

# FINANCIAL STATEMENTS

for the year ended  
31 July 2017



UNIVERSITY OF  
**BATH**

# Contents

## Financial Statements for the year ended 31 July 2017

3	Treasurer's Report
15	Public Benefit Statement
23	Corporate Governance
26	Responsibilities of the University's Council
27	Statement of Equality Objectives 2016-18
28	Membership of University of Bath Council
29	Independent Auditor's Report
33	Consolidated and University Statement of Principal Accounting Policies
39	Consolidated and University Statement of Comprehensive Income for the year ended 31 July 2017
40	Consolidated and University Statement of Changes in Reserves for the year ended 31 July 2017
41	Consolidated and University Balance Sheets as at 31 July 2017
42	Consolidated Cash Flow Statement for the year ended 31 July 2017
44	Notes to the Financial Statements
69	Key Financial Performance Indicators to the Financial Statements
71	Glossary of Abbreviations to the Financial Statements



# Treasurer's Report

## Introduction

I am pleased to report on a year that has seen the University of Bath continue to deliver on its strategy and increase its influence and reputation both nationally and internationally. Uncertainty continues, both in relation to the funding of higher education and to the United Kingdom's (UK)'s decision to leave the European Union (EU). This remains a challenge for the University and the sector as a whole. The University's current standing and strategy for the next five years place it in a strong position to address the challenges and opportunities that will arise.

This year saw the University celebrate its 50th anniversary. It has raised the profile of the University not only locally, but nationally and internationally, as a range of events took place to celebrate this significant landmark. The anniversary day on 25 October 2016 was marked with a commemoration of the establishment of the University by Royal Charter in Bath Abbey. The University of Bath Festival took place on Saturday 6 May 2017; a campus based event attended by over 10,000 students, staff, alumni and the local community celebrating the University and its range of activities and influence. Many other events took place during the year attended by The Chancellor and The Vice-Chancellor and President throughout the world, bringing together the global community associated with the University.

Amongst its achievements for the year the University received a Gold award in recognition of the excellence of its teaching as part of the Teaching Excellence Framework (TEF). This framework evaluates teaching quality, learning environment and student outcomes, taking into account factors such as student satisfaction, retention rates and employment. The TEF Panel judged the University's delivery of these to be consistently outstanding. The University has enhanced its position in the national league tables being ranked 5th in the UK in the Guardian University Guide. The University has been awarded £39m, its largest ever grant, to support the development of the Institute of Advanced Automotive Propulsion Systems (IAAPS). This funding from the UK Research Partnership Investment Fund and the Local Enterprise Partnership together with investment from

the University will see the creation of a world leading facility delivering benefits to the local and national economy with impact on an international scale.

It was announced on 28 November 2017 that the President and Vice-Chancellor will step down as Vice-Chancellor on 31 August 2018 after outstanding service to the University over what will be seventeen years. She will then take a sabbatical to further her academic research before retiring from the University in February 2019. The University will now start the search for a new Vice-Chancellor.

I would like to take this opportunity to note my appreciation to the Vice Chancellor and to thank the students, alumni and staff, both past and present, for making the University such a remarkable place. Finally, I would like to acknowledge the significant contribution made to the success of the University by Diane Aderyn who retired as Director of Finance & Commercial Services on 31 August 2017 after 24 years of service. Her influence both at the University and within the sector will be missed.

## Strategy and Objectives

The University strategy 2016-2021 states that our vision is to be recognised as an international centre of research and teaching excellence, achieving global impact through our alumni, research and strategic partnerships. The strategy builds on our heritage of invention, enterprise and international engagement and aims for the University to become an international leader in high quality, innovative graduate education. In delivering the new strategy we will;

- extend our research power by recruiting dynamic researchers, nurturing their talent and fuelling their ambition;
- affirm our international influence through worldwide partnerships to create dynamic responses to research and educational opportunities;
- attract increasing numbers of postgraduates by enhancing our existing prestige portfolio with innovative and global modes of delivery;

## Treasurer's Report (continued)

- enrich the postgraduate and undergraduate experience by engaging purposefully with our student, donor and alumni communities;
- expand our capacity and capability by investing in new infrastructure, facilities and technologies.

It is intended to build upon the success of the teaching, research and international strategies that were present in the 2013-2016 document. These strategies and the people, financial and estates strategies that support them are discussed further in considering the University's performance.

### Performance

The University Council monitors performance and progress by referencing key performance indicators for its most important areas of activity. This report refers to a number of these indicators. In some cases data for 2016/17 has not been finalised. In these instances provisional data has been used and the actual data will be included in next year's report.

For data relating to academic FPE (Full Person Equivalent) provisional data is shown for 2016/17.

National and International rankings are also used as a measure of performance and the University has enhanced or maintained its position in domestic rankings being 5th (Guardian University Guide 2018), 11th (Complete University Guide 2018) and 12th (Times and Sunday Times Good University Guide 2018.) Internationally the University was ranked 160th in the Quacquarelli Symonds (QS) world ranking.

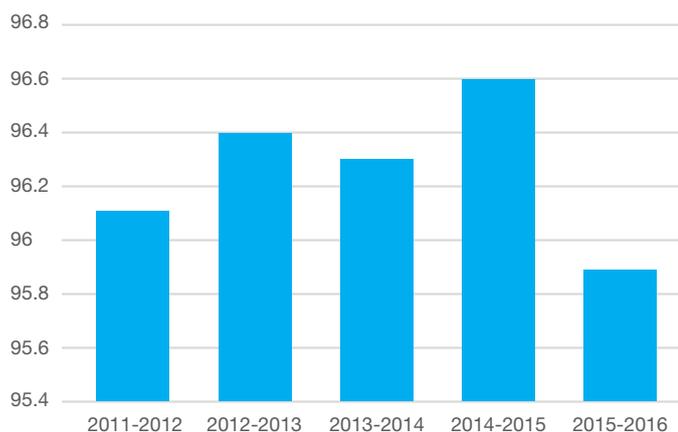
### Teaching

Average tariff scores are used to monitor the quality of the home/EU undergraduate intake. The source data (The Times & Sunday Times league table for entry standards) was changed in 2017, making it more relevant to prospective students and historical comparison is therefore not consistent and not reported. The University was ranked 12th amongst UK Universities for entry standards for October 2016 entrants.

The quality of teaching is measured by reference to those who either 'definitely' or 'mostly' agree with the National Student Survey (NSS) question "Overall I am satisfied with the quality of my course." In 2017, the University achieved a score of 88% and the sector average was 84%.

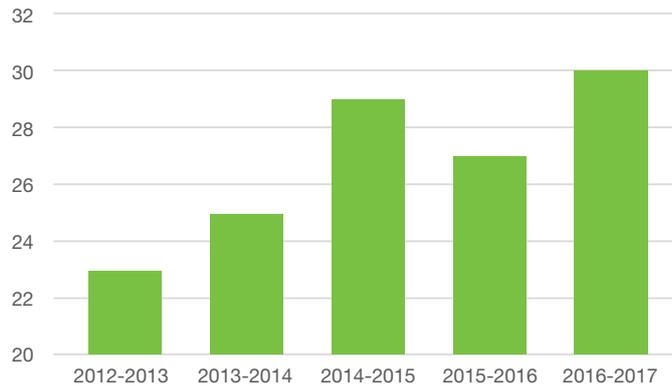
Continuation rates are measured as a proxy for student satisfaction and the effectiveness of the University's student support structures. At 95.9%, despite the small fall from 2014/15 the University continues to perform at a high level when compared to its peer group and the Higher Education (HE) sector.

**Continuation rates %**



## Treasurer's Report (continued)

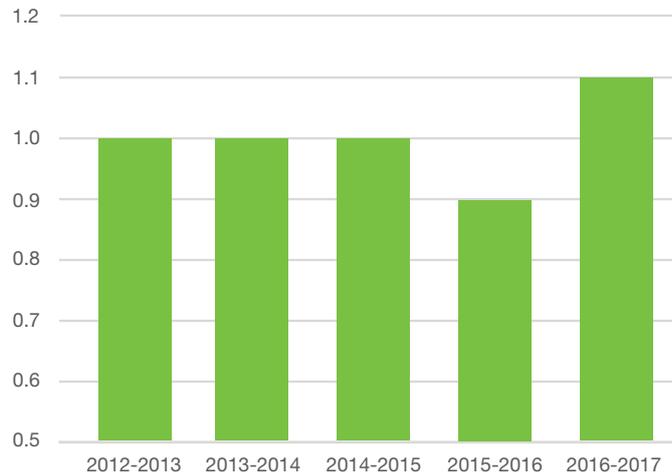
**Grant and contract income per academic FPE (£'000)**



### Research

Grant and contract income per academic FPE is monitored as a measure of research activity. The chart shows an increase to £30k for 2016/17 against 2015/16. Research and Development Expenditure Credits (RDEC) relating to 2014/15 and previous years has been omitted as it distorts the comparison.

**Postgraduate research students per academic (FPE)**

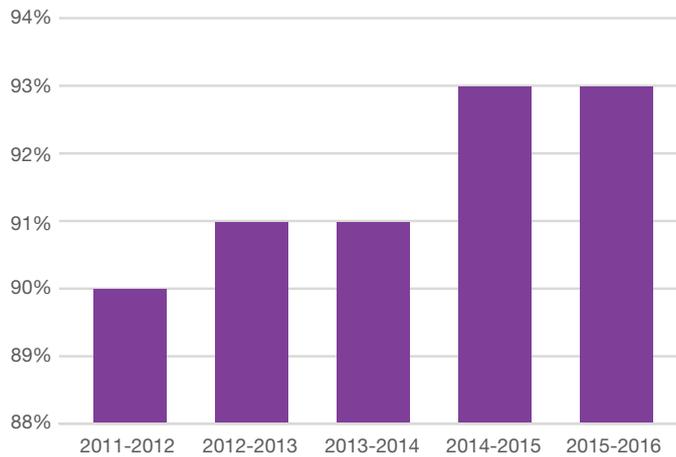


Postgraduate research students per academic FPE increased to 1.1 in 2016/17, reversing the reduction in 2015/16. 2016/17 is a provisional figure.

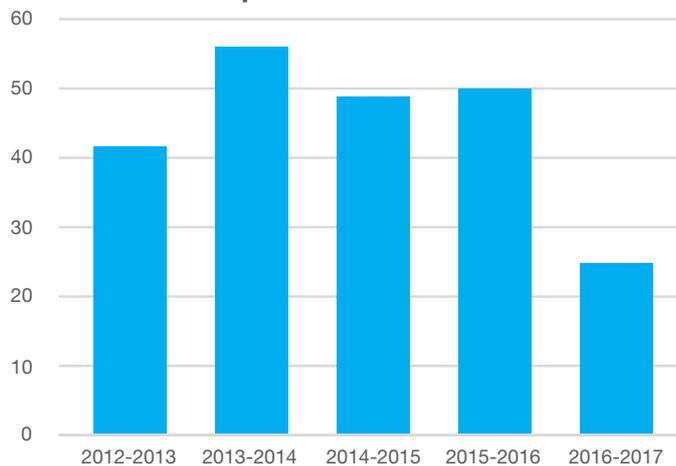


## Treasurer's Report (continued)

**Gross internal area in condition A&B %**



**Capital additions £m**



## Estates

This year saw the completion of the University's 2012-2016 capital programme. Totalling in excess of £150m it has provided new high quality space and transformed the quality of older buildings.

The University monitors the condition assessment of its estate as a measure of the quality of the space provided. The table shows that in recent years the University has enhanced the already high proportion of quality spaces.

Capital additions were £24.4m in 2016/17 following completion of the 2012-2016 capital programme. The largest expenditure related to student residences which included initial work on a new postgraduate accommodation building as well as the refurbishment of existing buildings. Work commenced on the Milner Centre for Evolution which is due to be completed in early 2018.



## Treasurer's Report (continued)

### Financial Highlights

- Operating surplus as a percentage of income exceeds original budget target for the 8th successive year
- Earnings before interest, tax, depreciation and amortisation (EBITDA) of £27.6m represents reduction of £16.7m on last year's record level.
- Gearing (Net debt/ Total net assets) remains low at 9.4% (2015/16 13.8%).

target for the 8th successive year. The underlying HC operating surplus of £8.6m (£18.8m 2015/16) represents 3.3% (7.4% 2015/16) of income. The reduced operating surplus was planned and is a result of additional costs incurred in support of the 2016-21 strategy for which income will be derived in future years. Operating cashflow at £26.2m (£38.2m 2015/16) remains high and has been used to fund the capital programme and reduce debt. Consequently, the University's gearing ratio remains low at 9.4% (13.8% 2015/16).

### Financial Performance

The University measures its financial performance by reference to cashflow and the Historical Cost (HC) operating surplus. Against this metric the University has exceeded its original HC operating surplus

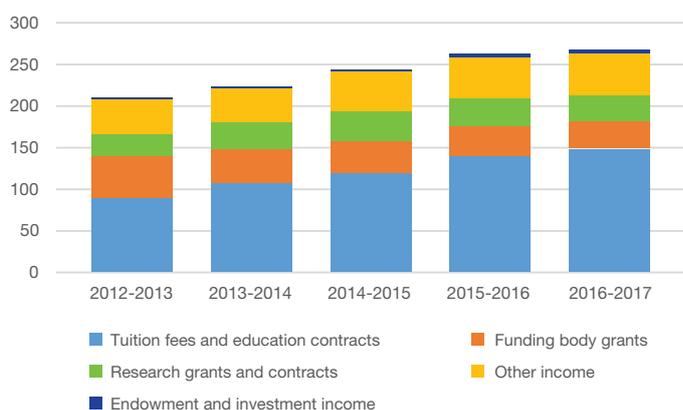
The Statement of Comprehensive Income (SOI) shows a deficit before gains and losses of £1.3m (2015/16 £14.2m surplus) on page 39.

The table below shows a reconciliation between this figure and the 2016/17 Historic Cost operating surplus.

	2016/2017 £m	2015/2016 £m
<b>Statement of Consolidated (Expenditure)/Income</b>	<b>(1.3)</b>	<b>14.2</b>
Capital grants	(4.0)	(7.6)
Valuation adjustment for pension schemes	2.5	2.3
Valuation adjustment for land & buildings	5.6	-
Valuation adjustment for HC depreciation	7.5	7.5
Valuation adjustment for derivatives	(1.5)	2.4
Gain on disposal of investments & financial derivatives	(0.2)	-
<b>HC operating surplus</b>	<b>8.6</b>	<b>18.8</b>

## Treasurer's Report (continued)

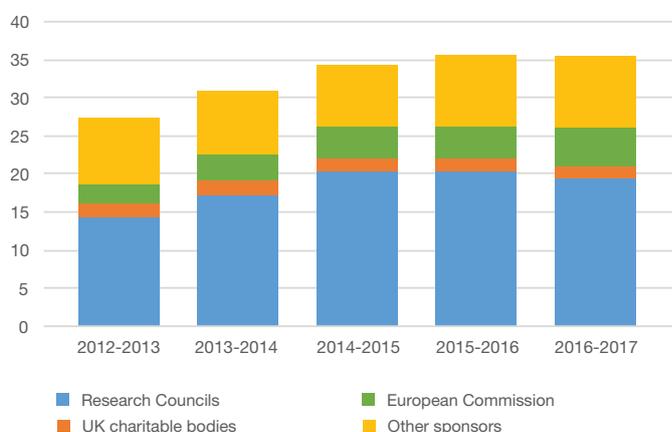
### Total Income £m



### Income

- Total income increased by 1.4% over 2015/16 to £266.8m.
- Tuition fee income has grown by £9.4m to £148.8m (2015/16 £139.4m) and is 56% (2015/16 53%) of total income. This compares to 43% in 2011/12, the last year before the introduction of the new tuition fee regime.
- Funding body grants at £31.9m (2015/16 £35.2m) fell by £3.3m and are 12% of total income compared to 30% in 2010/11 again reflecting the change in the tuition fee regime. Of the £31.9m capital grants were £3.9m (2015/16 £7.0m including a £5.0m contribution to 4 ES building)
- Research of £35.1m (2015/16 £35.5m, excluding RDEC) and other income £47.2m (2015/16 £49.8m) have remained as the same proportion to total income in recent years being 13% and 18% respectively of the total.
- Donations and endowments at £2.8m (2015/16 £2.7m) reflect donations received in the year, where they are unrestricted, donations with restrictions are recognised as the restricted expenditure is incurred.

### Research Income £m



### Research Income

Research income was £35.1m (2015/16 £35.5m before RDEC) for the year.

Research Councils continue to be the largest source of research income. This year has seen a modest increase in both UK charitable body and European Commission (EC) income.

In 2014/15 the University received £2.5m in RDEC claims from Her Majesty's Revenue & Customs (HMRC) a one-off benefit relating to that and the previous two years, to aid comparison RDEC income has been removed from this graph.

# Treasurer's Report (continued)

## Expenditure

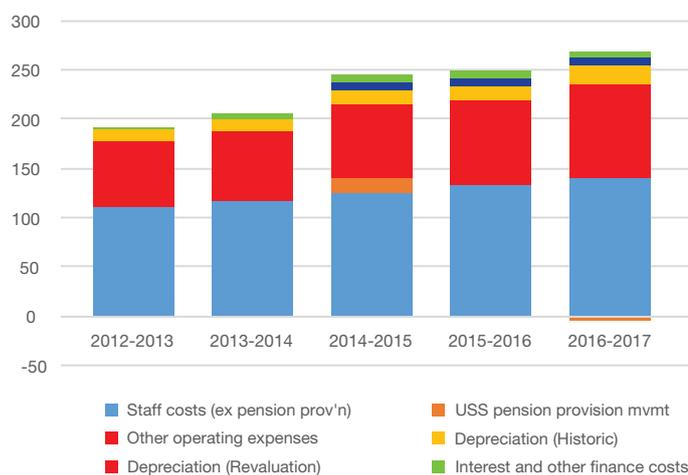
Expenditure reported in the SOCI increased by 7.6% (2.6% 2015/16) to £268.1m (2015/16 £249.1m) during the year. This includes a number of Financial Reporting Standard (FRS) 102 adjustments which are excluded from the University's preferred measure, being HC operating surplus. On this preferred basis expenditure increased by 7.3%. Staff costs increased by 7.7% (4.9% 2015/16) to £143.6m (2015/16 £131.6m) as the University continued to invest in staff to support growth in teaching and research. Increases in Universities Superannuation Scheme (USS) employer and National Insurance costs had a full year impact in 2016/17.

As a result staff and employment costs as a percentage of total income increased to 54.4% (2015/16 50.5%).

Depreciation increased by 9% to £24.1m (2015/16 £22.1m), of the £2.0m increase £1.0m was in respect of the completion of both the 10 West and 4 ES buildings in the previous financial year.

Other operating expenditure increased by 10.9% to £95.4m (2015/16 £86.0m). Refurbishment costs of £4.9m on the Virgil Building were spent in re-purposing the building as a city centre learning commons. An impairment charge of £1.2m was incurred following the revaluation of the University's

**Total Expenditure £m**

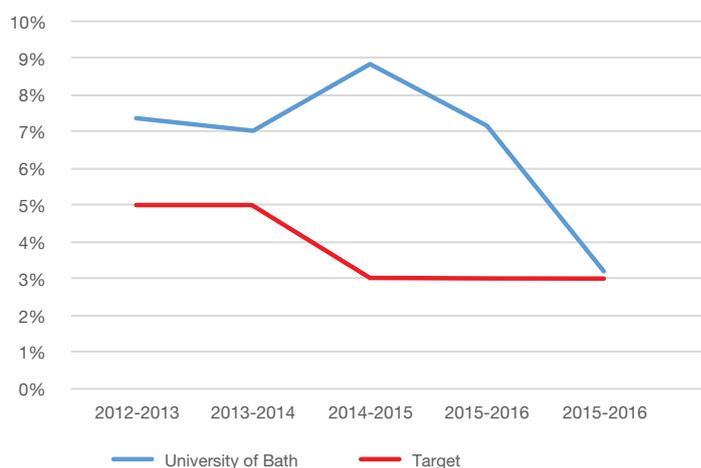


land and buildings. The overall increase in the land and building valuation was £52.8m which has increased the University's net asset value, this combined with a reduction in net debt has reduced the gearing ratio from last year's 13.8% to 9.4% at 31 July 2017. The Net Debt and Gearing ratios are disclosed on page 70 of the Financial Statements. Other operating expenditure also increased as a result of the continuing investment principally in post graduate teaching and on academic departments.

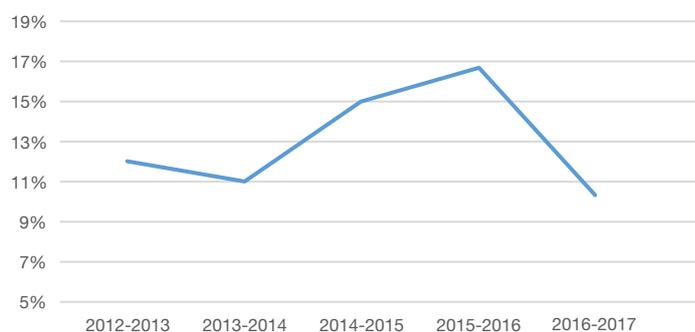


## Treasurer's Report (continued)

### Operating surplus as a percentage of income



### EBITDA as a percentage of total income



### HC Operating surplus

The University established a HC operating surplus target of 3% of income in 2014 following the introduction of the Statement of Recommended Practice: Accounting for Further and Higher Education (FE/HE SORP) for 2015/16. This generates the level of surplus required to provide sufficient cash to fund the capital expenditure programme and meet loan payments. Prior to this the University had used a target of 5%. The result this year shows the investment made in support of the new strategy and the increasing cost pressure on the University.

The University achieved a HC operating surplus/income ratio of 3.3% (7.4% 2015/16) for the year.

### EBITDA

EBITDA at £27.5m (£44.4m 2015/16) is 10.3% (16.5% 2015/16). This is a proxy for the cash generation required to fund the capital programme.

EBITDA excludes impairment costs of £1.2m (2015/16 £nil), see page 69 of Financial Statements.

The total comprehensive income in the year as disclosed in the SOCI is a surplus of £65.3m (2015/16 loss £5.3m). Of this surplus, £52.8m is as a result of the revaluation of land and buildings. Other notable items included an actuarial gain of £5.0m (2015/16 loss £20.8m) in actuarial valuation of the Local Government Pension Scheme (LGPS) due to an increase in corporate bond yields which are used to discount the scheme's future liabilities.

Similarly a gain of £2.7m (2015/16 loss £7.0m) in the fair value of hedging instruments reflects the long term view of the market that interest rates will rise and the stronger position of Sterling against the US Dollar compared to 2015/16. The interest rate swaps were acquired to enable the University to fix a proportion of the borrowings entered into in 2007. Foreign exchange derivatives are used to hedge against GBP/USD movement in respect of current assets investments. Pension and derivative liabilities are recorded on the Balance Sheet.

## Treasurer's Report (continued)

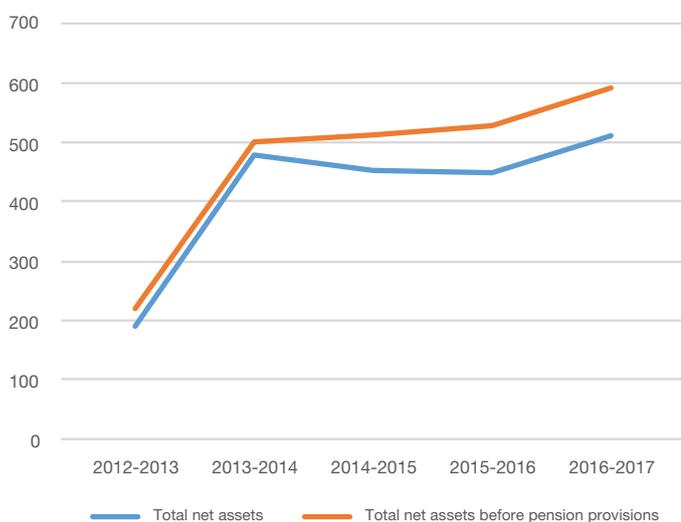
### Balance Sheet

Total net assets increased by £64.9m to £511.6m (2015/16 decreased by £5.6m) during the year. This is due to the revaluation of land & buildings (£52.8m) (£nil 2015/16) and both a gain of £5.0m (deficit £20.8m 2015/16) in the actuarial valuation of LGPS and in a reduction of £2.7m (increase £7.0m 2015/16) in the liability of derivatives.

Net debt fell by £13.5m to £48.2m (2015/16 increased by £17.6m to £61.7m) in the year. The fall in the net debt has resulted in the gearing ratio improving to 9%.

Cash and investments at 31 July 2017 were £122.2m, an increase £1.1m on the previous year. The University continues to assess its capital programme and cash requirements.

Net assets £m



### Risks and future prospects

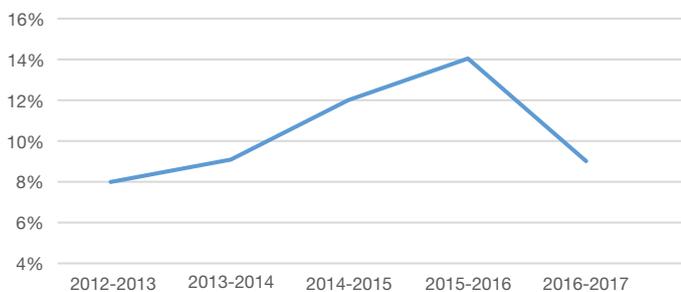
This report has highlighted the strong performance in both research and teaching that the University has achieved in this and recent years. This year has seen the continuation of the strategy to further enhance our teaching and research activities which is supported by strategies on people, infrastructure and finance.

The Statement of Internal Control (page 24) includes a description of how risk is managed by the University. The Executive Committee oversees risk management in the University and reports to Council on the risks that impact on the delivery of these strategies.

The outcome of negotiations for the UK to withdraw from the EU remain uncertain, although in the interim the position of EU students and their right to access loans has been confirmed for those starting their course in 2017.

The University is working hard to protect and communicate to our staff who originate from the EU. These staff make a valuable contribution to all aspects of the University and are integral to its success and culture. It is important that the University is able to continue to recruit and retain these staff.

Net debt as a percentage of total net assets



## Treasurer's Report (continued)

Further challenges exist with the demographic changes which result in a reduction in the number of 18 year old home students over the coming years. The University's strategy is to stabilise the intake of undergraduate students whilst maintaining the quality of the intake. Achieving a Gold TEF award means the University is recognised as offering excellent teaching and this recognition along with the University's continued high ranking in university league tables mitigates the risk of a fall in this intake.

Home and EU undergraduate tuition fees and the value and funding of higher education has become a high profile political debate since the General Election was announced earlier this year. The University supports the need for a system which is fair for students, universities and taxpayers alike. The introduction of higher fees in 2012 was accompanied with a reduction in government teaching and capital funding. Since its introduction the fee cap has increased by 2.8%, well below the increase in inflation over the same period. The University is concerned that any review of funding which results in universities income staying the same or reducing will result in a lower quality of service for students and a reduction in research capacity, quality and output.

The University will continue to develop its postgraduate taught offering in the coming years. The planned growth in postgraduate activity envisaged in the strategy has started with a promising increase in the 2017 intake.

Risks remain both in the uncertainty surrounding the Brexit settlement and the UK visa regime which I have highlighted in recent years.

Brexit also presents risks in the ability to access European research funding. The increased investment in UK research funding to support the Industrial Strategy is clearly welcome. Our University and the sector as a whole has a vital part to play in creating the innovations and economic growth that our country will need in the coming years.

To that end the University was delighted by the announcement in May 2017 of an award of £29m by Higher Education Funding Council for England (HEFCE) to contribute to the funding of a new research facility for IAAPS. This along with a further £10m from the Local Enterprise Partnership (LEP) will allow the University to establish the IAAPS facility. This is a very exciting opportunity for the University to deliver transformational global research supporting the UK car industry. Such an award highlights the University's strength in partnering with UK industry to deliver significant change.

The University's need to invest in IAAPS, along with an investment in a new building for the School of Management and student accommodation led it to enter into an agreement on 2 November 2017 with North Western Mutual Life Insurance Company & Met Life to borrow £100m.

The pricing achieved on this funding confirms the University remains well placed financially and has reported robust earnings in excess of its strategic target for several years. Nevertheless, very real cost pressures continue, most notably in pension costs, where the University is awaiting the outcome of the USS 2017 valuation which is expected to show a further deterioration in the schemes funding.

This is my last report as Treasurer. I leave the role of Treasurer with its 2016-21 strategy in place creating a stronger postgraduate and research profile and building on the strength of the undergraduate offer. Despite the risks and uncertainties there will be opportunities and the University's continuing commitment to quality, financial strength and high calibre staff, students and alumni give me confidence that the success of the last 50 years will continue to be reported by my successors.

**Peter Wyman**

Treasurer and Vice Chair of Council



# Public Benefit Statement 2016/17

## Charitable Purposes

Our **Mission** is to deliver world class research and teaching, educating our students to become future leaders and innovators, and benefiting the wider population through our research, enterprise and influence.

This Mission derives from our constitutional charitable **Objects** to “**advance learning and knowledge by teaching and research**, particularly in science and technology, and in close association with industry and commerce”. These Objects are set out in our Royal Charter of 1966 and constitute the University’s charitable purposes for the public benefit.

Members of the University Council, as trustees, have had due regard to the guidance on public benefit published by the Charity Commission in exercising their trustees’ powers or duties. The induction programme for new members of Council includes coverage of the Commission’s guidance. The full Council membership receives periodic briefings on regulatory matters, including the Charity Commission’s guidance.

Our statement in response to the Modern Slavery Act 2015 section 54(1) is published on our website at <http://www.bath.ac.uk/corporate-information/modern-slavery-and-human-trafficking-statement/>

Our commitment to delivering public benefit is at the core of our Mission. In furtherance of our Mission, our key objective continues to be to deliver excellence in our two primary charitable purposes, research and education.

Excellence in research, for us, means:

- Our research is internationally-renowned – tackling global challenges and attracting world-class researchers to work with us.
- Our research collaborations attract prestige academic and commercial partners – increasing our research power and extending our influence.
- Our enterprise and innovation delivers scientific and economic impact – benefiting communities locally, regionally, nationally and internationally.

- Our research environment is vibrant and supportive – nurturing talent from doctoral students and early career researchers through to established academics.
- Our culture is one of open enquiry and debate – challenging received wisdom and fostering the highest standards of research integrity.

Excellence in education, for us, means:

- Our teaching is inspiring and highly valued, delivered through a focussed range of curricula that are academically rigorous, research driven and practice-based.
- Our learning is enhanced through high-quality spaces, effective technologies, and support for students’ active participation.
- Our community is inclusive, supportive and engaged, enriched by the diverse and international backgrounds of our students and staff.
- Our students are empowered to make positive contributions to society – locally, nationally or internationally – through attributes including awareness, understanding, reflection and intellectual curiosity.
- Our graduates have high levels of personal, professional, and academic skills enabling them to fulfil their potential and thrive in their chosen employment.

## Research

In accordance with our Mission and charitable purposes, we aim to benefit society through our research. Our research ethos has a strong focus upon impact, tackling challenges of global significance from sustainability to health and wellbeing. Our faculty comprises some of the finest researchers from around the world. As established in our Royal Charter, we value research partnerships and work with business, industry, the professions, the public sector and the voluntary sector. Consequently, our research benefits a wide range of stakeholders with international as well as national beneficiaries, ranging from individuals with improved health to international corporates with more energy efficient products.

## Public Benefit Statement (continued)

Through advancing knowledge, the University's research has a wide range of public benefits:

- stimulating economic development;
- informing public policy and professional practice;
- innovating, informing and inspiring;
- advancing individual and societal wellbeing;
- building international connections.

The international excellence of the University's research was evidenced in 2014-15 by the outcomes of the Research Excellence Framework (REF) evaluation of research quality. In terms of the overall quality of our submission, 32% was judged to be 4\*, defined as world-leading in terms of originality, significance and rigor, with a total of 87% judged 4\*/3\*, defined as world-leading/internationally excellent. Our overall grade point average (GPA) was 3.17, placing us 12th in the research quality ranking of UK universities (excluding specialist institutions). The REF methodology also included a national evaluation of research impact for the first time and we performed strongly in this measure.

Our research continues to have tangible economic and social benefits, for example:

- Our automotive engineering research, with its 40-year history of industrial collaboration, has led directly to securing funding for IAAPS to be based at the Bristol and Bath Science Park. IAAPS will stimulate £67 million in R&D between 2020 and 2025, and will support nearly 1,900 new jobs.
- Our researchers have developed biodegradable microbeads from cellulose which could potentially replace the harmful plastic microbeads that are currently used in cosmetics and sunscreens thereby reducing oceanic microplastics pollution.

In continuing to invest in the strategic expansion of our research base we will increase its impact and, hence, its public benefit. In 2016/17, the value of our research portfolio was around £140 million. Around 60% of our research income is provided by UK research councils and these funders include impact in their criteria for evaluating grant applications. Consequently, the University has an objective view of the potential public benefit of much of its research.

We will continue to strengthen our international research links to enhance our international profile and our ability to sustain a world class research capability.

Further examples of how our research is delivering public benefit can be found at: <http://www.bath.ac.uk/research/>.

We believe that there is a clear secondary order public benefit in having an informed population, both nationally and internationally, particularly where complex global issues are concerned. We are proactive in engaging the media with our research work and publish stories online, as well as publishing media advisory notices, so that journalists can readily access expert comment on topical issues. We work proactively to ensure that our research is disseminated and understood beyond the world of academia. Our Institute for Policy Research has published a series of Policy Briefs which are circulated to key decision-makers. Our Public Engagement unit also plays a key role in disseminating our research. We offer a range of public lectures which are free to attend. We utilise a wide variety of media to disseminate knowledge beyond the confines of campus, including MOOCs (Massive Open Online Courses), Twitter and Facebook. Professor Saiful Islam, Department of Chemistry, gave the Royal Institution's Christmas Lectures in 2016. The University of Bath Festival on 6 May 2017, to celebrate our 50th Anniversary, provided a showcase for our research, sport and arts and was attended by 10,500 people.

### Teaching

In advancing and disseminating knowledge, the University's teaching has a wide range of public benefits:

- developing people;
- providing skills for the workforce;
- informing professional practice;
- innovating, informing and inspiring;
- building international connections.

## Public Benefit Statement (continued)

During 2016/17, the University was awarded Gold in Year 2 of the Teaching Excellence Framework and the TEF Panel found that: “The provider metrics supplemented by the submission indicate that students from all backgrounds achieve consistently outstanding outcomes. Very high proportions of students continue with their studies and progress to employment, highly skilled employment or further study, notably exceeding the provider benchmark. The metrics indicate outstanding levels of satisfaction with teaching on my course, academic support and assessment and feedback from a diverse body of students, notably exceeding the provider benchmarks.” This confirms that the main beneficiaries of our teaching (by volume), our undergraduates, are receiving a high quality experience.

We are a first choice university destination for students in an increasingly competitive, international recruitment market. Students are attracted by our excellent academic reputation, our outstanding graduate employment record, our world class sports facilities, and the wide array of other social, recreational and personal development opportunities we offer. Our ability to offer placement options across our discipline base, and with leading organisations, is one of the features that distinguishes us from other top UK research-intensive universities. Our graduates have excellent employment prospects, not only because of their discipline-specific knowledge and skills but also because of the emphasis we place on developing well-rounded, enterprising individuals with high aspirations. As a result, our graduates are well-equipped to contribute to economic growth and policy development, as well as making a positive social contribution. Graduate destination data for 2015/16 indicates that 87% of our employed full time UK first degree graduates were in the top three occupational groups, compared with 71% of employed graduates nationally (compared with 2014/15 figures of 86% and 71% respectively). The mean salary for our graduates was £26,000, which was £4,500 higher than the mean for all UK HE providers.

During 2016/17 we have focussed on enhancing the experience of all our student beneficiaries, creating new Learning Commons for undergraduates and

a new Graduate Commons for postgraduates. We have also been progressing plans to centralise the admissions process for postgraduate taught students and launch a new Doctoral College in 2017/18. In response to the high demand for our programmes, our student population has been growing. The growth in our core headcount student population between 2015/16 and 2016/17 was 5%. In 2016/17, our core student population comprised 12,097 undergraduates, 3,006 taught postgraduates and 1,314 research postgraduates.

Our students are key beneficiaries of our teaching activities and we measure our success in terms of their retention rates, their employability and their satisfaction. Our completion and employment rates are some of the best in the sector and we were ranked top University in the UK for student satisfaction in the 2015 Times Higher Education (THE) Student Experience Survey. Council receives annual reports on completion and employability performance. Our aim is to ensure that the percentage of our employed UK full-time first degree graduates in the top three occupational groups (professional or managerial jobs) remains above 80%. The latest available dataset relates to 2014/15 and the proportion of our graduates in the top three occupational groups was 85%. National data shows that the percentage of our full-time first degree entrants who continue or qualify with us is around 96% (Source: HESA Performance Indicators - Table T3a).

Beneficiaries of our teaching activities range from primary school age (aspiration raising/mentoring) through to mature learners (continuing professional development) and MOOCs and include undergraduates, taught postgraduates and research postgraduates. We recruit internationally and are committed to promoting a diverse student population.

Our goal is a socially inclusive and diverse student population. We support social mobility through a range of activities:

- **Aspiration raising and outreach activities for young people** from under-represented groups, with special emphasis on STEM (Science Technology Engineering Maths) subjects;

## Public Benefit Statement (continued)

- **Diversifying our curriculum offer**, delivery methods and modes of learning to attract a wider range of students;
- **Promoting access and minimising barriers to progression** by working to better understand and to mitigate the difficulties some applicants experience in achieving an offer from us;
- **Enhancing student services and support networks** to minimise barriers to success.

We recognise that undergraduate tuition fees may be a barrier to accessing our teaching. We publicise the financial support that we can provide to prospective students through our website and Open Days. In 2016/17 we provided £3.045m of financial support to 1,151 undergraduate students in the form of fee waivers and bursaries for individuals paying fees under the 2012 fee regime with a household residual income (HRI) of £22,000 or below. In addition, we provided £17k of financial support to 17 undergraduate students under the pre-2012 fee regime with HRI's of £50,000 and below. Our Alumni Fund provided £580k of financial support to 255 undergraduates (both pre- and post-2012 fee schemes) with an HRI of £42,875 and below. In total, £3.642m of means-tested financial support was awarded to 1,423 undergraduate students.

Employers are also beneficiaries of our teaching activities through the skillset of our graduates. In the QS world ranking, the University of Bath was ranked 160th in the world in the employer reputation performance measure. We also measure our success in delivering the skills that employers want in terms of our ability to maintain our network of placement sponsors.

The wider community also benefits from our ability to attract high quality, engaged students. Working in close partnership with the Students' Union, the University offers a wide range of opportunities for personal development, including volunteering, summer internships, personal development and

skills training. In providing a wide range of opportunities to learn through experience and enhance personal development and career prospects, we are producing graduates who are well-equipped to act as good citizens and members of local, national and international society.

The Bath Award, launched in 2009/10, provides an accreditation framework so that students can present all the transferable skills, competences and capabilities demonstrated through their extra-curricular activities to employers in a systematic fashion.

Students can volunteer to help with outreach activities, encouraging gifted and talented young people from socio-economic groups under-represented in HE, to raise their educational aspirations. We provide a supportive learning environment, with central student services and academic departments working in partnership, and have one of the highest retention and success rates in the UK. We have an excellent record for supporting students with disabilities to the successful completion of their studies. Our low non-continuation rates are reflected in our TEF metrics for our total full-time undergraduate population and also our population of students with disabilities. We encourage students from diverse backgrounds and provide financial support.

Students can also volunteer to help with our public engagement activities, particularly the annual 'Bath taps into Science' event in the city which is designed to enthuse members of the community about science.

We are keen to ensure that our students and graduates have a strong awareness of the environmental impact of their actions. Students in campus residences are encouraged to take part in an annual competition to reduce energy use and we are increasing opportunities for students to recycle waste materials.



## Public Benefit Statement (continued)

### Creativity, Enterprise and Innovation

The knowledge that we generate through our research and teaching activities can be exploited to achieve a number of public benefits:

- innovating, informing and inspiring;
- engaging communities and working in partnership;
- stimulating local economic and social development;
- building international connections.

We are sector leaders in knowledge exchange, applying fresh thinking to accelerate economic growth and social advances. Our Innovation Centre is helping to diversify the economic profile of the City by incubating high yield businesses.

Enterprise@Bath, a resource for the whole University community, is aimed at creating tomorrow's business leaders and fostering an innovative culture. It signposts sources of skills development, funding and support. We offer enterprise education for students and they are encouraged to develop entrepreneurial skills. A number of students develop business models or launch their own businesses whilst studying.

As part of our culture of creativity, enterprise and innovation, we seek to make a positive social, as well as economic, impact. We have outstanding sports facilities and offer a programme of community sport, TeamBath Tribe, encouraging young people in particular to engage in sporting activities. In April 2017, the University hosted the UK team trials for the Invictus Games. We also offer a public arts programme, including visual arts, theatre, dance and music.

### International Engagement

We believe that there is a benefit to our academic activities and, hence our charitable objectives, in having a truly international culture on campus. Our international culture also has benefits locally

and regionally. Our ability to attract internationally renowned researchers contributes to our capacity to contribute to the regional and national knowledge economy. Through our international connections we can provide a conduit to disseminate best international practice and cutting edge research locally, regionally and nationally. We also believe that a culturally diverse student population makes a positive impact on the experience of all of our students. As we celebrated our 50th Anniversary in 2016/17, we hosted 28 academic conferences on campus with 3,524 delegates attending. The speakers and delegates represented over 40 countries.

In addition to the international profile of our teaching and research activities, we are forging international connections through our alumni network and our world class sports facilities. We have over 100,000 alumni, representing 169 countries. Our alumni are encouraged to make philanthropic donations to enhance the student experience, our physical infrastructure and our research capacity. This enhances our capacity to deliver our charitable objectives. During 2016/17, the University started construction work on the Milner Centre for Evolution, having received its largest ever philanthropic donation of £5.6 million from Dr Jonathan Milner.

### Public Detriment

We are the second largest employer in Bath & North East Somerset (BANES), with around 3,300 employees. Our 2016 Staff Satisfaction Survey showed that 87% of respondents thought the University was a good place to work. In 2015/16, we commissioned Oxford Economics to undertake an evaluation of the economic impact that we have on the BANES area. Its report estimated that in 2014/15, we contributed £294 million to the B&NES' GDP (around 6.2% of its economic output).

We do not believe that there is any direct harm or detriment to the public arising from our Mission and corporate goals. However, our success in attracting students does mean that our student population puts a significant demand on the residential

## Public Benefit Statement (continued)

accommodation in the BANES area. During 2016/17, we liaised with BANES Council to ensure that our growth ambitions could be factored into its new Place Making Plan. We hold three meetings a year of the Local Residents' Forum to ensure that our nearest neighbours are well briefed on our capital plans and our programme of events for campus. In this way, we try to mitigate the impact of our activities on our immediate community.

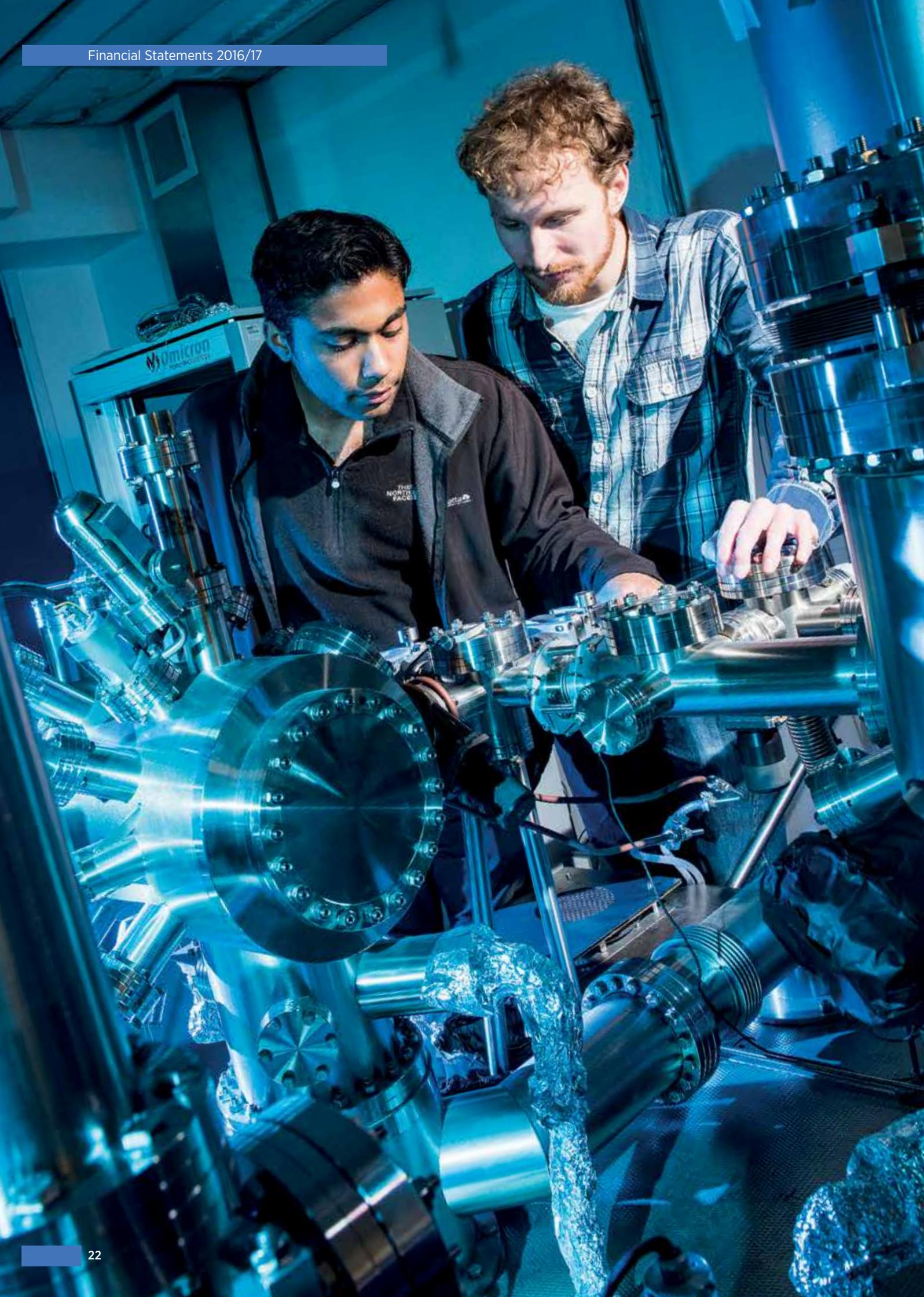
We also recognise that our activities have environmental consequences and we have made a number of commitments to promote effective environmental management:

- continually improve our environmental performance as far as the constraints of our physical infrastructure and estate will permit;
- make the most efficient and effective use of all resources, encouraging members of our community to develop a sustainable approach;
- minimise carbon emissions from regular commuting to and from campus by encouraging the use of public transport, cycling or walking;
- implement effective energy and water conservation measures;
- reduce overall waste production and increase the recycled component of the waste stream;
- implement a procurement policy that includes consideration of sustainability in all tender evaluations;
- work with our suppliers to help us achieve our sustainable and socially responsible procurement policy aspirations in the delivery of our products and services;
- support the principles of fair trade and maintain our Fairtrade status;
- manage our grounds in an environmentally and biodiversity-sensitive manner.

We are fully committed to minimising carbon emissions and were the first UK HEI to undertake the Carbon Trust's Higher Education Carbon Management process in its 'pre-pilot' phase in 2003. Our initial carbon reduction target was to reduce CO<sub>2</sub> emissions from gas combustion and electricity usage by 12.5% from a 2003/04 baseline of 0.11 tonnes/m<sup>2</sup> building floor area by 2010, which we achieved

by December 2010. In 2015/16, Council agreed to monitor four Key Performance Indicators in relation to sustainability – total carbon emissions (total impact), carbon emissions per m<sup>2</sup> GIA (efficiency measure), total water use, and water use per m<sup>2</sup> GIA. During 2016/17, Council noted that the University's energy and water usage was lower than 10 years' earlier despite the expansion of the physical infrastructure on campus. Carbon emissions in 2015/16 had decreased by 16% since 2010.

We seek to promote the highest standards of scientific and professional integrity and to give due consideration to the ethical, social and environmental issues arising from our activities. In 2016/17, we published our third annual statement on research integrity. In advancing knowledge to improve health and wellbeing, we undertake various projects in medical research and medically-associated biological research. This work is funded by the Medical Research Council, the Biotechnology and Biological Sciences Research Council, and major medical charities including the Wellcome Trust, Cancer Research UK, British Heart Foundation, Arthritis Research UK and Diabetes UK. Research in the UK involving vertebrate animals is regulated, within the framework of the Animals (Scientific Procedures) Act 1986, by the Home Office Animals Scientific Procedures Division and Inspectorate. All work on vertebrate animals is conducted under Home Office Licence. This means that any projects we undertake have been through an ethical review process, and have then been assessed by a Home Office Inspector. The University is committed to the three Rs – Refinement, Reduction and Replacement of experiments involving animals.



# Corporate Governance

The University is committed to exhibiting good practice in all aspects of corporate governance. The University complies with the Higher Education Code of Governance adopted by the Committee of University Chairs (CUC) in December 2014. The University is an exempt charity within the meaning of schedule 3 of the Charities Act 2011.

This summary describes the manner in which it has applied the principles set out in the Code. Its purpose is to help the reader of the accounts understand how the principles have been applied.

## Summary of the University's Structure of Corporate Governance

The University's governing body is its Council. This comprises lay, academic and non-academic persons, appointed under the Statutes of the University, the majority of whom are non-executive. The lay roles of Chair of Council and Treasurer are separated from the role of the University's Chief Executive, the Vice-Chancellor. The matters specifically reserved to the Council for decision are set out in the Statutes of the University, and under the Memorandum of Assurance and Accountability (MAA) with the HEFCE. The Council, with the Senate, determines the ongoing strategic direction of the University; it approves major developments and receives regular reports from executive officers on the day-to-day operations of its business and its subsidiary companies.

The University is an exempt charity as defined by the Charities Act 2011 and members of its Council are therefore trustees of the charity. The HEFCE acts as principal regulator in respect of the University's status as a charity.

Council normally meets five times a year. Its committees include Finance Committee, Nominations Committee, Remuneration Committee and Audit Committee. All of these committees are formally constituted with terms of reference and include lay members of Council, one of whom is the chair.

The Finance Committee, inter alia, recommends to Council the University's annual revenue budget and capital expenditure and receives updates to the estimates during the course of a year. It also supervises the investment activity of the University.

The Nominations Committee considers nominations for membership of Council and its Committees, including the key roles of Chair of Council, Pro-Chancellor and Treasurer.

The Remuneration Committee meets at least once a year, typically in June. Additional meetings are convened as necessary. The terms of reference of the Remuneration Committee can be found at: <http://www.bath.ac.uk/statutory-bodies-committees/bodies-and-committees-council/remuneration/>. The Remuneration Committee has delegated authority from Council to determine the remuneration of the Vice-Chancellor, Deputy Vice-Chancellor & Provost, Pro-Vice-Chancellors, Deans of Faculties/School, the Director of Finance, the University Secretary and the Director of Estates. It is chaired by the Chair of Council. For the period of this report its membership also included the Treasurer, two independent members of Council (elected by Council) and the Vice-Chancellor (other than when her own remuneration is under consideration). This membership is consistent with the Committee of University Chairs (CUC) Higher Education Code of Governance. The Director of Human Resources attends as adviser and secretary to the Committee.

The Remuneration Committee has a range of information available at its meetings, including details of the current remuneration and benefits of the postholders within its remit, senior salary benchmarking data provided by the Universities and Colleges Employers' Association (UCEA) and performance data. The Committee considers the Chair of Council's (in the case of the Vice-Chancellor) or Vice-Chancellor's (in the case of other staff) assessment of performance, and considers affordability and the safeguarding of public funds, when establishing remuneration levels.

## Corporate Governance (continued)

The minutes of Remuneration Committee meetings are submitted to Council at its next meeting as a report of the business of the Committee. The Remuneration Committee would also consider any severance payments to senior staff earning in excess of £100k per year in accordance with HEFCE Guidance.

The Audit Committee, on behalf of Council, has an ongoing programme for reviewing the effectiveness of the University's system of internal control. It is responsible for meeting with the external auditors and the internal auditor of the University and reviews and discusses reports issued. The Committee considers detailed reports together with recommendations for the improvement of the University's systems of internal control and management's response and implementation plans and monitors the progress of these plans. It also receives and considers reports from the HEFCE, as they affect the University's business, and monitors adherence with the regulatory requirements. Whilst senior executives do attend meetings of the Audit Committee as necessary, they are not members of the Committee, and the Committee meets with the external auditors on their own for independent discussions.

In accordance with the CUC Higher Education Code of Governance, Council keeps its effectiveness under regular review. An interim effectiveness review of Council was undertaken during 2014/15. It concluded that the University may have a high level of confidence in the effectiveness of Council. Its recommendations have now been implemented; the next full review will take place in 2017/18.

Members of Council sign an annual declaration of guiding principles stating that they will act in accordance with the University's guidance on corporate governance and with the 'Nolan Principles of Public Life' as referred to in the CUC Higher Education Code of Governance. A register of interests is maintained and updated annually.

### Statement of Internal Control

As the governing body of the University of Bath, the Council has responsibility for maintaining a sound system of internal control that supports the achievement of policies, aims and objectives, while safeguarding the public and other funds and assets for which it is responsible, in accordance with the responsibilities assigned to it in the Charter and Statutes and the Memorandum of assurance and accountability with HEFCE.

The system of internal control is designed to manage rather than eliminate the risk of failure to achieve policies, aims and objectives; it can therefore only provide reasonable and not absolute assurance of effectiveness.

The University has established the following processes in relation to its risk management policy and for reviewing the effectiveness of the system of internal control:

- Council normally meets five times a year to consider the plans and strategic direction of the University;
- Council has established that the Executive Committee, the senior management team of the University, be the body that oversees risk management at the institution;
- Risk management forms part of the planning process of the University and covers all risks – governance, management, quality, reputational and financial;
- Faculties and key professional service departments have risk registers in place, which are updated annually as part of the planning process;
- The University maintains a corporate risk register which is updated annually and progress on improvement actions is reviewed. The risk register includes an evaluation of the likelihood and impact of risks becoming a reality;
- Council receives a report reviewing the corporate risk register at each of its meetings. Annually, it receives an overall report for the year, and an updated register;

## Corporate Governance (continued)

- Council annually reviews the effectiveness of the risk management process and internal controls;
- The Audit Committee receives regular reports from the Head of Internal Audit on specific areas of internal control together with recommendations for improvement. Audit planning arrangements and the methodology and approach of internal audit conforms to the latest professional standards reflecting the adoption of risk management techniques.

Council's review of the effectiveness of the system of internal control is informed by the Internal Audit unit, which operates to standards defined in the HEFCE Audit Code of Practice. The internal auditors submit regular reports, which include the Head of Internal Audit's independent opinion on the adequacy and effectiveness of the system of internal control, together with recommendations for improvement.

HEFCE published a report on 20 November 2017 into matters of governance affecting senior remuneration at the University. It confirmed that the Remuneration Committee met the basic requirements of HEFCE and CUC guidance but that there was scope for improvement in the way in which it operates, particularly in terms of its transparency.

At the meeting of Council on 30 November 2017 the Council accepted the recommendations in the report and agreed certain changes to remuneration governance. It will consider in May 2018 the outcome of the full effectiveness review commissioned by Council at its October 2017 meeting, to be conducted by an independent consultant, and that review will explicitly include consideration of all the recommendations in the HEFCE report.

Council's review of the effectiveness of the system of internal control is also informed by the work of the executive managers within the institution, who have responsibility for the development and maintenance of the internal control framework, and by comments made by the external auditors in their management letter and other reports.

The system of internal control is based on an ongoing process designed to identify the principal risks to the achievement of policies, aims and objectives; to evaluate the nature and extent of those risks; and to manage them efficiently, effectively and economically. This process has been in place for the year ended 31 July 2017 and up to the date of approval of the financial statements, has operated effectively throughout the year and accords with HEFCE guidance.



# Statement of Responsibilities of the University's Council

In accordance with the University's Charter of Incorporation, the Council of the University is responsible for the administration and management of the affairs of the Group and is required to present audited financial statements for each financial year.

The primary responsibilities of the Council are:

- approving the mission and strategic vision of the institution, long-term business plans, key performance indicators (KPIs) and annual budgets, and ensuring these meet the interests of stakeholders;
- appointing the head of the institution as chief executive of the institution and putting in place suitable arrangements for monitoring his or her performance;
- ensuring the establishment and monitoring of systems of control and accountability, including financial and operational controls and risk assessment, and clear procedures for handling internal grievances and for managing conflicts of interest;
- monitoring institutional performance against plans and approved KPIs, which should be, where possible and appropriate, benchmarked against other institutions.

The Council is responsible for keeping proper accounting records which disclose with reasonable accuracy at any time the financial position of the Group and enable it to ensure that the financial statements are prepared in accordance with the University's Charter of Incorporation, the FE/HE SORP, and other relevant accounting standards. In addition, within the terms and conditions of the MAA between the HEFCE and the Council of the University, the Council, through its designated office holder, is required to prepare financial statements for each financial year which give a true and fair view of the state of affairs of the University and Group and of the

surplus or deficit and cash flows for that year.

Council is responsible for the maintenance and integrity of the corporate and financial information included on the University's website. Council notes that legislation in the UK governing the preparation and dissemination of financial statements may differ from legislation in other jurisdictions.

In causing the financial statements to be prepared, the Council has ensured that:

- suitable accounting policies are selected and applied consistently;
- judgements and estimates are made that are reasonable and prudent;
- applicable accounting standards have been followed, subject to any material departures disclosed and explained in the financial statements;
- financial statements are prepared on the going concern basis unless it is inappropriate to presume that the Group will continue in operation. The Council is satisfied that the Group has adequate resources to continue in operation for the foreseeable future; for this reason the going concern basis continues to be adopted in the preparation of the financial statements.

The Council has taken reasonable steps to:

- ensure that funds from the HEFCE are used only for the purposes for which they have been given and in accordance with the MAA with HEFCE, and any other conditions which the Funding Council may from time to time prescribe;
- ensure that there are appropriate financial and management controls in place to safeguard public funds and funds from other sources;
- safeguard the assets of the Group and prevent and detect fraud and other irregularities;
- secure the economical, efficient and effective management of the Group's resources and expenditure.

# Statement of Equality Objectives 2016-18

(revised May 2017)

- 1 Increase to 18% the proportion of women professors, taking steps at all levels to attract, retain and promote able women academics.
- 2 Secure the University's reaccreditation for Athena Scientific Women's Academic Network (SWAN) (at least bronze level) in 2017 and support all STEM departments to achieve and maintain awards by 2018, secure at least one departmental silver award, improving the outcomes for women academics.
- 3 Achieve a year-on-year reduction in the attainment gap for Black, Asian and Minority Ethnic (BAME) students.
- 4 Improve provision for disabled students by way of enhanced physical access and more inclusive teaching practices.
- 5 Address and reduce the incidents at the University of harassment and bullying among students.
- 6 Deliver the targets in the access agreement to increase the proportion of home students from lower Socio-Economic Classifications (SECs) and Low Participation neighbourhoods.
- 7 Secure enhanced equality and diversity engagement across departments.
- 8 Foster greater awareness of those with a religion.
- 9 Analyse, develop and implement actions to further Race Equality.



# Membership of University of Bath Council

(between 1st August 2016 and 30th November 2017)

Mr Thomas Sheppard	Chair of Council
Baroness Royall of Blaisdon	Pro-Chancellor (until 31 July 2017)
Mr Peter Troughton	Pro-Chancellor
Sir Julian Horn-Smith	Pro-Chancellor
Mr Roger Whorrod	Pro-Chancellor (from 1 August 2017)
Mr Peter Wyman	Treasurer and Vice-Chair
Professor Dame Glynis Breakwell	President and Vice-Chancellor
Professor Bernie Morley	Deputy Vice-Chancellor & Provost
Dr Aki Salo	Chair of Academic Assembly
Dr Michael Hipkins	Appointed by Council (until 31 July 2017)
Mr Tim Ford	Appointed by Council (from 1 January 2017)
Mrs Ruth Foreman	Appointed by Council (from 1 August 2017)
Professor Barry Gilbertson	Appointed by Council
Ms Anne Goodman	Appointed by Council
Mr John Stanion	Appointed by Council
Mr Sam Sharpe	Appointed by Council
Mr John Preston	Appointed by Council
Baroness Ruby McGregor-Smith	Appointed by Council (from 1 January 2017)
Mrs Catherine Mealing-Jones	Appointed by Council
Mrs Christine Gibbons	Appointed by Convocation
Professor Tim Ibell	Elected by Senate (until 31 July 2017)
Professor David Bird	Elected by Senate (from 1 August 2017)
Professor James Davenport	Elected by Senate (until 31 July 2017)
Dr Nina Parish	Elected by Senate (until 31 July 2017)
Dr Alison Nightingale	Elected by Senate (from 1 August 2017)
Ms K Robinson	Elected by Senate (from 1 August 2017)
Professor Danae Stanton Fraser	Elected by Senate (from 1 August 2017)
Dr Steve Wharton	Elected by Academic Assembly
Miss Claire Marr	Elected by non-Academic Staff (until 25 November 2016)
Dr Chris Roche	Elected by non-Academic Staff (from 1 February 2017)
Miss Lucy Woodcock	Student Member (President) (until 20 June 2017)
Mr Ben Davies	Student Member (President) (from 21 June 2017)
Mr Ben Davies	Student Member (Education Officer) (until 20 June 2017)
Miss Chloe Page	Student Member (Education Officer) (from 21 June 2017)

# Independent Auditors' Report to the Council of the University of Bath

## Report on the Audit of the financial statements

### Opinion

In our opinion, University of Bath's group financial statements and the parent institution financial statements (the "financial statements"):

- give a true and fair view of the state of the group's and of the parent institution's affairs as at 31 July 2017 and of the group's and parent's income and expenditure, gains and losses, changes in reserves and cash flows for the year then ended;
- have been properly prepared in accordance with United Kingdom Generally Accepted Accounting Practice (United Kingdom Accounting Standards, comprising FRS 102 "The Financial Reporting Standard applicable in the UK and Republic of Ireland", and applicable law); and
- have been properly prepared in accordance with the requirements of the Statement of Recommended Practice – Accounting for Further and Higher Education and the 2016/17 HEFCE Accounts Direction.

We have audited the financial statements, which comprise the Consolidated and University Balance Sheets as at 31 July 2017; the Consolidated and University Statement of Comprehensive Income, the Consolidated and University Statement of Changes in Reserves for the year then ended; the Consolidated Cash Flow Statement for the year then ended; the Consolidated and University Statement of Principal Accounting Policies; and the notes to the financial statements, which include other explanatory information.

### Basis of opinion

We conducted our audit in accordance with International Standards on Auditing (UK) ("ISAs (UK)") and applicable law. Our responsibilities under ISAs (UK) are further described in the Auditors' responsibilities for the audit of the financial statements section of our report. We believe that the

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

### Independence

We remained independent of the group in accordance with the ethical requirements that are relevant to our audit of the financial statements in the UK, which includes the FRC's Ethical Standard, and we have fulfilled our other ethical responsibilities in accordance with these requirements.

### Conclusions relating to going concern

We have nothing to report in respect of the following matters in relation to which ISAs (UK) require us to report to you when:

- the Council's use of the going concern basis of accounting in the preparation of the financial statements is not appropriate; or
- the Council has not disclosed in the financial statements any identified material uncertainties that may cast significant doubt about the group and parent institution's ability to continue to adopt the going concern basis of accounting for a period of at least twelve months from the date when the financial statements are authorised for issue.

However, because not all future events or conditions can be predicted, this statement is not a guarantee as to the group and parent institution's ability to continue as a going concern.

### Reporting on other information

The other information comprises all of the information accompanying the financial statements and our auditors' report thereon. The Council is responsible for the other information. Our opinion on the financial statements does not cover the other information and, accordingly, we do not express an audit opinion or, except to the extent otherwise explicitly stated in this report, any form of assurance thereon.

# Independent Auditors' Report to the Council of the University of Bath (continued)

In connection with our audit of the financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated. If we identify an apparent material inconsistency or material misstatement, we are required to perform procedures to conclude whether there is a material misstatement of the financial statements or a material misstatement of the other information. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report based on these responsibilities.

Based on the responsibilities described above and our work undertaken in the course of the audit, ISAs (UK) require us also to report certain opinions and matters as described below.

## Responsibilities for the financial statements and the audit

### Responsibilities of the Council for the financial statements

As explained more fully in the Statement of Responsibilities of the University's Council set out on page 26, the Council is responsible for the preparation of the financial statements in accordance with the applicable framework and for being satisfied that they give a true and fair view. The Council is also responsible for such internal control as they determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the Council is responsible for assessing the group and parent institution's ability to continue as a going concern,

disclosing as applicable, matters related to going concern and using the going concern basis of accounting unless the Council either intends to liquidate the group and parent institution or to cease operations, or has no realistic alternative but to do so.

### Auditors' responsibilities for the audit of the financial statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors' report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs (UK) will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

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

## Use of this report

This report, including the opinions, has been prepared for and only for the Council as a body in accordance with the Charters and Statutes of the institution, and for no other purpose. We do not, in giving these opinions, accept or assume responsibility for any other purpose or to any other person to whom this report is shown or into whose hands it may come save where expressly agreed by our prior consent in writing.

# Independent Auditors' Report to the Council of the University of Bath (continued)

## Other required reporting

Opinions on other matters prescribed in the HEFCE Audit Code of Practice issued under the Further and Higher Education Act 1992

In our opinion, in all material respects:

- funds from whatever source administered by the institution for specific purposes have been properly applied to those purposes and, if relevant, managed in accordance with relevant legislation;
- income has been applied in accordance with the institution's statutes; and
- funds provided by HEFCE have been applied in accordance with the Memorandum of Assurance and Accountability, and any other terms and conditions attached to them.

### Other matters on which we are required to report by exception

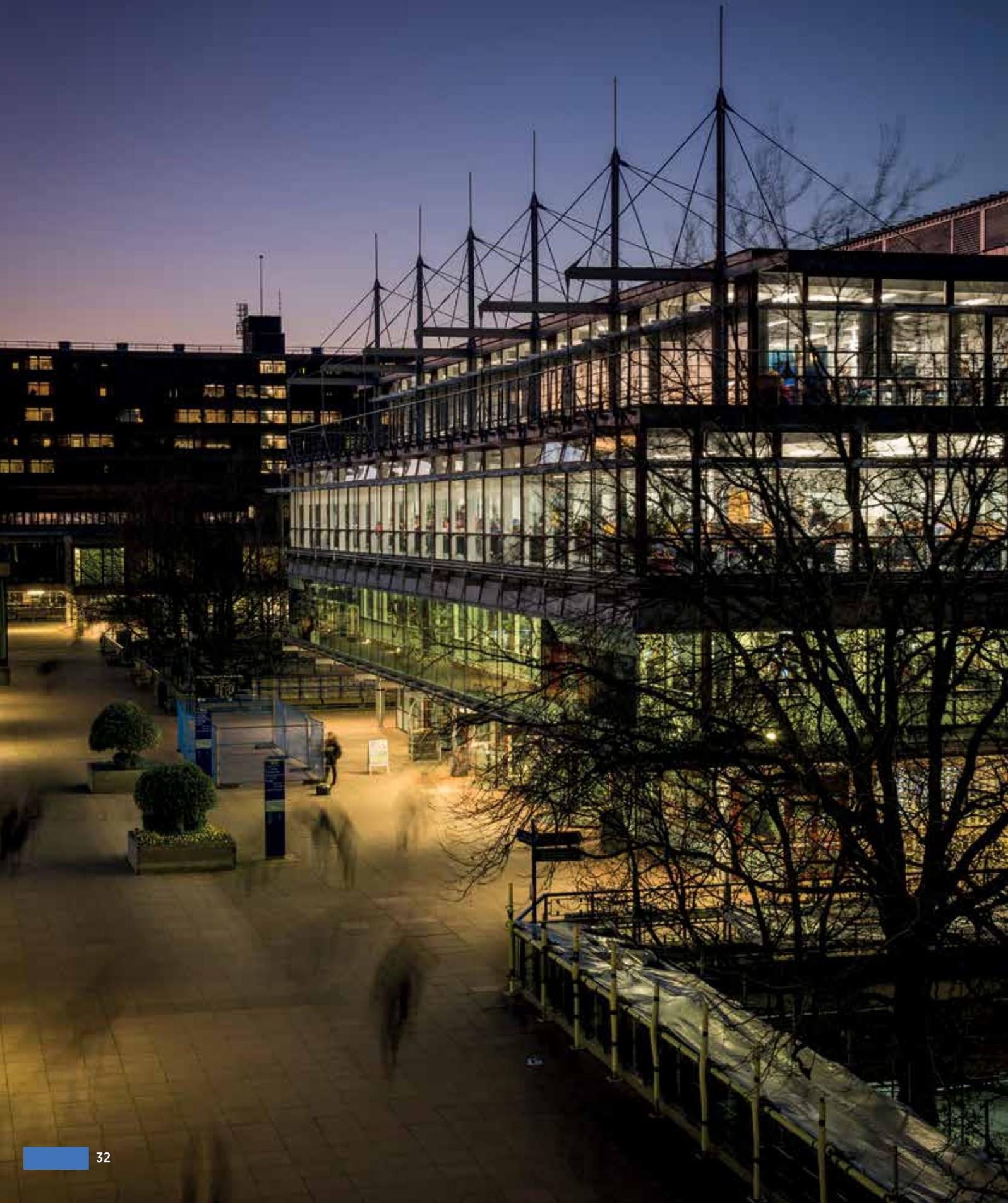
Under the HEFCE Audit Code of Practice issued under the Further and Higher Education Act 1992 we are required to report to you if, in our opinion, the statement of internal control included as part of the Corporate Governance Statement is inconsistent with our knowledge of the parent institution and group. We have no exceptions to report from this responsibility.

#### **Mark Ellis (Senior Statutory Auditor)**

PricewaterhouseCoopers LLP  
Chartered Accountants and Statutory Auditors  
Bristol

30 November 2017





# Consolidated and University Statement of Principal Accounting Policies

## 1 Basis of preparation

The financial statements have been prepared in accordance with both the FE/HE SORP and with FRS 102). The University is a public benefit entity and therefore has applied the relevant public benefit requirements of FRS102.

The financial statements are prepared under the historical cost convention (modified by the revaluation of fixed assets, non-current and current asset investments and derivative financial instruments).

A prior year adjustment was posted as set out in note 28.

As the Group has substantial reserves and is forecasting continuing surpluses, the financial statements have been prepared on a going concern basis.

## 2 Basis of consolidation

These financial statements consolidate the results of the University and its subsidiary undertaking for the financial year to 31 July 2017.

The consolidated financial statements do not include those of the University of Bath Students' Union as it is a separate organisation over which the University does not exert control nor exercise dominant influence over policy decisions.

## 3 Recognition of income

Income from the sale of goods or services is credited to the SOCI when the goods or services are supplied to the external customer or the terms of the contract have been satisfied.

Fee income is stated gross of any expenditure which is not a discount and credited to the SOCI over the period in which the students are studying. Bursaries and scholarships are accounted for gross as expenditure and not deducted from income.

All income from short-term investments and deposits (including those held as endowments) is credited to the SOCI on a receivable basis.

## Grant funding

Grant funding, including Funding Council grant; research grants from government sources; and grants (including research grants) from non-government sources are recognised as income when the University is entitled to the income and performance related conditions have been met. Income received in advance of the performance related condition being met is recognised as deferred income within creditors on the balance sheet and released to income as the conditions are met.

## Donations and endowments

Non exchange transactions without performance related conditions include donations and endowments. Those with donor imposed restrictions are recognised in income when the University is entitled to the funds. Income is retained within the restricted reserve until such time that it is utilised in line with such restrictions, at which point the income is released to the general reserve through a reserve transfer. Donations freely given, with no donor imposed restriction, are recognised in income when the University is entitled to the funds.

There are four main types of donations and endowments identified within reserves:

- Restricted donations – the donor has specified that the donation must be used for a particular objective.
- Unrestricted permanent endowments – the donor has specified that the fund is to be permanently invested to generate an income stream for the general benefit of the University.
- Restricted expendable endowments - the donor has specified a particular objective other than the purchase or construction of tangible fixed assets, and the University has the power to use this capital.
- Restricted permanent endowments – the donor has specified that the fund is to be permanently invested to generate an income stream to be applied to a particular objective.

## Consolidated and University Statement of Principal Accounting Policies (continued)

### Capital grants

Capital grants are recognised as income when the University is entitled to the income and performance related conditions have been met.

## 4 Accounting for retirement benefits

The two principal pension schemes in which the University participates are USS and the Avon Pension Fund (APF), part of LGPS.

Throughout current and preceding periods, both these schemes are defined benefit only schemes and externally funded. The assets of these schemes are held in separate trustee-administered funds. Each fund is valued every three years by professionally qualified independent actuaries.

### Defined benefit scheme

Defined benefit schemes are post-employment benefit schemes other than defined contribution schemes. The University's obligation is to provide the agreed benefits to current and former employees, and actuarial risk (that benefits will cost more or less than expected) and investment risk (that returns on assets set aside to fund the benefits will differ from expectations) are borne, in substance, by the University. The University should recognise a liability for its obligations under defined benefit schemes net of scheme assets. This net defined benefit liability is measured as the estimated amount of benefit that employees have earned in return for their service in the current and prior periods, discounted to determine its present value, less the fair value (at bid price) of scheme assets. The calculation is performed by a qualified actuary using the projected unit credit method. Where the calculation results in a net asset, recognition of the asset is limited to the extent to which the University is able to recover the surplus either through reduced contributions in the future or through refunds from the scheme.

### Defined contribution scheme

Defined contribution schemes are post-employment benefit schemes under which the University pays fixed contributions into a separate entity and will have no legal or constructive obligation to pay further amounts. Obligations for contributions to defined contribution pension schemes are recognised as an expense in the

SOCI in the periods during which services were rendered by employees.

### Universities Superannuation Scheme (USS)

The USS is a multi-employer scheme for which it is not possible to identify the University's share of the underlying assets and liabilities due to the mutual nature of the scheme. Therefore the University accounts as if it were a defined contribution scheme, so that the amount charged to the SOCI represents the contributions payable to the scheme in the accounting period.

A liability is recorded within Provisions for the discounted fair value of the contractual contributions under the deficit recovery plan in existence at the balance sheet date.

### Local Government Pension Scheme (LGPS)

The LGPS is a funded scheme. The assets of the LGPS are measured using the closing fair values. LGPS liabilities are measured using the projected unit credit method and discounted at the current rate of return on a high quality corporate bond of the equivalent term to the liabilities. The actuarial valuations are obtained at least triennially and are updated at each balance sheet date. The amounts charged to the operating surplus are the current service costs and the cost of scheme introductions, benefit charges, settlements and curtailments. They are included as part of staff costs as incurred. Net interest on the net defined benefit liability/asset is also recognised in the SOCI and comprises the interest cost on the defined benefit obligation and interest income on the schemes assets, calculated by multiplying the fair value of the schemes assets at the beginning of the period by the rate used to discount the benefit obligations.

## 5 Employee benefits

Short-term employment benefits, such as salaries and compensated absences (paid annual leave) are recognised as an expense in the year in which the employees render service to the University. Any unused benefits are accrued and measured as the additional amount the University expects to pay as a result of the unused entitlement.

## Consolidated and University Statement of Principal Accounting Policies (continued)

### 6 Foreign currency

Transactions denominated in foreign currencies are translated using the rate of exchange ruling at the dates of the transactions. Monetary assets and liabilities denominated in foreign currencies are translated at the rates of exchange ruling at the end of the financial period, with all resulting exchange differences being recognised in the SOCI. Exchange differences arising on the translation of a financial liability designated as an effective hedge against a foreign denominated investment are recognised in the SOCI as Other Comprehensive Income.

### 7 Leases

Operating leases are where the University does not assume substantially all the risks and rewards of ownership, rental costs under operating leases are charged to the SOCI as the costs are incurred. Any lease premium or incentives are spread over the minimum lease term.

Finance leases are where the University assumes substantially all the risks and rewards of ownership of the asset. Leased assets acquired by way of a finance lease and the corresponding lease liability are initially recognised at an amount equal to the lower of their fair value and the present value of the minimum lease payments at inception of the lease. Minimum lease payments are apportioned between the finance charge and the reduction of the outstanding liability. The finance charge is allocated to each period during the lease so as to produce a constant rate of interest on the remaining balance of the liability.

### 8 Fixed Assets

#### Land and Buildings

Land and buildings are measured using the revaluation model. Under the revaluation model, assets are revalued to fair value. The University has a policy of ensuring a full revaluation takes place at least every five years such that the market value is not materially different to the current value. The basis of the valuation is a combination of depreciated replacement cost, existing use and open market value depending on the nature of the property.

Freehold and Leasehold land are not depreciated as they are considered to have an indefinite useful life.

Buildings are depreciated over a maximum period of 50 years. The remaining expected life of buildings is reviewed annually by an appropriately qualified member of the Estates department and, where material, the accumulated and future depreciation is adjusted in accordance with FRS15. Land and building additions since the last valuation and assets in the course of construction are valued at cost. Depreciation commences at the beginning of the year following occupation.

Building refurbishments are depreciated over the remaining expected life of the building in which the refurbishment takes place, up to a maximum of 25 years. At the next revaluation the entire building will be re-lived as appropriate.

Assets under the course of construction are all valued at cost and include a mixture of new buildings and refurbishments and improvements to existing buildings.

Interest is capitalised where it is incurred in the construction of new buildings which are substantially funded by loans arranged by the University. The cost is depreciated in line with the building.

#### Equipment

Equipment costing less than £25k per individual item is written off in the year of acquisition unless it forms part of a group of related items or part of a capital project, in which case it is capitalised.

Capitalised equipment is stated at cost or, where donated, at valuation, and depreciated, on a straight line basis, as follows:

General equipment	5 years
Furniture	5 years
Catering equipment	7 years
Equipment required for specific grants	project life (generally 3 years)

Where equipment is donated, the asset is recorded at valuation. The donation is recorded as income in the SOCI in the year it is received.

## Consolidated and University Statement of Principal Accounting Policies (continued)

### 9 Maintenance of Premises

The cost of routine corrective maintenance and planned maintenance are both charged to the SOCI in the period it is incurred. The University has a planned maintenance programme, which is reviewed on an annual basis.

### 10 Investments

Non-current and current asset investments are held at fair value where this can be readily determined and cost where no market exists. Those investments with a maturity of 3 months or less are shown as cash and cash equivalents. The fair value movement in non-current and current asset investments is recognised in the SOCI.

### 11 Derivatives

The University uses derivative financial instruments to reduce exposure to interest rate movements on its loans and foreign exchange movements on its investments. These derivatives are not held for speculation purposes and relate to actual assets or liabilities. Derivatives are held on the Balance Sheet at fair value. The University has adopted and complied with the requirements of hedge accounting and as a result movements in fair values are recorded within other comprehensive income where the hedging arrangement is effective and in interest payable where it is deemed to be ineffective.

### 12 Stocks

Stocks are stated at the lower of cost and net realisable value.

### 13 Cash and Cash Equivalent

Cash includes cash in hand, deposits repayable on demand and overdrafts. Deposits are repayable on demand if, in practice, they are available within 24 hours without penalty.

Cash equivalents are short term, highly liquid investments that are readily convertible to known amounts of cash with insignificant risk of change in value.

Assets that form Endowment funds are included within Cash at Bank or Investments as appropriate.

### 14 Provisions, Contingent Liabilities and Contingent Assets.

Provisions are recognised in the financial statements when

- a) the University has a present (legal or constructive) obligation as a result of a past event;
- b) it is probable that a transfer of economic benefit will be required to settle the obligation; and
- c) a reliable estimate can be made of the amount of the obligation.

The amount recognised as a provision is determined by discounting the expected future cash flow at a pre-tax rate that reflects risks specific to the liability.

Contingent liabilities arise from a past event that gives the University a possible obligation whose existence will only be confirmed by the occurrence or otherwise of uncertain future events not wholly within the control of the University. Contingent liabilities also arise in circumstances where a provision would otherwise be made but either it is not probable that an outflow of resource will be required or the amount of the obligation cannot be measured reliably.

A contingent asset arises where an event has taken place that gives the University a possible asset whose existence will only be confirmed by the occurrence or otherwise of uncertain future events not wholly within the control of the University

Contingent assets and liabilities are not recognised in the Balance Sheet but disclosed in the notes when required.

## Consolidated and University Statement of Principal Accounting Policies (continued)

### 15 Taxation Status

The University is an exempt charity within the meaning of Schedule 3 of the Charities Act 2011. It is therefore a charity within the meaning of Paragraph 1 Schedule 6 Finance Act 2010 and therefore it meets the definition of a charitable company for UK corporation tax purposes. Accordingly, the University is potentially exempt from taxation in respect of income or capital gains received within categories covered by section 478-488 of the Corporation Tax Act 2010 or section 256 of the Taxation of Chargeable Gains Act 1992, to the extent that such income or gains are applied to exclusively charitable purposes.

The University receives no similar exemption in respect of VAT. Irrecoverable VAT on inputs is included in the costs of such inputs. Any irrecoverable VAT allocated to fixed assets is included in their cost.

The University's subsidiary companies are subject to corporation tax and VAT in the same way as any commercial organisation.

### 16 Key sources of estimation uncertainty and judgements in applying accounting policies.

Key sources of estimation uncertainty:

- **Fixed Assets**

Land and buildings are held at fair value. A periodic valuation exercise is undertaken by an external qualified chartered surveyor to ensure the carrying value of the assets are not materially different to their fair value. Tangible fixed assets, other than investment properties, are depreciated over their remaining useful economic lives taking into account residual value, where appropriate, see note 13 for the carrying amount of the property, plant and equipment. The remaining useful economic life of an asset and any residual value are assessed annually by a qualified member of staff and may vary depending on a number of factors. In reassessing asset lives, factors such as technological innovation and maintenance programmes are taken into account.

- **Local Government Pension Scheme (LGPS)**

The present value of the LGPS defined benefit liability depends on a number of factors that are determined on an actuarial basis using a variety of assumptions. The assumptions used in determining the net cost (income) for pensions include the discount rate. Any changes in these assumptions, which are disclosed in note 26, will impact the carrying amount of the pension liability. Sensitivity analysis is also included in note 26 based on the assumptions used. Furthermore a roll forward approach which projects results from the latest full actuarial valuation performed at 31 March 2016 has been used by the actuary in valuing the pensions liability at 31 July 2017. Any differences between the figures derived from the roll forward approach and a full actuarial valuation would impact on the carrying amount of the pension liability.

- **Universities Superannuation Scheme (USS)**

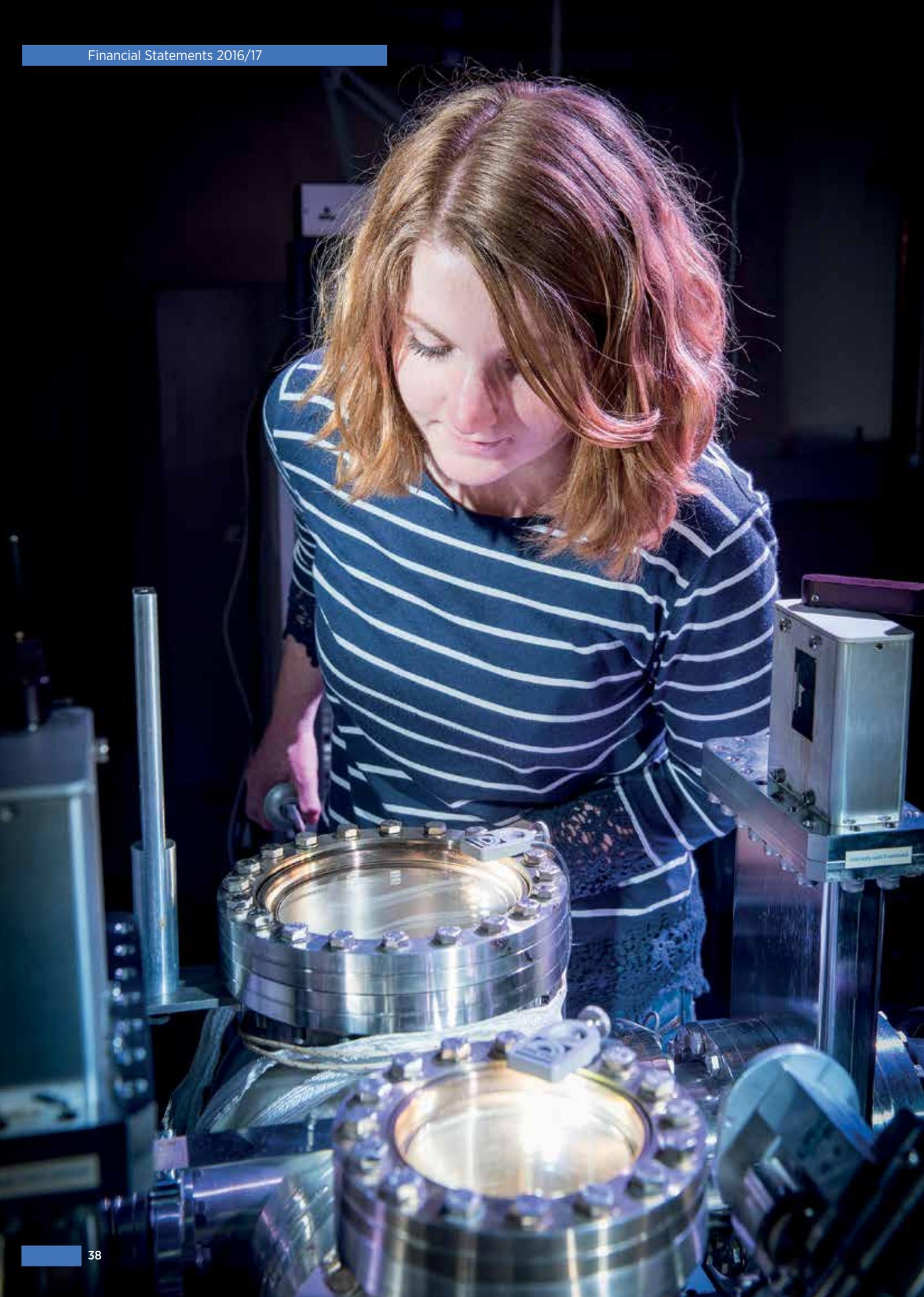
The present value of the USS provision depends on a number of estimates used by management in respect of discount rate, future salary increases and numbers of staff in USS. Any changes in these assumptions, which are disclosed in note 21 will impact the carrying amount of the pension liability. Sensitivity analysis is also included in note 26 based on the assumptions used.

- **Impairment of debtors**

The University makes an estimate for the recoverable value of trade and other debtors. When assessing impairment of trade and other debtors, management considers factors including the current credit rating of the debtor, the ageing profile of debtors and historical experience. See note 15 for the net carrying amount of the debtors and associated impairment provision.

Critical accounting judgements in applying the University's accounting policies:

- There are no such judgements in either the current year or prior year.



# Consolidated and University Statement of Comprehensive Income

for the year ended 31 July 2017

	Note	<i>Consolidated</i>		<i>University</i>	
		2017 £m	2016 £m	2017 £m	2016 £m
<b>Income</b>					
Tuition fees and education contracts	1	<b>148.8</b>	139.4	<b>148.8</b>	139.4
Funding body grants	2	<b>31.9</b>	35.2	<b>31.9</b>	35.2
Research grants and contracts	3	<b>35.1</b>	35.7	<b>35.1</b>	35.7
Other income	4	<b>47.2</b>	49.8	<b>47.2</b>	49.8
Investment income	6	<b>1.0</b>	0.5	<b>1.0</b>	0.5
<b>Total income before endowments and donations</b>		<b>264.0</b>	260.6	<b>264.0</b>	260.6
Donations & endowments	7	<b>2.8</b>	2.6	<b>2.8</b>	2.7
<b>Total income</b>		<b>266.8</b>	263.2	<b>266.8</b>	263.3
<b>Expenditure</b>					
Staff costs	8	<b>143.6</b>	131.6	<b>143.6</b>	131.6
Other operating expenses	9	<b>95.4</b>	86.0	<b>95.4</b>	86.0
Depreciation	9	<b>24.1</b>	22.1	<b>24.6</b>	22.6
Interest and other finance costs	11	<b>5.0</b>	9.4	<b>5.0</b>	9.4
<b>Total expenditure</b>		<b>268.1</b>	249.1	<b>268.6</b>	249.6
(Deficit)/surplus before gains and losses		<b>(1.3)</b>	14.1	<b>(1.8)</b>	13.7
Increase/(decrease) in market value of non current asset investment	14	<b>0.3</b>	<b>(0.4)</b>	<b>0.3</b>	<b>(0.4)</b>
Increase in market value of current asset investments	16	<b>5.8</b>	8.5	<b>5.8</b>	8.5
<b>Surplus for the year</b>		<b>4.8</b>	22.2	<b>4.3</b>	21.9
Actuarial gain/(loss) in respect of pension scheme	26	<b>5.0</b>	(20.8)	<b>5.0</b>	(20.8)
Change in the fair value of tangible fixed assets	13	<b>52.8</b>	-	<b>52.8</b>	-
Gain/(loss) in the fair value of derivatives	20	<b>2.7</b>	(7.0)	<b>2.7</b>	(7.0)
<b>Total Comprehensive Income/(expense) in the year</b>		<b>65.3</b>	(5.6)	<b>64.8</b>	(5.9)
<b>Represented by</b>					
Endowment comprehensive income	22	<b>0.8</b>	0.1	<b>0.8</b>	0.1
Restricted comprehensive income	23	<b>(0.1)</b>	0.1	<b>(0.1)</b>	0.1
Unrestricted comprehensive income		<b>11.8</b>	(5.8)	<b>11.3</b>	(6.1)
Revaluation reserve comprehensive income		<b>52.8</b>	-	<b>52.8</b>	-
<b>Total Comprehensive Income/(expense) in the year</b>		<b>65.3</b>	(5.6)	<b>64.8</b>	(5.9)

## Consolidated and University Statement of Changes in Reserves

for the year ended 31 July 2017

### CONSOLIDATED

	Endowment Reserve £m	Restricted Reserve £m	Restated Unrestricted Reserve £m	Restated Revaluation Reserve £m	Total £m
At 1 August 2015	5.1	1.9	173.5	271.9	452.4
Depreciation on revalued assets - prior years	-	-	6.1	(6.7)	(0.6)
Surplus from income and expenditure statement	0.1	0.1	22.0	-	22.2
Depreciation on revalued assets	-	-	7.5	(7.5)	-
Other comprehensive expenditure	-	-	(27.8)	-	(27.8)
<b>At 31 July 2016</b>	<b>5.2</b>	<b>2.0</b>	<b>181.3</b>	<b>257.7</b>	<b>446.2</b>
At 1 August 2016	5.2	2.0	181.3	257.7	446.2
(Deficit)/surplus from income and expenditure statement	0.8	(0.1)	4.1	-	4.8
Depreciation on revalued assets	-	-	7.5	(7.5)	-
Other comprehensive income	-	-	7.7	52.8	60.5
<b>At 31 July 2017</b>	<b>6.0</b>	<b>1.9</b>	<b>200.6</b>	<b>303.0</b>	<b>511.5</b>

### UNIVERSITY

	Endowment Reserve £m	Restricted Reserve £m	Restated Unrestricted Reserve £m	Restated Revaluation Reserve £m	Total £m
At 1 August 2015	5.1	1.9	174.9	271.9	453.8
Depreciation on revalued assets - prior year	-	-	6.7	(6.7)	-
Surplus from income and expenditure statement	0.1	0.1	21.7	-	21.9
Depreciation on revalued assets	-	-	7.5	(7.5)	-
Other comprehensive income	-	-	(27.8)	-	(27.8)
<b>At 31 July 2016</b>	<b>5.2</b>	<b>2.0</b>	<b>183.0</b>	<b>257.7</b>	<b>447.9</b>
(Deficit)/Surplus from income and expenditure statement	0.8	(0.1)	3.6	-	4.3
Depreciation on revalued assets	-	-	7.5	(7.5)	-
Other comprehensive income	-	-	7.7	52.8	60.5
<b>At 31 July 2017</b>	<b>6.0</b>	<b>1.9</b>	<b>201.8</b>	<b>303.0</b>	<b>512.7</b>

Depreciation on revalued assets-prior year represents the revaluation element of depreciation charged in the SOCI that should have transferred to the Revaluation reserve in 2013/14.

## Consolidated and University Balance Sheets

as at 31 July 2017

	Note	Consolidated		University	
		2017 £m	Restated 2016 £m	2017 £m	Restated 2016 £m
<b>Non-current assets</b>					
Fixed assets	13	<b>677.0</b>	625.9	<b>678.1</b>	627.5
Investments	14	<b>1.7</b>	1.4	<b>1.7</b>	1.4
		<b>678.7</b>	627.3	<b>679.8</b>	628.9
<b>Current assets</b>					
Stock		<b>0.3</b>	0.7	<b>0.5</b>	0.8
Trade and other receivables	15	<b>16.5</b>	16.1	<b>16.5</b>	16.1
Investments	16	<b>115.5</b>	110.4	<b>115.5</b>	110.4
Cash and cash equivalents		<b>6.7</b>	10.7	<b>6.5</b>	10.7
		<b>139.0</b>	137.9	<b>139.1</b>	138.0
<b>Creditors : Amounts falling due within one year</b>	17	<b>(60.8)</b>	(54.7)	<b>(60.8)</b>	(54.7)
<b>Net current assets</b>		<b>78.2</b>	83.2	<b>78.3</b>	83.3
<b>Total assets less current liabilities</b>		<b>756.9</b>	710.5	<b>758.1</b>	712.2
<b>Creditors : Amounts falling due after more than one year</b>	18	<b>(165.3)</b>	(180.0)	<b>(165.3)</b>	(180.0)
<b>Provisions</b>					
Pension provision	21	<b>(80.1)</b>	(84.3)	<b>(80.1)</b>	(84.3)
<b>Total net assets</b>		<b>511.5</b>	446.2	<b>512.7</b>	447.9
<b>Restricted reserves</b>					
Income & Expenditure reserve - Endowment reserve	22	<b>6.0</b>	5.2	<b>6.0</b>	5.2
Income & Expenditure reserve - Restricted reserve	23	<b>1.9</b>	2.0	<b>1.9</b>	2.0
<b>Unrestricted reserves</b>					
Income & Expenditure reserve - Unrestricted reserve		<b>200.6</b>	181.3	<b>201.8</b>	183.0
Revaluation reserve		<b>303.0</b>	257.7	<b>303.0</b>	257.7
<b>Total reserves</b>		<b>511.5</b>	446.2	<b>512.7</b>	447.9

The Financial Statements on pages 33 to 68 were approved by the Council on 30 November 2017 and signed on its behalf by:

**Professor Dame Glynis Breakwell**  
President and Vice-Chancellor

**Mr Peter Wyman**  
Treasurer and Vice Chair of Council

## Consolidated Cash Flow Statement

for the year ended 31 July 2017

		Consolidated	
	Note	2017 £m	2016 £m
<b>Cash flow generated from operating activities</b>			
Surplus for the year		4.8	22.2
<b>Adjustment for non-cash items</b>			
Depreciation	13	24.1	22.1
Impairment of tangible fixed assets	9	1.1	-
(Decrease) in USS pension provision	21	(1.0)	(0.5)
LGPS pension costs less contributions paid	26	0.5	1.8
Loss/(gain) on non-current asset investments	14	(0.3)	0.4
(Gain) on current investments	16	(5.8)	(8.5)
(Gain)/loss on hedging arrangements	11	(1.5)	2.4
Decrease in stock		0.4	0.2
(Increase)/decrease in operational debtors	15	(0.5)	2.2
(Decrease)/increase in operating creditors	17	5.1	(0.6)
<b>Adjustment for investing or financing activities</b>			
Investment income	6	(1.0)	(0.5)
Interest payable	11	4.6	5.0
New endowment income	7	(0.4)	(0.2)
Capital grant income	2 & 4	(4.0)	(7.6)
<b>Net cash inflow from operating activities</b>		<b>26.1</b>	<b>38.3</b>
<b>Cash flow from investing activities</b>			
Investment income	6	1.0	0.5
Payments made to acquire fixed assets		(24.4)	(53.3)
Capital grant receipts		3.2	7.3
Net (acquisitions)/disposals of current asset investments	16	(0.7)	20.7
New non-current asset investments	14	-	(0.2)
<b>Net cash outflow from investing activities</b>		<b>(20.9)</b>	<b>(25.0)</b>
<b>Cash flow from funding activities</b>			
Interest paid	11	(4.6)	(5.0)
New endowment cash received	7	0.4	0.2
Repayments of amounts borrowed	19	(5.0)	(2.1)
<b>Net cash outflow from funding activities</b>		<b>(9.2)</b>	<b>(6.9)</b>
<b>(Decrease)/increase in cash and cash equivalents in the year</b>		<b>(4.0)</b>	<b>6.5</b>
Cash and cash equivalents at the beginning of the year		10.7	4.2
Cash and cash equivalents at the end of the year		6.7	10.7
		<b>(4.0)</b>	<b>6.5</b>



## Notes to the Financial Statements

### 1 TUITION FEES AND EDUCATION CONTRACTS

	Consolidated & University	
	2017 £m	2016 £m
Full-time UK higher education students	78.6	70.6
Full-time EU higher education students	12.5	11.9
Full time overseas higher education students	43.9	43.1
Part-time higher education students	4.9	4.7
Short course fees	1.9	2.0
Research training support grants and other fees	7.0	7.1
	<b>148.8</b>	<b>139.4</b>

### 2 FUNDING BODY GRANTS

	Consolidated & University	
	2017 £m	2016 £m
<b>Recurrent Grants</b>		
HEFCE	27.2	27.9
Joint Information Systems Committee (JISC)	-	0.1
<b>Specific Grants</b>		
HEFCE	0.8	0.2
<b>Capital Grant</b>		
HEFCE	3.9	7.0
	<b>31.9</b>	<b>35.2</b>

### 3 RESEARCH GRANTS AND CONTRACTS

	Consolidated & University	
	2017 £m	2016 £m
Research Councils	19.7	20.4
UK charitable bodies	2.1	2.2
European Commission	4.8	4.5
Other sponsors	8.5	8.6
	<b>35.1</b>	<b>35.7</b>

RDEC income £nil (2015/16 £0.2m).

Research income includes £1.3m (2015/16 £2.7m) expended on equipment which has been capitalised in the year

## Notes to the Financial Statements (continued)

**4 OTHER INCOME**

	Consolidated & University	
	2017 £m	2016 £m
Residences, catering and conferences	29.7	30.0
Other services rendered (note 5)	7.8	8.5
Retail income	4.4	4.6
Miscellaneous grants	0.6	1.3
Rents	0.5	0.7
Other capital grants receivable	0.1	0.6
VAT recovery	0.4	0.9
Health and hospital authorities	0.2	0.3
Car parking	0.6	0.6
Westwood Nursery	0.5	0.4
Income from intellectual property rights	0.2	0.2
Other income	2.2	1.7
	<b>47.2</b>	<b>49.8</b>

**5 OTHER SERVICES RENDERED**

	Consolidated & University	
	2017 £m	2016 £m
Academic departments & centres	1.7	2.3
Computing, library & other academic services	0.9	1.0
Sports and related facilities	4.7	4.6
Other	0.5	0.6
	<b>7.8</b>	<b>8.5</b>

**6 INVESTMENT INCOME**

	Consolidated & University	
	2017 £m	2016 £m
Investment income on endowments	0.1	0.1
Net income from short-term investments	0.5	(0.1)
Other investment income	0.4	0.5
	<b>1.0</b>	<b>0.5</b>

**7 DONATIONS & ENDOWMENTS**

	Consolidated & University	
	2017 £m	2016 £m
New endowments	0.4	0.2
Donations with restrictions	1.5	1.7
Unrestricted donations	0.9	0.7
	<b>2.8</b>	<b>2.6</b>

## Notes to the Financial Statements (continued)

**8 STAFF COSTS**

	<b>Consolidated &amp; University</b>	
	<b>2017</b>	<b>2016</b>
	<b>£m</b>	<b>£m</b>
Salaries	118.0	110.4
Social security costs	10.7	8.8
Other pension costs	19.0	16.1
	<b>147.7</b>	<b>135.3</b>
Less: paid on behalf of other organisations	(4.0)	(3.6)
Less: capitalised within the cost of buildings	(0.1)	(0.1)
	<b>143.6</b>	<b>131.6</b>
<b>Emoluments of the Vice-Chancellor</b>		
	<b>2017</b>	<b>2016</b>
	<b>£000</b>	<b>£000</b>
Salary	401	388
Salary in lieu of pension contributions	61	54
Benefits in kind	9	9
	<b>471</b>	<b>451</b>
Pension contributions	-	-
	<b>471</b>	<b>451</b>

The University has made available to the Vice-Chancellor during the year a loan as a cost-effective means of providing the benefits to which she is contractually entitled. The loan was in existence at the start of the year and the balance remained unchanged throughout the year at £31,489. The cost to the University of providing the loan is included in the Vice-Chancellor's emoluments.

**Remuneration of other higher paid staff**

Remuneration of other higher paid staff, excluding employer's pension contributions and before salary sacrifice arrangements are:

£	<b>2017</b>	<b>Restated</b>
	<b>Number</b>	<b>2016</b>
		<b>Number</b>
£100,000 - £109,999	23	14
£110,000 - £119,999	9	5
£120,000 - £129,999	1	1
£130,000 - £139,999	2	5
£140,000 - £149,999	2	1
£150,000 - £159,999	2	1
£160,000 - £169,999	2	1
£170,000 - £179,999	2	2
£180,000 - £189,999	1	2
£190,000 - £199,999	1	-

## Notes to the Financial Statements (continued)

**8 STAFF COSTS (continued)**

	<b>Consolidated &amp; University</b>	
<b>Average staff numbers by major category:</b>	<b>2017</b>	2016
	<b>Number</b>	Number
Education & research	<b>1,188</b>	1,133
Technical & experimental	<b>141</b>	136
Management, specialist & administrative	<b>1,074</b>	1,025
Operational & facilities support	<b>525</b>	511
	<b>2,928</b>	2,805

**Key management personnel**

The Vice-Chancellor's Group represents the University's key management personnel. It is this group which has the authority and responsibility for planning, directing and controlling the activities of the University.

	<b>2017</b>	2016
	<b>£m</b>	£m
Key management personnel	<b>1.8</b>	1.9

Compensation includes remuneration and all employer benefits paid or payable in exchange for services provided by its key management personnel in the year.

**9 ANALYSIS OF EXPENDITURE BY ACTIVITY**

	<b>Staff Costs</b>	<b>Other Operating Expenditure</b>	<b>Depreciation</b>	<b>Interest Payable</b>	<b>2017 Total</b>	2016 Total
	<b>£m</b>	<b>£m</b>	<b>£m</b>	<b>£m</b>	<b>£m</b>	<b>£m</b>
Academic departments	74.8	20.1	1.3	-	<b>96.2</b>	89.2
Academic services	14.4	9.9	1.1	-	<b>25.4</b>	24.7
Central administration	12.1	4.8	0.1	-	<b>17.0</b>	14.5
General educational expenditure	2.6	15.3	-	-	<b>17.9</b>	15.5
Staff & student facilities	5.1	2.5	0.5	-	<b>8.1</b>	7.6
Premises	6.8	13.1	13.2	1.9	<b>35.0</b>	30.6
Residences, catering & retail operations	8.6	15.2	5.5	2.6	<b>31.9</b>	31.3
Research grants and contracts	15.2	8.1	2.4	-	<b>25.7</b>	25.5
Other services rendered	3.2	4.8	-	0.1	<b>8.1</b>	5.4
Other expenses	0.8	1.6	-	0.4	<b>2.8</b>	4.8
<b>Consolidated</b>	<b>143.6</b>	<b>95.4</b>	<b>24.1</b>	<b>5.0</b>	<b>268.1</b>	<b>249.1</b>
<b>University of Bath</b>	<b>143.6</b>	<b>95.4</b>	<b>24.6</b>	<b>5.0</b>	<b>268.6</b>	<b>249.6</b>

## Notes to the Financial Statements (continued)

**9 ANALYSIS OF EXPENDITURE BY ACTIVITY (continued)**

Other Operating Expenses include :	Consolidated & University	
	2017	2016
	£	£
External Auditors Remuneration (Group and University)		
- Audit Services - Consolidated financial statements	60,000	59,621
- Grant claims	-	22,740
- Other fees	3,500	39,530
- United States federal loan	2,750	1,650
	<b>66,250</b>	<b>123,541</b>
Virgil Building refurbishment costs	4,298,809	-
Impairments following land & building 2017 valuation	3,930,738	-
Reversal of impairments following land & building 2017 valuation	(2,778,325)	-

Refurbishment costs for the Virgil Building exceeded the external valuation provided at 31 July 2017 and were therefore charged in the year as maintenance costs in operating expenses

Reimbursements to Council Members for expenditure incurred whilst carrying out their duties amounted to £6,942 (2015/16 £5,050)

Council Members did not receive any remuneration from the University.

**10 RELATED PARTY TRANSACTIONS**

Due to the nature of the University's operations and the composition of the Council (being drawn from local public and private sector organisations), it is inevitable that transactions will take place with organisations in which a member of Council may have an interest. All transactions involving organisations in which a member of the Council may have an interest that took place in the year were conducted at arm's length and in accordance with the University's financial regulations and normal procurement procedures.

**Universities Superannuation Scheme Ltd (USS)**

USS provide a pension scheme for University staff, details of the transactions with USS are disclosed in note 26. Professor Dame Glynis Breakwell and Dr Steve Wharton are Directors of USS.

**Economic and Social Research Council (ESRC)**

The ESRC is the UK's largest organisation funding research on economic and social issues. In 2016/17 the University received £0.91m (2015/16 £0.65m) from the ESRC. The current portfolio value of ESRC awards at 31 July 2017 is £2.43m (2016 £1.87m) at 31 July 2017 the University was owed £10,598.07 (2016 £nil). Professor Dame Glynis Breakwell is a member of the ESRC Council.

## Notes to the Financial Statements (continued)

**11 INTEREST AND OTHER FINANCE COST**

	<b>Consolidated &amp; University</b>	
	<b>2017</b>	<b>2016</b>
	<b>£m</b>	<b>£m</b>
Loans not wholly repayable within five years	4.6	5.0
Change in discounted value of future USS payments (note 21)	0.5	0.8
Change in the fair value of derivatives (note 20)	(1.5)	2.4
Net interest on LGPS (note 26)	1.4	1.2
	<b>5.0</b>	<b>9.4</b>

**12 CAPITAL COMMITMENTS**

	<b>Consolidated &amp; University</b>	
	<b>2017</b>	<b>2016</b>
	<b>£m</b>	<b>£m</b>
Provision has not been made for the following capital commitments at 31 July 2017		
<b>Capital Commitments</b>		
Funded by :-		
University funds	35.8	7.9
Capital commitments contracted at 31 July	<b>35.8</b>	<b>7.9</b>

## Notes to the Financial Statements (continued)

## 13 FIXED ASSETS

	Consolidated						Total Restated £m
	Land and Buildings Long		Equipment	Assets in the Course of Construction Buildings	Assets in the Course of Construction Equipment		
	Freehold	Leasehold					
	£m	Restated £m	£m	£m	£m	£m	
<b>Valuation/Cost</b>							
At 1 August 2016	14.9	614.2	72.8	16.5	1.7	720.1	
Additions at Cost	-	1.5	4.9	17.6	0.5	24.5	
Disposals	-	-	(2.6)	-	-	(2.6)	
Impairments	(1.7)	0.9	-	0.3	-	(0.5)	
Reclassifications	0.9	19.9	2.5	(21.1)	(2.2)	-	
<b>At 31 July 2017</b>	<b>14.1</b>	<b>636.5</b>	<b>77.6</b>	<b>13.3</b>	<b>-</b>	<b>741.5</b>	
<b>Accumulated Depreciation</b>							
At 1 August 2016	1.5	32.6	60.2	-	-	94.2	
Charge in Year	0.6	17.2	5.9	0.3	0.1	24.1	
Disposals	-	-	(2.6)	-	-	(2.6)	
Revaluations	(2.0)	(49.2)	-	-	-	(51.2)	
Reclassifications	-	0.4	-	(0.3)	(0.1)	-	
<b>At 31 July 2017</b>	<b>0.1</b>	<b>1.0</b>	<b>63.5</b>	<b>-</b>	<b>-</b>	<b>64.5</b>	
<b>Net Book Value</b>							
<b>At 31 July 2017</b>	<b>14.0</b>	<b>635.5</b>	<b>14.1</b>	<b>13.3</b>	<b>-</b>	<b>677.0</b>	
At 1 August 2016	13.5	581.6	12.6	16.5	1.7	625.9	

The University revalued its freehold and leasehold land & buildings as at 31 July 2017, the valuation was carried out by Eddisons Commercial Limited, an external Chartered Surveyor on the basis of Depreciated Replacement Cost (DRC) or Market Valuation (MV) according to the nature and use of each building. The valuation was prepared in accordance with the Valuation Standards published by the Royal Institute of Chartered Surveyors (RICS).

The movement in land and building values following the revaluation is written back through the reversal of accumulated depreciation charged since the previous valuation exercise.

A prior year adjustment was posted as set out in note 28

## Notes to the Financial Statements (continued)

**13 FIXED ASSETS (continued)**

	University					Total £m
	Land and Buildings		Equipment £m	Assets in the Course of Construction Buildings £m	Assets in the Course of Construction Equipment £m	
	Freehold £m	Long Leasehold £m				
<b>Valuation/Cost</b>						
At 1 August 2016	14.9	616.6	72.8	16.5	1.7	722.4
Additions at cost	-	1.5	4.9	17.6	0.5	24.5
Disposals	-	-	(2.6)	-	-	(2.6)
Impairments	(1.6)	0.9	-	0.3	-	(0.4)
Reclassifications	0.9	19.9	2.5	(21.1)	(2.2)	-
<b>At 31 July 2017</b>	<b>14.3</b>	<b>638.9</b>	<b>77.6</b>	<b>13.3</b>	<b>0.0</b>	<b>743.9</b>
<b>Accumulated Depreciation</b>						
At 1 August 2016	1.5	33.3	60.2	-	-	95.0
Charge in year	0.6	17.7	5.9	0.3	0.1	24.6
Disposals	-	-	(2.6)	-	-	(2.6)
Revaluations	(2.0)	(49.2)	-	-	-	(51.2)
Reclassifications	-	0.4	-	(0.3)	(0.1)	-
<b>At 31 July 2017</b>	<b>0.1</b>	<b>2.2</b>	<b>63.5</b>	<b>-</b>	<b>-</b>	<b>65.8</b>
<b>Net book value</b>						
<b>At 31 July 2017</b>	<b>14.2</b>	<b>636.7</b>	<b>14.1</b>	<b>13.3</b>	<b>-</b>	<b>678.1</b>
At 1 August 2016	13.4	583.3	12.6	16.5	1.7	627.5

Freehold and Leasehold Land and Buildings measured by valuation at 31 July 2017 includes the following historical cost:

	Consolidated & University	
	2017 £m	2016 £m
Freehold land and buildings	11.8	5.4
Leasehold land and buildings	459.5	329.4

Leasehold land and buildings includes land with a value of £82.6m which is not depreciated.

Equipment includes assets donated to the University. These are valued at market value as at the date when they were received.

## Notes to the Financial Statements (continued)

**14 NON CURRENT ASSET INVESTMENTS**

	<b>Consolidated &amp; University</b>	
	<b>2017</b>	<b>2016</b>
	<b>£m</b>	<b>£m</b>
At 1 August 2016		
Other investments	1.4	1.6
Acquisition of investments	-	0.2
Movement in market value	0.3	(0.4)
At 31 July 2017		
Other investments	<b>1.7</b>	<b>1.4</b>

**Subsidiary companies**

The University owns 100% of the following company which is registered in England:-

<i>Company Name</i>	<i>Principal Activities</i>	<i>Share holding</i>	<i>Year end</i>
University of Bath Three Ltd	Dormant	100 £1 ordinary	31 July

The consolidated results of the group incorporate those of the University of Bath Foundation Ltd, a not-for-profit organisation registered in the United States to fundraise in that country. The University owns 100% of the Foundation.

		<b>Consolidated &amp; University</b>	
		<b>2017</b>	<b>2016</b>
		<b>£000</b>	<b>£000</b>
<i>Included above:</i>			
CVCP Properties plc	1 Ordinary shares	36	36
Atlas Genetics Ltd	600 Ordinary shares (0.1p)	104	8
CiteAb Ltd	15,000 Ordinary shares (0.1p)	20	20
Glythera Ltd	53,288 Ordinary shares (0.1p)	277	277
Bath Crescent Seedcorn Fund (BCSF)		1,268	1,064
		<b>1,705</b>	<b>1,405</b>

## Notes to the Financial Statements (continued)

**14 NON CURRENT ASSET INVESTMENTS (continued)**

*The University holds the following investments as part of the Bath Crescent Seedcorn*

<b>Company</b>	<b>No. of shares</b>	<b>% Holding at 31 July 2017</b>	<b>% Holding at 31 July 2016</b>	<b>Fair Value £000</b>	<b>Type of shares</b>
Atlas Genetics Ltd	1,178	0.3%	0.6%	225	Ordinary shares; Series B Shares; Series B dividend
Azellon Ltd	12,967	1.5%	1.5%	14	A Ordinary shares
CiteAb Ltd	40,000	23.8%	23.8%	50	Ordinary shares
Glythera Ltd	33,289	12.8%	12.8%	173	Ordinary shares
Graphcore Ltd	3,547	0.0%	0.0%	1	A Ordinary
Ilika plc	26,356	0.0%	0.0%	9	Ordinary shares
KWS Biotest Ltd	3900	4.4%	4.4%	390	B shares
Perpetuum Ltd	141,868	0.5%	0.5%	70	Ordinary shares
Boxarr	3,705	0.6%	0.6%	36	Ordinary shares
Revolymmer plc	294,010	0.4%	0.4%	67	Ordinary shares
Symetrica Ltd	8,257	1.9%	1.9%	153	Ordinary shares; A Ordinary shares
Diversus Technology	-	0.0%	0.0%	30	Loan
Ceryx Medical Ltd	-	0.0%	0.0%	50	Convertible loan
				<b>1,268</b>	

Percentage holding is calculated on fully diluted ordinary shares ranking pari passu with each other.

The University's total holdings in Glythera Ltd amount to 86,577 shares: 53,288 held directly by the University and a further 33,289 held through the BCSF. Although this represents 36.73% of the company's total shares, the University does not exercise a significant influence over the company, and it is therefore not accounted for as an associate.

The University's total holdings in CiteAb Ltd amount to 55,000 shares: 15,000 held directly by the University and a further 40,000 held through the BCSF. Although this represents 33.3% of the company's total shares, the University does not exercise a significant influence over the company, and it is therefore not accounted for as an associate.

## Notes to the Financial Statements (continued)

**15 TRADE AND OTHER RECEIVABLES**

	Consolidated & University	
	2017 £m	2016 £m
Prepayments and accrued income	2.9	2.6
Research grant receivables	7.4	7.0
Other receivables	6.2	6.5
	<b>16.5</b>	<b>16.1</b>
Due within one year	16.3	15.8
Due in more than one year	0.2	0.3
	<b>16.5</b>	<b>16.1</b>

Debtors due in more than one year are all Other receivables.

**16 CURRENT ASSET INVESTMENTS**

	Investments measured at market value  £m	Investments measured at cost  £m	Consolidated & University	
			2017	2016
			Total £m	Total £m
At 1 August 2016	81.0	29.4	110.4	122.6
New investments	6.0	56.7	62.7	21.3
Disposal of investments	(8.4)	(55.0)	(63.4)	(42.0)
Market value movement	5.8	-	5.8	8.5
At 31 July 2017	84.4	31.1	115.5	110.4

Investments measured at market value includes Quoted investments of £72.4m (£69.0m) and those held in unit funds where a market value can be determined of £12.0m (£12.0m).

Investments measured at cost include those held in Certificate of deposit and Fixed deposits and the new investments and disposals represent the cycle of maturity's and reinvestments in these instruments throughout the year.

## Notes to the Financial Statements (continued)

**17 CREDITORS : AMOUNTS FALLING DUE  
WITHIN ONE YEAR**

	Consolidated & University	
	2017 £m	2016 £m
Bank loans (note 19)	5.0	5.0
Trade payables	16.1	16.5
Social Security and other taxation payable	5.6	5.0
Derivatives (note 20)	0.1	2.7
Deferred income	34.0	25.5
	<b>60.8</b>	<b>54.7</b>

**Deferred Income**

Included in deferred income are the following items of income which have been deferred until specific performance related conditions have been met.

	Consolidated & University	
	2017 £m	2016 £m
Donations	5.8	0.9
Research grants received on account	14.8	12.6
Grant income	1.8	1.8
Other income	11.6	10.2
	<b>34.0</b>	<b>25.5</b>

**18 CREDITORS: AMOUNTS FALLING DUE  
AFTER MORE THAN ONE YEAR**

	Consolidated & University	
	2017 £m	2016 £m
Bank loans (note 19)	149.6	154.6
Deferred income	-	5.0
Derivatives (note 20)	15.7	20.4
	<b>165.3</b>	<b>180.0</b>

**Deferred Income**

Deferred income consists only of donations which have been deferred until specific performance related conditions have been met.

## Notes to the Financial Statements (continued)

## 19 BORROWINGS

	Consolidated & University	
	2017 £m	2016 £m
<i>Analysis of Financing</i>		
Bank loans and overdrafts are repayable as follows:		
In one year or less	5.0	5.0
Between one and two years	5.0	5.0
Between two and five years	15.1	15.1
In five years or more	129.4	134.5
	<b>154.5</b>	<b>159.6</b>

The University has drawn down three loans in full, two loans of £52m each and a third of £65m.

## Loan 1

Rate		Base Rate/LIBOR + 0.02% margin
Repayment - Tranche 1	£26.0m	Quarterly repayments from Dec 2011 to Sept 2036
- Tranche 2	£26.0m	20% Sept 2026; 20% Sept 2031; 60% Sept 2036

## Loan 2

Rate		LIBOR + 0.02% margin
Repayment - Tranche 1	£26.0m	Quarterly repayments from June 2012 to March 2037
- Tranche 2	£26.0m	£5m March 2022; £6m March 2027; £15m March 2032

## Loan 3

Rate		Fixed rate of 4.021%
Repayment	£65.0m	22 Annual repayments of £2,955k from 31 July 2017.

## LIBOR - London Interbank Offered Rate

The University has entered into three interest rate swap agreements (derivatives) in relation to elements of the two £52m loans it holds. These swaps mean that the rates below are applied, instead of varying with LIBOR and Bank of England rates :-

Amount subject to hedging £m	Interest Rate %	Expiry Date
10.0	4.70%	June 2027
17.7	5.16%	December 2036
10.0	3.95%	November 2037
<u>37.7</u>		

The June 2027 interest rate swap is based on the Retail Price Index (RPI), updated annually.

On 2 November 2017 the University entered into an agreement with North Western Mutual Life Insurance Company and Met Life to borrow a further £100m. Further details are reported in note 27.

## Notes to the Financial Statements (continued)

**20 DERIVATIVES**

The University is using hedge accounting for its interest rate swaps and foreign exchange options and as a result determined the effectiveness of the hedging arrangements. The analysis below shows the results of this assessment;

Hedging Item	Expiry date	Amount	Consolidated & University					
			Market value at 31/07/2017	Market value at 1/08/2016	Movement in market value 2017	Disposals in year 2017	Movement 2017	Movement 2016
			£m	£m	£m	£m	£m	£m
Interest rate swaps	Between 2027 & 2037	£37.7m	15.6	19.5	(3.9)	-	(3.9)	6.0
Foreign exchange options	Between 2017 & 2018	\$47.5m	0.2	3.6	(0.3)	(3.0)	(3.4)	3.4
			15.8	23.1	(4.2)	(3.0)	(7.2)	9.4

Interest rate swaps are hedging instruments associated with the University's loan portfolio with Lloyds Bank plc and Barclays Bank plc. Foreign exchange options are hedging instruments associated with the University current asset investments in USD denominated funds.

The movement in market value for 2016/17 is a gain of £4.2m (2015/16 loss of £9.4m) is reported as follows:

	Consolidated & University	
	2017	2016
	£m	£m
Interest Payable (note 11)	(1.5)	2.4
Other Comprehensive Income	(2.7)	7.0
	(4.2)	9.4

	Consolidated & University	
	2017	2016
	£m	£m
Disclosure of derivatives as liabilities		
Liabilities due in less than one year	0.1	2.7
Liabilities due in more than one year	15.7	20.4
	15.8	23.1

## Notes to the Financial Statements (continued)

**21 PROVISION FOR LIABILITIES**

	<b>Consolidated &amp; University</b>			
	Obligations to fund deficit on USS Pension (note 26)	Defined Benefit obligations LGPS (note 26)	<b>2017</b>	2016
	£m	£m	£m	£m
At 1 August 2016	27.3	57.0	<b>84.3</b>	61.0
Utilised in year	(1.5)	-	<b>(1.5)</b>	1.7
Additions in the year	0.5	1.8	<b>2.3</b>	21.6
Unused amounts reversed	-	(5.0)	<b>(5.0)</b>	-
<b>At 31 July 2017</b>	<b>26.3</b>	<b>53.8</b>	<b>80.1</b>	84.3

**Obligations to fund deficit on USS Pension**

The obligation to fund the past deficit on the USS arises from the contractual obligation with the pension scheme for total payments relating to benefits arising from past performance. Management have assessed future employees within the USS scheme and salary payments over the 14 year period of the contracted obligation in assessing the value of this provision and these are disclosed below;

	<b>2017</b>	<b>2016</b>
Discount rate at year end	1.91%	1.78%
Pensionable salary growth:	Between 2.4% and 3.7% in the first 4 years and then 2.4% thereafter	3.1% in first year and then 2.4% thereafter
USS membership growth:	in the range 0% - 3.5%	in the range 0% - 2.5%

**Defined Benefit obligations (LGPS)**

As a multi-employer scheme where the share of assets and liabilities applicable to each employer can be defined, the University has accounted for the scheme under FRS 102 as a defined benefit scheme based on a full actuarial valuation of the Fund as at 31 March 2016, updated to 31 July 2017 by a qualified independent actuary.

## Notes to the Financial Statements (continued)

**22 ENDOWMENTS**

			<b>Consolidated &amp; University</b>	
	<b>Restricted permanent £m</b>	<b>Expendable £m</b>	<b>2017 Total £m</b>	<b>2016 Total £m</b>
Restricted net assets relating to endowments are as follows:				
At 1 August 2016				
Capital	2.0	3.0	<b>5.0</b>	5.0
Accumulated Income	-	0.2	<b>0.2</b>	0.1
	<b>2.0</b>	<b>3.2</b>	<b>5.2</b>	<b>5.1</b>
New endowments	-	0.6	<b>0.6</b>	0.2
Investment income	-	0.1	<b>0.1</b>	0.1
Expenditure	(0.1)	(0.4)	<b>(0.5)</b>	(0.3)
Increase in market value of investments	0.3	0.3	<b>0.6</b>	0.1
<b>At 31 July 2017</b>	<b>2.2</b>	<b>3.8</b>	<b>6.0</b>	<b>5.2</b>
<b>Representing:</b>				
Capital	2.2	3.5	<b>5.7</b>	5.0
Accumulated Income	-	0.3	<b>0.3</b>	0.2
	<b>2.2</b>	<b>3.8</b>	<b>6.0</b>	<b>5.2</b>
<b>Analysis by type of purpose</b>				
Lectureships	1.4	2.2	<b>3.6</b>	3.4
Scholarships and bursaries	0.7	1.2	<b>1.9</b>	1.4
Prize Funds	0.1	0.1	<b>0.2</b>	0.2
General	-	0.3	<b>0.3</b>	0.2
	<b>2.2</b>	<b>3.8</b>	<b>6.0</b>	<b>5.2</b>
<b>Analysis by asset</b>				
Current and non-current asset investments	2.1	2.3	<b>4.4</b>	4.2
Cash and cash equivalents	0.1	1.5	<b>1.6</b>	1.0
	<b>2.2</b>	<b>3.8</b>	<b>6.0</b>	<b>5.2</b>

## Notes to the Financial Statements (continued)

**23 RESTRICTED RESERVES****Consolidated & University**

Reserves with restrictions are as follows:

	<b>Other Income</b>	<b>Donations</b>	<b>2017</b>	<b>2016</b>
	<b>£m</b>	<b>£m</b>	<b>Total £m</b>	<b>Total £m</b>
At 1 August 2016	0.6	1.4	<b>2.0</b>	1.9
New grants	0.8	-	<b>0.8</b>	0.5
New donations	-	0.6	<b>0.6</b>	0.9
Expenditure	(1.0)	(0.5)	<b>(1.5)</b>	(1.3)
<b>At 31 July 2017</b>	<b>0.4</b>	<b>1.5</b>	<b>1.9</b>	<b>2.0</b>
<b>Analysis by type of purpose</b>				
Research support	0.3	-	<b>0.3</b>	0.5
Scholarships and bursaries	-	0.6	<b>0.6</b>	0.6
General	0.1	0.9	<b>1.0</b>	0.9
	<b>0.4</b>	<b>1.5</b>	<b>1.9</b>	<b>2.0</b>

**24 CONTINGENT LIABILITY**

On 5 April 2016 the University entered in 7 short-term nomination agreements with Empiric (Bath JSW) Ltd whereby the University underwrites the shortfall in the letting of a number of student residences. At 31 July 2017 the maximum value of the underwriting is £8,742,863 (£12,686,544 31 July 2016). The University does not expect any liability to be incurred as a result of these contracts as it expects all residences will be fully let as per the nomination agreements.

The 2015/16 comparative value is restated, see note 28.

## Notes to the Financial Statements (continued)

### 25 LEASE OBLIGATIONS

The University had total operating lease commitments in respect of leased property as follows:

	<b>Consolidated &amp; University</b>	
	<b>2017</b>	Restated 2016
	<b>£m</b>	£m
<b>Lease Commitments</b>		
Lease commitments due in more than one year but less than five years	5.2	5.1
Lease commitments due between two & five years	22.5	21.6
Lease commitments due in more than five	47.4	53.5
<b>Lease Commitments contracted at 31 July</b>	<b>75.1</b>	<b>80.2</b>

Operating leases are held for 9 properties used by the University as student and office accommodation. As the University does not control the significant residual value in these properties upon the expiry of the lease period they have not been accounted for as Service Concession Arrangements.

The lease arrangements for student accommodation expire between 2024 and 2032 and include 8 properties. The lease payments are reported in other operating expenses. The 2015/16 comparative value is restated, see note 28.

### 26 PENSIONS

#### Universities Superannuation Scheme (USS)

The University participates in the USS, a defined benefit scheme. The assets of the scheme are held in a separate fund administered by the trustee, Universities Superannuation Scheme Limited. USS has over 148,000 members and the University had 2,154 (1,961) active members at 31 July 2017.

Because of the mutual nature of the scheme, its assets are not hypothecated to individual Universities and a scheme wide contribution rate is set, at the balance sheet date this was 18%. The University is exposed to actuarial risks associated with other University's employees and is unable to identify its share of the underlying assets and liabilities of the scheme on a consistent and reasonable basis, therefore, as required by FRS 102 (28), accounts for the scheme as if it were a defined contribution scheme. The total cost charged to the SOCI is £14.8m (£13.1m in 2015/16.)

## Notes to the Financial Statements (continued)

**26 PENSIONS (continued)****USS (continued)**

The latest available full actuarial valuation of the scheme was at 31 March 2014 ("the valuation date"), which was carried out using the projected unit method. The assumptions which have the most significant effect on the result of the valuation are those relating to the rate of return on investments (i.e. the valuation rate of interest), rates of increase in salary and pensions and the assumed rates of mortality.

This valuation was the third valuation for USS under the scheme-specific funding regime introduced by the Pensions Act 2004, which requires schemes to adopt a statutory funding objective, which is to have sufficient and appropriate assets to cover their technical provisions. At the valuation date, the value of the assets of the scheme was £41.6 billion and the value of the scheme's technical provisions was £46.9 billion indicating a shortfall of £5.3 billion. The assets therefore were sufficient to cover 89% of the benefits which had accrued to members after allowing for expected future increases in earnings.

Defined benefit liability numbers for the scheme have been produced using the following assumptions:

	<b>2017</b>	<b>2016</b>
Discount rate:	2.6%	3.6%
Pensionable salary growth:	n/a	n/a
Pensions increases (CPI):	2.4%	2.2%

The main demographic assumption used relates to mortality in retirement, these are in line with the Continuous Mortality Investigation's (CMI) S1NA tables as follows:

Male members' mortality: 98% of S1NA ["light"] YoB tables - no age rating

Female members' mortality: 99% of S1NA ["light"] YoB tables - rated down 1 year

Use of these mortality tables reasonably reflects the actual USS experience. To allow for further improvements in mortality rates the CMI 2014 projections with a 1.5% pa long term rate were also adopted. The current life expectancies on retirement at age 65 are:

	<b>2017</b>	<b>2016</b>
Males currently 65 yrs:	24.4	24.3
Females currently 65 yrs:	26.6	26.5
Males currently 45 yrs:	26.5	26.4
Females currently 45 yrs:	29.0	28.8

**Existing Benefits**

Scheme assets:	£60.0bn	£49.8bn
Total scheme liabilities:	£77.5bn	£58.3bn
FRS 102 total scheme deficit	£17.5bn	£8.5bn
FRS 102 total funding level	77.0%	85.0%

## Notes to the Financial Statements (continued)

### 26 PENSIONS (continued)

#### USS (continued)

Sensitivities regarding the principal assumptions used to measure the scheme liabilities on a technical provisions basis as at the date of the last triennial valuation are set out below:

Assumption	Change in Assumption	Impact on scheme liabilities
Investment return	Decrease by 0.25%	Increase by £1.6 billion
The gap between RPI and CPI	Decrease by 0.25%	Increase by £1 billion
Rate of salary growth	Increase by 0.25%	Increase by £0.6 billion
Members live longer	1 year longer	Increase by 0.8 billion
Equity markets in isolation	Fall by 25%	Increase by £4.6 billion

USS is a "last man standing" scheme so that in the event of the insolvency of any of the participating employers in USS, the amount of any pension funding shortfall (which cannot otherwise be recovered) in respect of that employer will be spread across the remaining participant employers and reflected in the next actuarial valuation of the scheme.

The positive cash flow of the scheme means that it is not necessary to realise investments to meet liabilities. The trustee believes that this, together with the ongoing flow of new entrants into the scheme and the strength of covenant of the employers, enables it to take a long-term view of its investments. Short-term volatility of returns can be tolerated and need not feed through directly to the contribution rate. However, the trustee is mindful of the difficult economic climate that exists for defined benefits pension schemes currently, and the need to be clear about the responses that are available should the deficits persist and a revised recovery plan become necessary following the next valuation to compile a formal financial management plan, which will bring together the various funding strands of covenant strength, investment strategy and funding assumptions, in line with the latest guidance from The Pensions Regulator.

#### Local Government Pension Scheme (LGPS)

The University participates in the Avon Pension Fund (APF) which is a funded defined benefit pension scheme with the assets held in separate trustee administered funds. The assumptions which have the most significant effect on the determination of contribution levels are as follows:

Return on investments	4.4%	
Long-term Salary inflation	3.7%	
Pension inflation	2.2%	
Valuation date		31 March 2016
Valuation method		Projected Unit
Market value of assets at date of last valuation		£3,737 Million
Market value of assets as a percentage of accrued benefits		86.0%

The contributions payable by the University were equal to 14.60% of total pensionable salaries to March 2017, and 15.10% thereafter.

## Notes to the Financial Statements (continued)

**26 PENSIONS (continued)****LGPS (continued)**

As a multi-employer scheme where the share of assets and liabilities applicable to each employer can be defined, the University has accounted for the scheme under FRS 102 as a defined benefit scheme based on a full actuarial valuation of the Fund as at 31 March 2016, updated to 31 July 2017 by a qualified independent actuary.

The material assumptions used by the actuary for FRS 102 at 31 July 2017 were:-

At end of year	31 July 2017	31 July 2016
	%	%
Rate of CPI inflation:	2.2	1.7
Rate of increase in salaries:	3.7	3.2
Rate of increase in pensions:	2.2	1.8
Discount rate:	2.5	2.5

*Post retirement mortality assumptions for members retiring in normal health*

	31 July 2017	31 July 2016
Non-retired members	S2PA CMI_2015_[1.75%] 94% (males) SPA CMI_2015_[1.5%] 81% (female)	S1PA CMI_2012_[1.5%] 92% (87%)
Retired members	S2PA CMI_2015_[1.75%] 93% (male) S2PA CMI_2015_[1.5%] 85% (female)	S1PA CMI_2012_[1.5%] 94% (93%)

*Life expectancy*

Male/female future pensioner 65 in 20 years time	26.0 / 28.7 years	25.9 / 28.9 years
Male / female current pensioner aged 65	23.5 / 26.0 years	23.5 / 26.0 years

The sensitivities regarding the principal assumptions used to measure the University's share of the scheme liabilities as at the valuation on 31 July 2017 are set out below:

Assumption	Change in Assumption	Impact on scheme liabilities
Discount rate	Increase by 0.1%	Increase by £3.0 million
Rate of CPI Inflation	Increase by 0.1%	Increase by £3.1 million
Rate of salary growth	Increase by 0.1%	Increase by £0.5 million
Members live longer	1 year longer	Increase by £3.3 million

## Notes to the Financial Statements (continued)

**26 PENSIONS (continued)****LGPS (continued)***The University's share of the scheme's assets and liabilities:*

	2017 £m	2016 £m
Market value of assets	117.0	105.2
Present value of scheme liabilities	(170.8)	(162.2)
<b>Net pension liability</b>	<b>(53.8)</b>	<b>(57.0)</b>

*Amounts charged to SOCI:**Included in staff costs for the year (note 8)*

	2017 £m	2016 £m
Current service cost	5.6	4.2
Unfunded benefits	-	-
<b>Total operating charge</b>	<b>5.6</b>	<b>4.2</b>

*Analysis of amount charged to interest payable*

	2017 £m	2016 £m
Net interest charge (note 11)	1.4	1.2
<b>Net charge</b>	<b>1.4</b>	<b>1.2</b>

## Notes to the Financial Statements (continued)

**26 PENSIONS (continued)****LGPS (continued)****Amounts recognised in the SOCI**

	2017 £m	2016 £m
Actual return less expected return on pension scheme assets	-	-
Change in assumptions underlying the present value of the scheme assets	7.2	3.3
of the scheme liabilities	(2.2)	(24.1)
<b>Actuarial gain/(loss) recognised in the SOCI</b>	<b>5.0</b>	<b>(20.8)</b>

**The movement in the scheme's deficit during the year is made up as follows:**

	2017 £m	2016 £m
Deficit in scheme at 1 August	56.9	33.1
Movement in the year:		
Current service cost	5.6	4.2
Contributions by the employer	(5.2)	(2.5)
Administrative charge	0.1	0.1
Net interest charge	1.4	1.2
<b>Net Movement in the year</b>	<b>1.9</b>	<b>3.0</b>
Actuarial (gain)/loss	(5.0)	20.8
<b>Deficit in scheme at 31 July</b>	<b>53.8</b>	<b>56.9</b>

**Analysis of the movement in the present value of the scheme liabilities:**

	2017 £m	2016 £m
At the beginning of the year	162.1	131.5
Current service cost	5.6	4.2
Interest on pension liabilities	4.0	4.9
Member contributions	1.1	1.1
Actuarial losses on liabilities - other	2.2	24.2
Benefits/transfers paid	(4.3)	(3.8)
<b>At the end of the year</b>	<b>170.7</b>	<b>162.1</b>

## Notes to the Financial Statements (continued)

**26 PENSIONS (continued)****LGPS (continued)****Analysis of the movement in the market value of the scheme assets:**

	<b>2017</b>	2016
	<b>£m</b>	£m
At the beginning of the year	<b>105.2</b>	98.3
Expected return on plan assets	<b>2.7</b>	3.7
Actuarial gains on assets	<b>7.2</b>	3.4
Administrative expenses	<b>(0.1)</b>	(0.1)
Contributions by the employer	<b>5.2</b>	2.5
Contributions by scheme participants	<b>1.1</b>	1.1
Benefits/transfers paid	<b>(4.3)</b>	(3.9)
<b>At the end of the year</b>	<b>117.0</b>	105.1

**Analysis of the scheme assets:**

	<b>2017</b>	2016
	<b>£m</b>	£m
Equities	<b>59.1</b>	53.1
Government bonds	<b>13.7</b>	12.8
Other bonds	<b>9.1</b>	10.1
Property	<b>10.2</b>	10.2
Cash/liquidity	<b>1.9</b>	(0.5)
Other	<b>23.0</b>	19.4
<b>At the end of the year</b>	<b>117.0</b>	105.1

**Total pension costs (note 8)**

	<b>2017</b>	2016
	<b>£m</b>	£m
USS: employer only contributions	<b>14.8</b>	13.2
USS: provision movement	<b>(1.5)</b>	(1.3)
	<b>13.3</b>	11.9
LGPS	<b>5.6</b>	4.2
Contributions to other pension schemes	<b>0.1</b>	0.1
<b>Total pension costs</b>	<b>19.0</b>	16.2

## Notes to the Financial Statements (continued)

### 27 POST BALANCE SHEET EVENT

On 2 November 2017 the University entered in agreements to borrow £100m, the terms of the loans are reported below

North Western Mutual Life Insurance Company		
Rate		Gilts + margin
Repayment	£45.0m	Repayment on maturity in January 2038

Met Life		
Rate		Gilts + margin
Repayment	£55.0m	Repayment on maturity in January 2048

### 28 PRIOR YEAR ADJUSTMENTS

#### Remuneration of other higher paid staff

The 2015/16 Financial Statements disclosed 66 staff had remuneration of £100k or more in 2015/16.

The remuneration values used were mis-stated as they included employer pension contributions and this has been corrected in these Financial Statements in note 9 with 32 staff now disclosed.

#### Lease Commitments & Contingent Liabilities

The 2015/16 Financial statements disclosed the following liabilities

Operating lease commitments	£5.2m
Contingent Liability	£3.0m

In both instances the disclosure was misstated as they reflected the annual liability rather than the total liability.

Note 24 Contingent Liability and note 25 Lease commitments now disclose the total liability of the University over the remaining period of the contracts.

#### Depreciation charged to the Revaluation Reserve

The 2015/16 Financial Statements do not disclose the credits to the Unrestricted reserve from the Revaluation reserve due in respect of the element of depreciation that relates to the revalued element of land and buildings.

As a result the following entries have been disclosed in the Consolidated and University Statement for Changes in Reserves

	University Consolidated	
	£m	£m
2014/15	7.5	7.5
2015/16	6.7	6.1

#### Fixed Assets - Consolidated

The 2015/16 Financial Statements disclose a closing Leasehold land & building cost/valuation of £614.8m. As a result of an adjustment to consolidation this has been restated as £614.2m

## Key Financial Performance Indicators to the Financial Statements

### KEY FINANCIAL PERFORMANCE INDICATORS TO THE FINANCIAL STATEMENTS

#### Consolidated Historic Cost Operating Surplus

	Note	2017 £m	2016 £m
Total Income	SOCI	266.8	263.2
Capital grants	2 & 4	(4.0)	(7.6)
Realised gain on disposal of investments & derivatives	6	(0.1)	-
<b>Operating Surplus : Total Income</b>		<b>262.7</b>	<b>255.6</b>
Total Expenditure	SOCI	268.1	249.1
Movement on USS provision	21	1.5	1.3
Depreciation on revalued assets	14	(7.5)	(7.5)
Change in discounted value of future USS payments	11	(0.5)	(0.8)
Virgil Building refurbishment costs	9	(4.3)	-
Net impairment of land & buildings	9	(1.2)	-
Decrease/(increase) in fair value of derivatives reported in interest payable	11	1.5	(2.4)
Net interest LGPS	11	(1.4)	(1.2)
Staff cost adjustment LGPS	9	(2.1)	(1.7)
<b>Operating Surplus : Total Expenditure</b>		<b>254.1</b>	<b>236.9</b>
<b>Operating Surplus</b>		<b>8.6</b>	<b>18.7</b>
Operating surplus as a % of Operating Surplus : Total Income		3.3%	7.3%

#### EBITDA (Earnings before interest, tax, depreciation & amortisation)

	Note	2017 £m	2016 £m
(Deficit)/surplus before gains and losses	SOCI	(1.3)	14.1
Interest payable	11	5.0	9.4
Changes to pension provisions within staff costs	21	(1.5)	(1.3)
Depreciation and impairment	9	25.3	22.1
<b>EBITDA</b>		<b>27.5</b>	<b>44.3</b>
Total Income		266.8	263.2
<b>EBITDA %</b>		<b>10.3%</b>	<b>16.8%</b>

The EBITDA definition is in the format that the University is required to submit to HEFCE. The introduction of FRS102 and the changes to the treatment of capital grants means that the data shown in the graph on page 11 includes capital grant income for 2014/15 and all preceding years

## Key Financial Performance Indicators to the Financial Statements (continued)

### KEY FINANCIAL PERFORMANCE INDICATORS TO THE FINANCIAL STATEMENTS

#### Net Debt

	Note	2017 £m	2016 £m
Investments	16	115.5	110.4
Cash and cash equivalents	Balance Sheet	6.7	10.7
Bank loans due within 1 year	19	(5.0)	(5.0)
Bank loans due after 1 year	19	(149.6)	(154.6)
Market value of derivatives	20	(15.8)	(23.1)
<b>Net Debt</b>		<b>(48.2)</b>	<b>(61.7)</b>

Net debt for the years shown includes the market value of interest rate swaps. It is not included in the 2012/13 to 2013/14 data shown in the graph on page 12 which is taken from the relevant year's Financial Statements.

#### Gearing Ratio

	Note	2017 £m	2016 £m
Net Debt (A)		48.2	61.7
Total Net Assets (B)	Balance Sheet	511.5	446.2
<b>Gearing Ratio (A/B)</b>		<b>9.4%</b>	<b>13.8%</b>

# Glossary

## GLOSSARY OF ABBREVIATIONS USED IN THE FINANCIAL STATEMENTS

Abbreviation	Title
APF	Avon Pension Fund
B&NES	Bath & North East Somerset Council
CPI	Consumer Price Index
CUC	Committee of University Chairs
EBITA	Earnings Before Interest, Tax, Depreciation and Amortisation
FE/HE SORP	Statement of Recommended Practice: Accounting for Further and Higher Education
FPE	Full Person Equivalent
FRC	Financial Reporting Council
FRS	Financial Reporting Standard
GIA	Gross Internal Area
GPA	Grade Point Average
HC	Historical Cost
HE	Higher Education
HEFCE	Higher Education Funding Council for England
HEI	Higher Education Institution
HESA	Higher Education Statistics Agency
HRI	Household Residual Income
IAAPS	Institute of Advanced Automotive Propulsion Systems
LEP	Local Enterprise Partnership
LGPS	Local Government Pension Scheme
LIBOR	London Interbank Offered Rate
MAA	Memorandum of Assurance and Accountability
MOOCS	Massive Open Online Courses
NSS	National Student Survey
QS	Quacquarelli Symonds
R&D	Research and Development
RDEC	Research and Development Expenditure Credits
REF	Research Excellence Framework
SOCI	Statement of Comprehensive Income
STEM	Science Technology Engineering Maths
TEF	Teaching Excellence Framework
USS	Universities Superannuation Scheme
VAT	Value Added Tax



# FINANCIAL **STATEMENTS**

for the year ended  
31 July 2017



UNIVERSITY OF  
**BATH**