measured by comparing the current value of its assets with the trustee's estimate of the current value of the scheme's liabilities. The current value of the scheme's assets is relatively easy to determine at a particular point in time, using their market value at that date. There are uncertainties inherent in estimating the current value of the liabilities, for example, the length of time for which a future pension might be paid, the possibility that a survivor's benefit might be paid, and the future rate of return on investment. Estimates of all these factors are used to determine the amount of assets that would be required today in order to meet, in full, the benefits members have already earned up to the date of the valuation.

As noted above, the most recent full review of scheme funding, the actuarial valuation, was last undertaken as at 31 March 2014, and the next valuation is due as at 31 March 2017. In any actuarial valuation, the trustee places a value on the liabilities which assumes that the scheme is ongoing which is known formally as the 'technical provisions'. It is this technical provisions basis that is typically used when referring to the value of the scheme's liabilities. However, in addition to this, the trustee is also required by law to value the scheme's liabilities assuming those liabilities had to be bought out by an insurance company. This latter measure is known as the 'buy-out' basis and provides a further reference point by which the health of the scheme can be assessed, but members should note that neither the trustee board, nor the scheme's stakeholders, have any plans to buy-out the scheme with an insurance company.

The actuarial valuation is the time when the trustee reviews all of the underlying assumptions relating to the scheme. The assumptions agreed and used for the 2014 actuarial valuation are shown on page 106. These assumptions are being reviewed as part of the 2017 actuarial valuation. Each year the scheme actuary updates his valuation report on the financial position of the scheme, and his report for 2016 can be found online at https://www.uss.co.uk/how-uss-is-run/running-uss/funding-uss/actuarial-valuation

#### What was the position at the last actuarial valuation?

The actuarial valuation at 31 March 2014 showed that the scheme's assets as a percentage of liabilities (described as the funding ratio) stood at 89% on a technical provisions basis and 54% on a buy-out basis. These funding ratios reflect the changes which were introduced during the current year. The technical provisions calculation reflects the assumptions, described above, whereas the buy-out basis uses assumptions intended to approximate those that an insurer would use.

#### How has the funding position changed since 31 March 2014 valuation?

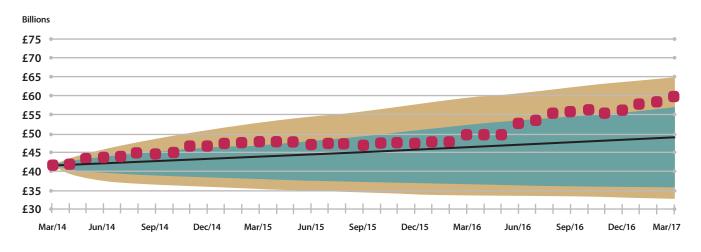
The trustee regularly monitors the scheme's funding position as part of the overall monitoring of FMP introduced followed the 2014 valuation. The monitoring is based on the assumptions used for the 2014 actuarial valuation (updated for changes in gilt yields and inflation expectations). The monitoring does not involve the same detailed review of the underlying assumptions (including the financial, economic, sectoral assumptions for example) that takes place as part of the full actuarial valuation, the next full actuarial valuation being due as at 31 March 2017. Therefore the amounts shown for liabilities in the funding position below are not indicative of the results of the 2017 valuation. Assumptions from the 2014 valuation are shown on page 106.

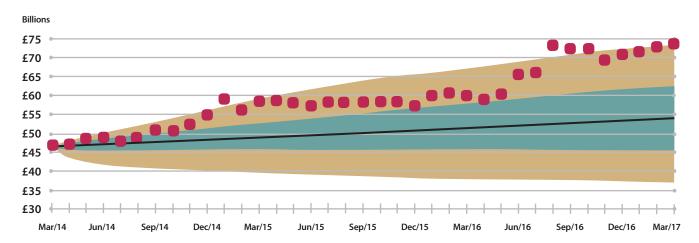
Since 31 March 2014 there has been a great deal of volatility in financial markets, which has been reflected in the volatility of the scheme's deficit and funding ratio. The real yield on government bonds has continued to decline with the result that the value placed on the scheme's liabilities have increased.

The scheme's investment returns on the assets held have been higher than expected (more information is on page 14), but have not been enough to offset the increase in the scheme's liabilities.

The graphs below show the development of the assets and liabilities since 31 March 2014. The black line reflects the expected path of assets and liabilities and the green area represents the range of outcomes that might be reasonably expected over the intervening period (shown here as the expected path plus or minus one standard deviation). Each of the dots corresponds to an estimate of the actual scheme assets and liabilities at the end of every month since the 2014 valuation.

#### Assets progression since 2014 valuation





#### Liabilities progression since 2014 valuation

During the current financial year (to 31 March 2017), the assets of the scheme increased from £49.8bn to £60.0bn, however the liabilities increased from £59.8bn to £72.6bn, leading to an increase in the scheme's deficit. The results are summarised in the table on the following page.

#### **Funding position**

As at 31 March, in £billions	Actuarial valuation 2014	Funding update 2015	Funding update 2016	Funding update 2017
Value of assets	41.6	49.1	49.8	60.0
Value placed on liabilities	46.9	57.3	59.8	72.6
Deficit	5.3	8.2	10.0	12.6
Funding ratio	89%	86%	83%	83%

As at 31 March 2014 the value of assets shown in the table above was £41.6bn. The value placed on liabilities can be measured by a number of different approaches, including on a technical provisions basis, buy-out basis, best estimate basis, or self-sufficiency basis. The technical provisions and self-sufficiency bases can be updated annually under our monitoring approach, explained on page 14. The buy-out and best estimate bases are updated at each actuarial valuation. As can be seen in the table above, the Scheme Actuary provided an estimate of the technical provisions at the 2014 valuation, which showed the deficit to be £5.3bn. The update under the monitoring position each year thereafter is also shown.

The table below summarises the scheme's position on a self-sufficiency basis, and the updated position under the monitoring approach is also shown.

As at 31 March, in £billions	Actuarial valuation 2014	Funding update 2015	Funding update 2016	Funding update 2017
Value of assets	41.6	49.1	49.8	60.0
Self-sufficiency liability	56.1	68.6	71.9	87.4
Deficit	14.5	19.5	22.1	27.4
Self-sufficiency ratio	74%	72%	69%	69%

As at 31 March 2014 (the last valuation that has been completed) the cost on a buy-out basis (i.e. the cost to transfer the liabilities to an insurance company) was estimated by the Scheme Actuary to be £77.3bn, therefore giving rise to a deficit on this basis of £35.7bn. A buy-out basis often gives the worst view of the liabilities, and that was the case at 2014 for the scheme. However, on a best estimate basis, liabilities were estimated to be £38.1bn at 31 March 2014, therefore giving rise to a surplus of £3.5bn at that time. It is not possible to provide interim measures under the monitoring approach of either the buy-out or best estimate liabilities until the formal consultation has been completed and a decision been made in relation to the assumptions. This will take place as part of the 2017 valuation process.

The trustee is currently in the process of undertaking a full actuarial valuation of the scheme, our emerging view is that the cost of providing a £1 of pension has increased since the 2014 valuation. Results of the full valuation are expected to be available during the course of the 2017/18 scheme year.

#### What is the trustee board's funding plan?

The trustee's overarching funding principle, supported by the employers, is that the 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, and specifically that the reliance being placed on the employers should not be greater than they can support. The trustee is therefore of the view that, with the right economic conditions, and following appropriate dialogue, opportunities should be taken over the years ahead to reduce the amount of risk within the scheme, and specifically reduce the amount of investment risk. At the 2014 actuarial valuation the trustee incorporated this long-term, gradual de-risking into its funding approach, with the intention of reducing the amount of investment risk within the scheme over a 20-year period. Details of the trustee's investment approach can be found in the Statement of Investment Principles which is available online.

The 2014 actuarial valuation recovery plan requires employers to contribute 2.1% of salaries towards the deficit over a period of 17 years. The trustee has extended the period of the recovery plan (from 10 years in 2011) following an extensive piece of work undertaken by its advisor on the ability of the scheme's sponsoring employers to financial support the scheme (which is generally referred to as the employers' covenant'). The conclusion from that work was that there is good visibility of the ongoing strength of the covenant over the next 20 years, thereafter it becomes less visible. Analysis undertaken for the 31 March 2017 valuation confirms the conclusions of the earlier review.

In calculating the contributions required for the recovery plan allowance for additional investment return, over and above that which the trustee allows for in its prudent assessment of the scheme's liabilities was assumed. The additional allowance being half the difference between the discount rate used to calculate the technical provisions and the expected return on assets.

As part of the 2017 valuation the FMP will be reviewed and in particular the terms of any recovery plan.

#### **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.

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, which 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, but 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.

Further information about the PPF is available on its website at **www.pensionprotectionfund.org** or you can write to Pension Protection Fund, Renaissance, 12 Dingwall Road, Croydon, Surrey, CR0 2NA.



#### Principal actuarial assumptions

Principal actuarial assumptions	31 March 2014	31 March 2015	31 March 2016	31 March 2017
Investment return	5.2% in year 1, decreasing linearly to 4.7% p.a. over 20 years	3.98% in year 1, decreasing linearly to 3.5% p.a. over the next 19 years	3.84% in year 1, decreasing linearly to 3.4% p.a. over the next 18 years	3.26% in year 1, decreasing linearly to 2.83% p.a. over the next 17 years
Market derived price inflation	3.6% p.a.	3.2% p.a.	3.15% p.a.	3.36% p.a.
Inflation risk premium	0.2% in year 1, decreasing linearly to 0.1% p.a. over 20 years	0.2% in year 1, decreasing linearly to 0.1% p.a. over the next 19 years	0.19% p.a. in year 1, decreasing to 0.1% p.a. over the next 18 years	0.185% p.a. in year 1, decreasing to 0.1% p.a. over the next 17 years
Price inflation – Retail Prices Index	Λ	Narket derived price inflatio	n less inflation risk premiur	n
RPI / CPI gap		0.8%	p.a.	
Price inflation – Consumer Prices Index		RPI assumption I	ess RPI / CPI gap	
Salary increases				
1) General pay growth *	CPI in year 1, CPI +1% in year 2 and RPI + 1.0% p.a. thereafter	CPI in year 1, RPI + 1.0% p.a. thereafter	RPI + 1% p.a.	RPI + 1% p.a.
2) Salary scale for past service	Scale adopted (in first two years) reflecting recent experience	Scale adopted (in first year) reflecting recent experience	n/a	n/a
Pension increases in payment		CPI assumption (for both p	re and post 2011 benefits)	
Mortality base table	98% of SAPS S1NA "ligh	nt"YOB unadjusted for male adjustment		ght" YOB with a -1 year
Future improvements to mortality		CMI_2014 with a long	term rate of 1.5% p.a.	

\* This assumption used only in deficit recovery contributions for periods after 31 March 2016.

More information on the meaning of these actuarial assumptions is available on the USS website.

## Actuarial certificate of technical provisions

Name of Scheme	Universities Superannuation Scheme
Calculation of technical p	rovisions
2014 is made in accordance w	e calculation of the scheme's technical provisions as at 31 Ma vith regulations under section 222 of the Pensions Act 2004. T d assumptions determined by the Trustee of the scheme and s rinciples dated 24 July 2015.
Signature	12-
Name	Ali Tayyebi
Qualification	Fellow of the Institute and Faculty of Actuaries
Date of signing	24 July 2015
Name of employer	Mercer Limited
Address	4 Brindley Place Birmingham B1 2JQ United Kingdom

## Actuary's certification of schedule of contributions

## MERCER MERCER

CERTIFICATION OF SCHEDULE OF CONTRIBUTIONS

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 2014 to be met by the end of the period specified in the recovery plan dated 24-5-14 2015

#### 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 24 July 2015

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	Ats-
Scheme Actuary	А Таууеbi
Qualification	Fellow of the Institute and Faculty of Actuaries
Date of signing	24 July 2015
Name of employer	Mercer Limited
Address	4 Brindley Place Birmingham B1 2JQ



UNIVERSITIES SUPERANNUATION SCHEME

# Report & Accounts for the year ended 31 March 2017

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